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National Urban Policy Review of Colombia



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Foreword

The COVID-19 pandemic and its economic and social consequences hit cities hard, while also revealing their agility and capacity to protect urban dwellers and re-emphasising their potential to drive sustainable growth and well-being in the long term. The crisis has also magnified the pressing and emerging challenges that cities face worldwide, and in, doing so, accelerated momentum towards a new urban paradigm of smart, sustainable and inclusive cities. However, cities cannot embrace the magnitude of such challenges on their own and need to work closely with national governments. National urban policies (NUPs), which provide an overarching, strategic and shared vision across levels of government to support more balanced, polycentric and quality urbanisation, constitute a critical tool to underpin cities' recovery efforts in the post-COVID-19 era.

For over two decades, the OECD has assisted countries in their efforts to solve both traditional urban challenges (e.g. urban sprawl, mobility, and inequality) and, more recently, emerging issues (e.g. digitalisation, climate change) through place-specific urban policy reviews and cross-cutting thematic studies. Drawing on this accumulated expertise, the OECD Principles on Urban Policy crystallise the experience of the Regional Development Policy Committee (RDPC) and its Working Party on Urban Policy into a one-stop shop international framework through which policy makers at all levels can share their own experiences of urban policy and governance and learn from international practices.

In this context, the OECD Urban Policy Review of Colombia aims to inform the ongoing policy debate on Colombia's new NUP - "Cities 4.0" (Ciudades 4.0). To that effect, this review assesses the main trends and challenges in Colombia's urbanisation, compares the current NUP to international practices, and proposes a set of recommendations to unlock the potential of the new NUP and its governance framework.

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Abbreviations and acronyms

ACAM	Colombian Association of Metropolitan Areas, *Asociación Colombiana de Áreas Metropolinatas*
AMVA	Metropolitan Area of the Valle de Aburrá
AsoCapitales	Colombian Association of Capital Cities
BRT	Bus rapid transit
CAMACOL	Colombian Construction Chamber
CAR	Regional Autonomous Corporation
CAZ	Central Activities Zone
CCCS	Colombian Council for Sustainable Construction, *Consejo Colombiano de Construcción Sostenible*
CDVD	Decent Home Decent Life, *Casa Digna Vida Digna*
CNG	Compressed natural gas
CNSC	National Civil Service Commission, *Comisión Nacional del Servicio Civil*
CONPES	National Council for Economic and Social Policy, *Consejo Nacional de Política Económica y Social*
COT	Commission for Territorial Planning, *Comisión de Ordenamiento Territorial*
DANE	National Administrative Department of Statistics, *Departamento Administrativo Nacional de Estadística*
DDU	Urban Development Department
DNP	Department of National Planning, *Departamento Nacional de Planeación*
DOT	Department of Transportation
DPS	Department for Social Prosperity
EAT	Territorial Associative Schemes, *esquemas asociativos territoriales*
EC	European Commission
EOT	Land use schemes, *esquemas de ordenamiento territorial*
EPA	Environmental Protection Agency
EU	European Union
EXTRA	Executive Training in Research Application
EZ	Empowerment Zones
FCM	Colombian Municipalities Federation, *Federación Colombiana de Municipios*
FINDETER	National Development Bank of Colombia, *Financiera de Desarrollo Territorial*
FND	National Federation of Departments, *Federación Nacional de Departamentos*
FONVIVIENDA	National Housing Fund, *Fondo Nacional de Vivienda*
FTDA	Frequent Transit Development Area
FUA	Functional urban area
GDP	Gross domestic product
GEIH	Great Integrated Household Survey, *Gran Encuesta Integrada de Hogares*
GHG	Greenhouse gas
ICA	Industry and commerce tax
ICDE	National spatial data infrastructure
ICM	Modern Cities Index, *Índice de Ciudades Modernas*
ICT	Information and communication technology
IDEAM	Institute of Hydrology, Meteorology and Environmental Studies
IGAC	Agustín Codazzi Geographical Institute
IT	Information technology
IUDF	Integrated Urban Development Framework
LEED	Leadership in Energy and Environmental Design
LOOT	Organic Law on Territorial Organisation, *Ley Orgánica de Ordenamiento Territorial*
MA	Metropolitan area

MA	Ministry of Agriculture
MADS	Ministry of Environment and Sustainable Development
MCY	My Home Now programme, *Mi Casa Ya*
MDS	Ministry of Social Development, *Ministerio de Desarrollo Social*
MI	Ministry of the Interior
MinTIC	Ministry of Information and Communication Technologies
MMW	Minimum monthly wage
Modern POT	National Programme for the Formulation and Updating of the Land Use Plans, known as *POT Modernos*
MPO	Metropolitan planning organisation
MT	Ministry of Transport
MVCT	Ministry of Housing, City and Territory, *Ministerio de Vivienda, Ciudad y Territorio*
NGO	Non-governmental organisation
NHFC	National Housing Finance Corporation
NUP	National urban policy
OECD	Organisation for Economic Co-operation and Development
PBOT	Basic land use plans, *planes básicos de ordenamiento territorial*
PDT	Territorial development plans, *planes de desarrollo territorial*
PEMOT	Metropolitan land use planning, *Plan Estratégico Metropolitano de Ordenamiento Territorial*
PGOT	General Policy of Territorial Management, *Political General de Ordenamiento Territorial*
PMSS	Sustainable and Safe Mobility Plan, *Plan de Movilidad Sostenible y Segura*
PND	National Development Plan, *Plan Nacional de Desarrollo*
POD	Departmental land use plan, *plan de ordenamiento departamental*
POT	Land use plan, *plan de ordenamiento territorial*
PPP	Public-private partnership
PPP	Purchasing power parity
PSA	Payments for environmental services, *pagos por servicios ambientales*
PVG	Free Housing Programme, *Programa de Vivienda Gratuita*
R&D	Research and development
RAP	Administrative and planning region
RAPE	Special planning and administrative region
RAS	Drinking Water and Basic Sanitation Sector
RETIE	Technical Regulation of Electrical Installations
RMBC	Metropolitan Region of Bogotá-Cundinamarca, *Región Metropolitana de Bogotá-Cundinamarca*
RPG	Planning and management region
SCS	Senior civil service
SDG	United Nations Sustainable Development Goals
SFV	Family housing subsidy, *subsidio familiar de vivienda*
SGP	Direct transfers from the central government, *Sistema General de Participaciones*
SGR	Income from assets (royalties), *Sistema General de Regalías*
SHI	Social Housing Institution
SHP	Social Housing Policy
SISAIRE	Air Quality Information System
SME	Small- and medium-sized enterprises
SNME	National Strategy for Electric Mobility
SNR	Superintendent of Notaries and Registries, *Super Intendencia de Notario y Registro*
SP	Homeowners' Seedbed, *Semillero de Propietarios*
TIF	Tax increment financing
TOD	Transit-oriented development
UMEP	Urban Management Environmental Policy
UNGRD	National Unit for Risks and Disasters Management
UPRA	Rural Agricultural Planning Unit
VAT	Value added tax
VIP	Priority housing, *vivienda de interés prioritario*
VIS	Social housing, *vivienda de interés social*
WHO	World Health Organization

Executive summary

Colombia has entered the 2020s with a twofold task: managing the accumulated consequences of fast but disorderly urbanisation spanning several decades, and addressing the impact of the COVID-19 pandemic on cities. Faced with a relatively polycentric urban system, Colombia's 2014 national urban policy (NUP) - the System of Cities - has helped view urbanisation via the prism of functional rather than purely administrative boundaries of cities. This approach is well-aligned with the OECD Principles on Urban Policy, which were approved unanimously by the OECD Regional Development Policy Committee and welcomed by all ministers of regional policy from OECD member and partner countries in 2019. The System of Cities has sought to guide balanced urban development through a coherent NUP framework and more effective co-ordination across different sectors. However, its impact has been hampered by implementation failures, the lack of an evaluation system, and governance deficiencies. Colombia is currently developing a new NUP, called Cities 4.0, which will need to consolidate the progress already achieved, further promote an integral vision of urban development and strengthen urban governance.

Key findings

- Over the past 70 years, Colombia has gone through a strong and rapid urbanisation process that has not fully translated into economic growth and high productivity levels. The share of the population living in urban areas almost doubled between 1950 and 2018, rising from 38.3% to 75.5% according to the latest national census. Colombia has urbanised both through densification and through urban expansion. Between 1990 and 2015, the urban footprint in Colombian cities grew by 2.5% per year on average while the urban population increased by 2.3%. While urban areas generate about 85% of Colombia's gross domestic product (GDP), five cities produce almost 40% (Barranquilla, Bogotá, D.C., Cali, Cartagena and Medellin) with the capital Bogotá, D.C. alone accounting for 22.9% in 2018. Average labour productivity in Colombia's metropolitan areas is also the lowest among all metropolitan areas in OECD countries. Even the most productive metropolitan area in Colombia (Bucaramanga as of 2018) remains one of the least productive in the OECD. Obstacles to productivity include the concentration of the urban economy in low value-added sectors, a low-skilled workforce, a high share of small firms, low levels of innovation, the dominance of the informal economy and the lack of transport and digital connectivity infrastructure. Cities have also tended to develop in isolation from each other, with little complementarity among them.
- Migration flows from rural areas, the displacement of rural inhabitants during 50 years of armed conflict, and international migration have stretched the capacity of cities to absorb and accommodate newcomers. Informal settlements now represent around a quarter of the built-up area of Colombian cities and are home to almost 5 million people, 11.2% of Colombian households in 2016. Despite considerable improvement in social indicators in recent years, inequality and insecurity remain high in cities. In 2020, the Gini index was 0.54 in municipal cores, compared with 0.46 in less populated centres and dispersed rural areas (0.36 in other OECD cities in 2016). In 2021, 9.2% of people were victims of a crime in urban areas, compared to 6.6% in rural areas.
- Colombian cities face both a quantitative and qualitative housing shortage to meet the population's housing needs. Between 2005 and 2020, real house prices more than doubled in Colombia (+107.3%, the highest growth rate in all OECD countries). At the national level, around one in three households need a housing solution (e.g. housing for ownership or rent, or housing improvements). Three in four households in a situation of housing deficit need a better home, not a new one. About

half of households who face a housing deficit live in urban areas, and many of them work in the informal economy, which limits their prospects of accessing housing credits. In response to the housing challenge, Colombia's housing policy has focused primarily on the production of social housing and has been steering low-income households towards homeownership. However, a significant share of social housing units is purchased by higher-income households as an investment strategy rather than by those most in need, especially as there is no condition of income or subsidy attached to social housing transactions. A housing rent subsidy has been introduced, but its final purpose is to lead low-income households towards homeownership.

- Land use plans (planes de ordenamiento territorial, POTs) are the main instrument to implement urban policy but they are not used to their full potential. In 2021, 80% of POTs in Colombia were outdated or in the process of being updated. Similarly, only 7% of municipalities had updated cadastral information in 2020, which limits its potential use for territorial and urban planning.
- Urban mobility systems are grappling with low quality and low reliability in public transport, high levels of congestion and road fatalities. This is partly due to the fact that cities lack reliable sources of financing to operate and maintain their public transport systems. Moreover, transport planning and land use planning are often carried out as separate functions, which leads to inconsistencies between urban mobility plans and land use plans.
- More broadly, and despite recent improvements, air pollution in Colombian cities remains high, posing health threats with increased risks of heart and respiratory diseases. Although solid waste generation per capita is less than half the OECD average, most waste is landfilled due to the lack of waste processing plants. Colombian cities are also prone to extreme weather events and man-made disasters but the current NUP lacks a strong climate change component and does not link urban and environmental outcomes.
- Gaps in the governance framework have hindered the effective implementation of the NUP. Despite the latter's emphasis on the functional urban area approach, metropolitan governance arrangements have remained weak due to the dominance of the larger and richer municipality over others; the lack of stable financing mechanisms; poor co-ordination across POTs conducted at different scales; and the lack of binding powers of metropolitan areas. As a result, some municipalities still prioritise their own local objectives rather than those of the broader functional urban area.
- Colombian cities present financial and capacity weaknesses. Municipalities have limited spending autonomy (half of their revenues come from earmarked transfers from the national government), and their financing needs, in terms of investment projects, sometimes surpass what they can cover with their own sources of revenue. In 2020, almost 60% of transfers from the national government to cities went to education expenditure, 23% to health, 5% to water, and 10% to general-purpose items such as culture, sports and investment. The public service is currently understaffed both at the national and subnational levels, which weakens the local implementation capacity.

Key recommendations

- To improve the quality of urbanisation and shape competitive, inclusive and sustainable cities in the post-COVID world, **Colombia's NUP could be recalibrated by**:
  - Reinforcing a place-based approach to make more efficient investments with national resources at the local level;
  - Using the new NUP as a tool to move forward recovery from COVID-19 and the national development agenda;
  - Continuing to promote compact cities to make better use of the existing city and manage urban sprawl by setting specific compact city goals and retrofitting built-up areas;

  - Mainstreaming climate change and disaster risk management into urban planning;
  - Promoting urban-rural partnerships by linking urban and rural development planning;
  - Introducing an evaluation system on the implementation of urban policy and its different programmes to inform future urban policy reform.
- Although an NUP can provide a coherent vision for national urban development, it is not *per se* a guarantee of better-quality urbanisation. Its success depends on the government's ability to **leverage the contribution of sectoral policies to urban development goals**. Colombia could consider five intertwined policies to drive urbanisation in the coming decade under a consistent, long-term co-ordinated NUP:
  - *Adopt a housing and habitat policy focused on sustainable and inclusive urbanisation*. Key actions to consider in order to meet the housing deficit could include broadening the scope of housing policy towards a broader habitat policy by introducing housing subsidies for urban regeneration and assisted housing self-production, and adopting sustainability criteria in social housing production.
  - *Modernise land use planning* to curb urban sprawl and offer better quality urban public space by streamlining regulations on how land is used, evaluating projects according to the extent to which they serve community needs and avoiding restrictive and single-use zoning regulations.
  - *Shift the focus from urban mobility to urban accessibility* by ensuring that development, land use and mobility planning are co-ordinated within a functional urban area perspective; including: a digital connectivity dimension in mobility plans; exploring new sources of financing for metropolitan-wide transport; including housing and transport costs in urban planning; and promoting clean forms of public transport to support the transition of cities to a low-carbon economy.
  - *Leverage digitalisation for more productive, innovative and inclusive cities*. A national smart city framework could help support cities in better using digital technologies to improve the efficiency, sustainability and quality of public services and infrastructure, and develop residents' digital skills to access services. Cities could also adopt a local innovation strategy that identifies clear priorities and the tools to achieve them.
  - *Harness urban policy to advance equity and social justice*. This requires upgrading the provision and management of urban public space; upgrading informal settlements through neighbourhood and home improvement programmes; and making urban regeneration part of an urban safety strategy.
- To implement these strategies, Colombia needs to **revamp its urban governance framework and improve local government capacity**. This involves:
  - Reinforcing inter-municipal co-ordination mechanisms through corporate joint committees with clear responsibilities and authority.
  - Facilitating metropolitan planning and investment by defining a multi-sectoral, cross-cutting strategy that guides inter-municipal co-operation at the functional scale.
  - Enhancing vertical co-ordination of investment across levels of government, notably by focusing Territorial Pacts on concrete investment projects with clear financing responsibilities for each level of government.
  - Leveraging fiscal instruments to reinforce urban finance and investment by improving and expanding the use of land-based financing instruments.
  - Reducing the shortage of skilled public workforce in subnational governments by professionalising the subnational public workforce and investing in strategic workforce planning.

Assessment and recommendations

Strong and fast urbanisation in Colombia

Colombia is a highly urbanised country. According to the international definition of the degree of urbanisation endorsed at the 2020 Statistical Commission of the United Nations, 64% of the Colombian population lived in cities in 2015, while 25% lived in towns and semi-dense areas and 11% in rural areas (compared with 45%, 32% and 23% respectively in upper middle-income countries). Colombia has urbanised quickly over the past 70 years, as the share of the population living in urban areas according to the latest national census rose from 38.3% in 1950 to 75.5% in 2018. The number of urban inhabitants (living in the core cities of FUAs) rose by 1.3% per year on average between 2005 and 2018 (from 30.9 million to 36.4 million people). The National Administrative Department of Statistics (DANE) expects the share of population living in urban areas to reach 76% by 2050.

Colombia's rapid urbanisation has mainly resulted from massive flows of rural migrants moving to urban areas in search of better living conditions since the late 1930s. In addition, 50 years of armed conflict and violence have pushed millions of people to flee areas of conflict, most often located in rural areas. As of January 2022, Colombia registered 8.2 million victims of forced displacement. More recently, Colombia has also been the main destination of the Venezuelan exodus. As of December 2020, more than 2.6 million migrants and refugees from Venezuela had settled in Colombian cities.

Colombia has developed a relatively polycentric urban system, with several major cities. Almost 40% of the urban population (13.2 million people) live in the municipal cores of 5 municipalities (Bogotá, D.C.: 7.4 million; Medellín: 2.4 million; Cali: 2.2 million; Barranquilla: 1.2 million; and Cartagena: 1.0 million). Less than 15% of Colombia's urban population live in the 942 municipalities that count fewer than 20 000 inhabitants in their urban cores.

Around 66% of Colombia's total population and 80% of the urban population lives in FUAs. According to the European Commission/OECD definition, Colombia has 53 FUAs composed of 106 municipalities, distributed mainly in the north, west and centre of the country. Out of these 53 FUAs, 45 have no commuting zone (i.e. 84% of total FUAs) – a high share compared to other OECD countries (27% on average). Consequently, the share of the Colombian FUA population living in commuting zones is only 2.6%, much less than the OECD average of 23.9%.

Colombia has urbanised through both densification and urban expansion. The urban core areas (*cabeceras municipales*) of Bogotá, Bucaramanga and Medellín rank among the world's most densely populated cities (with 17 787, 10 409 and 20 363 inhabitants per km² respectively in 2018). Even when considering the whole metropolitan area, Colombian metropolitan areas, including Barranquilla, Bogotá and Medellín, are amongst the most densely populated among OECD countries (883 inhabitants per km^2 on average, higher than the OECD average of 644 inhabitants per km^2). Colombian cities have grown faster physically than demographically, indicating a phenomenon of urban sprawl. Between 1990 and 2015, the urban footprint in Colombian cities grew on average by 2.50% while the population increased by 2.28%.

Fast urbanisation in Colombia has been accompanied by the emergence of informal settlements. These are located mainly outside of municipal core areas but many are also located within them. Across Colombia, there are 1 517 reported informal settlements and more than 60% of them are concentrated in 6 cities (Bogotá, D.C., Bucaramanga, Cali, Medellín, Neiva, Villavicencio). Informal settlements represent around a quarter of the built-up area of Colombian cities and are home to almost 5 million people.

Strengths and challenges in Colombia's urban system

Each of the 1 103 municipalities in Colombia presents a distinct set of geographic, demographic, economic and social characteristics. Cities in Colombia have tended to develop in isolation from each other, with little interaction and complementarity between them, notably due to complex geography and precarious transport infrastructure. Despite some progress achieved in terms of inter-municipal connectivity, there is still potential to seize the comparative advantages of cities and leverage economies of scale.

Cities are the engine of economic growth but productivity is low by international standards

Urban areas are the economic engine of Colombia. They account for 85% of the country's total gross domestic product (GDP) today. Half of Colombia's real GDP is produced in 23 municipalities and almost 40% in only 5 cities (Barranquilla, Bogotá, D.C., Cali, Cartagena and Medellín). Annual GDP growth in these 5 cities made up 63% of total annual GDP growth in 2016. In line with the concentration of Colombia's GDP, half of Colombian companies are located in only five cities: in Bogotá, D.C. (29.4% of all companies in 2018), Medellín (8.7%), Cali (5.9%), Barranquilla (3.2%) and Bucaramanga (2.8%).

A large part of the economy is informal, both in Colombia and in its cities. Nearly 60% of all workers in Colombia work in the informal sector – a high share compared to other countries in Latin America, even though the 2012 tax reform cut social security contributions and reduced non-wage labour costs. The share of workers in the informal sector in the 23 main cities and their metropolitan areas was below the national average but still almost half (48%) of the labour force in October-December 2021.

Labour productivity in Colombian metropolitan areas on average is the lowest among all metropolitan areas in OECD countries. With around USD 43 800 per worker in 2018, Bucaramanga is the most productive metropolitan area in the country but one of the least productive metropolitan areas in the OECD. Some factors explaining low productivity levels include the low level of skills compared with other OECD countries; the lack of competition in key sectors, such as transport or telecommunications; the high regulatory burden; and the relatively low levels of integration in international trade. Another challenge is the high share of low productivity small and very small firms. Small and medium-sized enterprises (SMEs) account for about 67% of employment but only 28% of GDP in Colombia (in 2017), much lower than the averages in OECD countries.

Low digital connectivity is also damaging Colombia's productivity levels, despite important steps taken towards the digital transformation. At the end of March 2021, 8.05 million people had Internet access at home, compared to 6.08 million in March 2019. However, access to high-quality Internet differs across cities and regions. In the capital region, for example, 17% of households have access to fibre connections, while in the region of Vichada, less than 1% of households have access to high-quality Internet. Moreover, digital services are not affordable for the vast majority of the population. In Bogotá, a 30-Mbit landline connection costs about USD 30 per month but, in small towns, the same amount only pays for 2 Mbit. During the COVID-19 crisis, digital technologies allowed part of the population to telework or study remotely, whereas few people had high-speed broadband Internet and the skills to fully benefit from digital technologies.

The Colombian urban economy is characterised by concentration in a few low value-added sectors (e.g. hospitality sector, personal services), skills shortages, high levels of informality, low levels of complementarity among cities, poor infrastructure and corruption. The six largest cities in the country register low levels of productivity compared to other Latin American and OECD countries. Moreover, Colombia's innovation system is still small, which dampens the development of new economic activities. In 2019, investment in research and development (R&D) represented only 0.48% of GDP, compared to 2.5% for the OECD average. Moreover, despite progress over the last decade, transport and logistics infrastructure, which underpins trade and labour force mobility, remains less developed than in other OECD and Latin American countries. The service sector represents nearly 60% of the national GDP and 70% of the total workforce in Colombia. However, its potential to boost cities' economy is undermined by high levels of informality (70% of informal workers work in informal enterprises, while the rest work as independent employees) and poor education and training policies that prevent workers from adopting new skills rapidly.

Air pollution in Colombian cities remains high

While air pollution has decreased significantly in major Colombian cities thanks to fuel quality improvement, traffic regulation and the installation of urban mass rapid transit systems, air pollution in Colombian cities remains high due to, among other things, the use of obsolete diesel vehicles, poor overseeing of polluting industries, the growing use of private cars and motorcycles, indiscriminate logging of forest, biomass burning, and an incipient environmental and recycling culture, which poses health threats with increased risks of heart and respiratory diseases. Compared with other OECD countries, air pollution is high in Colombian FUAs on average, with several FUAs registering levels of PM2.5 around 30 µ/m3 or more, which is above the 25 µ/m3 goal level per year. The residential sector is the second-largest consumer of energy in Colombia after road transport, with 41 739 gigawatts hour (GWh) consumed in 2019, However, compared with other OECD countries (e.g. Chile [50 763 GWh in 2018] and Mexico [62 000 GWh in 2018]), Colombia displays relatively low levels of housing-related greenhouse gas emissions per capita.

Municipal waste generation per capita in Colombia stands at less than half the OECD average. Nonetheless, most waste is landfilled due to the absence of waste processing plants in most municipalities. Although waste disposal capacity has increased in recent years, about 30% of landfills still do not comply with environmental standards. In several large cities, they have reached their full capacity and the amounts of waste disposed continue to increase leading to the use of transfer stations and temporary storage. For example, between 2010 and 2019, the amount of waste increased by 7.9% in Colombia, and by almost 20% in Bogotá.

Colombian cities are prone to natural phenomena, man-made disasters and climate change impact

Colombia's geography makes it vulnerable to natural events such as hurricanes, floods, droughts, earthquakes and tsunamis, particularly in the Andean area and the Pacific coast. Around 15% of urban houses are at risk of flooding and 19% are in a landslide area. It is estimated that natural disasters could knock 1.5% of Colombia's GDP in the long term. Man-made risks could come from a massive concentration of people and industrial risks. Colombia's Second National Communication on Climate Change estimates that climate change will increase the average temperature between 2°C and 4°C by 2070, which will be accompanied by changes in hydrological conditions such as a reduction of rainfall by up to 30%. Climate change is expected to affect people's quality of life, including in rural areas, by accelerating internal displacements and migrations towards cities, putting additional pressure on housing and public services as well as exacerbating marginalisation and poverty.

Critical sectoral policy challenges remain and undermine urban outcomes

A quantitative and qualitative housing deficit is addressed mainly by social housing production and the promotion of homeownership

Colombian cities face both a quantitative and qualitative housing deficit. Rapid urban growth has outpaced the ability of Colombian national and local authorities to provide affordable and quality housing. At the national level, it is estimated that there is an overall housing deficit for 36.6% of households. While the housing deficit is more common in rural areas, about half of households that face a housing deficit live in urban areas. House prices have increased sharply in the past 15 years as a result of a mismatch between sluggish growth in housing supply and fast-rising demand. Between 2005 and 2020, real house prices more than doubled in Colombia (+107.3%), i.e. the highest growth rate among all OECD countries, where real house prices increased by 19.2% on average over the same period. House prices have soared faster than household disposable income. In Colombia, the average household net-adjusted disposable income per capita is USD 33 604, significantly lower than the OECD average of USD 408 376. Between 2006 and 2020, Colombia registered one of the fastest increases in the price-to-income ratio among OECD countries. This is making housing increasingly unaffordable for many Colombian households, especially for first-time buyers. Moreover, about 9.8% of Colombian households (i.e. 1.4 million households) live in housing with structural and space deficiencies (i.e. in terms of the size of the dwelling) for which it would be necessary to add new housing to the existing stock (quantitative deficit). Another 26.8% of Colombian households (i.e. 3.8 million households) live in homes that could be improved through renovation (qualitative deficit) – meaning that 3 out of 4 households in a situation of housing deficit need home improvements.

Social housing ownership is the main pillar of Colombia's housing policy. While homeownership remains the most common tenure in Colombia (46.2% of households), the private rental sector plays a central role (35.7%, a higher share than in the OECD on average [23.1%] and the highest share in Latin America [e.g. 21.9% in Chile and 15.0% in Mexico]). The share of tenants tends to be higher in cities, with a high proportion of them renting from the informal rental market (e.g. 43.5% in Bogotá). Since 2005, real rent prices have risen by 73.2% in Colombia, one of the strongest growth rates among OECD countries, making the private rental market increasingly unaffordable for many Colombian urban households.

The production of social housing has been increasing considerably in Colombia, occupying an ever-larger part in the general housing production. Between 2011 and 2020, around 2 million housing units of all types were built in Colombia, of which 44% were social housing. Colombia's housing policy remains almost entirely focused on new social housing ownership, mostly located in urban peripheries. In 2015, the national government created the *Mi Casa Ya* (MCY) programme to promote access to "social interest housing" (a type of social housing that targets households with income lower than eight minimum monthly wages [MMW]). However, low-income households are not the main buyers of social interest housing. A significant share of social housing units is purchased by higher-income households as an investment strategy rather than by those most in need, especially as there is no condition of income or subsidy attached to social housing transactions.

Colombia's housing policy remains primarily guided by the idea of steering low-income households towards homeownership. The introduction of the *Semillero de Propietarios* (SP) programme has contributed to a diversification of housing options towards rental housing, by introducing a rent subsidy. However, its purpose is not to develop formal rental housing as such but to enlarge the MCY programme. Moreover, social housing tends to be of low quality, while the poor quality of the housing production (including in terms of the sustainability of construction materials) and the lack of integration of social housing settlements with the city are exacerbating irregular urbanisation and urban sprawl. Moreover, compared with other countries, Colombia calibrates its housing policy essentially on the basis of the housing deficit to be solved but relatively little on future needs (e.g. how many housing solutions will need to be built in

the future to meet the increased number of households). There is currently no clear picture of what kind of social housing units are being effectively subsidised (size and type of housing) and where they are located, especially within urban areas. Such information is necessary to help the Colombian government evaluate the impact of its housing policy, regarding both housing demand and urban development.

Land use plans are the main instrument to implement urban policy but most of them are outdated and underused

Land use plans (*planes de ordenamiento territorial*, POTs) in Colombia are very complex, mostly outdated and underused. In 2021, 80% of POTs were outdated or in the process of being updated. Similarly, cadastral information for territorial planning is outdated as only 7% of municipalities had updated cadastral information in 2020. Formulating or updating a POT following requirements established by law is a costly and lengthy process for most municipalities. POTs are required to include a large number of topics to meet spatial and urban development objectives. Municipalities tend to lack access to up-to-date and accurate data that are necessary to elaborate a POT. In addition, they do not always have the financial resources or the technical capacity to process data to generate information and knowledge. The process to formulate or update a POT can also be framed by political interest rather than by actual local needs. Moreover, Colombia has a wide range of fiscal instruments to steer land use but these are seldom used to their full potential. For example, incentives for brownfield redevelopment, transfers of development rights and land value capture instruments exist but remain underused, even though they could offer an untapped source of revenue for infrastructure investments.

Despite investments, urban residents face critical mobility challenges

For almost 20 years, both the national and local governments have been working to improve public transport through national transport policies and local mobility plans. Despite these efforts, in Colombia, public transport systems are still characterised by low quality in terms of reliability, comfort, safety and environmental friendliness. A critical challenge for Colombian cities is also to find reliable sources of financing for the operation and maintenance of their public transport systems. Transport planning and land use planning are often carried out as separate functions, which leads to inconsistencies between urban mobility plans and land use plans, as well as infrastructure investment strategies and local development plans more broadly.

Even though public transport is the dominant transport mode in Colombia's main cities and despite efforts to further increase its use, the number of motorised vehicles is still growing in Colombia. Between 2010 and 2017, the number of motorcycles more than doubled and the number of cars increased by 58%. This increase has partly been due to the lack of adequate and accessible public transport systems, fostering the use of private motorcycles in particular, which urban residents consider to be cheaper and faster. With a 25% rise in the number of road deaths between 2010 and 2018, Colombia has registered the second-highest increase behind Costa Rica, among only 8 OECD countries where the number of road deaths increased over that period.

Colombian urban mobility systems are still grappling with congestion and road fatalities. The dominance of motorised transport has led to time lost in commuting, pollution, increased wear on vehicles and roads, as well as social and psychological impacts due to higher levels of anxiety and stress. In particular, the transport sector is responsible for 12% of GHG emissions in Colombian cities, of which 90% are produced by road transport. Due to the COVID-19 crisis, however, Colombian cities have expanded existing proactive policies encouraging cleaner transport modes, especially through investments in cycling infrastructure. In 2020, Bogotá, D.C. and Medellín, for example, were among the first cities worldwide to announce the expansion of their cycleways.

Moreover, cities were not prepared to implement the physical spacing guidelines imposed by the COVID-19 health crisis. In 2020, the Colombian government issued the National Policy on Urban and

Regional Mobility (CONPES 3991) to contribute to social welfare, the protection of the environment and economic growth of cities, but it lacks considerations on accessibility and a gender focus.

Urban inequality has decreased and safety has improved but more could be done

Colombia's urban development model so far has not been able to fully address the challenges of poverty and social exclusion in many cities across the country. In particular, the COVID-19 crisis exposed and exacerbated inequality in large cities, where the most vulnerable groups such as migrants, the poor, women and the elderly have been hit particularly hard. A striking manifestation of this inequality is the proliferation of illegal or informal settlements due to the lack of land for affordable housing and the difficulties in benefitting from housing programmes when workers lack stable jobs.

Although social indicators in Colombia have improved significantly over the past decade, the pandemic has wiped out pre-COVID progress. For example, the share of the population living below the poverty threshold had decreased in most capital cities and metropolitan areas between 2012 and 2019. However, that share increased again sharply in 2020 partly due to the COVID-19 pandemic, pushing the incidence of extreme poverty in municipal cores in 2020 back up to higher levels than in 2012 (14.2% in 2020 compared with 7.9% in 2012). While poverty levels are lower in urban areas than in rural areas, inequalities are wider in municipal cores than in less populated centres and dispersed rural areas. In 2020, the Gini index was 0.54 in municipal cores, compared to 0.46 in less populated centres and dispersed rural areas (across FUAs in OECD countries, the Gini index was 0.36 in 2016).

Although security has also improved substantially in Colombia and especially in cities in the past decade, thanks to proactive policies at the national and local levels to curb crime and violence, insecurity remains higher in cities than in rural areas. In 2021, 9.2% of people were victims of crime in urban areas, compared to 6.6% in rural areas. On an international scale, Colombian metropolitan areas are amongst the least safe OECD metropolitan areas (e.g. the number of homicides per 100 000 inhabitants was 23 in Colombian metropolitan areas, against 5.6 in the United States [US] and 2.8 in Germany).

The System of Cities has modernised Colombia's approach to urbanisation

National urban policies (NUPs) are not a new concept in Colombia, which has at least three decades of experience in developing urban policy frameworks. In a quest to face urban development challenges, in 2014, the national government published the National Policy for the Consolidation of the System of Cities in Colombia (*Consejo Nacional de Política Económica y Social [CONPES] 3819*, hereinafter "System of Cities"), which aims to guide urban development to support economic growth and competitiveness, and improve the quality of urbanisation to upgrade people's well-being. The System of Cities is the third generation of national urban development policies since the 1998 Cities and Citizens policy and the 2004 "Guidelines to optimise urban development policy".

The System of Cities seeks to promote complementarity rather than competition among cities. One of its main objectives has been to prioritise physical and digital connectivity among cities, as most intra-urban development issues were already addressed in other instruments such as POTs and the Organic Law on Territorial Organisation (*Ley Orgánica de Ordenamiento Territorial*, LOOT), housing policies and municipal mobility plans. The policy also included issues on financing, quality of life in cities and productivity. The System of Cities is a transversal policy as it addresses the urban dimension of a wide variety of issues such as demographics, productivity, cost of living and quality of life, infrastructure, urban-rural linkages, planning and finance.

The System of Cities is largely in line with international benchmarks such as the OECD Principles on Urban Policy and the global monitoring of the state of the NUP carried out by the OECD, UN-Habitat and Cities Alliance. In particular, Colombia's System of Cities has consolidated the functional urban approach, which is now part of the national policy discourse, reinforced the notion of interdependency between urban and rural areas, stressed the need to foster digital connectivity and introduced tools for overseeing the development of cities (e.g. the Modern Cities Index and the Observatory of the System of Cities). It has also promoted the concept of a compact city, which has been consistently present throughout the various types of NUPs in Colombia.

However, some challenges remain in the System of Cities

While the System of Cities has helped modernise Colombia's approach to urban development, some challenges can be identified. First, the System of Cities has largely left intra-urban issues to sectoral policies (i.e. housing, transport and environment) and regulations such as the Organic Law for Territorial Organisation (LOOT) and land use plans (POTs). This has prevented coherence across policy sectors and the emergence of a long-term vision for urban development. Second, the NUP lacks a strong environmental and climate change dimension, as it does not define an urban green growth strategy that guides cities in their transition to a circular economy and links urban and environmental performance. Third, housing policy remains largely separated from urban policy and there has been little consideration of how housing finance has affected urban outcomes.

Challenges remain in the governance of the NUP as well. Implementation weaknesses derive from: rigid regulation; an inadequate institutional setting to lead and co-ordinate policy; limited consultation and consensus-building among different stakeholders; insufficient financial, human and technical resources (particularly in municipalities) and limited capacity at the local level. There has been a lack of adequate tools for co-ordination both across levels of government and among municipalities at the metropolitan level:

- Co-ordination across levels of government in Colombia is still weak despite efforts to strengthen it. A key limitation is the overlapping competencies of the different levels of government and the multiple plans that the latter must produce. For example, municipalities, districts, metropolitan areas and departments elaborate POTs that need to be co-ordinated but since municipalities make the last decision on how land is used within their territory, their POT may not always be compatible with higher-level plans. Colombia has created different territorial entities at the intermediate level with the purpose of facilitating co-ordination among governments at the same level and across levels of government. The intermediate level is composed of departments, metropolitan areas, municipal associations, administrative planning regions, associations of departments and associations of metropolitan areas. However, they lack clear competencies and, in many cases, funding. These entities should, in principle, help bridge national and municipal governments but the crowded landscape at the intermediate level is hindering that co-ordination. At the same time, associations of regional and local governments are playing a critical role in supporting vertical co-ordination to manage the COVID-19 crisis. They are key interlocutors between national and subnational governments, and they identify solutions and support the implementation of emergency measures.
- Although the task force that elaborated the current NUP on the System of Cities identified 18 agglomerations of supra-municipal nature, there are currently only 6 metropolitan areas with a formal statute (Barranquilla, Bucaramanga, Centro Occidente, Cúcuta, Valle de Aburrá and Valledupar) and three agglomerations (Cali, Cartagena and Manizales). The reason why no more metropolitan areas were set up as an associative scheme is that it is compulsory to hold a public consultation with high levels of citizen participation in order to create a metropolitan area. Metropolitan governance in Colombia often faces challenges such as: the dominance of larger and richer municipalities over others; the lack of financing mechanisms; the lack of co-ordination of different POTs at different scales for the same territory; and the lack of binding powers of

metropolitan areas. While some municipalities invest and deliver services jointly, many still prioritise their own local objectives rather than those of the broader FUA.

Moreover, the current System of Cities policy does not have an evaluation system. The Department of National Planning (*Departamento Nacional de Planeación*, DNP) has set up SisCONPES, an online platform to record the progress in the implementation of activities listed in all policy documents, and the Observatory of the System of Cities that helps to collect data on the state of cities. However, there is no provision to evaluate the impact of the NUP.

Since the adoption of the current NUP, Colombia has issued a variety of policies (e.g. the 2017 National Climate Change Policy, the 2018 Green Growth Policy and the 2020 National Policy on Urban and Regional Mobility), programmes (i.e. *Biodiverciudades*) and regulations (i.e. Metropolitan Areas Law) to manage urbanisation. Although these policies and programmes aim to tackle specific urban-related issues, they might have had the unintended effect of fragmenting the urban policy landscape. Therefore, it may be necessary to consolidate the vision and goals of disjointed policies to promote more transformative, productive, inclusive and resilient urban development.

Colombia is developing a new version of its NUP Cities 4.0

At the time of writing the present OECD *National Urban Policy Review of Colombia*, Colombia is preparing a new NUP called Cities 4.0 (*Ciudades 4.0*) to replace or update the current System of Cities. The experience of OECD countries such as Chile and Poland suggests that the NUP should be revised and updated in the medium term to reflect changing national priorities and adjust elements that require recalibration. Moreover, most of the projects or activities included in the action plan of the current NUP have already been conducted. There is also a renewed commitment of the line ministry (Ministry of Housing, Cities and Territory) to embrace leadership in urban policy design and implementation.

The current proposal for Cities 4.0 aims to consolidate the progress already achieved and take urban development to the next level by promoting inter-sectoral co-ordination and an integral vision of urban development. The proposal contemplates five axes around which urban policy should be based: i) improved capacity of local administrations (i.e. financing); ii) sustainability (i.e. adapting lifestyles to the changing environmental conditions); iii) planning and land use (i.e. optimising the existing city); iv) productivity (infrastructure for connectivity among cities); and v) innovation (i.e. use of information and communication technologies). Cities 4.0 has the opportunity to develop a coherent and self-reinforcing strategy to deliver compact, connected, clean and inclusive cities. The new urban policy could help integrate spatial and sectoral policies such as transport, housing, environment, spatial planning and economic development, into a coherent approach beyond current planning silos.

Key recommendations to unlock the potential of a new NUP for Colombia

As Colombia works on updating its NUP to reflect changing priorities, critical aspects need to be considered to ensure that the new NUP is in line with the current national and international context. Building on the accumulated national and international experience, Colombia may wish to include the following elements in Cities 4.0.

Reinforce the place-based approach to embrace the diversity of urban needs

Cities in Colombia present a high degree of heterogeneity, with different levels of economic performance (e.g. unemployment levels range from almost 20% in Florencia to 9% in Cartagena), administrative capacity (e.g. Cali and Medellín have comparable population levels with approximately 2.5 million inhabitants but Medellín has over 34 000 public employees while Cali has 5 600) and social development (e.g. Cali and Manizales have the lowest level of poverty in the country with 21%, while Quibdó has 60%

and Riohacha almost 50%) and a majority of small urban centres. However, the current NUP takes a relatively rigid, broad-brush approach and does not provide much flexibility to meet specific local needs. Reinforcing a place-based approach for urban development originally considered in the System of Cities is particularly relevant to tackle the high levels of inequality within urban areas.

Use the new NUP as a tool to deal with the impact of the COVID-19 pandemic

The momentum provided by the pandemic should be seized to adopt a bold approach, taking into account issues prompted by the pandemic. For example, teleworking may remain a feature of the work environment for the long term and more widespread teleworking could eventually help reduce the urban-rural development gap if the digital divide is bridged. Active mobility (cycling and walking) has also gained more prominence and Colombia could use this momentum for reallocating road space and fostering micro-mobility.

Since no government alone can manage urbanisation effectively, the renewed NUP for Colombia should go beyond the provision of technical assistance for land use planning and environmental management plans, to encourage a continuous dialogue between national and subnational governments. This dialogue should not only be on how to recover from COVID-19 but, more broadly, how to move the national urban development agenda forward, how the NUP can create the conditions for more resilient cities in the country and how the national government can support local efforts to improve urbanisation. While this dialogue can nurture a more coherent recovery from both the pandemic and long-term urban challenges (e.g. sprawl), it can also prompt specific responses to local needs.

Continue promoting compact cities to make better use of the existing city

Cities 4.0 should continue promoting compact city development to pursue a more sustainable habitat approach and better planning to manage urban sprawl. Building compact cities – cities that are denser, with less unused land – based on revitalised urban cores could have economic, social and environmental benefits. However, to generate agglomeration economies cities also require a density of transactions and economic activity, which in Colombian cities is very low. Cities 4.0 could therefore include explicit compact city goals by encouraging dense and proximate development, strategies to retrofit built-up areas and actions to minimise the negative effects of compact cities (e.g. higher land values, traffic congestion).

Mainstream climate change and disaster risk management into urban planning

The impact of climate change, as well as natural and man-made risks, needs to be more effectively considered in urban planning. Colombia's geography makes it particularly vulnerable to natural extreme events such as hurricanes, floods, droughts, earthquakes and tsunamis. Man-made risks could derive from a mass concentration of people and industrial hazards. As suggested by the experience of Chile, the characteristics of natural surroundings are key determinants to consider in planning socio-economic and territorial development. If not properly taken into account, they can become high-risk elements that endanger people's safety and well-being, economic development and the environment. Cities 4.0 should provide guidelines so that specific measures are developed in local development plans and POTs to address each municipality's specific geographical conditions and socio-economic context.

Link urban and rural policies and continue promoting urban-rural partnerships

Cities 4.0 must recognise the interdependency between urban and rural areas, which is a central component of the functional approach to urban and territorial development. The axis on territorial planning and development of the Rural Mission (i.e. task force that assesses rural policy) and a new national rural policy, currently under discussion, provide a window of opportunity to link national urban and rural agendas to regulate the ownership, distribution and conservation of land and natural resources. This would help

avoid designing and implementing separate strategies, as it is currently done, to address the challenges of urban and rural areas. Cities 4.0 could make explicit use of urban-rural partnerships as a means to achieve national development objectives and offer a range of institutional and financial incentives to help shape collaborative projects. Some actions that Colombia could consider include developing a range of financial incentives for building partnership projects, promoting urban-rural linkages through land use planning and the *Biodiverciudades* programme and expanding the scope of co-operation beyond environmental issues.

Introduce an evaluation system

Cities 4.0 should include mechanisms to assess the implementation of urban policy to inform the decision-making process and draw lessons on how cities and functional areas could be managed more effectively. Developing a framework to better monitor and evaluate NUP outcomes will require engaging a variety of actors both at the national and subnational levels. In particular, the Administrative Department of National Statistics (DANE), the Agustín Codazzi Geographic Institute (IGAC), the Ministry of Housing, Cities and Territory (MVCT) and the National Planning Department (DNP) should play a prominent role in this respect.

Key recommendations on leveraging urban-related sectoral policies for better-quality urbanisation

Putting in place an NUP *per se* is no guarantee of better-quality urbanisation. Its success will depend on the government's ability to leverage the contribution of sectoral policies to the NUP. As a complement to the above-mentioned recommendations on the formulation of a new national policy, Colombia could consider the following five axes on urban-related sectoral policies.

Adopt a housing and habitat policy geared towards sustainable and inclusive urbanisation

Colombia needs to reconcile housing policy and urban sustainability. Providing affordable, decent and safe housing options for all, in particular for low-income households, is a crucial challenge for Colombia from a social and economic point of view. However, housing policy should not be pursued at the expense of urban sustainability, for example by prompting uncontrolled urban sprawl or building urban spaces that are not viable nor resilient in environmental, economic and social terms. Moving forward, Colombia could introduce quality and sustainability standards in subsidised social housing. Sustainability in social housing production should be addressed in a multidimensional way rather than solely through a green angle (i.e. water and energy savings). For example, other dimensions to consider could include the level of comfort (especially minimum space – which has been highlighted by the COVID-19 pandemic), as well as access to urban amenities and opportunities, ranging from basic services to public transport, culture, education and employment. Colombia should also acknowledge that homeownership is not the solution to everyone's housing problem. Hence, Colombia should focus its efforts on developing intra-urban decent and affordable rental housing options for low-income households. In addition to social housing ownership and rental housing subsidies, Colombia could consider developing alternative housing programmes to enlarge the spectrum of the housing and habitat policy, for example via subsidies to foster urban regeneration and housing subsidies for assisted self-help production. These could help meet the diversity of needs of low-income households while promoting a more sustainable urban development pattern in Colombian cities. This housing and habitat policy for sustainable urban development should be supported by in-depth and up-to-date data and knowledge on the local dimension of the housing deficit and a more accurate measurement of housing affordability.

Modernise land use planning to manage urban development

Simplifying land use planning tools and making them more flexible could offer a critical tool to shape more accessible and sustainable cities. Colombia could consider streamlining the number of issues to be included in the POTs, emphasising the need to strengthen urban-rural linkages, evaluating projects according to the extent to which they serve community needs, and avoiding restrictive and single-use zoning regulation. To avoid the risk of uncontrolled urban development, Colombia would need to adopt incentives such as fiscal policies (e.g. property taxes and transport-related fiscal instruments) to facilitate land use planning at the metropolitan scale, prioritise urban regeneration and environmental preservation and encourage the private sector to pursue more compact urban development.

Shift the focus from urban mobility to urban accessibility

Expanding access to opportunities through public transport and active mobility should be at the top of the transport agenda in Colombian cities. To support its goal of compact urban development, Colombia could further prioritise affordable mass transit and high levels of active mobility to promote access to opportunities while boosting economic competitiveness and protecting the environment. For this purpose, Colombia could ensure that economic development, land use and mobility planning are conducted with a functional urban perspective and consider the development of a new strategic document on urban development and land use to complement the current mobility policy. Colombia should include affordability issues (i.e. housing and transport costs) in urban planning to build more affordable and connected neighbourhoods. Financing public transport should be seen as an investment rather than a cost. Colombia could thus consider exploring new sources of financing for metropolitan-wide transport such as how cities might cross-subsidise public transport and the use of road pricing and land value capture instruments. Colombia could also explore the viability of creating metropolitan transport authorities to fund transport, reduce competition between modes and facilitate co-operation between public and private operators. In addition, Colombia could include digital connectivity as part of mobility plans as an alternative to physical mobility and as a contributor to decarbonisation by reducing the need to travel. Moreover, Colombia must ensure that local development plans, POTs and mobility plans work in a co-ordinated fashion. Colombia could also use transport policies to achieve wider sustainable development goals by using public transport to support the transition of cities to a low-carbon economy, giving active mobility (walking and cycling) the highest priority over other means of transport for short-distance trips and strengthening current efforts to make public transport gender-sensitive.

Leverage digitalisation for more productive, innovative and inclusive cities

The government should also leverage digitalisation and innovation for more productive, innovative and inclusive cities. While the digital transformation is still at an early stage in Colombia, it can underpin efforts to build more competitive, sustainable and inclusive cities. The national government should play an enabling role to support the delivery of innovative solutions, capacity building and upscaling, including through a national smart city framework adapted to the local circumstances. Drawing on the experience of OECD and G20 countries, a smart city policy framework could help Colombia assess to what extent new (digital) technologies can improve the efficiency, sustainability and quality of public services and infrastructure projects for all residents. With a view to promoting equity and inclusiveness, this smart city agenda should address the heterogeneity of cities in terms of their needs and capabilities. The national agenda should guide the adoption of smart city initiatives at the local level to address issues of safety, environmental protection, welfare and accessibility. Moreover, it needs to offer adequate support to people of all ages and backgrounds in developing digital skills and literacy, so that they are able to access and profit from technological developments. Colombian cities could focus on unlocking their innovation potential through a formal innovation strategy, which should highlight the city's priorities and objectives on

pursuing innovation and the way to achieve them. Initiatives to develop information and communication technology (ICT) skills such as *Ciudadanía Digital* should continue to be reinforced.

Harness urban policy to advance equity and social justice

Colombia needs to lay the foundations for a new social contract through urban development. To tackle urban inequality, this review proposes two main actions:

- *Improving the provision and management of urban public space*. According to national regulation, every resident must have between 10m^2 and 15m^2 of public space. However, only the cities of Popayán, Santa Marta and Soacha comply with the national standard, while other cities like Barranquilla, Cali, Ibagué and Pereira only provide 4.3m^2 of public space per capita. Urban public space is sometimes used for activities that constitute law infringements, such as informal trade in the streets, parks and public squares. To improve the provision and management of public space, Colombia could: include qualitative aspects (e.g. access to green areas) in the norms and policies rather than purely quantitative ones (e.g. square meters of public space per person); ensure there is an economic use of public space where relevant (e.g. cities could charge a contribution for economic activities that take place in the streets and squares); connect public space strategies with public transport to make the most of existing infrastructure; and engage a broad range of stakeholders in the preparation and implementation of a public space strategy, including urban safety considerations.
- *Upgrading informal settlements*. The lack of affordable and accessible housing and land for development has led to the emergence of irregular settlements, generally in high-risk areas, with challenges of insecurity. Colombia needs to upgrade informal settlements, provide them with basic services and affordable infrastructure, and improve housing conditions as well as security of land occupancy rights (i.e. titling). Possible actions include recuperating urban spaces for communities in a situation of vulnerability and exclusion and allowing them access to basic health, environmental, education and cultural services. To fund upgrading, Colombia could explore joining up the finance dedicated to the construction of housing and infrastructure, and using housing microfinance to help low-income households to borrow small amounts of money to improve their homes progressively. Colombia should continue the process of regularising homeownership and assisting vulnerable and low-income households to improve the quality of dwellings. For example, home improvements programmes could provide subsidies to vulnerable households so that they can improve their current dwellings rather than being relocated, unless they are in high-risk areas. Housing improvement programmes should be complemented with neighbourhood improvement programmes designed with community participation as well as income generation measures to enable households to finance their own home improvement and ensure sustainable access to basic services.

Strengthening the urban governance framework

Improving Colombia's ability to enhance its urban development outcomes depends on addressing the limitations of its governance structure. A key part of success rests in bringing a wide range of actors from both the public and private sectors to work together on achieving a shared vision for cities. It will also entail enhancing capacity for cross-sectoral policy making and ensuring that policy initiatives cascade down from broader national objectives to the neighbourhood level.

Reinforcing inter-municipal co-ordination mechanisms

Inter-municipal co-operation is based on local authorities' willingness to join an associative scheme whose terms they set themselves in the statutes governing co-operation. Colombia offers several mechanisms that aim to make territorial organisation more effective and efficient. Currently, 86 associative schemes are in place, including 56 municipal associations. About 70% of these associative schemes have been formed around environmental policy goals. Municipal associations are the easiest way for municipalities to join forces around common objectives, and some have been operating for more than 25 years. They reflect a genuine motivation to co-operate, as 90% of municipalities in the country are small (less than 10 000 inhabitants) and cannot afford meaningful investments alone. One way of reinforcing territorial co-operation in Colombia could be to facilitate single-purpose or multipurpose inter-municipal co-operation, through corporate joint committees whose task would be to support local authorities in economic development planning and policy implementation. The committees should have clear responsibilities and authority.

Facilitating metropolitan governance

Most commonly used mechanisms to promote urban development at the metropolitan level across municipalities in functional areas include: joint development of investment projects between urban and rural areas; co-ordinated public service delivery; and regular meetings among municipal leaders. However, their uptake has been limited so far. Facilitating metropolitan governance in Colombia requires acknowledging the interdependencies between policy sectors (e.g. housing, transport, land use, infrastructure, leisure, etc.) in inter-municipal or metropolitan planning and adopting an integrated policy approach. Municipalities in FUAs should define a multi-sectoral, cross-cutting strategy that guides inter-municipal co-operation. Departments (i.e. regional governments) should be given a clearer role in the promotion of regional integration through investment projects, strengthening their mandate to incentivise regional co-operation for investment projects as technical support or political facilitator of metropolitan governance. Adopting reliable instruments for monitoring and evaluation for continuous improvement of metropolitan outcomes will also help ground further co-operation in solid evidence.

Strengthening co-ordination across levels of government

The Colombian government could continue using the vertical co-ordination displayed during the COVID-19 crisis to support the planning and execution of the recovery strategy and NUP. Since the 2010s, Colombia introduced the *Contratos Plan* (contract plan) to co-ordinate investment more effectively across levels of government in a cross-sectoral manner. *Contratos Plan*, called Territorial Pacts (*Pactos Territoriales*) since 2018, are investment programmes that focus on improving connectivity and service delivery in lagging areas in key policy domains such as education, healthcare and sanitation. This instrument could continue to help co-ordinate investments, including some adjustments, such as the simplification of the elaboration process and a requirement to focus on concrete investment projects with clear financing sources identified and stated in the contractual document.

Leveraging fiscal instruments to reinforce urban finance and investment

Fast urbanisation has placed a major burden on Colombian cities to finance and build urban infrastructure including roads, public transport systems, utilities such as water, sanitation, electricity, as well as Internet provision. To meet these tasks, Colombian subnational governments obtain revenues from three main sources: direct transfers from the national government, income from assets (royalties) and subnational taxes. Over half of subnational revenues in Colombia comes from direct, earmarked transfers from the national government's general budget. This means that Colombian subnational governments have limited spending autonomy and need to turn to their own sources of revenue for financing investment projects. In

2020, almost 60% of transfers went to education expenditure, 23% to health, 5% to water and 10% to general-purpose items such as culture, sports and investment.

The 2016 OECD report on *Making the Most of Public Investment in Colombia: Working Effectively across Levels of Government* concluded that the country needs to adopt a more strategic and regional approach to investment in order to boost productivity. Cities and the national government need to engage in more and better public investment to bridge the large infrastructure gaps and territorial disparities. This requires articulating different investment priorities into coherent territorial strategies. Instead of focusing on individual investment projects, Colombia should move towards a more strategic and regional approach to investment. Colombia needs to establish closer links between planning and budgeting, as well as incentives to support horizontal co-operation across jurisdictions, in particular to strengthen FUAs, which are relatively small in Colombia.

An option for Colombia could be to improve the use of land-based financing instruments, such as the *contribución de valorización* (betterment levy) and the *participación en plusvalías* (participation in capital gains). To expand the use of these two instruments, the national government could provide technical assistance to small- and medium-sized cities on how to deploy them and build on their feedback to make the mechanisms more user-friendly. Colombia could also reinforce property tax and update the cadastre. The country has recently introduced the multipurpose cadastre, designed as an instrument of planning and information to address land property, land use, environmental and territorial management issues that each municipality faces. To strengthen cities' fiscal room and meet urban development goals, Colombia could leverage taxes and fees such as property tax to control sprawl and tax low-density development. The experience of OECD countries recommends "piggybacking" onto higher-level income taxes by levying a tax as a supplement to the national income tax, rather than operating a local income tax. Colombia could also use transport fees to encourage public transit and active mobility, and therefore promote greener urban growth. To support metropolitan planning, Colombia could make the use of charges and fees as extensive as possible by structuring them so that they support cost recovery, particularly in the case of public transport and public utilities, mostly when the metropolitan area provides services likely to be financed with user charges. It is also important that metropolitan areas have more discretion in making decisions about service delivery and managing their budgets.

Building the capacity and capability of subnational governments

Urban development requires: improving the capacity of all levels of government to manage their workforce; promoting evidence-informed policy making; and engaging with stakeholders through participatory decision-making practices. The public service is currently understaffed, which weakens the implementation capacity of both the national and subnational governments. In 2013, subnational governments represented 43% of the Colombian public workforce. Subnational government staff expenditure accounted for around 47% of total public staff expenditure in Colombia, below the OECD average of 63.3% in 2012 (latest available statistics). Although Colombia has made strong efforts to ensure that the public service is staffed by career civil servants who are recruited on merit, there is still a shortage of skilled workforce, which constitutes a bottleneck for the design and implementation of investment projects at the local level. Colombia could explore options such as: professionalising the subnational public workforce; investing in strategic workforce planning (particularly in the largest cities); facilitating staff mobility across levels of government to support skills development; developing the managerial skills of municipal officials; and setting up a programme for the certification of competencies acquired through professional experience to facilitate career development. Of particular importance is to develop the subnational government officials' skills for engaging the community in discussing local development matters.

1 Colombia's urbanisation trends and challenges

This chapter presents an overview of Colombia's urbanisation process. It starts by looking at the country's urbanisation trends and highlights that Colombia's quick urbanisation has led to a number of challenges, including the widespread development of informal settlements. The chapter also examines the economic performance of Colombian cities. It argues that cities are the motors of economic growth, with widespread informal economy affecting productivity in particular. Finally, the chapter explores life in Colombian cities through an analysis of housing, poverty and inequality, safety, mobility and environmental performance.

Introduction

Colombia has seen rapid urbanisation over the past seven decades. While cities are the main engines of economic growth of Colombia, this fast urbanisation has also led to a number of challenges in cities, including the development of informal settlements and a high number of households facing a quantitative and qualitative housing deficit, inequality, insecurity, congestion and high levels of pollution. As Colombia recovers from the effects of the COVID-19 pandemic, manages the massive international wave of immigration, tackles the rising levels of poverty and inequality, consolidates the peace process that puts an end to more than seven decades of armed conflict and deals with the global climate emergency, the functioning of its cities will become more relevant to achieve national development goals. Well aware of these challenges, the Colombian authorities have committed to a reform agenda where housing and urban policy play a key role in addressing the inefficient development patterns resulting from decades of disorderly urbanisation such as housing deficit, under-productive cities, informal settlements and environmental pollution.

Colombia has made multiple efforts to improve the quality of urbanisation and make cities a key element to support the country's socio-economic development process. The current national urban policy, the National Policy for the Consolidation of the System of Cities (CONPES 3819, hereinafter "System of Cities"), adopted in 2014, is the latest example in a series of urban policies to make the urbanisation process conducive to meeting people's needs and underpin economic development while ensuring environmental sustainability. However, improving the quality of urbanisation is a long-term process that requires regular adjustments to policy. In this sense, Colombia's national government is working on a draft proposal for a new national urban policy called Ciudades 4.0 (Cities 4.0), which builds on the hard-won gains from years of experience of urban policy. This review intends to support the process of urban policy renewal through an analysis of Colombia's urban policies and the formulation of policy recommendations based on the experience of other OECD member countries.

Colombia's urbanisation trends

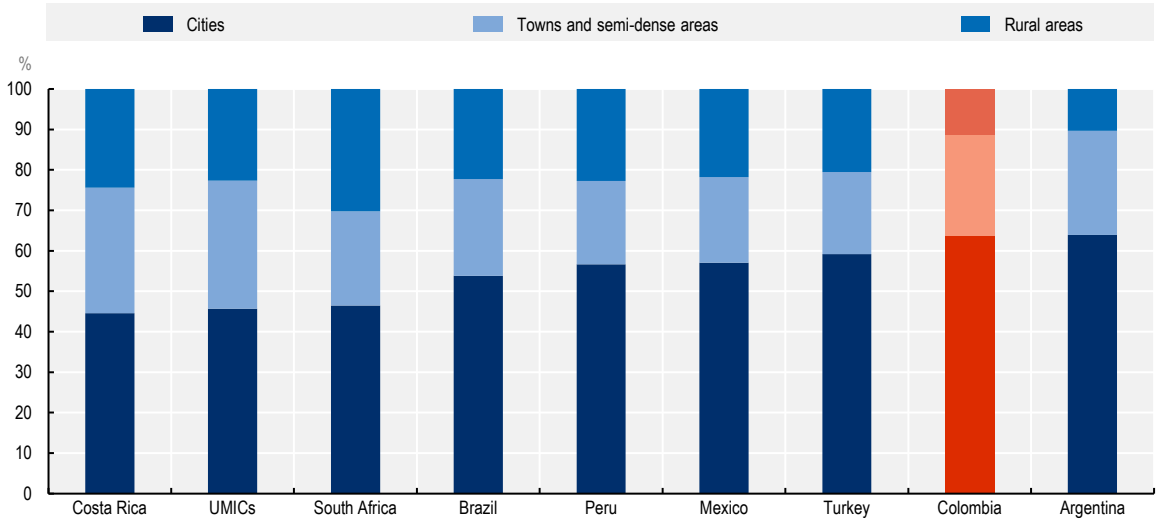
A highly urbanised and polycentric country

Colombia is a highly urbanised country, considering both national and international definitions. According to the latest population and housing census carried out in 2018, 75.5% of its population lived in urban areas. As per the international definition of the degree of urbanisation endorsed at the 2020 United Nations Statistical Commission, 64% of the Colombian population lived in cities in 2015, while 25% lived in towns and semi-dense areas and 11% in rural areas, compared with 45%, 32% and 23% respectively in upper-middle-income countries (OECD/EC, 2020[1]). While this categorisation and methodology used to define urban and rural areas differ from the definitions used by the Colombian statistics office (National Administrative Department of Statistics, *Departamento Administrativo Nacional de Estadística*, DANE*)* (see Box 1.1 on the Colombian definitions of urban and rural areas), they are used here to allow for international comparison. From these numbers, on average, Colombia is more urbanised than other countries in the same income group (upper-middle-income countries)[1], except for Argentina (Figure 1.1).

Colombia's population has urbanised quickly over the past 70 years. By the end of the 1930s, 70% of the population lived in rural areas. Between 1951 and 1964, the urban population passed from 2.7 million to 24 million people (Rueda, 1999[2]). The share of the population living in urban areas rose from 38.3% in 1950 to 75.5% in 2018 according to the latest census. Between 2005 and 2018, the number of urban inhabitants (living in municipal cores) grew by an annual average rate of 1.3% per year, from 30.9 million to 36.4 million – a slower pace than the annual average growth rate of 2.3% between 1985 and 2004. However, the number of rural inhabitants (living in populated centres and dispersed rural areas) grew more slowly than the number of urban inhabitants between 2005 and 2018, at an annual average of 0.7%, going

from 10.7 million to 11.8 million. According to projections by Colombia's National Administrative Department of Statistics (*Departamento Administrativo Nacional de Estadística*, DANE), the share of the population living in urban areas is expected to rise further to reach 76% by 2050 (DANE, n.d.[3]).

Figure 1.1. Population by degree of urbanisation, selection of upper-middle-income countries, 2015



Note: UMICs – Upper-middle-income countries.
Source: European Commission, (n.d.[4]) *Global Human Settlement Layer*, https://joint-research-centre.ec.europa.eu/global-human-settlement-layer-ghsl_en.

The rapid urbanisation of Colombia has mainly resulted from massive migration flows from rural to urban areas since the late 1930s, as people from rural areas moved to cities to find better employment opportunities and enjoy higher wages and better living conditions (Schultz, 1971[5]). This phenomenon was further enhanced by 50 years of armed conflicts and violence, which have forced millions of people to flee areas of conflict, most often located in rural areas, until the end of the conflict in 2016 (Camargo et al., 2020[6]; Ibáñez and Moya, 2006[7]). Between 1986 and 2021, there were over 9.2 million events of forced displacement,[2] 50% of those occurring between 1995 and 2005. In January 2022, the Victims' Unit of the Colombian government had registered 8.2 million single victims of forced displacement.[3]

Box 1.1. Definition of urban and rural areas and territorial organisation in Colombia

Definition of urban and rural areas in Colombia

According to DANE, urban areas (*áreas urbanas*) are areas intended for urban use as defined in the land use plans in districts, municipalities or non-municipalised territories that generally have road infrastructure and primary energy, water and sewage networks, hospitals and schools, amongst other essential public services. Areas with incomplete urbanisation processes can also be included. The departments' capital cities and municipal cores (i.e. areas delimited by the census perimeter, whose limits are established by municipal council agreement and within which the municipality's administrative headquarter is located) are urban areas (DANE, n.d.[8]). Urban areas contrast with rural areas or other municipal areas which are characterised by a dispersed pattern of houses and agricultural uses. These areas do not include a layout or nomenclature of streets, roads or avenues, nor do they generally include public services or other facilities typical of urban areas.

For statistical purposes, the prevailing definition of "urban" and "rural" used by DANE is largely based on the concepts of municipal cores (*cabeceras municipales*) and populated centres and dispersed rural areas (*centros poblados y rural disperso*).

Territorial organisation

Colombia has a two-tier local government structure:

- The upper territorial level is comprised of 32 **departments** (*departamentos*) and the **Capital District of Bogotá** (hereafter Bogotá, D.C.). These territorial units correspond to OECD Territorial Level 2 (TL2) regions, according to the OECD territorial grids (OECD, 2020[9]). These territorial entities enjoy administrative autonomy and are responsible for the planning and promotion of economic and social development within their territory and provision of services as determined by the constitution and Colombia's laws. They also exercise functions of co-ordination and intermediation between municipalities, as well as between the national government and municipalities (DANE, n.d.[8]).
- The lower tier of local governments is made up of 1 102 **municipalities** (*municipios*) as of 2021. Municipalities have political, fiscal and administrative autonomy as defined by the Constitution of 1991 (Article 311) and Colombia's laws (Law 136 of 2 June 1994). They are in charge of providing public services such as electricity, urban transport, cadastre, local planning and municipal police. They are also responsible for the promotion of community participation in their management as well as for the social and cultural improvement of their inhabitants (DANE, n.d.[8]). Eleven of these municipalities are categorised as districts (*distritos*) which are municipalities with particular political, commercial, historical, touristic, cultural, industrial, environmental or border characteristics and importance. These 11 districts are: Barrancabermeja, *Distrito Especial Portuario, Biodiverso, Industrial y Turístico*; Barranquilla, *Distrito Especial, Industrial y Portuario*; Bogotá, *Distrito Capital*; Buenaventura, *Distrito Especial, Industrial y Portuario*; Cali, *Distrito Especial Deportivo, Cultural, Turístico, Empresarial y de Servicios*; Cartagena de Indias, *Distrito Turístico, Histórico y Cultural*; Medellín, *Distrito Especial de Ciencia, Tecnología e Innovación*; Riohacha, *Distrito Especial Turístico y Cultura*; Santa Cruz de Mompox, *Distrito Especial, Turístico, Cultural e Histórico*; Santa Marta, *Distrito Turístico, Cultural e Histórico*; and Tumaco, *Distrito Especial, Industrial, Portuario, Biodiverso y Ecoturístico.*

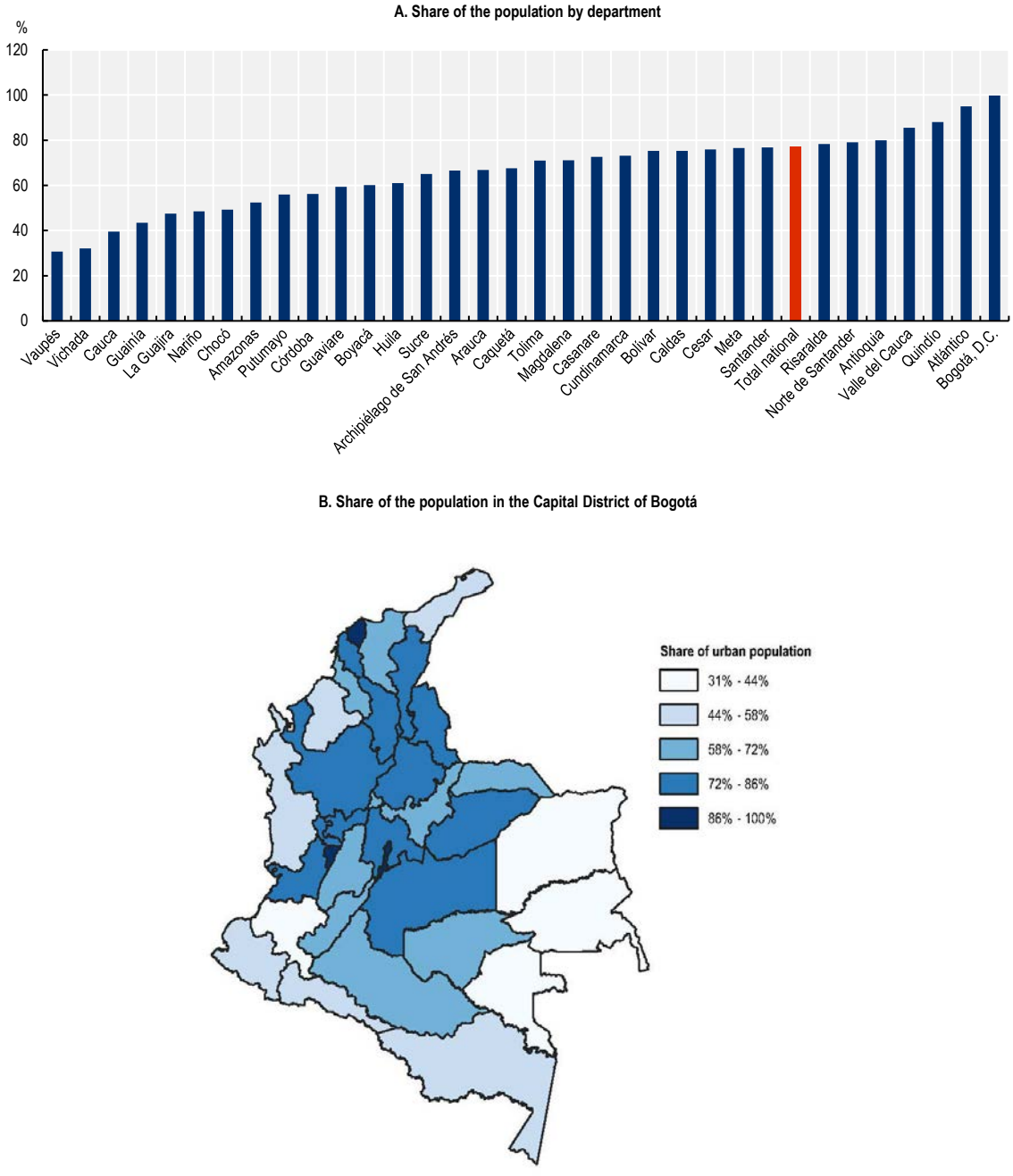
The constitution also recognises 817 Indigenous territories governed by Indigenous communities according to their own customs and by their own representatives. They are home to 1.4 million people.

Source: DANE (n.d.[8]), *Conceptos básicos*, National Administrative Department of Statistics, Bogotá; OECD/UCLG (2016[10]), *Subnational Governments Around the World: Structure and Finance*, https://www.uclg.org/sites/default/files/global_observatory_on_local_finance_0.pdf.

More recently, Colombia has also been the main destination of the Venezuelan exodus, with more than 2.6 million Venezuelan migrants and refugees having settled in Colombian cities in hope of finding jobs and better economic opportunities as of December 2020, according to DANE's Great Integrated Household Survey (*Gran Encuesta Integrada de Hogares*, GEIH) (Gobierno de Colombia, n.d.[11]). While Bogotá, D.C. has the highest number of migrants, many Venezuelan families have also settled in municipalities along the frontier between Colombia and Venezuela. In the frontier municipality of Cúcuta, for example, as a result of massive inflows of Venezuelan households, the population in the municipal core rose by 3.2% between 2017 and 2018 alone, whereas the population in the overall city increased by an average annual rate of 0.9% between 2011 and 2017 (DANE). The contribution of the Venezuelan exodus to population growth in municipalities like Cúcuta could still be underestimated due to under-registration of migrants. With almost 5 million Venezuelans leaving their country since 2016, this massive exodus is one of the

largest displacement crises in the world (Moreno Horta and Rossiasco, 2019[12]), which puts unprecedented pressure on Colombian cities.

Figure 1.2. Share of the population living in urban areas, by department and in the Capital District of Bogotá, 2018

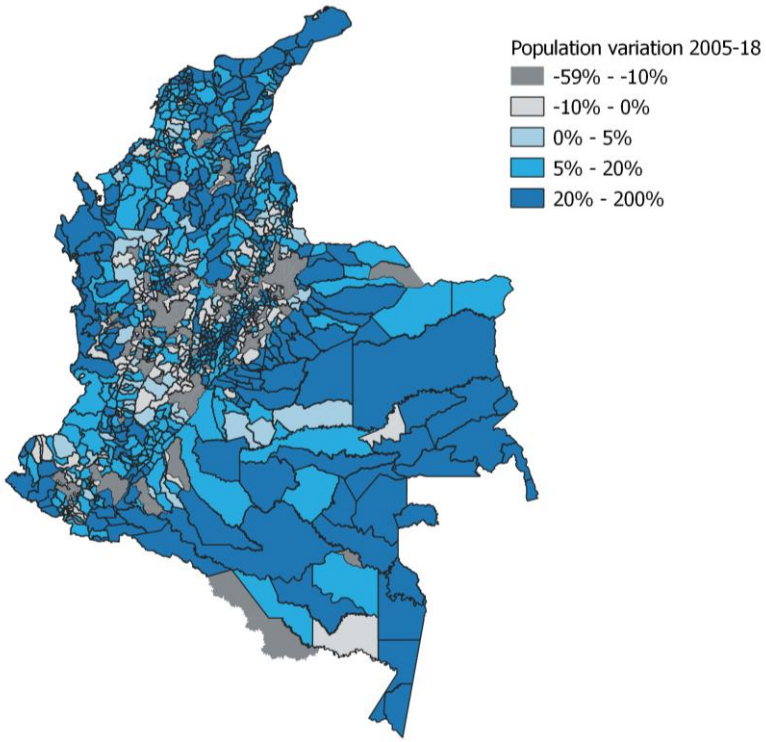


Source: DANE (2018[13]), *Censo Nacional de Población y Vivienda - CNPV – 2018*, www.datos.gov.co/Estad-sticas-Nacionales/Censo-Nacional-de-Poblaci-n-y-Vivienda-CNPV-2018/qzc6-q9qw.

The level of urbanisation varies across Colombian departments. The most urbanised departments are located in the centre, north and west of the country. The department of Atlántico located in northern Colombia bordering the Caribbean Sea is the most urbanised, with 95% of its population living in urban areas. Departments located in the south and east of the country are the least urbanised (the department of Vaupés at the frontier with Brazil has only 29.6% of its population living in urban areas).

Colombia has a polycentric urban system, i.e. its population is concentrated in several major cities, in contrast with most Latin American countries which usually have a much higher level of urban concentration (apart from Brazil which has the lowest urban primacy index among the larger Latin American countries, i.e. the lowest ratio of largest city population to the total urban population) (OECD, 2014[14]). Almost 40% of the urban population (13.2 million people) live in the municipal cores of 5 municipalities (Bogotá, D.C., 7.4 million; Medellín, 2.4 million; Cali, 2.2 million; Barranquilla, 1.2 million; and Cartagena, 1.0 million). By contrast, less than 15% of Colombia's urban population live in the 942 municipalities that count fewer than 20 000 inhabitants in their urban cores. In general, the larger the municipality in 2005, the greater its population growth since 2005. However, the population in the five most populated cities has increased more slowly than in the country overall. Population in Barranquilla, Bogotá, D.C., Cali, Cartagena and Medellín taken together has grown by 11.5% since 2005, while the overall urban population has increased by 15.7% in Colombia. The population increased in the majority of municipalities since 2005 (Figure 1.3). The population decreased in about 360 municipalities but these are mostly very small municipalities with fewer than 10 000 inhabitants (220 of these 360 municipalities).

Figure 1.3. Change in population in Colombian municipalities between 2005 and 2018



Source: DANE (2018[13]), *Censo Nacional de Población y Vivienda - CNPV – 2018*, www.datos.gov.co/Estad-sticas-Nacionales/Censo-Nacional-de-Poblaci-n-y-Vivienda-CNPV-2018/qzc6-q9qw.

Colombia's urban population is concentrated in functional urban areas (FUAs). FUAs in Colombia have been defined by the Colombian System of Cities (*Sistema de Ciudades*) – a classification of cities defined by the National Planning Department (*Departamento Nacional de Planeación*, DNP) to take better advantage of urbanisation and its agglomeration benefits and to reduce regional equity and poverty gaps (Gobierno de Colombia, 2014[15]) (see Box 1.2 for more details on the definition of FUAs by Colombia's System of Cities and by the OECD). The System of Cities identifies 18 FUAs, which include 113 municipalities, and 38 single-municipality functional cities. These 56 functional areas and single-municipality functional cities are mostly located in the west and centre of Colombia and account for 66% of the total national population (around 32 million people in 2018) and 80% of Colombia's urban population (around 29 million people).

The OECD, together with the European Commission (EC), has also defined FUAs in Colombia following a methodology that allows comparison between countries. This methodology is slightly different from the one used by Colombia's System of Cities (the main difference consists in the commute threshold considered[4] – i.e. 10% for the Colombian methodology and 15% for the EU/OECD methodology, see Box 1.2 and Annex 1.A for more details) and identifies 53 FUAs in Colombia made up of 106 municipalities, distributed mainly in the north, west and centre of the country. Forty-five of these 53 FUAs do not have a commuting zone (i.e. 84% of total FUAs) – a high share of FUAs compared with other OECD countries (27% on average). Consequently, the share of the Colombian FUA population living in commuting zones is only 2.6%, much less than the OECD average of 23.9% (Figure 1.4), which could suggest potential barriers to agglomeration economies such as inadequate transport infrastructure (see sections below for more details on agglomeration economies and transport infrastructure). The functional urban system in Colombia is also characterised by the high share of small FUAs with fewer than 200 000 inhabitants (60%), compared with other OECD countries where small urban areas account for 42% of FUAs (Figure 1.5).

Box 1.2. Definitions of Colombian FUAs according to Colombia's System of Cities and the EU/OECD

Definition of Colombian FUAs by Colombia's System of Cities

Based on recent trends in Colombia's urbanisation (regarding population growth, the location of the main economic activities and the provision of housing and other services in municipalities), the Mission of the System of Cities (*Misión del Sistema de Ciudades*), created by the DNP and made up of a team of national and international experts, developed a methodology that defines a new scale of analysis that goes beyond the municipal administrative borders and identifies FUAs. It considers sets of cities that share functional, economic, social, cultural and environmental relationships, that interact with each other, in order to make the most of the benefits of urbanisation, according to several criteria (see Annex 1.A for more details on the methodology) (Gobierno de Colombia, 2014[15]).

Following this methodology, Colombia's System of Cities identifies 18 **functional cities** (i.e. groups of municipalities between which there are functional relationships in terms of economic activities and supply and demand of services, usually concentrated around a main city) of which 14 revolve around capital cities and which include 113 municipalities, and 38 **single-municipality functional cities** (i.e. urban centres whose functional area remains within the administrative limits of the municipality). Colombia's System of Cities also identifies ten urban-regional axes and corridors (Bogotá, D.C., EjeCaribe, Medellín-Rionegro, Cali-Buenaventura, Bucaramanga-Barrancabermeja, Cúcuta, Montería-Sincelejo, Eje Cafetero, Tunja-Duitama-Sogamoso and Apartadó-Turbo) (Gobierno de Colombia, 2014[15]). The remaining 951 Colombian municipalities are considered mostly rural.

Colombian law (1625/2013) also establishes the principles and functions of metropolitan areas, which are administrative entities formed by two or more municipalities, which have high economic, social and physical relationships and are integrated around a core municipality (Sanchez-Serra, 2016[16]). The six metropolitan areas (Barranquilla, Bucaramanga, Centro Occidente, Cúcuta, Valle de Aburrá and Valledupar) have legal status as well as administrative and fiscal autonomy, and do not necessarily match the FUAs defined by the *Misión del Sistema de Ciudades*.[5]

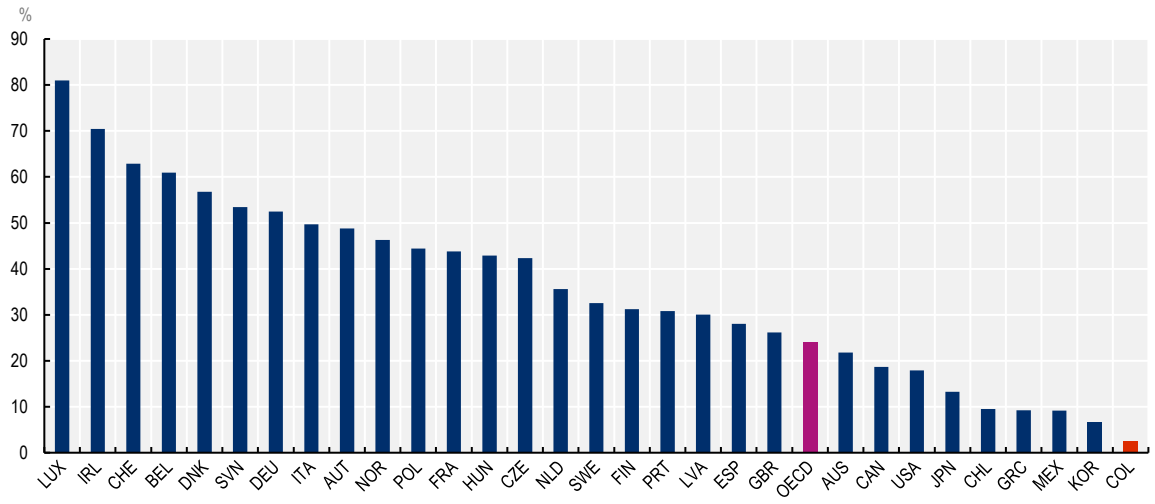
Definition of Colombian FUAs by the EU/OECD

The OECD and the EC have jointly developed a methodology to define FUAs in a consistent way across countries (Dijkstra, Poelman and Veneri, 2019[17]). Using population density and travel-to-work flows as key information, this methodology is slightly different from the one used by Colombia's System of Cities, the main difference being the commuting threshold taken into account to identify the FUAs (see Annex 1.A for more details on the methodology). The OECD identifies 53 FUAs in Colombia made up of 106 municipalities, distributed mainly in the west and centre of the country (see Annex 1.A for the comparison between the FUAs as identified by the OECD and the ones identified by Colombia's System of Cities). It does not distinguish between multi- and single-municipality functional cities.

Among these FUAs, the OECD defines metropolitan areas as FUAs with 500 000 or more inhabitants, therefore differing from Colombia's legally instituted metropolitan areas as seen above. In Colombia, there are 20 metropolitan areas according to the OECD definition, including 4 large metropolitan areas with more than 1.5 million inhabitants (Barranquilla, Bogotá, D.C., Cali and Medellín).

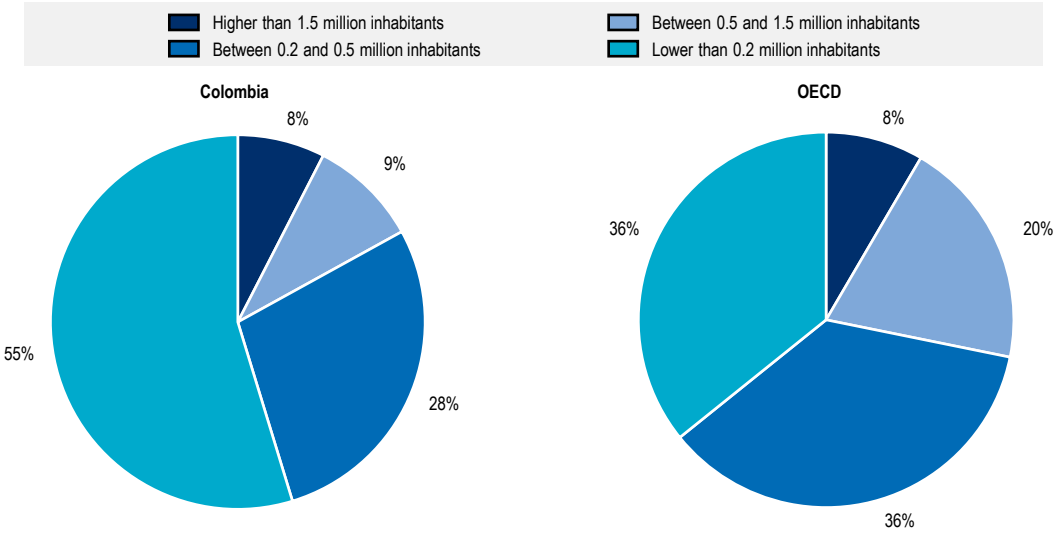
Source: Gobierno de Colombia (2014[15]), *Política Nacional para Consolidar el Sistema de Ciudades en Colombia, CONPES 3819*, https://s3.pagegear.co/38/69/2017/conpes_3819_sistema_de_ciudades.pdf; Sanchez-Serra, D. (2016[16]) (2016), "Functional Urban Areas in Colombia", https://dx.doi.org/10.1787/5jln4pn1zqq5-en; Dijkstra, L., H. Poelman and P. Veneri (2019[17]), "The EU-OECD definition of a functional urban area", https://dx.doi.org/10.1787/d58cb34d-en.

Figure 1.4. Share of the population in the commuting zone over total population in the FUA



Source: OECD (2020[18]), *Country Compilation of FUAs*, https://www.oecd.org/cfe/regionaldevelopment/Appendix_all_fuas.pdf.

Figure 1.5. Percentage of FUAs by population size, Colombia and OECD

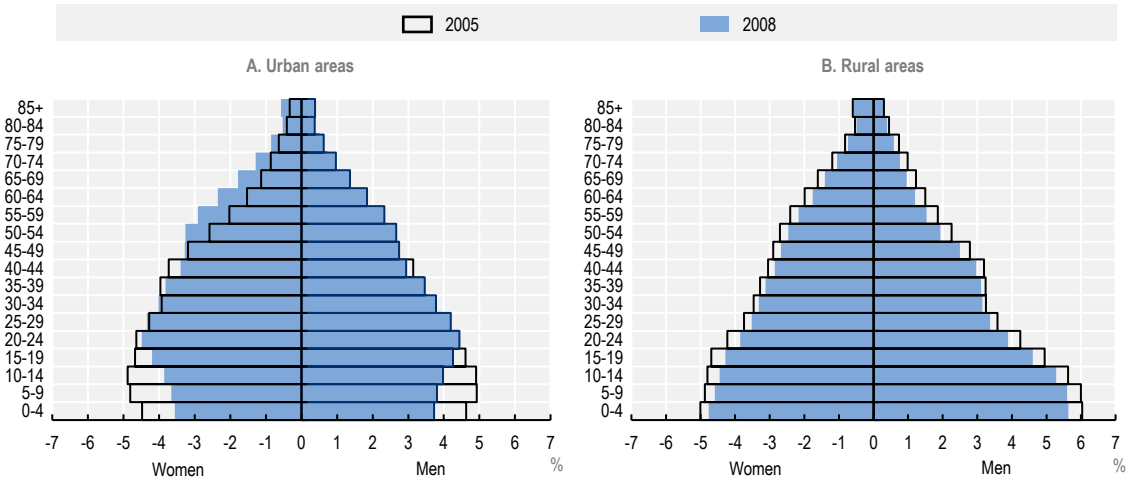


Source: OECD (2020[18]), *Country Compilation of FUAs*, https://www.oecd.org/cfe/regionaldevelopment/Appendix_all_fuas.pdf.

A young but ageing urban population

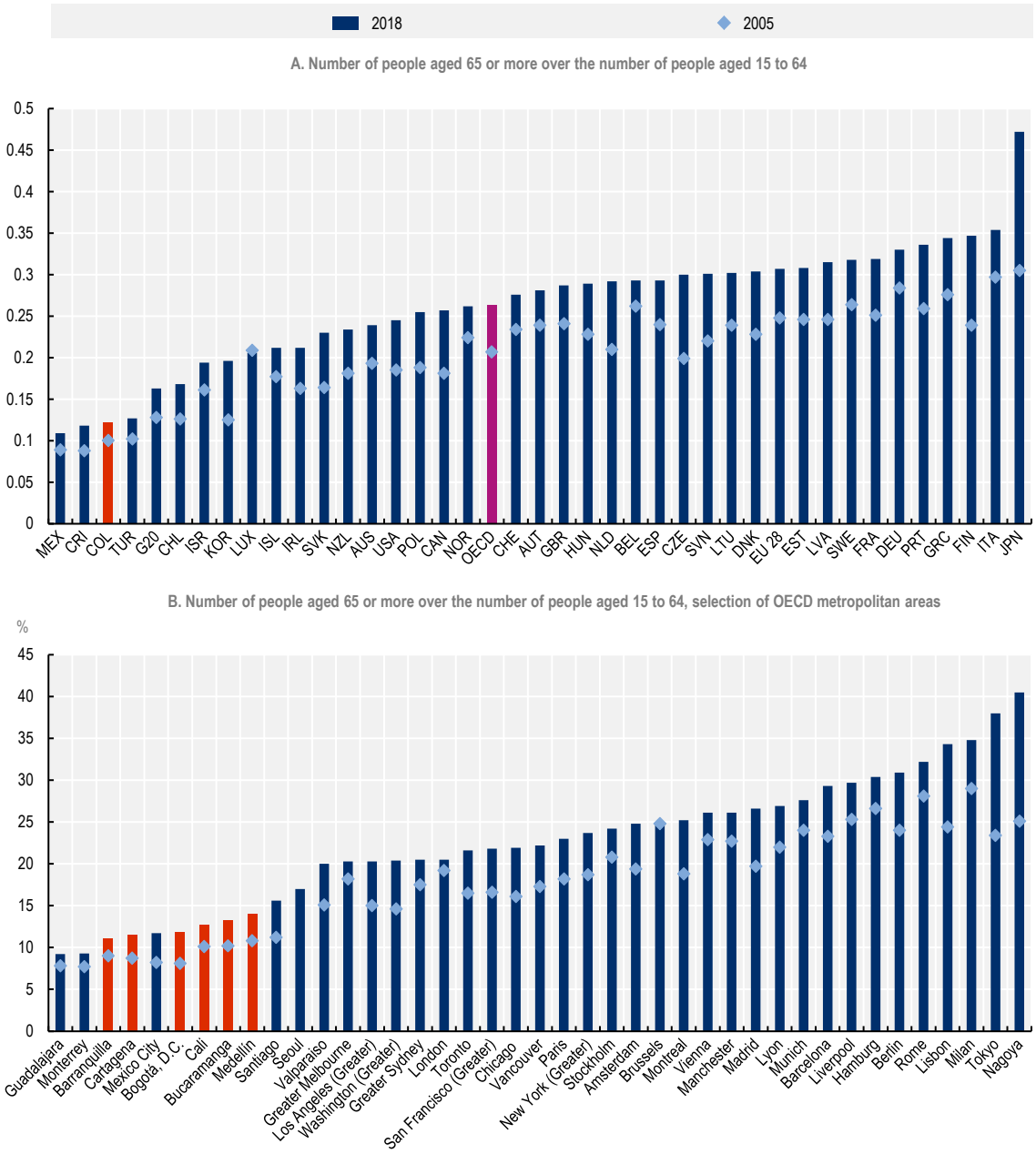
Colombia's population is relatively young compared with other OECD countries. The old-age dependency ratio, i.e. the ratio of the number of people 65 years old or more over the number of people 15 to 64 years old, was 0.122 in Colombia in 2018 – one of the lowest among OECD countries (Figure 1.7). The population in Colombia's metropolitan areas as defined by the OECD (i.e. FUAs with 500 000 or more inhabitants) is also young compared with other OECD metropolitan areas (Figure 1.7). However, the total fertility rate is expected to decline from 1.95 in 2018 to 1.57 in 2050 – below the replacement level of 2.1 children born per woman. In parallel, life expectancy is expected to continue to increase from 76.5 years in 2018 to 79.2 in 2050. The combination of these trends will increase the old-age dependency ratio. The population in Colombian urban areas has been ageing more rapidly than in rural areas. Between 2005 and 2018, the base of the age pyramid in urban areas narrowed while the top widened, due to lower fertility rates (1.73 in 2018, compared with 2.7 in rural areas) and higher life expectancy (77.2 in 2018, compared with 74.6 in rural areas) (Figure 1.6).

Figure 1.6. Age pyramids in urban and rural areas, Colombia, 2005 and 2018



Source: DANE (2018[13]), *Censo Nacional de Población y Vivienda - CNPV – 2018*, www.datos.gov.co/Estad-sticas-Nacionales/Censo-Nacional-de-Poblaci-n-y-Vivienda-CNPV-2018/qzc6-q9qw.

Figure 1.7. Old-age dependency ratio in OECD countries and metropolitan areas, 2005 and 2018



Source: OECD.stat (n.d.[19]), *Historical Population (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=HISTPOP; OECD.stat (n.d.[20]), *Metropolitan Areas (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=CITIES.

Densification and urban expansion

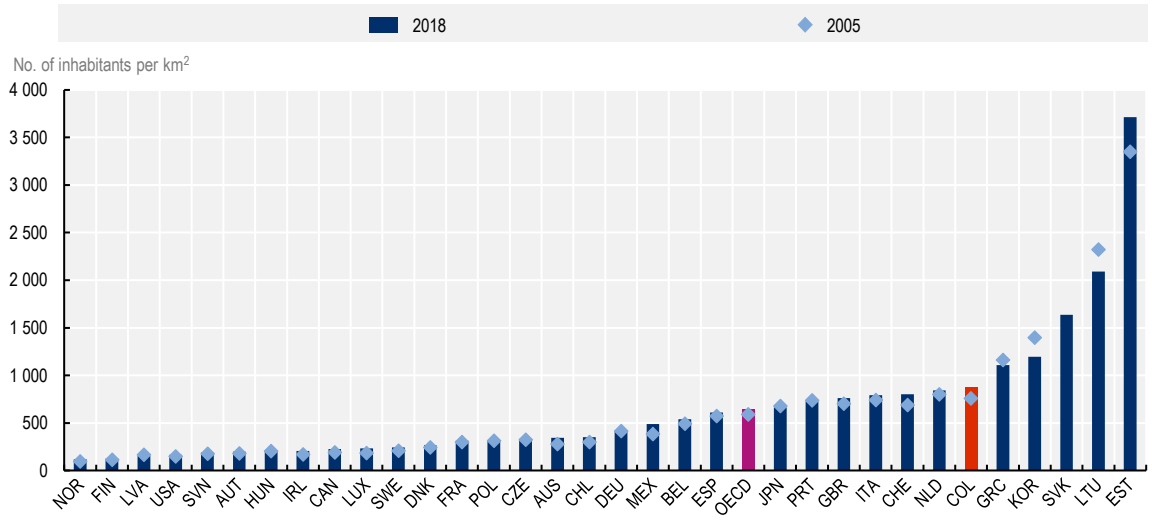
There are two main manifestations of urban growth – through densification and through urban expansion. Densification means that the urban population increases through the rise in the density within the original boundary of the city and does not require any additional urban land. Urban expansion leads to the building of new neighbourhoods outside the core area of the city.

Colombia has urbanised through both densification and urban expansion, and its cities have a high population density. The urban core areas (*cabeceras municipales*) of Bogotá, D.C., Medellín and Bucaramanga, with respectively 17 755, 19 691 and 10 316 inhabitants per km^2 in 2018,[6] rank among the world's most densely populated cities. Even when looking at the whole metropolitan areas, and with 883 inhabitants per km^2 on average, Colombian metropolitan areas as defined by the OECD (i.e. FUAs with more than 500 000 inhabitants) are amongst the most densely populated among OECD countries and are more so than the OECD on average (644 inhabitants per km^2) (Figure 1.8). The metropolitan areas of Medellín, Bogotá, D.C., Cali and Barranquilla in particular, with 4 022, 3 465, 1 700 and 1 663 inhabitants per km^2 respectively, are among the 40 most densely populated metropolitan areas among the 668 metropolitan areas of the OECD for which data is available (OECD.stat, n.d.[20]).

Density has increased in Colombian urban core areas since 2005. The ratio of the overall population over the total area of urban areas rose by 25.8% since 2005, from around 8 944 inhabitants per km^2 in 2005 according to population projections to around 11 259 inhabitants per km^2 today. Density has decreased only in around 140 municipalities since 2005 but the large majority of them (122) have fewer than 10 000 inhabitants. The densest departments in Colombia are located in the centre and north of the country, while the departments in the south and east are the least dense (Figure 1.9).

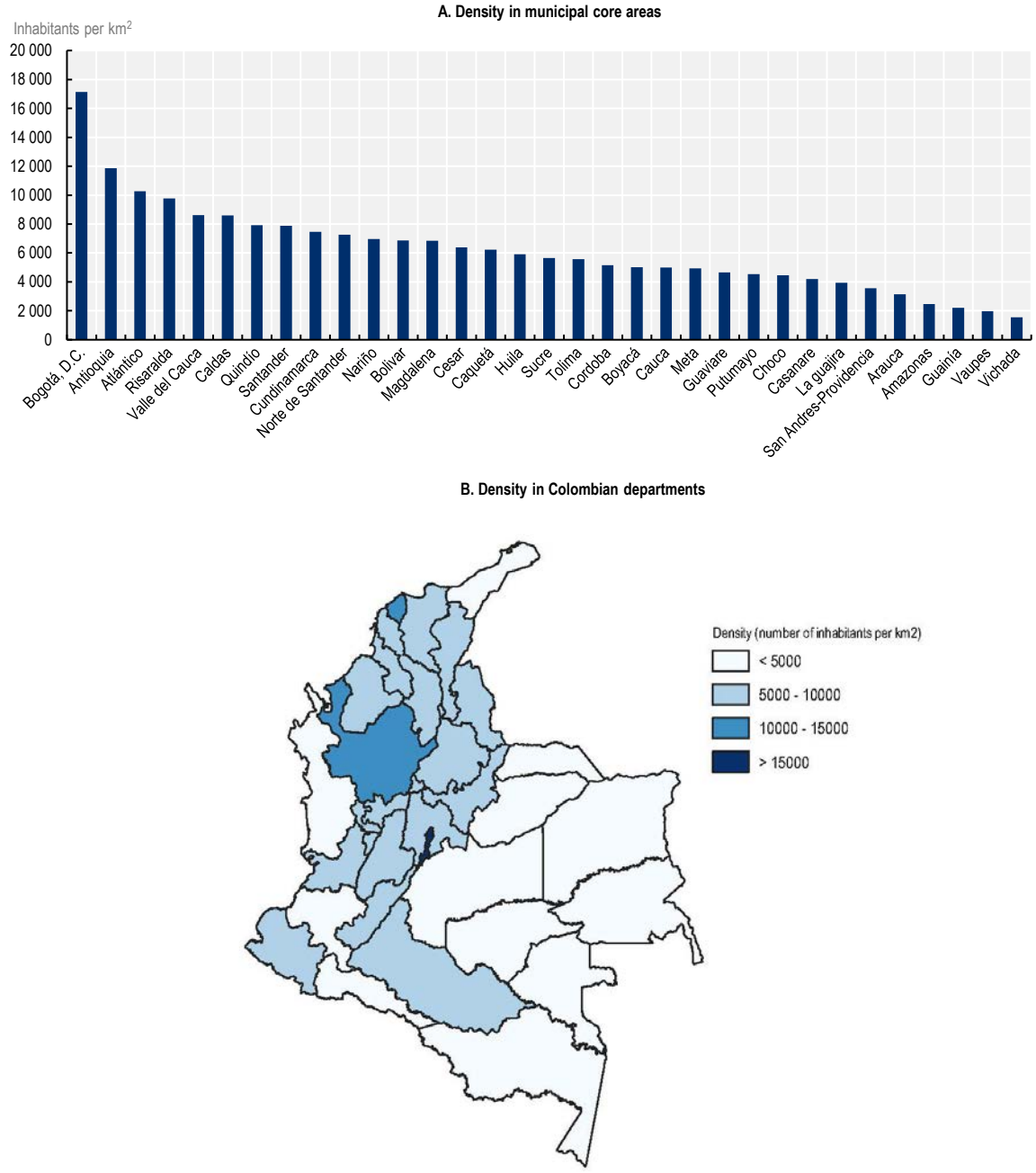
While density has increased in Colombian urban core areas, urban population growth in Colombia has also led to some physical expansion of cities. Colombian cities have grown physically more than demographically, indicating a phenomenon of urban sprawl. Between 1990 and 2015, the urban footprint in Colombian cities grew by 2.50% while the population by 2.28%. In the largest cities, the difference between the increase in urban footprint (2.13%) and population (1.87%) is more marked in the same period (Castillo Varella, 2017[21]). This has significant environmental, economic and social consequences, including higher emissions from road transport (as sprawling cities are characterised by larger distances between homes and jobs, more likely to be travelled by car) and higher costs of providing key public services (such as water, electricity and public transport, which are more expensive to provide in sprawling rather than compact areas).

Figure 1.8. Density in metropolitan areas, selected OECD countries



Note: Unweighted average of density in OECD metropolitan areas (FUAs with more than 500 000 inhabitants).
Source: OECD.stat (n.d.[20]), *Metropolitan Areas (database)*, OECD, Paris, https://stats.oecd.org/Index.aspx?DataSetCode=CITIES.

Figure 1.9. Density in municipal core areas and Colombian departments, 2018



Source: DANE (n.d.[22]), *DANE Geoportal*, https://dane.maps.arcgis.com/home/index.html.

Informal settlements

The fast urbanisation process in Colombia has been characterised by the development of informal settlements, mainly outside of municipal core areas but not only (many informal settlements are also located in urban centres), which are primarily inhabited by vulnerable groups of population. Cities were often unequipped to provide enough quality housing to the flow of low-income households displaced from rural to urban areas by conflict and violence, while informal settlements often became the only option for

many migrants. According to Colombian legislation, an informal settlement is an illegal human settlement, made up of one or more houses, either consolidated or precarious,[7] and located on public and/or private land without having the approval of the owner and without any type of legality or urban planning (Law 2044/2020). Precarious informal settlements are characterised by being partially or totally affected by: i) incomplete and insufficient integration to the formal urban structure and its support networks; ii) the possible existence of mitigable risk factors; iii) an urban environment with a lack of roads, public space or other urban infrastructure; iv) poor quality housing and with inadequate construction structures (structural vulnerability); v) housing with a lack of adequate infrastructure of public services and basic social services; vi) conditions of poverty, social exclusion or inhabited by people who are victims of forced displacement.

Across Colombia, there are 1 517 reported informal settlements and more than 60% of them are concentrated in 6 cities: Medellín accounts for 17.0% of total informal settlements in Colombia, followed by Villavicencio (11.8%), Neiva (8.9%), Bucaramanga (8.8%), Bogotá, D.C. (8.7%) and Cali (7.4%). While the share of households living in informal settlements has been decreasing since 2010 (Table 1.1), informal settlements represent around a quarter of the built areas of Colombian cities and are home to almost five million people (IDMC, 2020[23]).

Table 1.1. Urban households living in informal settlements

Year	Number of households living in informal settlements	Total number of households	Percentage of households living in informal settlements
2003	876 174	7 539 924	11.62
2004	689 297	7 753 388	8.89
2005	702 635	7 980 816	8.80
2007	1 302 034	8 729 053	14.92
2008	1 271 759	8 943 714	14.22
2009	1 436 371	9 224 485	15.57
2010	1 487 230	9 481 835	15.69
2011	1 422 185	9 694 643	14.67
2012	1 387 950	9 996 144	13.88
2013	1 354 708	10 283 314	13.17
2014	1 376 685	10 631 027	12.95
2015	1 317 633	10 522 475	12.20
2016	1 227 193	10 990 379	11.17

Source: DANE (n.d.[24]), *Gran Encuesta Integrada de Hogares - GEIH,* 2003-21, https://dane.maps.arcgis.com/home/index.html; Ministry of Housing, City and Territory (MVCT) and Ministry of Interior–UARIV 2018.

Informal settlements are often characterised by higher population densities. In Bogotá, D.C., for example, the highest densities are found in the urban periphery where informal settlements are located (Guzman and Bocarejo, 2017[25]). Informal settlements offer poor urban living conditions and pose many challenges, including a lack of access to basic services and a lack of secure land tenure, which can also exclude communities from political and public participation. Households who live in informal settlements are also more likely to have limited access to employment opportunities, education and social and health services.

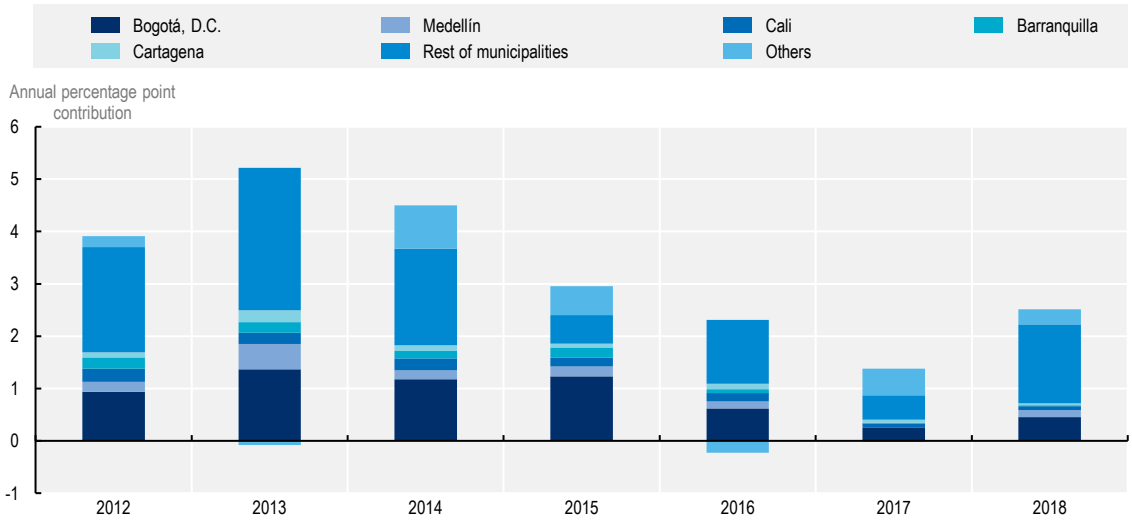
Economic performance of Colombian cities

Colombian cities are the main engines of economic growth and hubs of employment

Urban areas are the economic engine of Colombia, accounting for about half of the national gross domestic product (GDP) growth over the past 40 years and for 85% of the country's total GDP today. Economic

activity is highly concentrated in a few municipalities. Half of Colombia's real GDP is produced in 23 municipalities and almost 40% in only 5 cities. Bogotá, D.C. accounts for 22.9% of Colombia's total GDP, while Medellín comes next with 5.6%, then Cali with 4.1%, Barranquilla with 2.6% and Cartagena with 2.1% of Colombia's total GDP in 2018. Annual GDP growth in these 5 municipalities made up 63% of the total annual GDP growth in Colombia in 2016. However, this contribution to annual economic growth fell to 28.4% in 2017 and 28.5% in 2018 (Figure 1.10). In line with the concentration of Colombia's GDP in just a small number of municipalities, half of Colombian companies are located in only 5 cities: in Bogotá, D.C. (29.4% of all companies in 2018), Medellín (8.7%), Cali (5.9%), Barranquilla (3.2%) and Bucaramanga (2.8%).

Figure 1.10. Contribution of municipalities to Colombia's real GDP growth, 2012-18



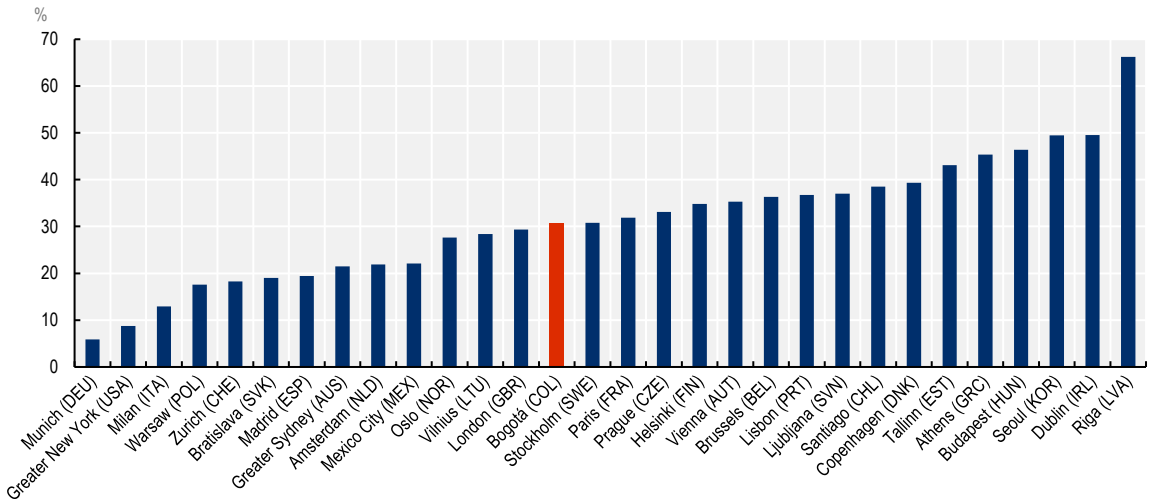
Source: Authors' calculations based on DANE data provided to the OECD.

While the contribution of the capital Bogotá, D.C. to Colombia's total GDP is high, Colombia's economy remains less concentrated than many other OECD economies. The metropolitan area of Bogotá, D.C. (according to the OECD definition) accounts for a lower share of national GDP (30.6%) than other OECD metropolitan areas such as the metropolitan area of Santiago in Chile (38.6% of Chile's GDP) or the metropolitan area of Dublin (half of Ireland's GDP) (Figure 1.11).

The labour force participation rate, i.e. the ratio between the economically active population and the working-age population, in Colombian urban areas was 62.6% in July-September 2021, up by 2.7 percentage points compared to 2020 (59.9%). This is 1.7 percentage points more than the national participation rate (60.9%) and 7.5 percentage points more than in dispersed rural and populated centres (55.1%). The employment rate was higher in urban areas (53.8%) than the national average (53.0%) and in dispersed rural and populated centres (50.5%). The unemployment rate is also higher in urban areas (14.1%) than the national average (12.9%) and dispersed rural and populated centres (8.2%) (Figure 1.12). In July-September 2021, the unemployment rate was higher than the national average in 19 out of the 23 capital cities and metropolitan areas, with the highest unemployment rate observed in Florencia at 19.6% (Figure 1.13).

There is a significant gap between men and women in the labour market. While the participation rate in the 13 capital cities and metropolitan areas was 73.9% for men in September 2021, it was only 55.4% for women. The unemployment rate was 11.1% for men in the 13 capital cities and metropolitan areas, compared with 15.3% for women (DANE, 2021[26]).

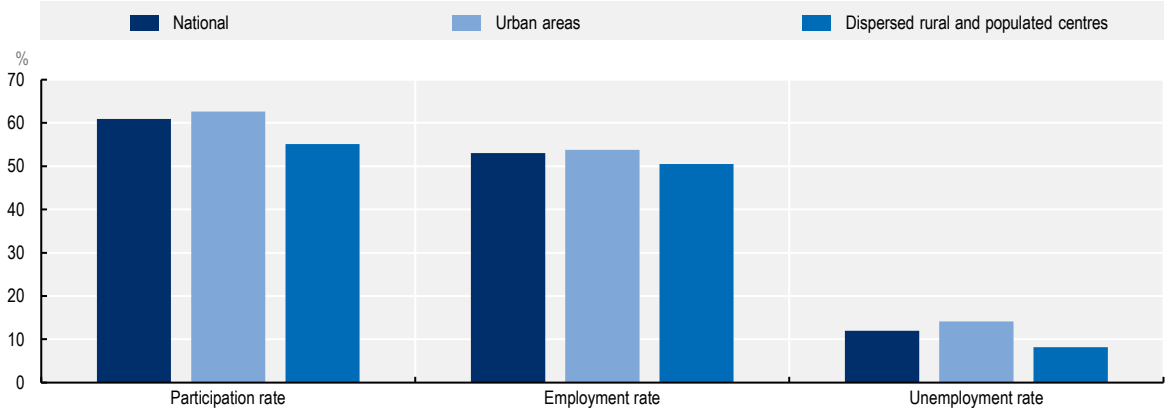
Figure 1.11. Contribution of OECD countries' main metropolitan area to national GDP, 2018



Note: GDP (constant prices, constant purchasing power parity [PPP], base year 2015) of the metropolitan area (FUA with more than 500 000 inhabitants) with the highest GDP in the country over total national GDP (constant prices, constant PPP, base year 2015).
Source: Authors' calculations based on OECD.stat (n.d.[20]), *Metropolitan Areas (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=CITIES.

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Figure 1.12. Participation rate, employment rate and unemployment rate, July-September 2021

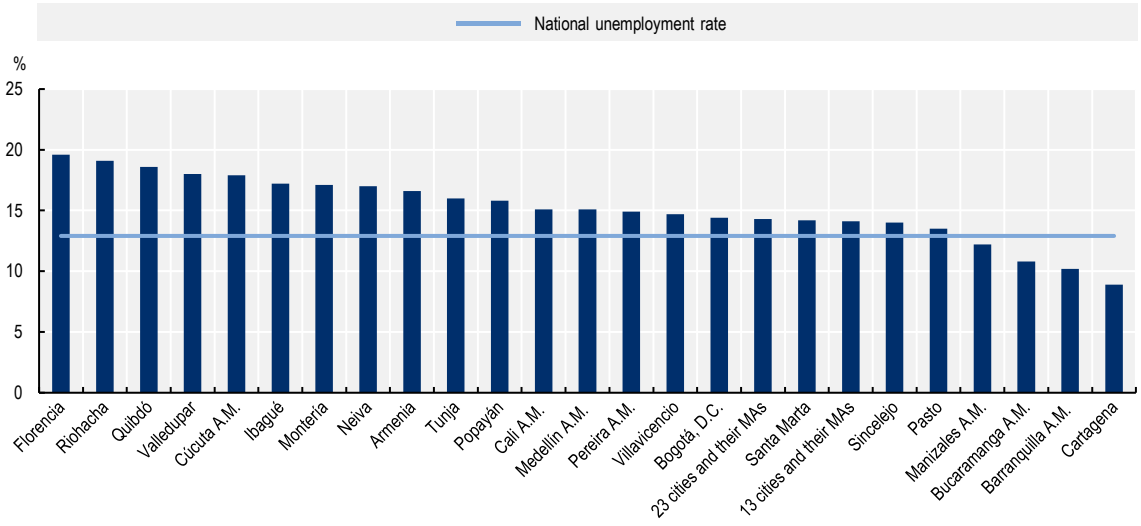


Note: Data is for July-September 2021, moving quarter.
Source: DANE (2021[26]), *Principales indicatores del mercado laboral September 2021*, National Administrative Department of Statistics, Bogotá.

The large majority of formal and informal employed people (16.8 million out of 21.5 million people employed in December 2021, i.e. 78.2%) live in urban areas (*cabeceras municipales*) (Gobierno de Colombia, n.d.[11]). Employment is concentrated in a few municipalities where most of the Colombian population lives. Almost half of the employed population (11.4 million) are located in the 13 departments' capital cities and metropolitan areas (*ciudades y áreas metropolitanas*).[8] In urban areas, sectors that

contribute the most to employment are: trade and repair of vehicles (22.4% of employment in 13 capital cities and metropolitan areas and 22.5% in *cabeceras*); public administration defence (13.8% in 13 capital cities and metropolitan areas and 13.6% in *cabeceras*); and manufacturing (12.5% in 13 cities and metropolitan areas and 11.7% in *cabeceras*). By contrast, in dispersed rural and populated centres, agriculture, livestock, forestry, fishing and hunting accounted for more than 60% of occupied jobs in July 2021.

Figure 1.13. Unemployment rate in 23 departments' capital cities and metropolitan areas, July-September 2021



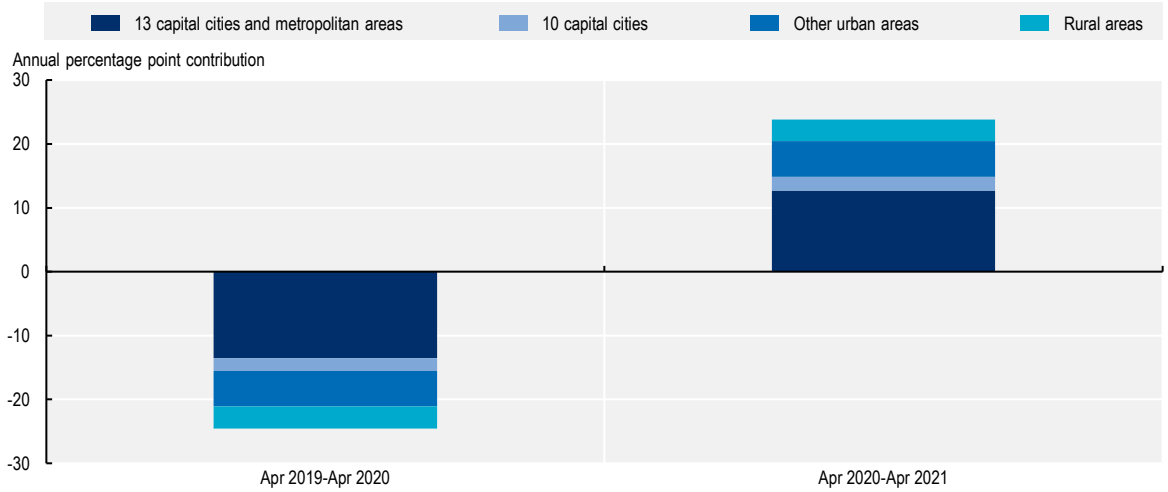
Note: MA – Metropolitan area, *área metropolitana* (A.M.).
Source: DANE (n.d.[27]), *Desempleo*, https://www.dane.gov.co/index.php/lista-de-resultados-de-busqueda?searchword=desempleo&searchphrase=all.

Urban areas in Colombia were the hardest hit by the economic crisis linked to the COVID-19 pandemic. The number of employed people hit its lowest level in April 2020, falling to 16.5 million people, compared with 21.9 million people a year earlier. Urban areas accounted for 86% of the 5.4 million jobs lost in Colombia between April 2019 and April 2020 (of which 4 million were lost between March and April 2020) and employment fell by 4.6% in urban areas, while it fell by only 0.8% outside urban areas. On the other hand, urban areas have also been the main driver of job creation since April 2020. In April 2021, there were 3.4 million more people employed in urban areas than in April 2020, while the increase in Colombia overall was 3.9 million (i.e. 87% of jobs created in urban areas) (Figure 1.14). Trade and repair of vehicles, manufacturing and construction were the three sectors that contributed the most to the increase in employment in urban areas between February-April 2020 and February-April 2021.

Across OECD countries, the ability to telework has allowed firms and workers to better weather the current COVID-19 crisis and offers a source of resilience against potential future shocks. However, people and places are unequal regarding teleworking capacity. Across the OECD, the possibility of generating economic activity remotely tends to be stronger in cities than in less densely populated areas (OECD, 2020[28]). In Colombia, the share of jobs that are amenable to remote working is low compared with other OECD countries. Even Santander, which is the department in Colombia with the highest share of jobs amenable to teleworking (30%), fares worse than the average of most OECD countries (except the Slovak Republic and Turkey) (Figure 1.15). As the possibility of remote working correlates strongly with the skill requirement of the occupation (i.e. the share of jobs amenable to remote working increases with the share of workers with tertiary education (OECD, 2020[28])), low rates of potential remote working in regions in

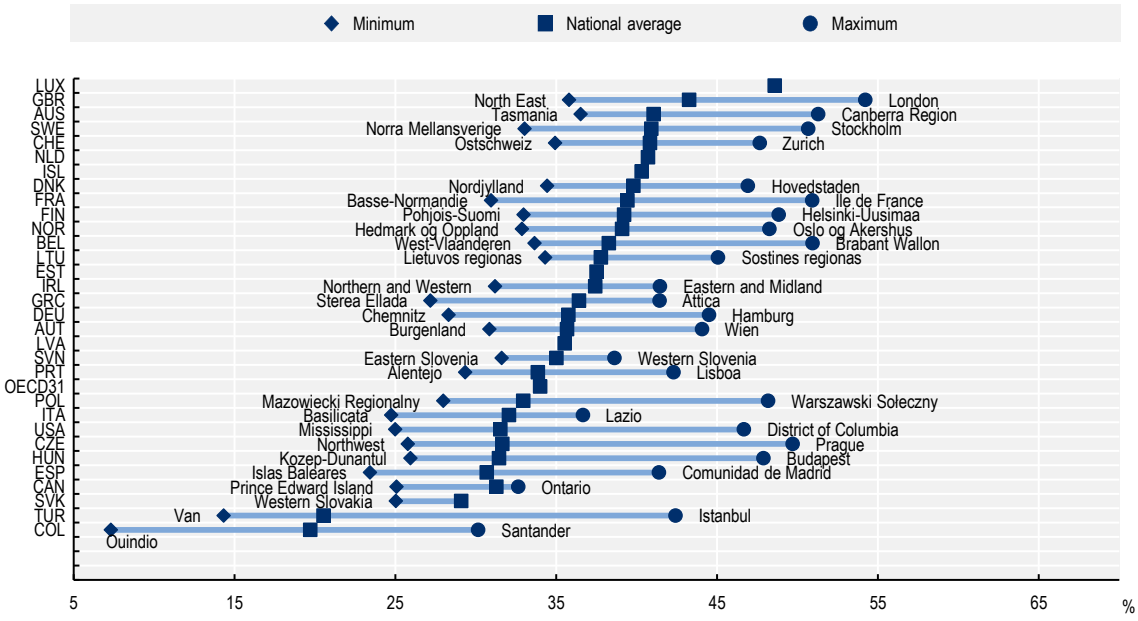
Colombia may reflect the low level of skills of the local workforce. These low rates could also reflect the industrial composition of the local economies in Colombia and the prevalence of economic sectors where teleworking is less of an option. Furthermore, individuals' capacity to telework may be hindered by the lack of information technology (IT) equipment or access to a broadband Internet connection, family reasons such as having to take care of children or elderly relatives, or by the lack of space to work from home (OECD, 2020[28]).

Figure 1.14. Contribution of capital cities, metropolitan areas and other urban areas to annual employment changes, April 2019-April 2020 and April 2020-April 2021



Note: The 13 capital cities and metropolitan areas are: Barranquilla A.M., Bogotá, D.C., Bucaramanga A.M., Cali A.M., Cartagena, Cúcuta A.M., Ibagué, Manizales A.M., Medellín A.M., Montería, Pereira A.M., Pasto and Villavicencio. The ten capital cities are: Armenia, Florencia, Neiva, Popayán, Quibdó, Riohacha, Santa Marta, Sincelejo, Tunja and Valledupar. Other urban areas are other *cabeceras municipales*. Rural areas are *centros poblados y rural disperse*.
Source: Authors' calculations based on DANE data provided to the OECD.

Figure 1.15. Share of jobs amenable to teleworking, TL2 regions, selected OECD countries, 2018



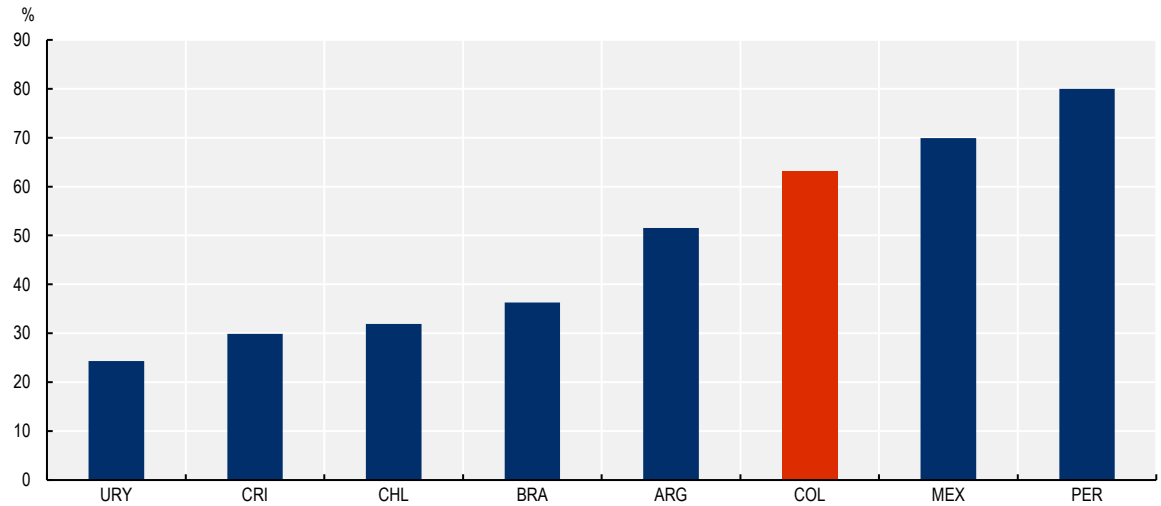
Source: OECD (2020[29]), *Job Creation and Local Economic Development 2020: Rebuilding Better*, https://dx.doi.org/10.1787/b02b2f39-en.

The informal economy is widespread in Colombian cities

Colombia's labour market has a high level of informality. Even though labour informality decreased in recent years, especially since the 2012 tax reform that cut social security contributions and reduced non-wage labour costs, nearly 60% of all workers still work in the informal sector – a high share compared to other countries in Latin America (Figure 1.16) (OECD, 2019[30]). Between October and December 2021, in 23 of the main cities and their metropolitan areas, the level of informality reached 48% (Gobierno de Colombia, n.d.[11]). The high level of labour informality in Colombia has many causes. The minimum wage, at 86% of the median wage, is one of the highest in OECD countries and has discouraged employers from hiring formal workers, resulting in many low-skilled or young workers ending up with informal employment or being self-employed without any protection (OECD, 2019[30]). Despite the 2012 tax reform, non-wage labour costs remain high and represent almost 50% of the wages, also deterring employers from hiring formal workers. Furthermore, costly and complex business regulations hamper the formalisation of firms and jobs.

Low levels of skills among the Colombian population also explain the high level of informal employment. Colombia's population is among the least skilled in OECD countries, as only 23.8% of the population aged between 25 and 64 years old have attained tertiary education (OECD, 2020[31]). In May-July 2020, in 23 capital cities and their metropolitan areas, 58% of informal workers had a secondary level of education and 19% had attained tertiary education, whereas 58% of formal workers had a tertiary degree (DANE, n.d.[24]). According to OECD estimates, completing secondary education decreases the probability of working in the informal sector by 15%, while completing tertiary education cuts the probability by 80% (OECD, 2019[30]). Finally, migration from Venezuela in recent years has also put more pressure on the Colombian labour market, with Venezuelan workers finding employment mostly in the informal sector. While Venezuelan migrants participate more in the economy than Colombian people (74% of them are economically active vs. 63% of Colombian people), 67% of employed Venezuelan migrants have a job in the informal sector (compared with around 60% of all workers as discussed above) (IMF, 2020[32]).

Figure 1.16. Share of workers in informal sector, 2018



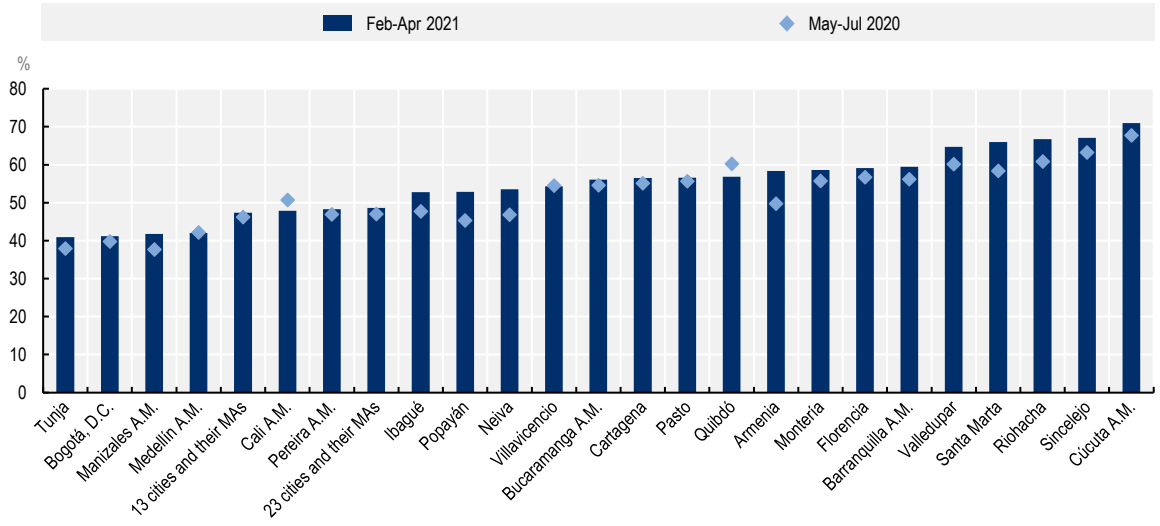
Source: OECD (2019[30]), *OECD Economic Surveys: Colombia 2019*, https://dx.doi.org/10.1787/e4c64889-en.

Colombian cities concentrate most of the workers in the informal sector.[9] The share of workers in the informal sector in the 13 capital cities and metropolitan areas was 48.1% in July-September 2021, while it was 49.3% in the 23 capital cities and metropolitan areas, a slight increase from 47.6% and 48.6%

respectively in July-September 2020 (DANE, 2021[26]). The share of informal labour varies across urban areas. In the metropolitan area of Cúcuta, there are as many as 71.0% of workers employed in the informal sector, while the share is much lower in Bogotá, D.C., where 41.2% of workers are employed in the informal sector (DANE, 2021[33]) (Figure 1.17).

Informality has many detrimental effects, including on: productivity (see section below); social outcomes, as it reduces job quality and access to social services, labour protection and pensions; and on income inequalities – the hourly wage penalty, i.e. by how much less informal workers earn compared to formal ones, is as high as 49% according to OECD calculations (OECD, 2019[30]). Informality also contributes to reducing Colombia's tax base and therefore the ability of governments to provide the adequate quantity and quality of public services.

Figure 1.17. Share of workers in informal sector in the 23 capital cities and their metropolitan areas, May-July 2020 and February-April 2021



Note: MA – Metropolitan area, *área metropolitana* (A.M.).
Source: DANE (n.d.[34]), *GEIH - Empleo informal y seguridad social*, https://www.dane.gov.co/index.php/calendario/icalrepeat.detail/2020/07/13/4617/-/geih-empleo-informal-y-seguridad-social.

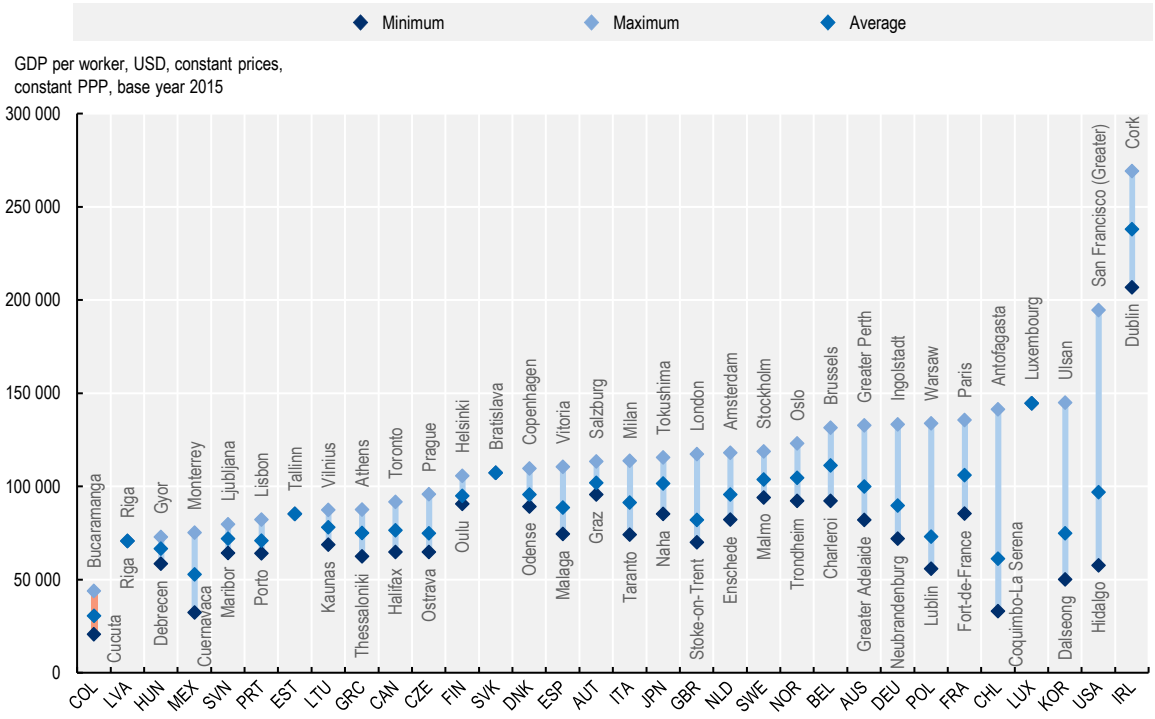
Productivity in Colombian cities is low and agglomeration economies limited

While cities have been the engines of Colombia's economic growth, labour productivity (i.e. GDP per worker) in Colombian metropolitan areas on average is the lowest among all metropolitan areas in OECD countries. With around USD 43 800 per worker in 2018, Bucaramanga is the most productive metropolitan area in Colombia but one of the least productive of all metropolitan areas in the OECD for which data is available (Figure 1.18).

Several reasons may explain the low labour productivity in Colombian metropolitan areas, including: the low level of skills compared with other OECD countries; the lack of competition in key sectors, such as transport or telecommunications; the high regulatory burden; and the relatively low integration in international trade (OECD, 2019[30]). The low levels of productivity are also explained by the high share of small and very small firms with very low productivity levels. Small- and medium-sized enterprises (SMEs) account for about 67% of employment and 28% of GDP in Colombia (in 2017), much below the average numbers observed in OECD countries (OECD, 2021[35]). In 2018, the share of companies with between 1 and 4 employees was 80% in Barranquilla, 81% in Cali, 83% in Bogotá, D.C. and 78% in Medellín (Figure 1.19). Many of these small firms are family-run businesses, while the share of self-employed

workers accounts for half of employment – a much higher share than the OECD average of 15.7% (OECD, 2021[35]). Furthermore, as informality is mostly prevalent in small firms and given that firms relying on informal contracting are less likely to innovate and grow, this high share of small informal firms reduces productivity. The difference in productivity between formal and informal firms is estimated to be as high as 40% in Colombia (OECD, 2019[30]). While Colombia entered the COVID-19 crisis with one of the lowest shares of SMEs connected to high-speed broadband among OECD countries (8.7%), there has been a very fast SME digital uptake during the crisis (60% of Colombian SMEs have reported increasing their use of digital technologies since the start of the COVID-19 crisis). However, the lack of basic skills for many Colombians, including those needed to take part in the digital transition and the widespread mismatch between the supply and demand of skills will continue to hamper productivity improvements (OECD, 2021[35]).

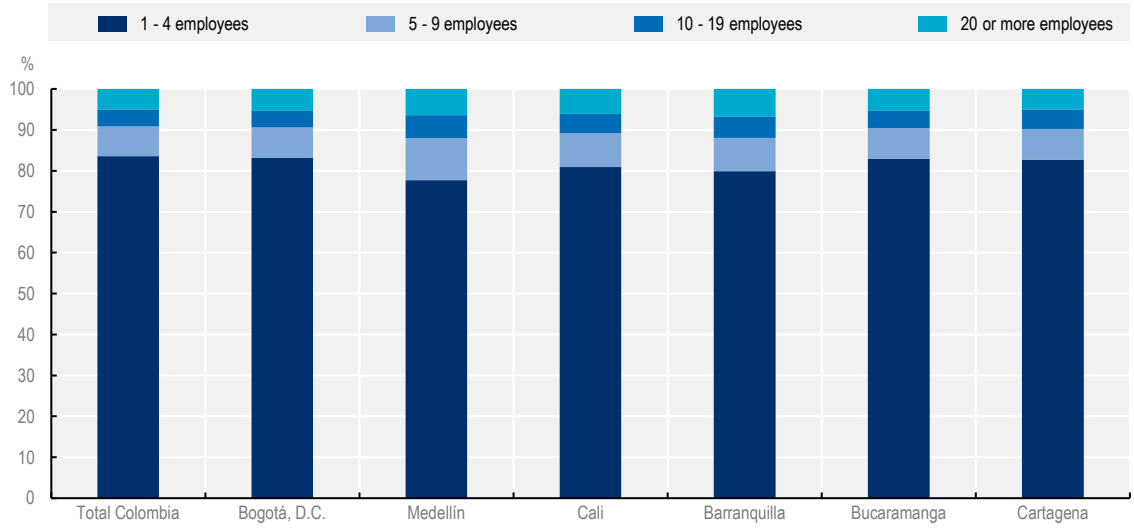
Figure 1.18. Productivity in OECD metropolitan areas, 2018



Note: Data are for 2018, except for Canada (2016), Chile (2017), France (2016) and Japan (2016).
Source: OECD.stat (n.d.[20]), *Metropolitan Areas (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=CITIES.

As discussed previously, the past decades of urbanisation have led to an increased concentration of jobs and people in cities. However, low productivity levels in Colombian metropolitan areas suggest that cities in Colombia do not fully capture the benefits of agglomeration, i.e. when individuals and firms benefit from operating in close proximity (OECD, 2015[36]). Agglomeration economies arise because of the production benefits of physical proximity to other firms, workers and consumers, through three main channels: i) sharing effects through the gains from a greater variety of inputs and industrial specialisation, the common use of local indivisible goods and facilities, and the pooling of risk; ii) matching effects between firms and workers; and iii) learning effects through the generation, diffusion and accumulation of knowledge (Duranton and Puga, 2004[37]). In particular, agglomeration economies imply greater productivity for individual firms due to the greater amount of activity of nearby firms and the greater number of workers and consumers. Estimates of the impact of a city's size on productivity suggest that a doubling in the size of an FUA increases worker productivity by 2-5% (Ahrend et al., 2014[38]).

Figure 1.19. Share of firms by number of employees in Colombia in a selection of the largest municipalities



Source: DANE (n.d.[39]), *Directorio Estadístico de Empresas*, https://www.dane.gov.co/index.php/servicios-al-ciudadano/servicios-informacion/directorio-estadistico/directorio-estadistico-de-empresas.

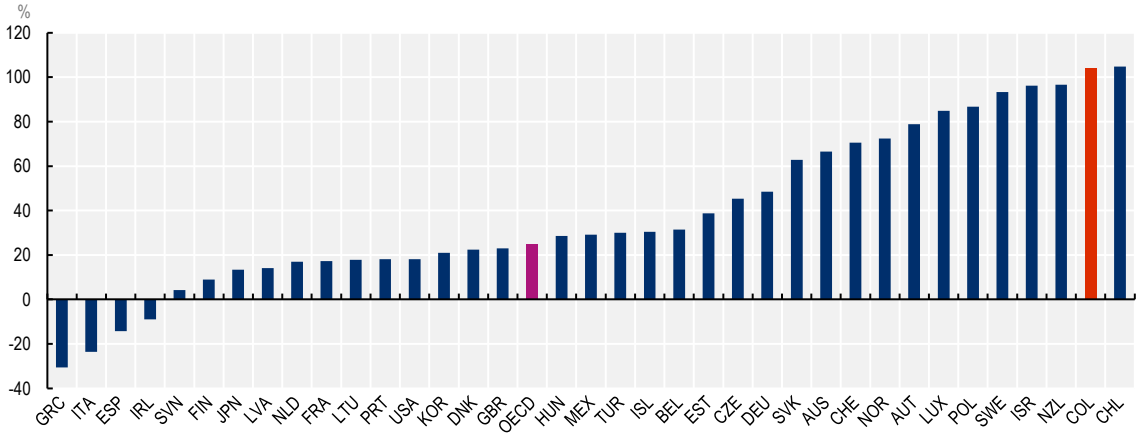
For cities to be productive and make the most of agglomeration economies and physical proximity of firms, workers and consumers, an efficient and affordable transport network to connect people to jobs and consumers to goods and services is needed, as agglomeration economies can be intensified by improving transport connectivity (Venables, 2007[40]). Cities' productivity can also be improved and greater agglomeration benefits achieved by better co-ordinating land use and investment planning at a metropolitan scale (Samad, Lozano-Gracia and Patman, 2012[41]). Furthermore, administrative fragmentation within an FUA has been shown to have a detrimental impact on productivity within the FUA (Ahrend et al., 2014[38]; OECD, 2015[42]). In Colombian cities, infrastructure bottlenecks, transport congestion and high transport costs, as well as the lack of co-ordination of spatial planning instruments, have contributed to constraining the ability of Colombian cities to capture agglomeration benefits (for more details on transport, see the section below; for more details on land use and spatial planning instruments, see Chapter 3).

Living in Colombian cities

The quantitative and qualitative housing deficit in cities drive low housing affordability

Despite the Colombian government's significant investments in the housing sector in the past years (see Chapter 4), having access to affordable and quality housing remains a major challenge for many Colombian households. House prices have increased sharply in the past 15 years. Between the fourth quarter of 2005 and the fourth quarter of 2020, real house prices more than doubled in Colombia (+107.3%) – the highest growth rate of all OECD countries and a much higher growth rate than in the OECD, where real house prices increased by 19.2% on average over the same period (see drivers for the housing price increase below) (Figure 1.20). The house price increase has slowed down in the past couple of years and house prices rose by only 0.9% between the fourth quarter of 2019 and the fourth quarter of 2020. However, Colombia's GDP is projected to grow by 9.5% in 2021 and by 5.5% in 2022 (OECD, 2021[43]) and this fast economic recovery might drive house prices further up in the coming years.

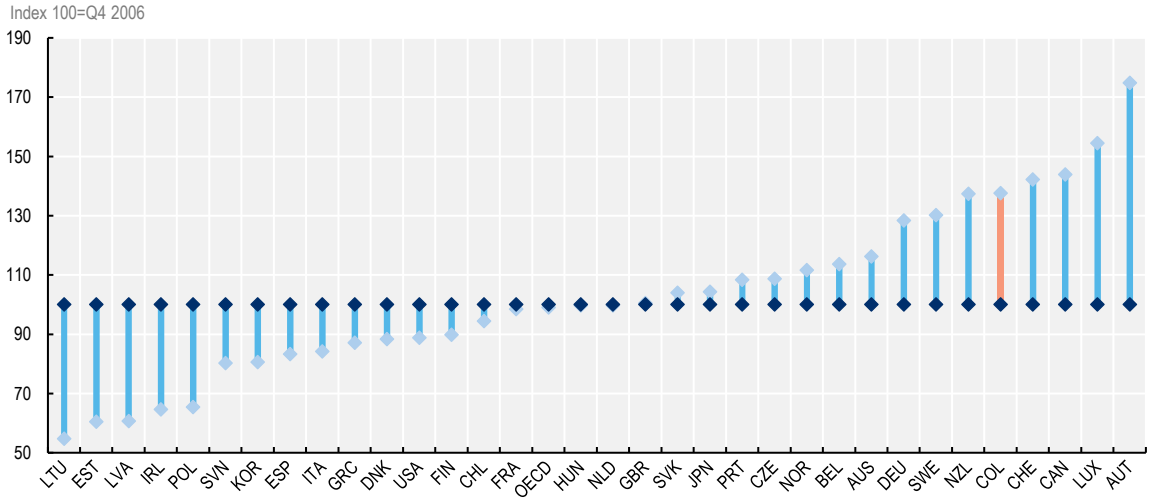
Figure 1.20. Evolution of real house prices, OECD countries, Q4 2005-Q2 2021



Note: Data for Chile are available until Q4 2020, for the Czech Republic from Q1 2008, for Hungary from Q1 2007, for Latvia from Q1 2006, for Lithuania from Q1 2006, for Luxembourg from Q1 2007, for Korea until Q1 2021, for New Zealand until Q1 2021, for Slovenia from Q1 2007 and for Turkey from Q1 2010.
Source: OECD (n.d.[44]), *Analytical House Prices Indicators (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=HOUSE_PRICES.

House prices in Colombia have soared faster than household disposable income, making housing increasingly unaffordable for many Colombian households, especially for first-time buyers or those who have to move from low-priced areas to higher-priced ones for work reasons for example. Since 2006, the price-to-income ratio in Colombia has experienced one of the fastest increases among all OECD countries, as real house prices have steadily outpaced real wage growth (Figure 1.21). The price-to-income ratio is higher in urban areas than in rural areas in all departments except Cundinamarca and increased sharply in all departments between 2011 and 2019 (Figure 1.22). In Colombia, the average household net-adjusted disposable income per capita is USD 33 604, which is lower than the OECD average of USD 408 376 (OECD, n.d.[45]).

Figure 1.21. Price-to-income ratio, Q4 2006-Q4 2020

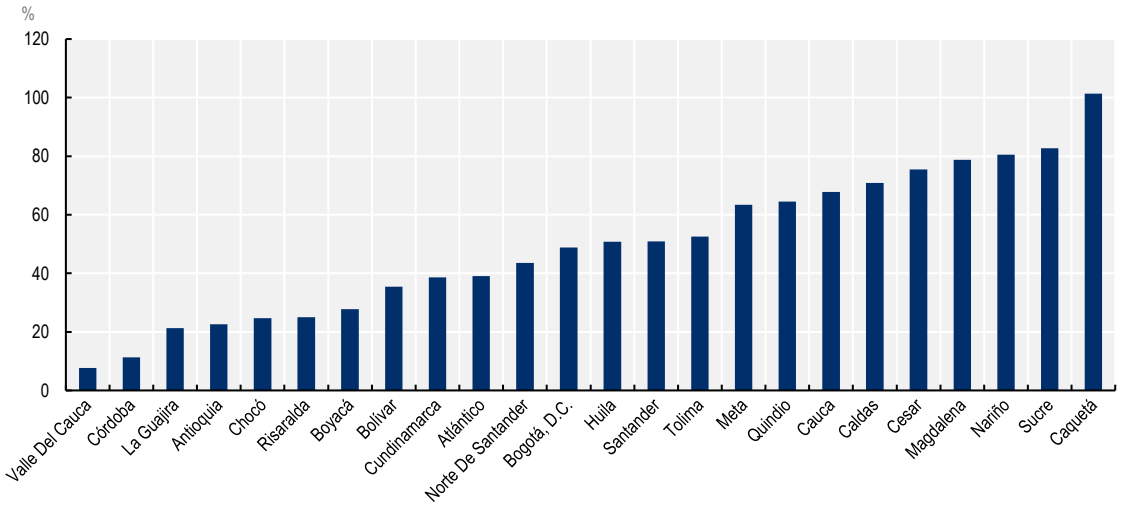


Note: Data for Colombia shows the evolution of the price-to-income ratio between Q4 2006 and Q4 2019. Data for the Czech Republic shows the evolution between Q1 2008 and Q4 2019. Data for Hungary, Luxembourg and Slovenia shows the evolution between Q1 2007 and Q4 2019.
Source: OECD (n.d.[44]), *Analytical House Prices Indicators (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=HOUSE_PRICES.

While homeownership remains the most common tenure for Colombian households (46.2% of them), the private rental sector plays a central role in Colombia, with 35.7% of Colombian households renting their accommodation on the private market – a higher share than in the OECD on average (23.1%) and the highest share in Latin America (21.9% in Chile and 15.0% in Mexico) (OECD, 2020[46]; Lombard, Hernandez-Garcia and Lopez Angulo, 2021[47]). The share of tenants tends to be higher in cities, with a high proportion of them renting from the informal rental market. According to the latest information available, about 60% of renters have either a verbal (63%) or a written contract (37%) (Torres Ramírez, 2012[48]). In Bogotá, D.C., it reaches 43.5% according to the 2018 National Quality of Life Survey conducted by DANE. However, the share of tenants on the private market in Colombia could be underestimated. According to the 2018 survey, as many as 14.7% of households declare that their accommodation is provided for free (DANE, 2019[49]) – with some of these households likely to be renting their accommodation on the informal rental market.

Since 2005, real rent prices have risen by 73.2% in Colombia – with a slower rise than for house purchase prices over the same period but one of the strongest growth rates among OECD countries (Figure 1.23) – making the private rental market increasingly unaffordable for many Colombian urban households. Rental price levels should, however, be taken with caution, as a significant share of the rental market is informal, making the collection of data complicated.

Figure 1.22. Price-to-income ratio, urban areas, by department, evolution 2011-19

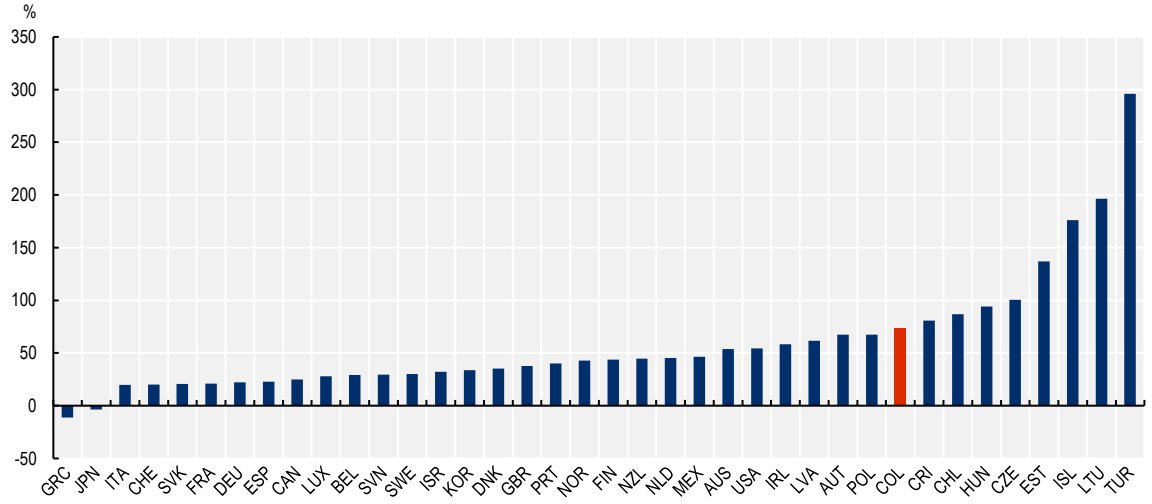


Source: DANE (2019[49]), "Boletín Técnico: Encuesta Nacional de Calidad de Vida (ECV) 2018", https://www.dane.gov.co/files/investigaciones/condiciones_vida/calidad_vida/Boletin_Tecnico_ECV_2018.pdf.

This increase in house prices has been driven by rising demand for housing not being met by sufficient growth in housing supply. As has been the case in many countries, strong demand for housing in Colombian cities has been fuelled by many factors, including sustained economic growth and rising real wages until 2020, as well as the increase in the number of households and the changes in household composition. With population growth and the number of people per household decreasing (Figure 1.24), the number of households in Colombia grew from 10.6 million in 2005 to 14.2 million in 2018 (+37.7%). Meanwhile, the increase in the number of housing units was slower (from 10.4 to 13.5 million, i.e. a growth rate of 29.7%). In cities, these factors have been further boosted by faster population growth, reflecting migration from rural areas and from abroad, as discussed previously. The rapid and recent migration from Venezuela has also increased housing demand and put more pressure on Colombian cities' housing markets.

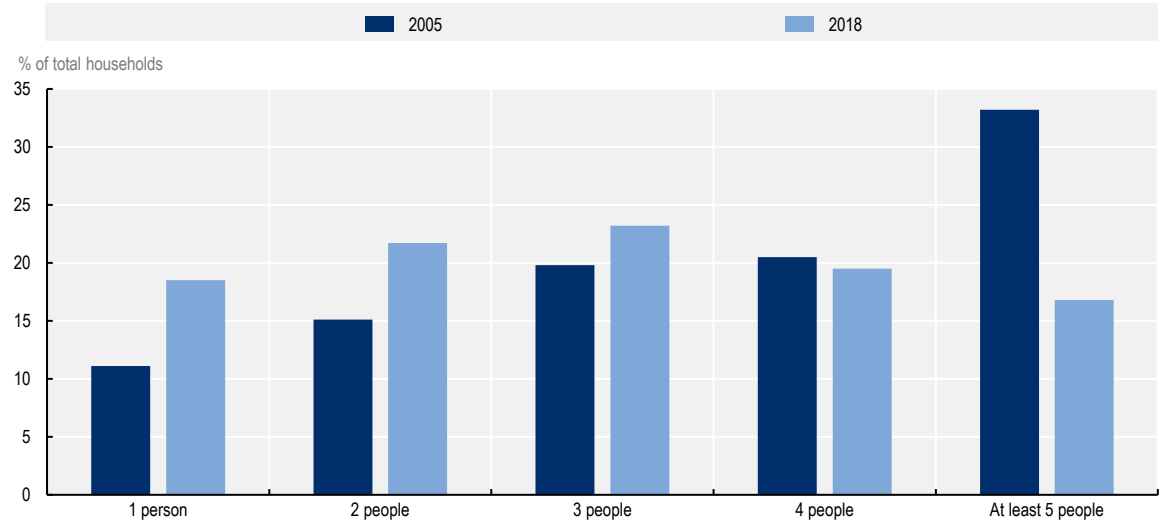
Figure 1.23. Rent prices, change between Q4 2005 and Q3 2021

Rent price index, 2015=100, seasonally adjusted



Source: OECD (n.d.[44]), *Analytical House Prices Indicators (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=HOUSE_PRICES.

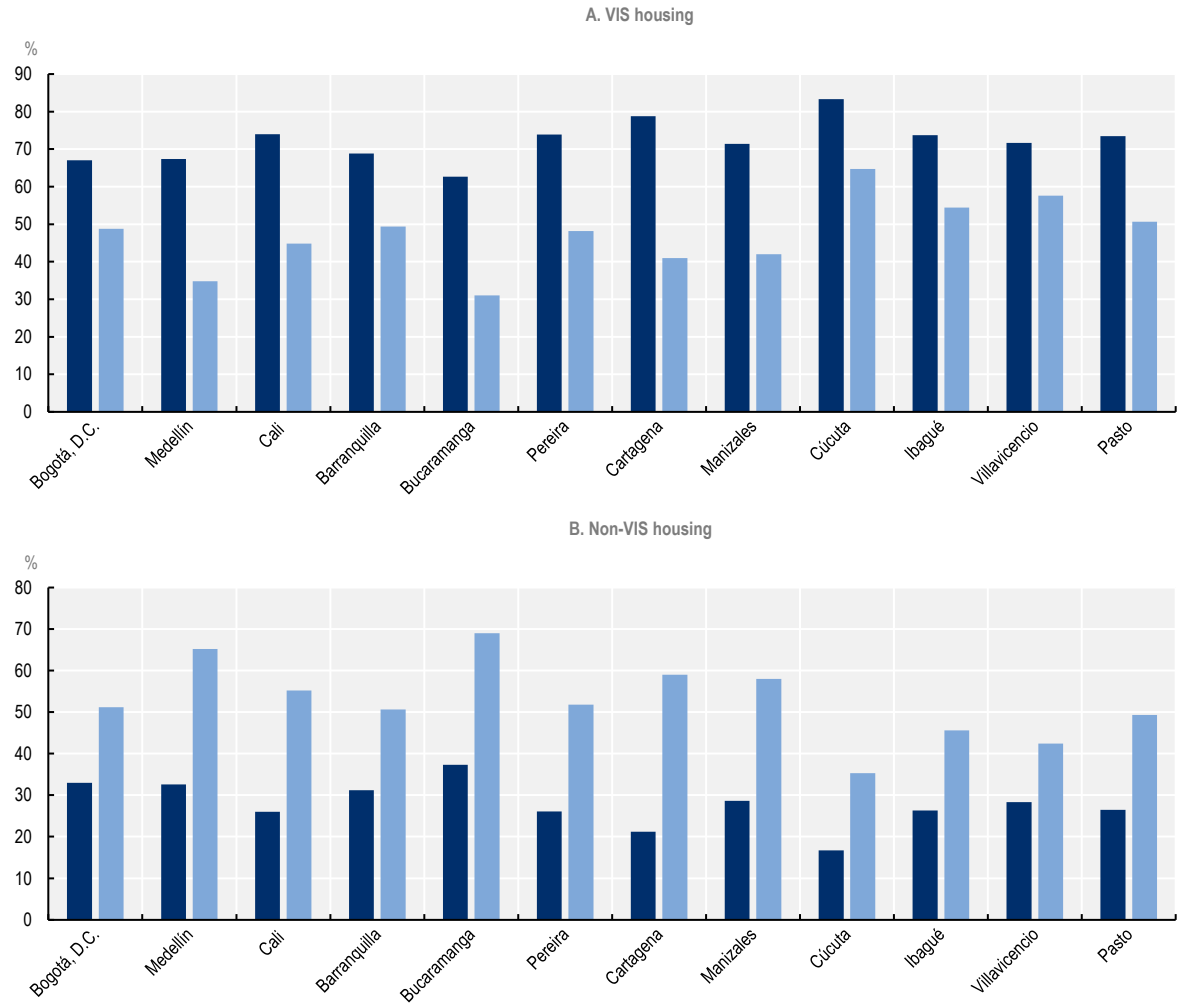
Figure 1.24. Households by number of people in Colombia



Source: (DANE, 2018[13]) Censo Nacional de Población y Vivienda – CNPV 2018; www.datos.gov.co/Estad-sticas-Nacionales/Censo-Nacional-de-Poblaci-n-y-Vivienda-CNPV-2018/qzc6-q9qw

The Colombian housing market is divided into two segments: i) social interest housing (*vivienda de interés social*, VIS), including priority interest housing (*vivienda de interés social prioritario*, VIP);[10] and ii) non-VIS, which includes any housing that does not fall into these categories. Given the increase in the price-to-income ratio, non-VIS housing has become increasingly unaffordable for many Colombian households. As a result, most of the housing demand in Colombian cities has been for VIS housing. However, housing supply in most major Colombian cities is mostly made of non-VIS housing, indicating a mismatch between housing demand and supply (Figure 1.25) (World Bank, 2019[50]).

Figure 1.25. Supply and demand for VIS and non-VIS housing, main Colombian cities, 2005-17



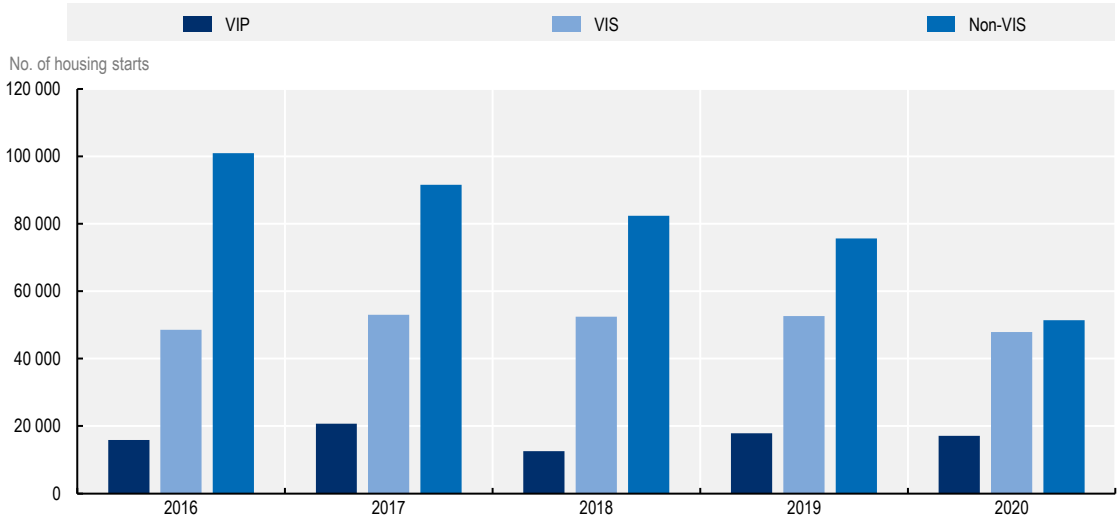
Source: World Bank (2019[50]), *Vivienda digna para todos*, http://documents.worldbank.org/curated/en/535261564743579904/Vivienda-Digna-para-Todos.

Furthermore, the increase in housing demand has not been met by an increase in housing supply. Between 2016 and 2020, the number of housing starts in Colombian main urban areas decreased, from around 165 000 in 2016 to 116 500 in 2020, due to the significant drop in housing starts in the non-VIS housing segment – by almost 50% between 2016 and 2020 (Figure 1.26).

This drop in housing construction combined with the continuous increase in housing demand has led to a substantial housing deficit in Colombia. About 9.8% of Colombian households (i.e. 1.4 million households) live in housing with structural and space deficiencies for which it is necessary to add new housing to the stock. Alongside quantity considerations, it is also critical to assess the quality of housing, as housing should offer not only a place to sleep and rest but also safety, privacy and personal space that responds to people's needs. Furthermore, housing quality is an important indicator of housing affordability, as vulnerable households who are more likely to live in poor housing conditions cannot afford to maintain or improve their dwelling or move to better-quality housing. The housing deficit in Colombia is not only quantitative, it is also and foremost qualitative (Box 1.3). At the national level, the overall (quantitative and qualitative) housing deficit is estimated at 36.6% (i.e. 36.6% of Colombian households experience deficient housing quantity or quality). Beyond the 9.8% of Colombian households that face a quantitative housing

deficit, 26.8% (i.e. 3.8 million households) live in homes with a qualitative deficit that can be improved through renovation – meaning that 3 out of 4 households in a situation of housing deficit need a better home, not a new one (MVCT, 2020[51]).

Figure 1.26. Housing starts per housing type in 20 reference urban areas, 2016-20



Note: The 20 reference urban areas are the FUAs of Armenia, Barranquilla, Bogotá, D.C., Bucaramanga, Cali, Cartagena, Cúcuta, Cundinamarca, Ibagué, Manizales, Medellín, Montería, Neiva, Pasto, Pereira, Popayán, Santa Marta, Tunja, Valledupar and Villavicencio .
Source: DANE (2021[52]), *National Quality Life Survey*, National Administrative Department of Statistics, Bogotá.

Box 1.3. Definition of quantitative and qualitative housing deficits

The quantitative housing deficit refers to the share of households who live in dwellings that are affected by heavy structural deficiencies and/or are providing too little domestic space. To reduce this deficit, new housing units must be built in order to increase the housing stock. According to the 2020 DANE methodology, the quantitative housing deficit in Colombia includes households living in:

- Dwellings that are in the category “other” in the national population and housing census, which refers to buildings that are not suitable as housing units.
- Accommodations made of precarious exterior building materials.
- Housing units shared by three or more households: in urban areas (*cabeceras municipales*) and populated centres and dispersed rural areas (*centros poblados y rural disperso*), the quantitative deficit also includes situations of housing units shared by only two households, when there is more than six people cohabitating within the same dwelling. For those cases of cohabitation, the main households as well as single-person households are not included in the quantitative deficit estimation. Additional households only are considered in the estimation.
- In urban areas only, households in which more than four people are sharing the same bedroom (situation considered as “irremediable overcrowding”).

The qualitative deficit refers to the share of households living in dwellings that require improvements or adjustments to meet adequate habitability conditions. This includes households living in:

- Housing units:

- with floor materials made of bare ground or sand
- with a kitchen in the same room used for sleeping, or in a room without a sink, or with a kitchen outside of the building
- without access to plumbing (indoor plumbing in urban areas)
- without access to a sanitation system (in urban areas, dwellings without access to any system, or whose toilets are connected to a sceptic tank or not connected to any evacuation system)
- without access to electricity
- without access to a domestic waste service in urban areas.

- Dwellings with rectifiable overcrowding (in urban areas, when there are three or four people per bedroom).

Note: Because of their specificity, ethnic and indigenous housing are not included in the housing deficit estimations and are treated separately.
Source: DANE (2020[53]), *Nota metodológica: Déficit Habitacional CNPV 2018*, National Administrative Department of Statistics, Bogotá.

The overall housing deficit is more prevalent in rural areas than in urban areas. In the department of Vichada, for example, which is mostly rural, there is a 94.2% housing deficit, while it is only 12.7% in Bogotá, D.C. (MVCT, 2020[51]). Departments that are located the furthest from the centre of the country are also those with the highest housing deficit, such as the departments of Amazonas, Bolívar, Chocó, Guainía, Guaviare, La Guajira, Magdalena, San Andrés, Sucre or Vaupés, which are also departments with a relatively high share of ethnic communities compared with the rest of the country (Figure 1.27). However, while facing a housing deficit is more common in rural areas, about half of households facing a housing deficit live in urban areas.

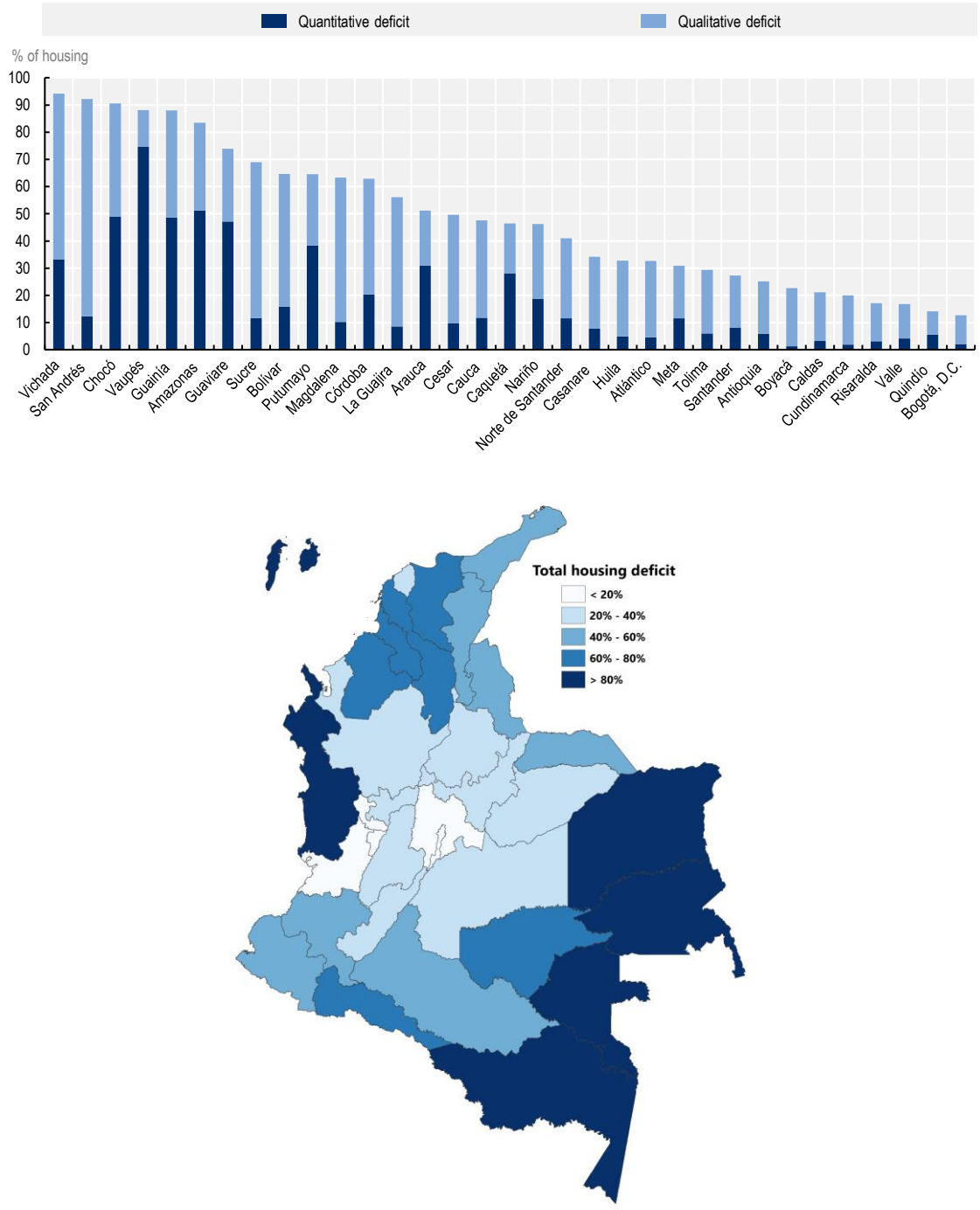
Capital cities are also showing a huge diversity of situations in terms of both quantitative and qualitative deficits. The three largest capital cities (Bogotá, D.C., Medellín and Cali) have a rather limited housing deficit (16%, 15% and 14% respectively) compared with other capital cities, especially when it comes to quantitative deficit (Figure 1.28).

All types of Colombian households (size, composition and employment situation) are affected by the housing deficit. While almost a third (29.1%) of single-person households face a housing deficit, 57.3% of households with 5 people and 67.6% of households with more than 6 people suffer from a quantitative or a qualitative housing deficit. In terms of employment situation, people looking for work are more affected (45.9% of them) by the housing deficit than people who earn an income from an activity (35.5%). International migrants seem to be particularly affected by the housing deficit, with 58.3% of people who used to live in another country 5 years before the 2018 census suffering from quantitative or qualitative housing deficit. This is much more than internal migrants (37.8% of the people who used to live in another Colombian municipality).

While more than a quarter of Colombian households face a qualitative housing deficit, housing conditions have improved in recent years. The share of households living in unliveable conditions[11] decreased in all departments since 2008 (Figure 1.29). People living in urban areas generally enjoy better housing conditions that people living in rural areas. For example, the number of rooms per household member is higher for urban households than for rural households in all departments, except in the department of Atlántico. On average across all Colombian departments, there is 0.70 room per household member living in urban areas, while dwellings in rural areas have 0.63 room per household member. However, the number of rooms per household member is lower than in all OECD countries for which data is available.

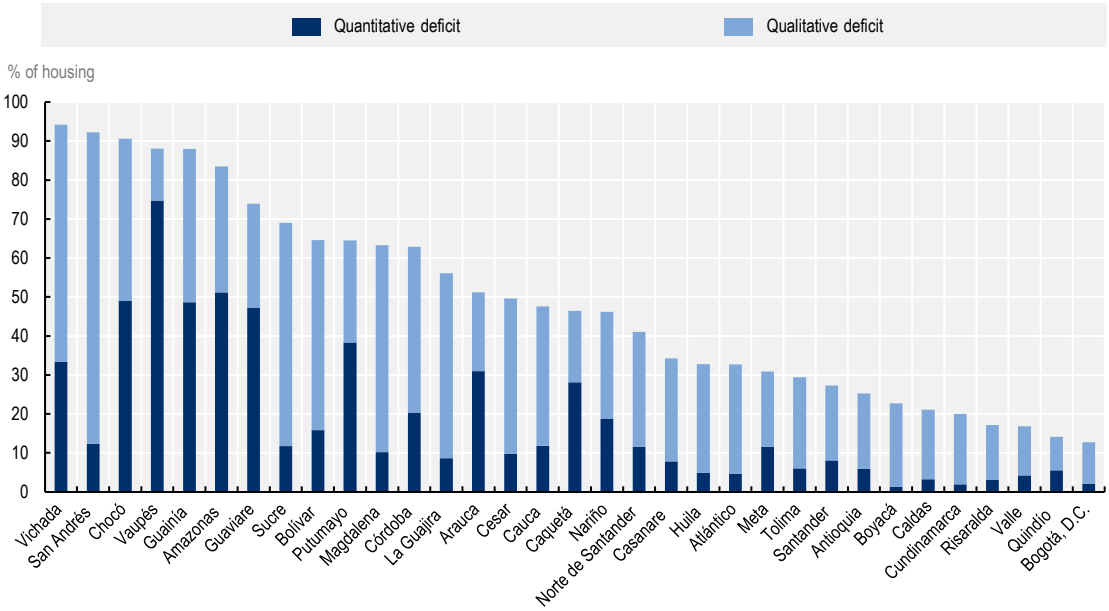
In line with the changes in household composition, the average area of properties decreased from 104.2 m^2 in 2008 to 84.3 m^2 in 2018. The average number of bedrooms has also fallen, from 2.7 in 2008 to 2.3 in 2018 (in the VIS segment, it decreased from 2.5 to 2.1 over the same period). The increase in the share of households with one or two people is also correlated with the increase in the construction of small apartments, especially in cities, while in other parts of the country, this has led to subdivisions of houses or shared apartments (MVCT, 2020[51]).

Figure 1.27. Quantitative and qualitative housing deficit by Colombian department, 2018



Source: (DANE, 2020[53]) Nota Metodológica, Déficit Habitacional 2018 CNPV.

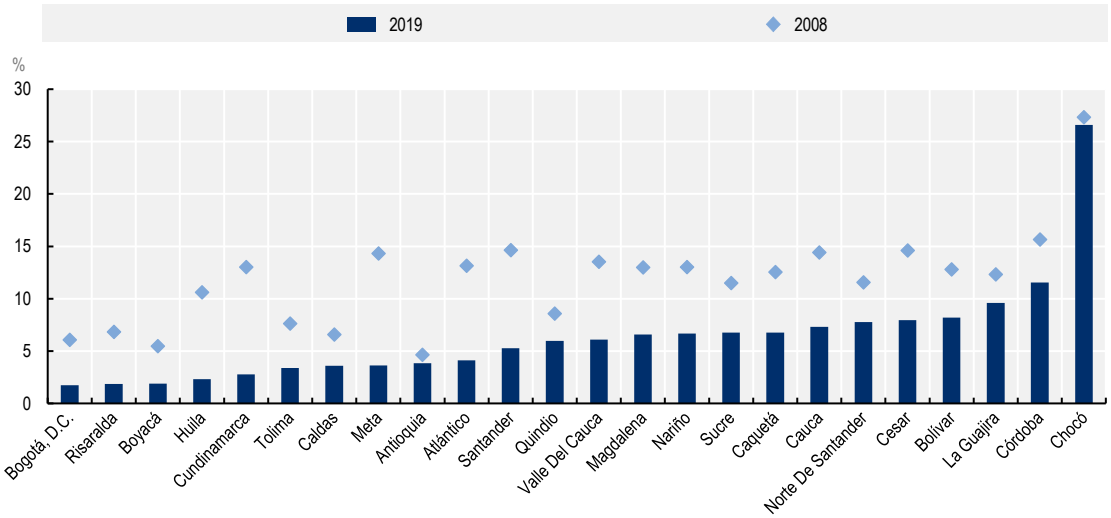
Figure 1.28. Housing deficit in capital cities, 2018



Source: DANE 2018 Population and Housing Census.

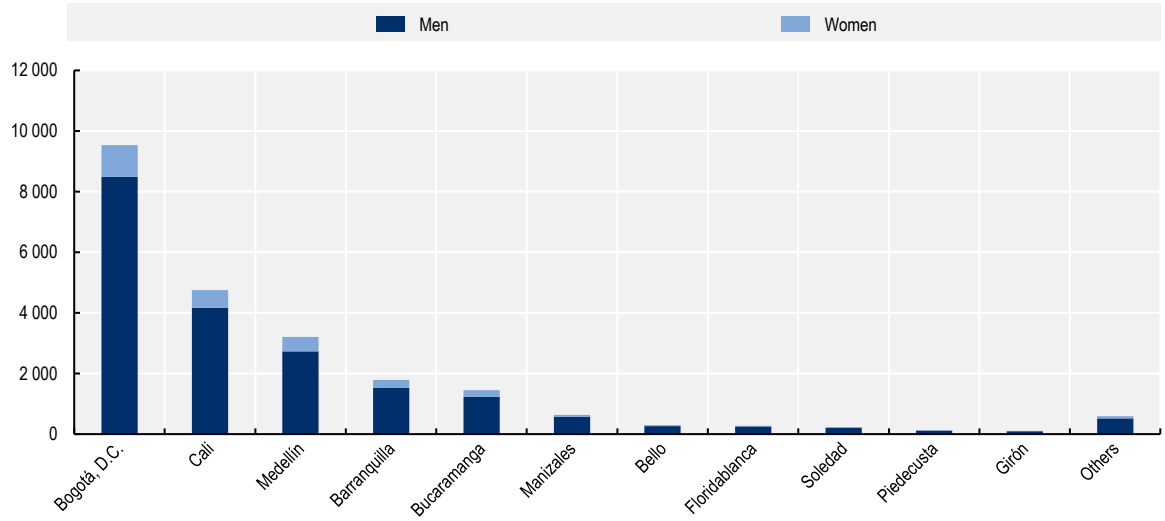
In addition to people living in unliveable conditions, homelessness is a challenge in Colombia. According to the DANE census of people experiencing homelessness, between 2017 and 2021, there were about 34 091 homeless people in Colombia, who live either on the street, in temporary dormitories or in an institution (DANE, 2021[54]). Homeless people are mostly men and are concentrated in the largest cities, with more than 40% of them living in Bogotá, D.C. (Figure 1.30).

Figure 1.29. Share of households living in unliveable housing conditions, by department, 2008 and 2019



Source: MVCT (2020[51]) Análisis del Capacidades y Entornos del Ministerio de Vivienda, Ciudad y Territorio.

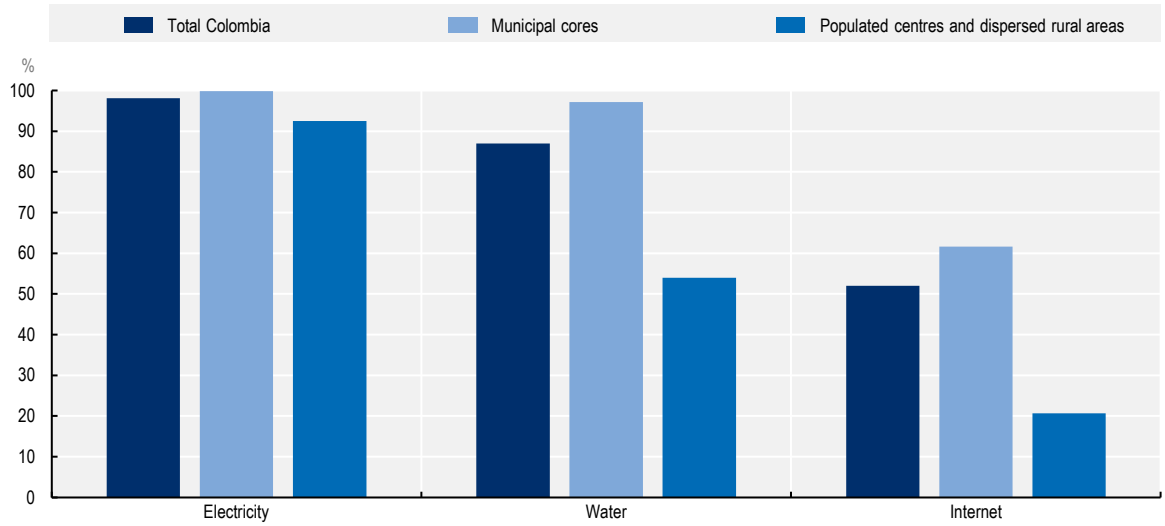
Figure 1.30. Homeless people in Colombian cities



Note: Others are cities with fewer than 100 homeless people, i.e. Barbosa, Caldas, Copacabana, Envigado, Galapa, Girardota, Itagüí, La Estrella, Malambo, Puerto Colombia, Sabaneta.
Source: DANE (2021[54]), *Censo de Habitantes de la Calle (Census of Homeless People)*, https://www.dane.gov.co/files/investigaciones/boletines/censo-habitantes-calle/presentacion-CHC-rueda-de-prensa-2021.pdf (2017 for Bogotá, D.C. and 2019 for the other municipalities).

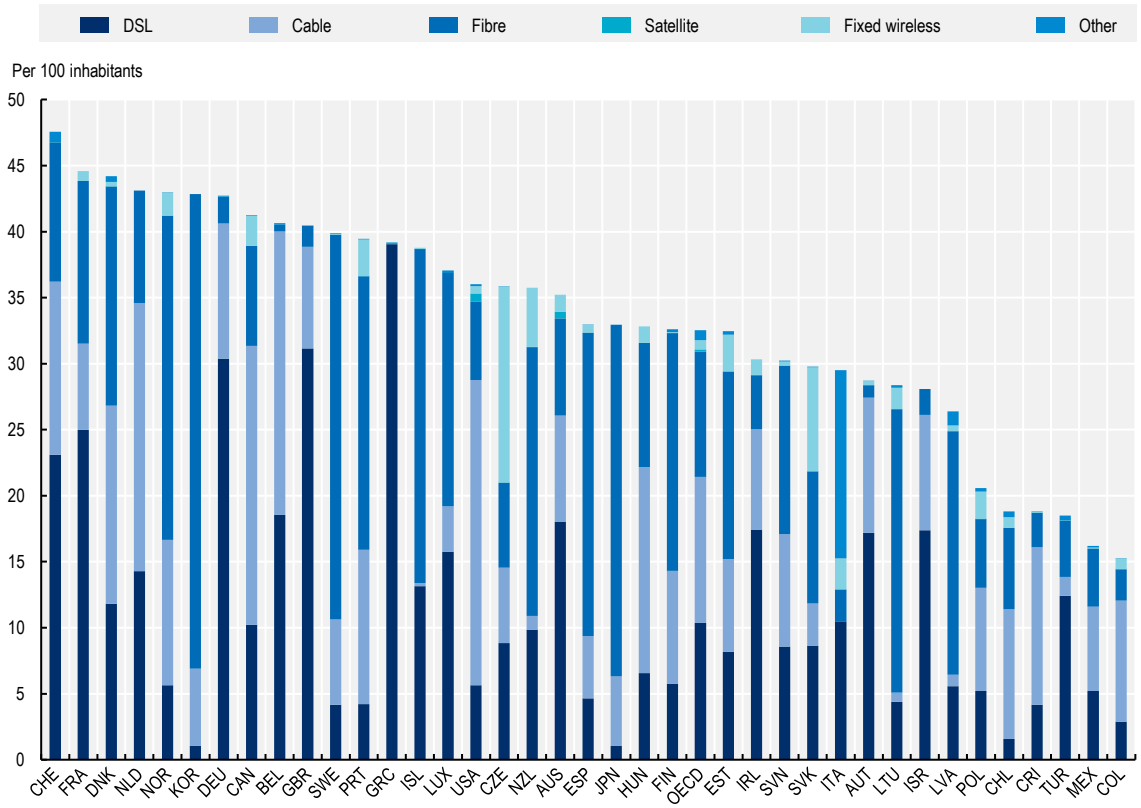
Within housing quality, it is also critical to assess the adequacy of people's living conditions, in particular whether dwellings have access to basic facilities. Almost all households living in urban areas have access to electricity and water (99.9% and 97.5% respectively) – much more so than in rural areas, where 92.9% and only 63.1% of households have access to electricity and water (Figure 1.31). Despite quick progress in recent years, access to the Internet is still quite low in Colombia, even in urban areas where only 61.6% of households have access. Among OECD countries, Colombia has the lowest level of fixed broadband Internet penetration, after Chile, Mexico, and Turkey, despite a sharp increase in the use of fibre optic connections in recent years (Figure 1.32).

Figure 1.31. Access to electricity, water and Internet, by degree of urbanisation, 2020



Source: DANE (2021[52]), *National Quality of Life Survey*, National Administrative Department of Statistics, Bogotá

Figure 1.32. Fixed broadband subscriptions per 100 inhabitants, by technology, OECD countries, June 2020



Note: Australia: Data reported for December 2018 and onwards are being collected by a new entity using a different methodology. Figures reported from December 2018 comprise a series break and are not comparable with previous data for any broadband measures Australia reports to the OECD; Canada: Fixed wireless includes satellite; France: Cable data include VDSL2 and fixed 4G solutions; Italy: Terrestrial fixed wireless data include WiMax lines; Other includes vDSL services. Data for Canada, Switzerland and the United States are preliminary.
Source: OECD (n.d.[55]), *Broadband Portal*, www.oecd.org/sti/broadband/oecdbroadbandportal.htm.

While social indicators have improved in urban areas, urban inequality remains an issue

Colombia has experienced significant improvements in terms of social indicators in the past two decades. GDP per capita has steadily increased between 2012 and 2019. However, regional inequalities are high and among the highest among OECD countries (OECD, 2019[30]). GDP per capita is much higher in urban areas than in rural areas (COP 818 988 per capita [EUR 179]) vs. COP 312 724 per capita [EUR 68] in 2019). The highest values of GDP per capita are found in the 13 departments' capital cities and metropolitan areas (Figure 1.33).

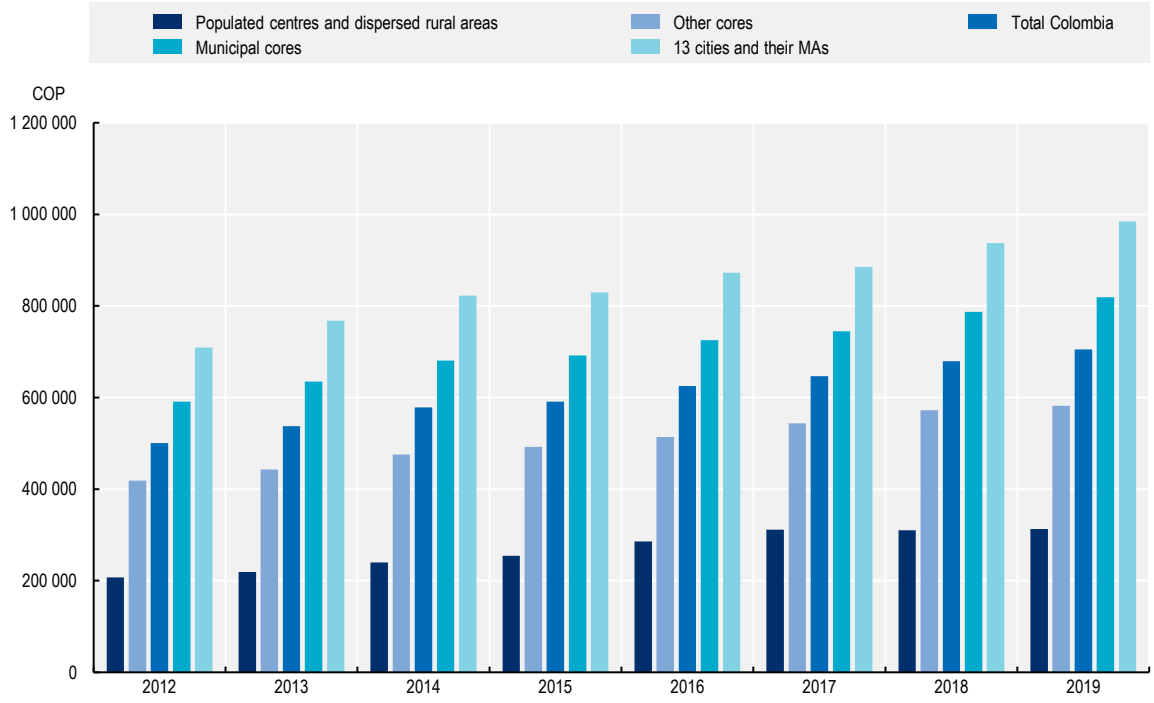
Poverty measures have also considerably improved in Colombia over the past couple of decades, especially in urban areas, although poverty increased again in 2020 in the wake of the COVID-19 crisis. Poverty can be measured both directly and indirectly. Direct measurement of poverty evaluates individuals' satisfaction (or non-deprivation) regarding key dimensions such as childhood and youth conditions, health, education, employment and housing conditions, while indirect measurement assesses the ability of households to purchase goods and services:

- Direct measurement of poverty is measured by the UNDP - Multidimensional Poverty Index (5 dimensions,[12] 15 indicators). While at the national level in 2020, 18.1% of the population were considered as "poor" according to this measurement, this rate is lower in urban areas, with 12.5%

of the urban population being poor. In rural areas, the incidence of multidimensional poverty is much higher, at 37.1% in 2019 (DANE, 2021[56]). At the municipal level, the highest levels of multidimensional poverty are found in municipalities located in the Orinoquía-Amazonía (east and south of Colombia) and Pacific regions, while the lowest levels were found in the municipalities located in the central and eastern regions of the country.

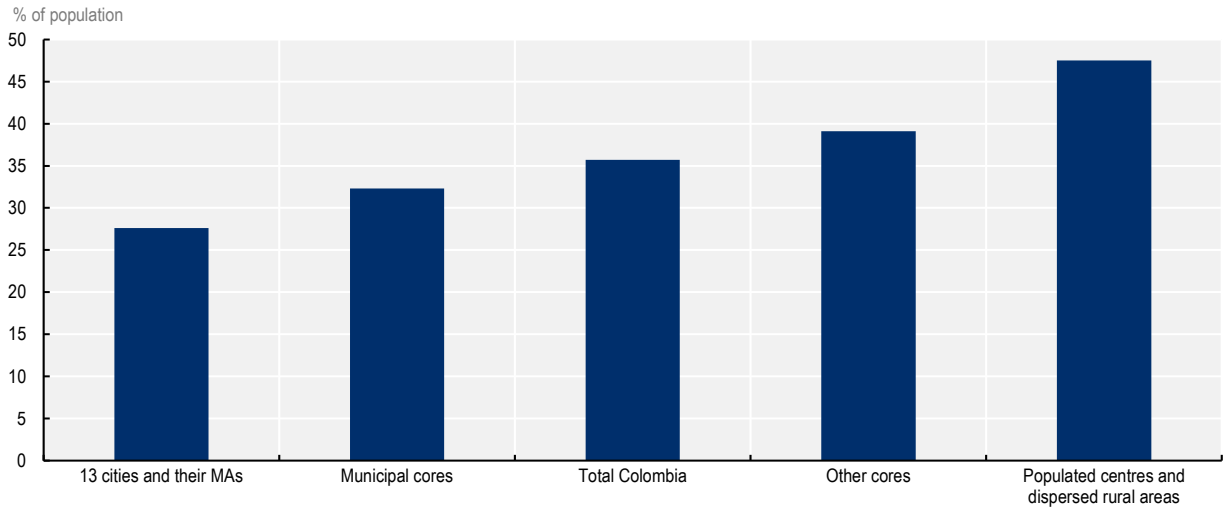
- Indirect measurement of poverty is measured by the incidence of monetary poverty, which evaluates the percentage of the population that has an income per capita of the household below the poverty line according to the geographic location of the household. Between 2012 and 2019, monetary poverty decreased at the national level from 40.8% to 35.7% of Colombia's population. The prevalence of monetary poverty was 32.3% in urban areas and 47.5% in populated centres and dispersed rural areas – i.e. monetary poverty is 1.5 times less prevalent in urban areas than in dispersed rural areas (Figure 1.34). However, this downward trend has been put to a halt by the COVID-19 crisis, as monetary poverty in Colombia increased to 42.5% in 2020 – 6.8 percentage points more than in 2019. Monetary poverty increased the most in municipal cores, from 32.3% in 2019 to 42.4% in 2020, catching up with the 42.9% observed in populated centres and dispersed rural areas in 2020. It increased in all capital cities and metropolitan areas in 2020, with the metropolitan areas of Barranquilla and Bucaramanga recording the greatest rises (from 25.6% in 2019 to 41.2% in 2020 and from 31.4% in 2019 to 46.1% in 2020 respectively).

Figure 1.33. Income per capita, national level and per level of urbanisation, 2012-19



Note: The 13 cities and their MAs (metropolitan areas, *área metropolitana* or A.M.) are Barranquilla A.M, Bogotá, D.C., Bucaramanga A.M, Cali A.M, Cartagena, Cúcuta A.M., Ibagué, Manizales A.M., Medellín A.M., Montería, Pasto, Pereira A.M. and Villavicencia. Cabeceras refer to all cores (*cabeceras*) without the 13 cities and their MAs.
Source: DANE (n.d.[24]), *Gran Encuesta de Hogares - GEIH*, National Administrative Department of Statistics, Bogotá.

Figure 1.34. Monetary poverty incidence by degree of urbanisation, 2019



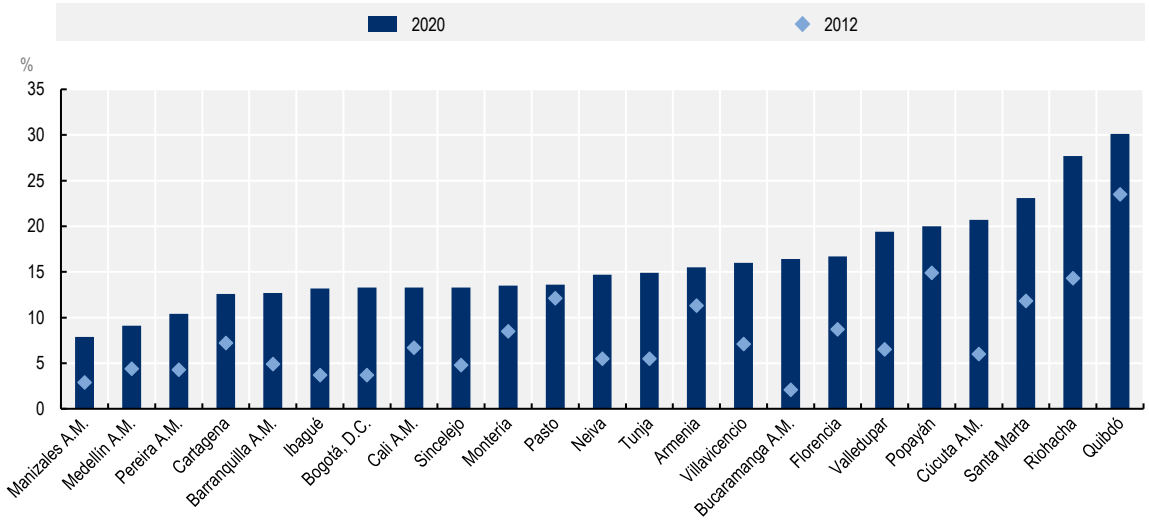
Note: The 13 cities and their MAs (metropolitan areas, *área metropolitana* or A.M.) are Barranquilla A.M, Bogotá, D.C., Bucaramanga A.M, Cali A.M, Cartagena, Cúcuta A.M., Ibagué, manizales A.M., Medellín A.M., Montería, Pasto, Pereira A.M. and Villavicencia. Cabeceras refer to all cores (*cabeceras*) without the 13 13 cities and their MAs.
Source: DANE (n.d.[24]), *Gran Encuesta de Hogares - GEIH*, National Administrative Department of Statistics, Bogotá.

These higher levels of poverty (measured either directly or indirectly) can be explained by the higher incidence of poverty among ethnic minorities and people displaced by the conflict, which are disproportionally concentrated in rural areas (OECD, 2019[30]).

The share of the population living below the poverty threshold (*incidencias de pobreza monetaria extrema*) decreased in most capital cities and metropolitan areas between 2012 and 2019, but increased sharply in 2020, bringing the incidence of extreme poverty in municipal cores in 2020 to higher levels than in 2012 (14.2% in 2020 compared with 7.9% in 2012), annihilating all improvements achieved since then. However, the incidence of extreme poverty is lower in municipal cores than in populated centres and dispersed rural areas where 18.2% of people live in extreme poverty. The share of people living below the poverty threshold increased the most in Bucaramanga, Cúcuta and Riohacha (Figure 1.35). This rise in poverty in Cúcuta and Riohacha, located close to the Venezuelan border, could be explained by the inability of local labour markets to integrate the influx of migrants in the short term and to the short-term downward pressures on wages exerted by immigration (World Bank, 2018[57]).

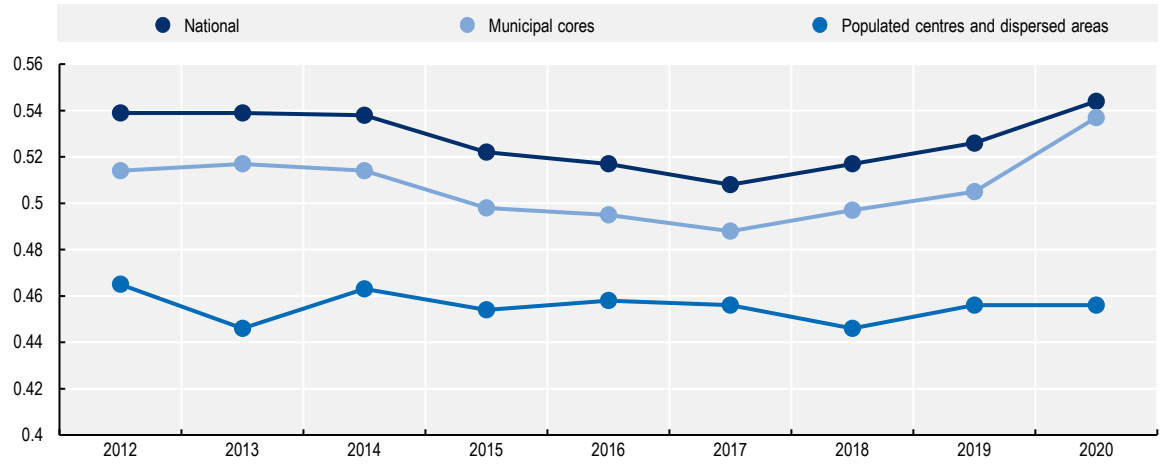
While levels of poverty are lower in urban than in rural areas, inequalities are wider in municipal cores than in less populated centres and dispersed rural areas. In 2020, the Gini index (which measures the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution)[13] was 0.54 in municipal cores (following an increase in the index which started in 2018) and 0.46 in populated centres and dispersed rural areas (Figure 1.36), while the OECD average was 0.36% in 2016. The Gini index increased in all 23 capital cities and metropolitan areas except in Quibdó in 2020, with inequalities widening the most in the metropolitan area of Bucaramanga.

Figure 1.35. Incidence of extreme poverty in 23 capital cities and metropolitan areas, 2012 and 2020



Source: DANE (n.d.[24]), *Gran Encuesta de Hogares - GEIH*, National Administrative Department of Statistics, Bogotá.

Figure 1.36. Gini index in Colombia, municipal cores and populated centres and dispersed rural areas, 2012-20



Source: DANE (n.d.[58]), *Homepage*, www.dane.gov.co (accessed on 23 March 2022).

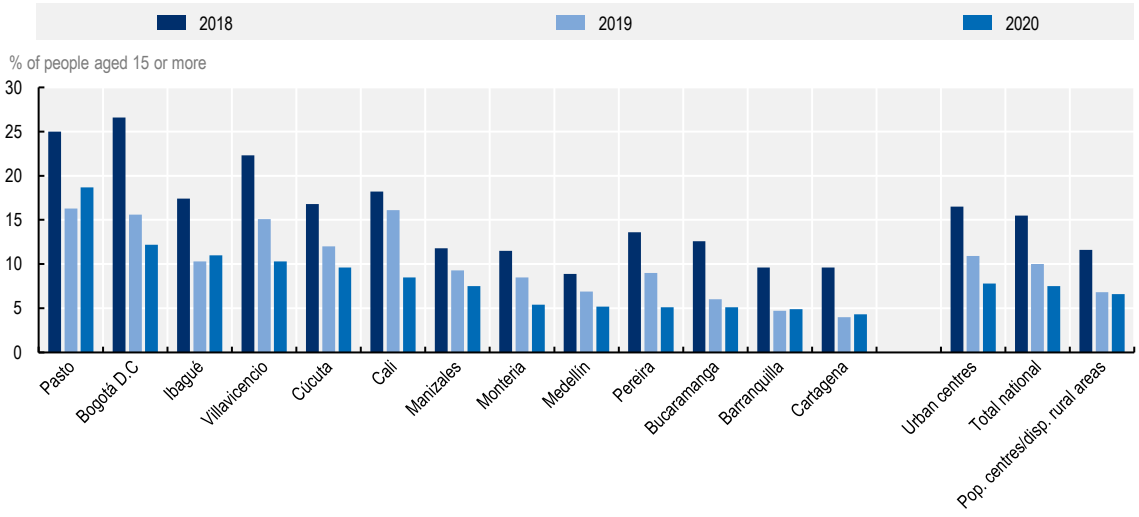
Colombian cities remain unsafe despite recent improvements

The lack of safety and security has long been a significant challenge for Colombian cities, stemming in particular from a history of armed conflict triggering violence, civil conflict and illegal activities, high inequalities and the prevalence of marginalised areas and informal settlements characterised by the lack of access to basic services and high poverty levels. Security has improved substantially in Colombia and especially in cities in the past decade, thanks to proactive policies to curb crime and violence, both at the national and local levels (see Chapter 3).

Despite such progress, insecurity is still higher than in rural areas. In 2020, 7.8% of people aged 15 years old or more reported being victims of a crime in urban areas, while this share was 6.6% in rural areas (Figure 1.37). In 2021, 9.2% of people were the victims of a crime in urban areas and 6.6% in rural areas.

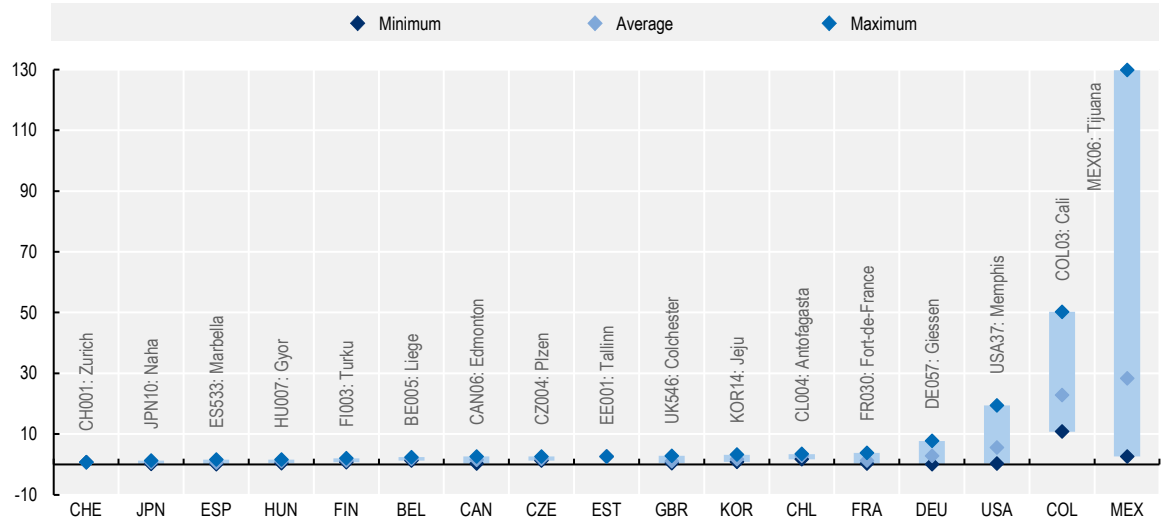
However, these numbers are not comparable with previous years, as a new methodology was adopted in 2021 to include victims of cybercrime. Furthermore, Colombian metropolitan areas are amongst the least safe among OECD metropolitan areas when taking into account the number of homicides per 100 000 inhabitants. Only some metropolitan areas in Mexico have more homicides per 100 000 inhabitants than Colombian metropolitan areas (Figure 1.38).

Figure 1.37. Victims of crimes, by city and level of urbanisation, 2018, 2019 and 2020



Note: Crimes include thefts from residences, thefts of livestock, thefts from persons, thefts of vehicles, fights and extortion. In the cases of theft from residences and theft of livestock, each resident of the home that suffered the crime is counted as a victim.
Pop. centres/disp. rural areas: Populated centres and dispersed rural areas.
Source: DANE (2020[59]), *Encuesta de Convivencia y Seguridad Ciudadana*, https://www.dane.gov.co/index.php/estadisticas-por-tema/seguridad-y-defensa/encuesta-de-convivencia-y-seguridad-ciudadana-ecsc.

Figure 1.38. Reported homicides per 100 000 inhabitants, OECD metropolitan areas, 2018 or latest year available



Source: OECD.stat (n.d.[20]), *Metropolitan Areas (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=CITIE.

Congestion, fatalities and pollution are the main mobility challenges in Colombian cities

Mobility has been a major challenge for Colombian cities – driven by the disconnect between urban planning and transport infrastructure, the expansion of the urban area of main cities and insufficient financial capacities at the local level to maintain roads and transport. Public transport is the preferred transport mode in Colombia's main cities. However, motorcycles come next in most of the main Colombian cities (Table 1.2). In Cali, for example, almost a quarter of transit is done by motorcycle.

Table 1.2. Modal choice in main Colombian cities, %

City	Public transport	Car	Motorcycle	Bicycle	Walking	Other
Bogotá, D.C.	36	15	6	7	24	13
Medellín	34	13	12	1	27	13
Cali	38	15	23	5	5	14
Bucaramanga	42	10	24	3	10	11
Barranquilla	63	8	9	2	1	17
Cartagena	50	6	16	1	3	24
Manizales	57	12	11	1	11	8
Pereira	24	12	17	1	35	11
Montería	21	9	22	9	20	19

Note: Data for Bogotá, D.C., is for 2019, for Barranquilla, Bucaramanga, Cali, Cartagena, Manizales, Medellín and Montería 2018, and for Pereira 2017.
Source: Information provided by the MVCT.

Furthermore, despite efforts to increase the use of public transport, the number of motorised vehicles is still growing in Colombia. Between 2010 and 2017, the number of motorcycles more than doubled and the number of cars increased by 58%. In urban areas, this fast increase has partly been due to the lack of adequate and accessible public transport systems, fostering the use of private motorcycles in particular, which are considered by urban residents to be cheaper and faster (ITF/OECD, 2019[60]). The number of vehicles registered has also risen quickly in more recent years. In 2018, there were 14.4 million vehicles registered and, by April 2021, the number amounted to 16.3 million (Table 1.3).[14] This rise in registered vehicles has raised significant challenges in terms of traffic management, infrastructure maintenance, road safety and environmental performance (ITF/OECD, 2019[60]).

Table 1.3. Registered vehicle fleet in Colombia, April 2021

Type of vehicles	Number	Percentage of total
Motorcycles	9 629 602	59
Cars, vans, lorries, buses, *busetas*, and others	6 529 389	40
Vehicles for construction, trailers, etc.	173 392	1
Total	**16 332 383**	**100**

Source: RUNT (n.d.[61]), *Homepage*, www.runt.com.co (accessed on 15 November 2021).

The increase in motorcycle and car use has resulted in congestion in Colombian cities. Low frequency in public transport, lack of sufficient urban transportation options, overcrowding, high fees, relatively low quality of service and rising incomes have all led transport users to opt for alternatives to public transport, such as motorcycles, private cars or informal transport means, contributing to even more congestion. Illegal

parking – partly due to a lack of monitoring and control by the authorities – as well as inadequate road design, poor road maintenance, incorrect road signs and inappropriate behaviour of drivers and pedestrians are all factors that have contributed to high congestion in Colombian cities (Bocajero, 2020[62]). Freight transport is also fostering more congestion in cities, as it can represent as much as 50% of urban traffic (DNP, 2020[63]). The inadequacy of freight transport vehicles, in particular, damages road infrastructures and deteriorates environmental quality in cities, leading some local authorities to restrict their access to certain urban zones, with, in turn, a negative impact on the local economies. Bogotá, D.C., is one of the most congested cities in the world. According to data and analytics provider INRIX, Bogotá, D.C. ranks the highest, with commuters spending on average 133 hours in traffic in 2020 (less than the 191 hours spent in 2019, due to reduced traffic because of the COVID-19 crisis and the associated lockdowns in 2020). Cali and Medellín rank 10th and 22nd, with 81 and 62 hours spent in traffic respectively (INRIX, 2021[64]). Other technology companies that provide satellite tracking of vehicles or develop navigation applications show a similar picture. For example, TomTom ranks Bogotá, D.C. third among the most congested cities worldwide, analysing the difference between the speed of circulation at low-demand times and average circulation speeds throughout the day (Bocajero, 2020[62]).

Investments in public transport have helped some Colombian cities decrease congestion but challenges remain. In Bogotá, D.C. for example, the TransMilenio Bus Rapid Transit (BRT) system, created in 1999 to provide a public transport solution in the capital, transports around 2.4 million passengers every day, accounting for 18.4% of total trips in the city (Secretaría Distrital de Movilidad, 2019[65]). According to the World Bank, the TransMilenio system has reduced by almost a third the average commuting time, while also making commutes safer, with a decrease of 90% in the number of accidents in the TransMilenio corridor (Suzuki, Cervero and Iuchi, 2013[66]). However, the shortfall of appropriate infrastructure compared with what was planned originally, the deterioration of some routes, worsening traffic congestion, a decline in service quality, overcrowding and long waiting times have cast a shadow on TransMilenio's achievements and pushed users to turn to alternative transport modes, increasing congestion further. Similarly, in the cities where they exist (cities with more than 600 000 inhabitants), the demand for the Integrated Mass Transport Systems (*Sistemas Integrados de Transporte Masivo*, SITM) (e.g. buses, metro, metrocable) has grown from 3.8 million daily trips in 2012 to 5.4 million in 2018 (DNP, 2020[63]). However, operational problems such as a lack of updated information to users and an inefficient ticketing system hinder the SITM's efficiency.

In addition to the time lost in commuting, mobility challenges have had a number of other detrimental effects, such as road fatalities, air pollution, greenhouse gas (GHG) emissions, increased wear on vehicles and roads, as well as social and psychological impacts due to higher levels of anxiety and stress. Colombia is 1 of the 8 OECD countries where the number of road deaths increased between 2010 and 2018, with a 25% rise in road deaths over the period – the second-highest increase behind Costa Rica. Colombia also has the second-highest number of road fatalities per 100 000 inhabitants among OECD countries, with 13.6 fatalities per 100 000 inhabitants in 2018 – just behind Costa Rica, which registered 15.7 road fatalities per 100 000 inhabitants (ITF, 2020[67]). While motorcycles represent 24% of the total number of vehicles used in Colombia, they are involved in more than half of road accidents.[15]

Road transport is also the largest consumer of energy and the largest source of carbon dioxide (CO_2) emissions from fuel combustion in the country, with 589.1 kCO_2 per capita in 2018 (OECD, n.d.[68]). According to the Colombian government's estimates, the transport sector is responsible for 12% of GHG emissions (CO_2, CH_4, N_2O, HFC, SF_6 and PFC) in the country, of which 90% are produced by road transport (DNP, 2020[63]). The transport sector produces 70% of criteria pollutants (PM_{10}, $PM_{2.5}$, SO_2, NO_2, O_3 and CO). The ageing vehicle fleet drives the high emission levels produced by road transport, as 34% of vehicles in Colombia are more than 20 years old (DNP, 2020[63]). The high number of motorcycles has been another driver of carbon emissions, as almost all of them (99%) operate on gasoline.[16] Traffic congestion also has detrimental economic impacts, due to productivity loss, increases in prices of goods driven by higher transportation costs and fuel waste.

Colombia has implemented various policies in order to boost clean mobility and reduce GHG emissions associated with the transport and mobility sector. These include: Law 1964 of 2019, which promotes the use of electric vehicles and zero emissions, in particular through a tax of only 1% for this type of vehicles; the National Strategy for Electric Mobility 2019, which defines the actions to accelerate the transition to electric mobility, with the goal of 600 000 electric vehicles registered by 2030; and the Resolution of the Vehicles Modernisation Programme (*Programa de Modernización de Vehículos*), which promotes the introduction of new technologies and the production of new vehicles which are zero- or low- emission (electric, hybrid or natural gas). Efforts to decarbonise transport have also been made at the local level. Bogotá, D.C. for example, has one of the largest fleets of electric or low-emission buses in the whole of the American continent (Harper, 2019[69]).

In the wake of the COVID-19 crisis and adding to existing proactive policies encouraging cleaner transport modes, several Colombian cities, like many other cities around the world, have promoted active mobility, especially through investments in bicycle infrastructure, as a means of reducing personal vehicle use and demand for public transport and improving local air quality. Bogotá, D.C. for example, announced very early in spring 2020 the provision of an additional 35 km of cycleways, adding to the 550 km of cycleways already secured by an ambitious policy since the 1970s. Medellín plans to expand bike lanes by almost 50% within 3 years, to reach 145 km, and more than double the number of interconnected public transport lines, including overland trains, trams and cable car lines by 2030. Furthermore, the city is working to provide 50 000 electric bikes that residents can rent at a low cost and it is committed to electrifying all public transport by the end of the decade

While air pollution remains high, Colombian cities fare relatively well in other environmental indicators

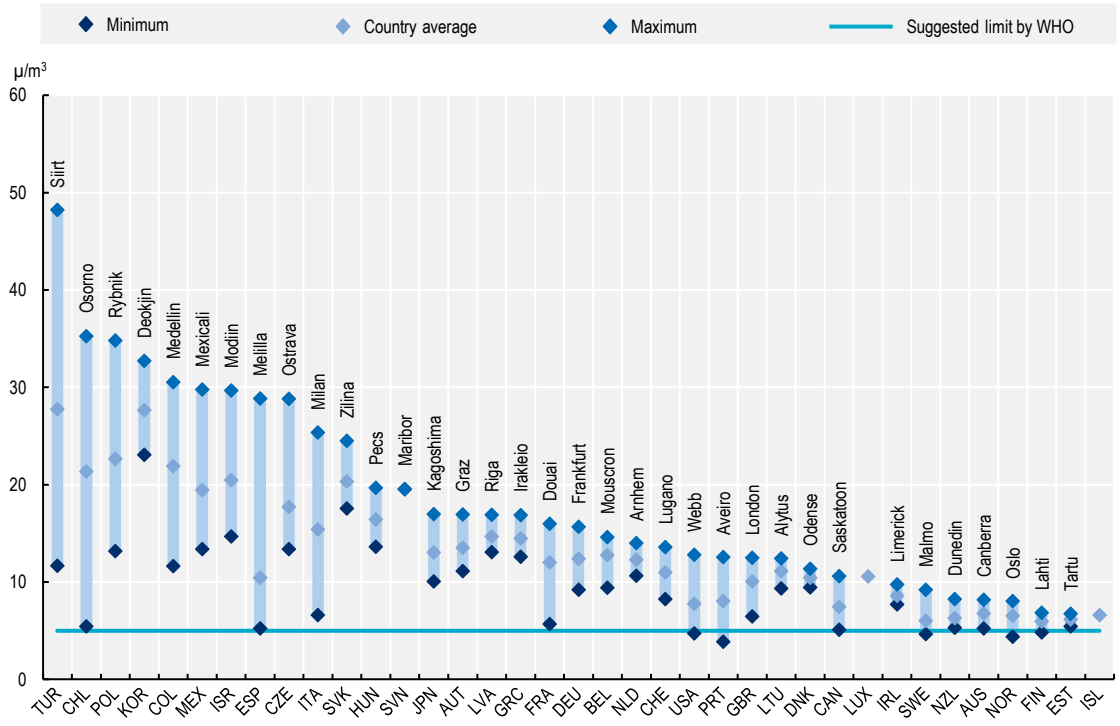
While air pollution has decreased significantly in major cities thanks to fuel quality improvement, traffic regulation and installation of urban mass rapid transit systems, urban air pollution in Colombian cities remains high due to,among other things, the use of obsolete diesel vehicles, poor overseeing of polluting industries, the growing use of private cars and motorcycles, indiscriminate logging of forest, biomass burning, and an incipient environmental and recycling culture, which poses health threats with increased risks of heart and respiratory diseases. All cities in Colombia still have levels of exposure to $PM_{2.5}$ above the limit recommended by the World Health Organization (WHO) at 5 μ/m^3 (WHO, 2021[70]). Compared with other OECD countries, air pollution is high in Colombian FUAs on average, with several cities experiencing levels of $PM_{2.5}$ around 30 µ/m3 or more (Figure 1.39). In order to reduce air pollution in cities and in line with the Colombian Green Growth Policy and Roadmap for 2030, the National Development Plan (*Plan Nacional de Desarrollo*, DNP) 2018-2022 “Pact for Colombia, Pact for Equity” set a goal of reducing the particulate matter levels in the air and improve air quality in cities. In order to achieve this goal, the number of monitoring stations has increased from 22% to 35% of stations complying with the PM_{10} standard established by the WHO. Air pollutant levels and meteorological variables are recorded by the Air Quality Information System (SISAIRE), which allows a continuous collection and revision of air quality data collected by the environmental authorities.

The residential sector is the second-largest consumer of energy in Colombia, with 41 739 gigawatts hours (GWh) consumed in 2019. However, compared with other OECD countries, Colombia displays relatively low housing-related levels of GHG emissions per capita (Figure 1.40), for example, Chile consumed 50 763 GWh and Mexico 62 000 GWh in 2018.

In terms of waste generation, municipal waste generation per capita in Colombia is less than half the OECD average (Figure 1.41). However, most waste is landfilled due to the absence of waste processing plants in most of the municipalities, which can have detrimental effects on human health and the environment. Furthermore, although waste disposal capacity has increased and the number of dumpsites has been reduced, about 30% of landfills still do not comply with environmental standards and, in several large cities,

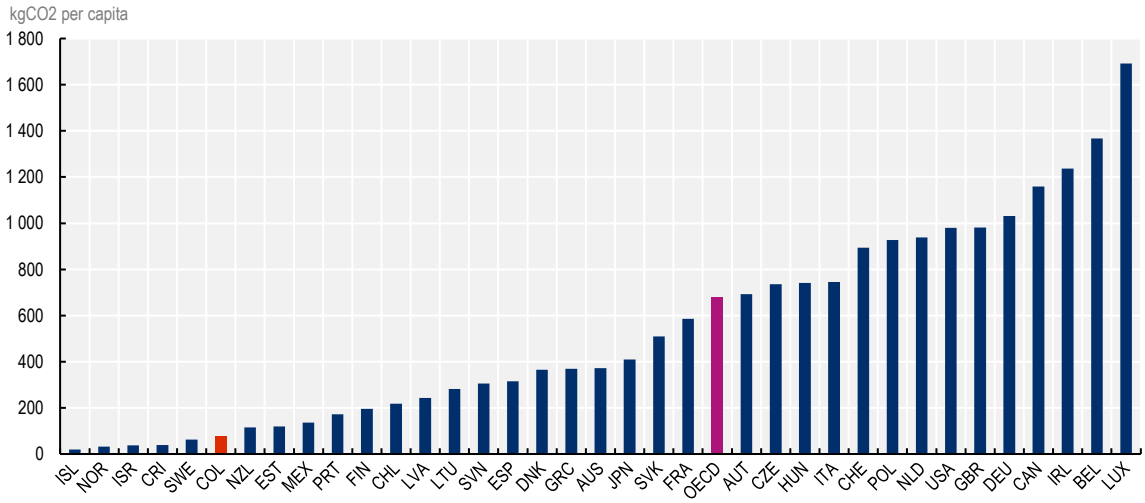
they have reached capacity (OECD/ECLAC, 2014[71]), while amounts of disposed waste continue to increase leading to the use of transfer stations and temporary storage. Between 2010 and 2019, the amount of waste increased by 7.9% in Colombia and by almost 20% in Bogotá, D.C.

Figure 1.39. Levels of $PM_{2.5}$ in µ/m3, population-weighted average of OECD FUAs, 2019



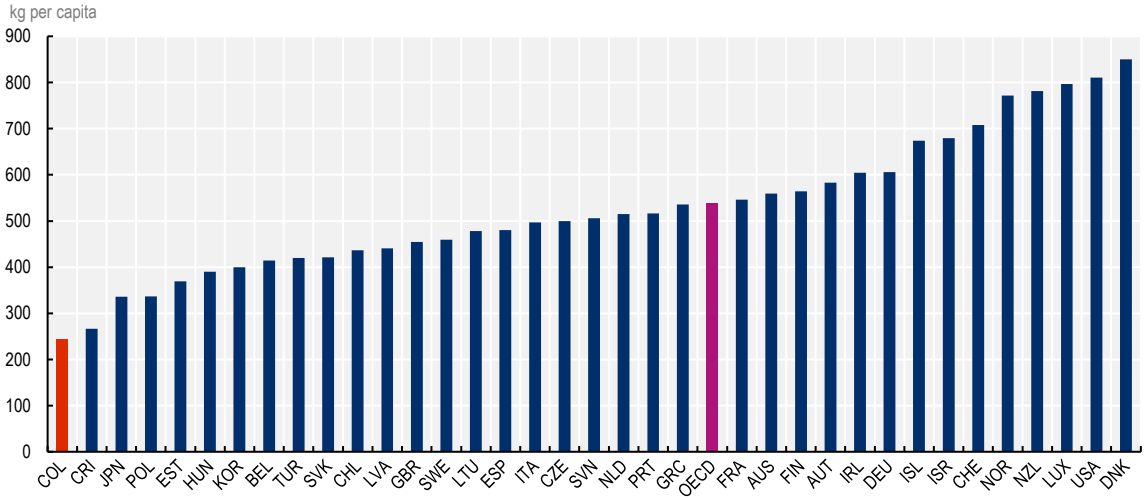
Note: The indicator of air pollution refers to the population-weighted average exposure to fine particulate matter that is less than 2.5 microns in diameter ($PM_{2.5}$).
Source: OECD (2020[9]), *OECD Regions and Cities at a Glance 2020*, https://dx.doi.org/10.1787/959d5ba0-en.

Figure 1.40. Per capita emissions in the residential sector, OECD countries, 2018



Source: IEA (n.d.[68]), *IEA CO2 Emissions from Fuel Combustion Statistics*, http://dx.doi.org/10.1787/co2-data-en.

Figure 1.41. Municipal waste generation per capita, 2019



Note: Data are for 2019 except for Chile, Colombia, New Zealand and the United States for which data are for 2018, and for Iceland for which data are for 2017.
Source: OECD (n.d.[72]), *Municipal Waste, Generation and Treatment (database)*, https://stats.oecd.org/index.aspx?DataSetCode=MUNW.

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Notes

[1] The World Bank defines upper middle-income economies as countries with a gross national income (GNI) per capita between USD 4 096 and USD 12 695 (https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups).

[2] The data is presented in terms of events because a victim could have suffered more than one forced displacement at a different time or place.

[3] Information provided by the Colombian government’s Victims’ Unit (*Unidad para las Víctimas*) to the OECD. See also: https://www.unidadvictimas.gov.co/es/quienes-somos/mision-y-vision/184.

[4] A commute threshold is the minimum share of workforce in a municipality or contiguous local units that travels daily to work in another municipality to be included in the FUA.

[5] There are also a number of metropolitan areas that have been recognised but not yet institutionalised. This is the case for example of the metropolitan areas of Bogotá, D.C., Cali, Popayán, the binational metropolitan areas of Arauca-El Amparo (Colombia-Venezuela) and Ipiales (Colombia-Ecuador), and the trinational metropolitan area of Leticia-Tabatinga (Colombia-Brazil-Perú).

[6] DANE–Proyecciones de población (Dirección de Censos y Demografía) and Marco Geoestadístico Nacional–MGN 2020 (Dirección de Información Geoestadística).

[7] Consolidated illegal informal settlements refer to illegal human settlements whose buildings are permanent, built with stable materials, have installed public infrastructure, with paved roads and institutional buildings promoted by the Colombian State, while precarious illegal informal settlements refer

to illegal human settlements which present incomplete development conditions and are in various states of consolidation.

[8] The 23 departments' capital cities and metropolitan areas are: Armenia, Barranquilla A.M., Bucaramanga A.M., Bogotá D.C., Cali A.M., Cartagena, Cúcuta A.M., Florencia, Ibagué, Manizales A.M., Medellín A.M., Montería, Neiva, Pereira A.M., Pasto, Popayán, Quibdó, Riohacha, Santa Marta, Sincelejo, Tunja, Valledupar and Villavicencio.

[9] The definition adopted by DANE for the measurement of informal employment refers to the 15th International Conference of Labour Statisticians (ICLS) resolution of the International Labour Organization (ILO) of 1993 and the recommendations of the DELHI group (group of experts convened by the United Nations for the measurement of the informal economy). Informal employees are: private employees who work in establishments, businesses or companies that employ up to five people in all of their agencies and branches, including the employer and/or partner; unpaid family workers in companies with five workers or less; unpaid workers in companies or businesses of other households; domestic employees in companies with five workers or less; day workers or workers in companies with five workers or less; self-employed workers who work in establishments up to five people, except professional independent workers; employers or employers in companies with five workers or less; government workers or employees are excluded.

[10] The definition of VIS relates to a maximum legal sale price of the housing units, established by Decree 4466 of 2007 at 135 minimum monthly wage (MMW, USD 261 in April 2021). This ceiling can be higher in urban agglomerations with more than 1 million inhabitants (150 MMW) and in renovation areas (175 MMW). Within VIS, the VIP (*Vivienda de intéres prioritario*) subcategory refer to social housing with a maximum sale price even lower than for VIS (less than 70 MMV in general and 90 MMW in large urban agglomerations with more than 1 million inhabitants).

[11] Unliveable conditions are defined using the DANE methodology. It includes reviewing minimum habitability conditions such as infrastructure materials, cohabitation, independent kitchen areas and access to public services.

[12] The five dimensions are: i) educational attainment (illiteracy and low educational attainment); ii) childhood and youth conditions (school absence, school delay, barriers to early childhood care services, child labour); iii) work (informal work and long-term unemployment); iv) health (without health insurance, barriers to access to health); and v) housing conditions and access to public services (no access to an improved water source, inadequate sewage disposal, unsuitable floor materials, unsuitable wall materials and critical overcrowding).

[13] The Gini index measures the distance between the Lorenz curve and the hypothetical line of absolute equality. A Gini index of 0 represents perfect equality and 1 perfect inequality.

[14] For further information, see the vehicles registry (Registro Unico Nacional de Tránsito, RUNT), https://www.runt.com.co/runt-en-cifras/.

[15] For further information, see https://www.revistaautocrash.com/causas-accidentalidad-motocicletas-colombia/.

[16] For further information, see https://www.larepublica.co/economia/motocicletas-y-taxis-a-gasolina-los-que-mas-producen-emisiones-de-co2-2474026 and https://www.eltiempo.com/archivo/documento/CMS-16824587.

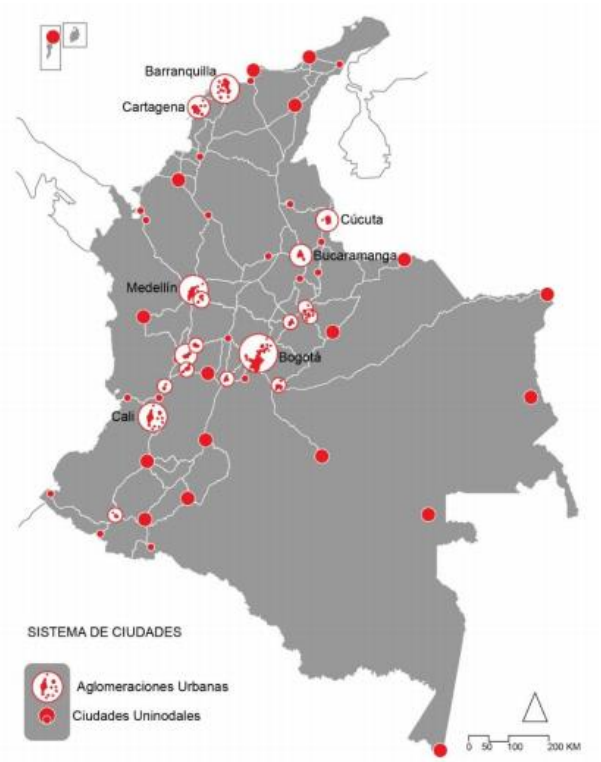
Annex 1.A. Methodology to identify FUAs according to Colombia's System of Cities and the EU/OECD

Definition of Colombian FUAs by Colombia's System of Cities

To define FUAs, Colombia's System of Cities takes into account four criteria:

- The functional relationship between municipalities based on the analysis of workers' daily commutes between two municipalities (Colombia's System of Cities sets a 10% commute threshold between municipalities to define FUAs, i.e. are included in the FUA the municipalities in which more than 10% of their workforce travels daily to work in another municipality).
- The population size (greater than 100 000 inhabitants).
- The political-administrative function of municipalities (department capitals with fewer than 100 000 inhabitants).
- The strategic importance of the municipalities in the regions (municipalities with fewer than 100 000 inhabitants that have a strategic function in terms of service provision at the subregional level).

Annex Figure 1.A.1. Colombia's System of Cities



Source: Mission of the System of Cities (2012-2014); Gobierno de Colombia (2014[15]), *Política Nacional para Consolidar el Sistema de Ciudades en Colombia, CONPES 3819*, https://s3.pagegear.co/38/69/2017/conpes_3819_sistema_de_ciudades.pdf.

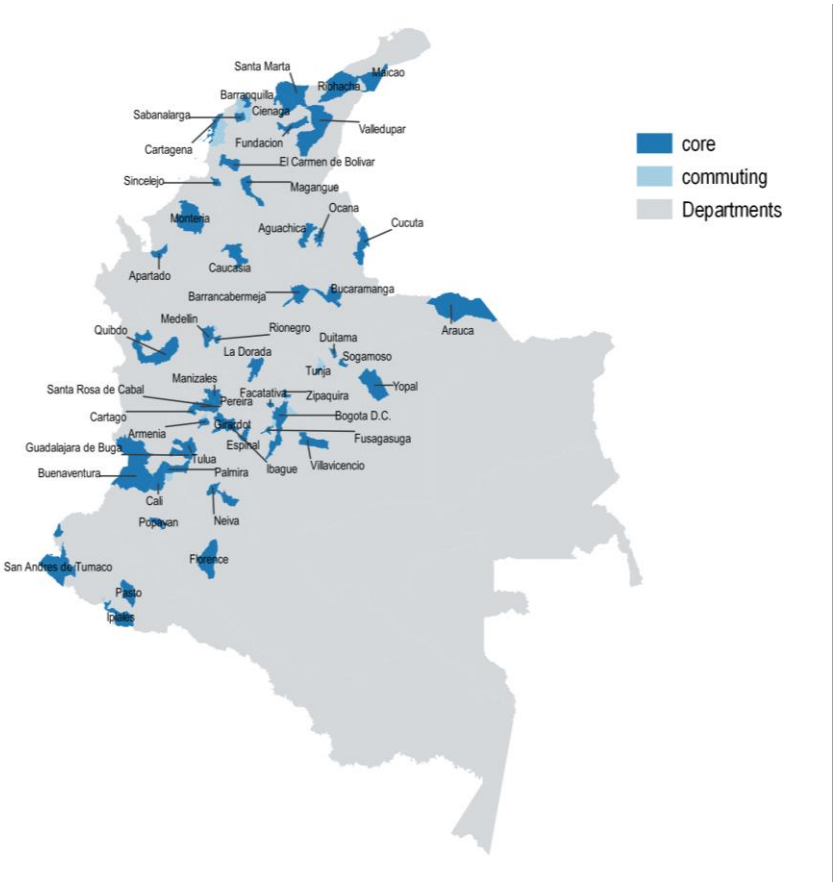
Colombia's System of Cities identifies two types of urban forms. The first category includes functional cities which are a group of contiguous urban centres with shared characteristics, functional relationships in terms of commuting patterns, more than 100 000 inhabitants and are usually concentrated around a main city. The second form includes single-municipality functional cities whose functional area remains within the administrative limit of the municipality and are municipalities with regional relevance as service providers, including department capitals (Gobierno de Colombia, 2014[15]).

Following this methodology, Colombia's System of Cities identifies 56 FUAs: 18 are considered functional cities (i.e. groups of municipalities), of which 14 revolve around capital cities and which include 113 municipalities, and 38 single-municipality functional cities (Gobierno de Colombia, 2014[15]).

Definition of Colombian FUAs by the EU/OECD

According to the EU/OECD methodology, an FUA consists of a densely inhabited city and surrounding area (commuting zone) whose labour market is highly integrated with the city, thereby encompassing the economic and functional extent of cities based on people's daily movements.

Annex Figure 1.A.2. OECD FUAs in Colombia



Source: OECD (2020[73]), *Functional Urban Areas in Colombia*, https://www.oecd.org/cfe/regionaldevelopment/Colombia.pdf.

The methodology consists of four main steps:

- Identification of an urban centre, i.e. a set of high density (1 500 residents per km²) grid cells with a population of 50 000 inhabitants in the contiguous cells.

- Identification of a city, i.e. one or more local units that have at least 50% of their residents inside an urban centre.
- Identification of a commuting zone, i.e. a set of contiguous local units that have at least 15% of their employed residents working in the city.
- Definition of the FUA as the combination of the city and its commuting zone (Dijkstra, Poelman and Veneri, 2019[17]).

The EU/OECD methodology identifies 53 FUAs in Colombia made up of 106 municipalities.

2 Toward a renewed national urban policy in Colombia

This chapter looks at the main elements of Colombia's national urban policy (NUP). It begins by exploring Colombia's major urban challenges in light of the urbanisation process and the recent COVID-19 pandemic. This is followed by an examination of the NUP framework known as the System of Cities, which is benchmarked against international experience on building and implementing NUPs. It discusses the main strengths and opportunities of the NUP as well as its limitations and threats. The chapter then proposes a series of recommendations intended to support Colombia's national government in updating its NUP, based on international best practice and the opportunities presented by the COVID-19 pandemic recovery stage.

Introduction

Colombia is one of the most urbanised countries in Latin America and the OECD. More and more Colombians reside in urban areas, with the expectation of improving their quality of life. As in the rest of the world, for Colombia, effective management of cities represents an opportunity to achieve the United Nations (UN) Sustainable Development Goals (SDGs) and the Paris Agreement on Climate Change. Cities also constitute a valuable tool to underpin recovery from the COVID-19 pandemic. However, to realise the potential of cities to contribute to national goals, Colombia needs to get urbanisation under control, tackle the negative externalities caused by agglomeration and ensure that residents are able to satisfy their basic needs.

To this end, over the last three decades, Colombia has engaged in a process to design, implement and reform urban policies to improve the habitat and living conditions of its urban population. Early NUPs have evolved responding to different challenges and changes in national priorities. Despite their possible limitations, NUPs have been seminal to raise awareness of local authorities, public organisations and citizens of the importance of getting cities and urbanisation right if the country wants to develop its economy, raise living standards and protect the environment.

The latest generation of these policies is the National Policy for the Consolidation of the System of Cities in Colombia (*Consejo Nacional de Política Económica y Social [CONPES] 3819*, hereinafter "System of Cities") adopted in 2014. It constitutes the current NUP framework. However, this national policy is reaching a point where it needs to be revised and renewed. The System of Cities was built with a mid-term planning horizon (2014-19) and almost all of the investment projects and programmes that derived from it are now completed. For this reason, in 2019, background work for the elaboration of a new NUP framework called Cities 4.0 (*Ciudades 4.0*) started under the leadership of the Ministry of Housing, City and Territory (*Ministerio de Vivienda, Ciudad y Territorio*, MVCT) of Colombia, which seeks to position itself as the main actor in urban policy at the national level. Due to the electoral cycle, the preparation of the new NUP will be continued by the new administration to be elected in 2022.

The assessment and recommendations formulated in this chapter are based on the information collected through: a literature review; the background questionnaire answered by the national government of Colombia; interviews with different stakeholders from the national and subnational governments as well as members of the academia; and the OECD Survey on Urban Policy in Colombia, 2021, conducted with the support of the MVCT and the Colombian Association of Capital Cities (AsoCapitales).

This chapter will present a comparative assessment of the current NUP framework in Colombia, taking as a benchmark the 2021 monitoring of the global state of NUP frameworks across 162 countries conducted by Cities Alliance, the OECD and UN-Habitat.

Colombia's urban development context

Acute urban challenges hinder socio-economic progress

More than three-quarters of the population in Colombia live in cities, compared to an average of 69% in OECD countries (OECD, 2018[1]) and 48% across the world in 2015 (OECD/EC, 2020[2]). Urban settlements are growing and will continue doing so in the coming decades as the population grows. By 2050, Colombian authorities expect over 14 million new urban residents in addition to the current 35 million (Gobierno de Colombia, 2014[3]). However, this rapid urbanisation is not unfolding in a planned, co-ordinated, and managed fashion. This is reflected in social (i.e. inequality, urban poverty), economic (i.e. poor physical and digital connectivity among cities) and environmental challenges (i.e. poor air quality) challenges. The unplanned city growth has given origin to informal developments where living conditions are particularly hard due to poor access to basic services (i.e. water, sanitation, electricity) and long

distances to employment opportunities. Colombian cities present problems related to land tenure and homelessness, unemployment, environmental hazards, absence of multi-purpose public space, inadequate and overburdened infrastructure, inefficient public service delivery, the lack of state protection, and corruption, which together aggravate inequality, informal employment and poverty. Tackling these issues depends largely on improving the quality of urbanisation and the functioning of cities.

COVID-19 aggravated living conditions in cities

The COVID-19 pandemic has imposed an unprecedented shock on the Colombian city system and its infrastructures, amplifying pre-existing inequalities. Although Colombia was making progress in lifting people out of poverty, this improvement was still weak as many people remained highly vulnerable to the effects of economic cycles. Colombia entered the COVID-19 pandemic with a weak low-middle income class, which lacked a safety net to face the crisis. The pandemic is likely to exacerbate inequality due to the higher incidence of the virus in the most vulnerable segments of the population. For example, in the departments of Guainía and Vaupés, approximately 20% of households live in overcrowded conditions and more than 30% of houses lack adequate materials and services; these residents face serious limitations to self-isolation and to following basic protective measures such as washing hands, and therefore people tend to spend more time outdoors due to overcrowding (Pinilla, Ramírez Varela and González, 2020[4]).

The COVID-19 pandemic is having an impact on almost every aspect of people's lives, including health, income, job quality and security, housing, social interactions and family relations. In particular, the COVID-19 crisis is threatening the well-being of younger generations, whose life prospects have been deeply affected, leading to social discontent. Vulnerable informal workers who are not part of a household supported by a social assistance programme live on a day-by-day basis and cannot work remotely. Many of the informal workers had seen an improvement in their quality-of-life standards but the pandemic has increased the risk that they might slip back into the subsistence economy. Even basic health measures, such as washing hands and physical distancing, are complicated to follow due to the lack of basic services and overcrowded housing conditions. The pandemic has highlighted the shortage of stable and affordable housing for the most vulnerable households despite the implementation of social support programmes and existing subsidies for housing acquisition and renewal.

The impact of the pandemic on economic activity and social conditions has been particularly acute among the middle- and low-income population. Low-paid workers and minority groups (i.e. migrants) are employed in sectors particularly exposed to lockdowns and loss of demand, such as the tourism industry, the hospitality sector, cleaning firms or the education sector where schools had to close as students could not pay tuition fees and/or continue their classes online. The combination of the pandemic and longstanding inequalities has contributed to fuelling social discontent reflected in mass protests in the first half of 2021. Rural residents experience particularly hard living conditions. Rural areas have been affected by years of fighting for territory control and land possession, and tend to have lower levels of access to affordable housing, quality healthcare and education services, as well as formal jobs (Rendón Acevedo and Gutiérrez Villamil, 2019[5]).

The *Compromiso por el Futuro de Colombia* (Commitment to the Future of Colombia) is the national government's strategy for economic recovery from the COVID-19 pandemic, which was complemented with policy actions for recovery and sustainable growth in February 2021 (Box 2.1). It lays out a roadmap for the economic and social reactivation of the country to be executed between 2020 and 2022. The strategy has mobilised high levels of public funding to mitigate the impact of the COVID-19 pandemic (approximately COP 100 billion,[1] or USD 25.8 billion) and aims to create 1 million jobs. A key component of the strategy is to support vulnerable and impoverished sectors of the population through the *ingreso solidario* (solidarity income) to ensure a minimum income. The national government is planning to extend the programme until the end of 2022 but there seems to be no exit strategy from this massive short-term

public support. Moreover, the national government has not yet seized the opportunities of cities to deal with the triple crisis: health, economic and social. While the impact of the current recovery measures on cities remains uncertain, if not properly managed, they might also create unintended negative side effects. For example, the recovery strategy highlights a commitment to supporting the most vulnerable groups and offers them options to access homeownership. However, only focusing on helping vulnerable households access homeownership may have negative effects on labour mobility in the long term. Housing construction projects, if not properly co-ordinated with land use plans, may also exacerbate urban sprawl, which is a challenge in many urban areas in Colombia. The recovery measures adopted to deal with the COVID-19 crisis must be designed for the mid- and long-term periods to anticipate future negative side effects. For example, if the *ingreso solidario* provides a rental housing subsidy, it should consider the impact it may have on potential increases in rental costs if the stock for rental housing is not enough.

Box 2.1. Colombia's COVID-19 recovery strategy

In August 2020, the national government unveiled the economic recovery plan called Commitment for the Future of Colombia. The plan marks a major step toward a broad strategy to organise government efforts at the national level to boost economic activity. The plan includes measures that amount to USD 3.7 billion in investments to be conducted by the end of the current administration in 2022.[2] These measures include additional cash transfers for the most vulnerable groups of the population, value added tax (VAT) rebates for the poorest, tax deferrals for companies and financing support for small- and medium-sized enterprises (SMEs). The plan includes commitments around employment generation, clean growth, the poor and vulnerable in society, rural areas and peace with legality (policy actions for rural and regional development in areas affected by violence).

Moreover, to support the most vulnerable households, the government launched a specific programme called *ingreso solidario* (solidarity income), which provides a rent housing subsidy to almost three million households that had never received any support from the government. Other actions include granting more than 200 000 subsidies for (social) housing acquisition and habilitating 16 000 hectares of land for urban uses.[3] Through this programme, the national government seeks to support three million households in poverty and economic vulnerability that are not entitled to benefits from other social programmes such as *Familias en Acción*, *Jóvenes en Acción* or Protection to the Elderly (*Colombia Mayor*). Households receive a monthly subsidy of COP 160 000 (approximately USD 42.8). To benefit from the subsidy, a household must be informed via the official website or by text message that they are beneficiaries of the programme and about the dates and times they can collect the subsidy if they do not have a bank account. The national government aims to maintain the programme until the end of 2022.

To finance the economic and social impact of the COVID-19 pandemic, the national government created the National Emergency Mitigation Fund. This fund accounts for around 2.8% of gross domestic product (GDP), partially funded from regional and stabilisation funds (around 1.5% of GDP) and complemented by domestic bond issuance and other budgetary resources (around 1.3% of GDP).

In February 2021, the national government issued the *Nuevo Compromiso por el Futuro de Colombia* (New Commitment for the Future of Colombia) to complement the 2020 recovery strategy through the definition of a policy for the reactivation and sustainable and inclusive growth that sets itself the objective of supporting households, develop the capacities of the productive sector and improve the institutional framework. The actions are grouped into four strategic axes: i) mitigating the increase in poverty and economic vulnerability of households; ii) reactivating the productive apparatus towards more sustainable growth; iii) increasing institutional capacity and citizens' trust; and iv) enabling digital transition.

Source: Presidencia de la República de Colombia (n.d.[6]), *Compromiso por Colombia*, https://compromisoporcolombia.gov.co (accessed on 15 December 2020) (2020[7]), *Colombia: Government and Institution Measures in Response to COVID-19*, https://home.kpmg/xx/en/home/insights/2020/04/colombia-government-and-institution-measures-in-response-to-covid.html; Presidencia de la República de Colombia (2020[8]), "Compromiso por Colombia - Por la protección de los más pobres y vulnerables", https://id.presidencia.gov.co/Paginas/prensa/2020/COMPROMISO-POR-COLOMBIA-Por-la-proteccion-de-los-mas-pobres-y-vulnerables-200807.aspx; Government of Colombia (n.d.[9]), *Ingreso Solidario*, https://ingresosolidario.prosperidadsocial.gov.co (accessed on 15 December 2020); Semana (2021[10]), "Ingreso Solidario - ¿Qué pasará con el subsidio después de agosto?", https://www.semana.com/economia/macroeconomia/articulo/ingreso-solidario-que-pasara-con-el-subsidio-despues-de-agosto/202159/; Gobierno de Colombia (2021[11]), *Política para la Reactivación, la Repotenciación y el Crecimiento Sostenible e Incluyente: Nuevo Compromiso por el Futuro de Colombia (CONPES 4023)*, https://colaboracion.dnp.gov.co/CDT/Conpes/Econ%C3%B3micos/4023.pdf; Gobierno de Colombia (2018[12]), *Paz con Legalidad*, http://www.posconflicto.gov.co/Documents/politica-estabilizacion-Paz-con-legalidad.pdf.

Cities face high levels of poverty, inequality and insecurity

Even though cities in Colombia continue to attract population, they do not always offer the expected opportunities to improve living conditions. Access to higher wages and amenities of all types comes with increased costs of living, air pollution, congestion and long commutes. International migration, particularly from neighbouring Venezuela, is putting additional pressure on scarce resources and capacities at the local level for satisfying basic needs such as housing.

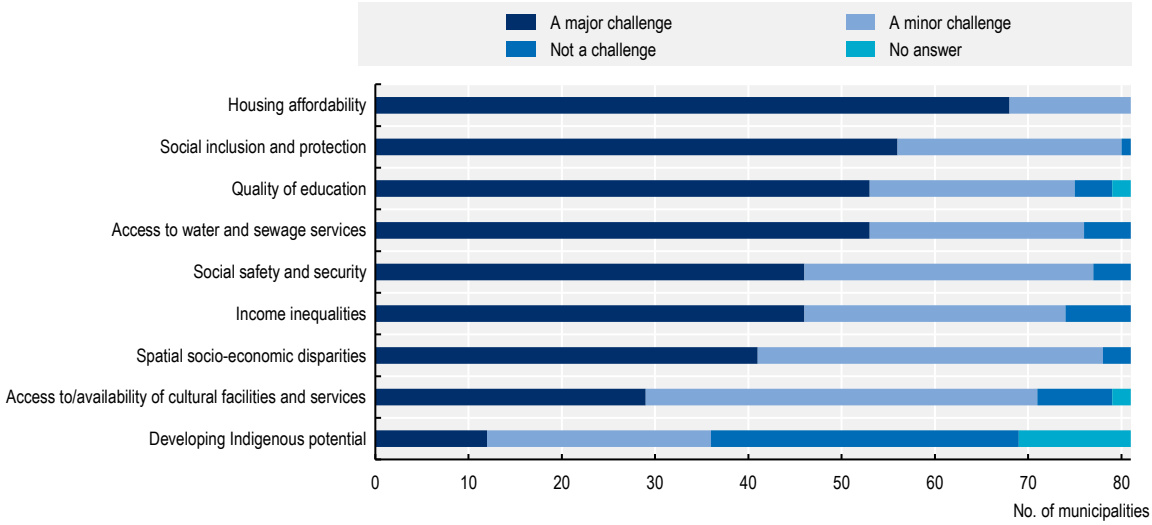
Colombia remains a very unequal country despite improvements in key social indicators (OECD, 2014[13]; 2019[14]). Cities mirror this situation as they show high levels of inequality and spatial segregation between wealthy and poor neighbourhoods, giving room to the social exclusion of low-income residents (see Chapter 1). The COVID-19 pandemic has highlighted the deficiencies of Colombia's urbanisation process as poverty-stricken households were the most affected by the health crisis. According to the National Administrative Department of Statistics (*Departamento Administrativo Nacional de Estadística*, DANE), the share of the population living under the national poverty level increased from 35.7% in 2019 to 42.5% in 2020, with Bucaramanga and Cúcuta seeing the highest increases in extreme poverty levels.[4]

According to the results of the OECD Survey on Urban Policy in Colombia conducted in 2021, the main social policy challenge for municipalities is housing affordability (Figure 2.1). Ensuring that low-income households have access to adequate housing has been a priority of national and subnational governments for at least two decades. According to the national banking association Asobancaria (2020[15]), more than 500 000 households are living in overcrowded conditions in Colombia and more than 1 million housing units need upgrading to reach adequate quality standards. However, according to the ministry of housing, 3.8 million households live in homes that can be improved through renovation (MVCT, 2020[16]). Social inclusion and protection are the second major challenge for Colombian municipalities. This challenge refers to supporting people living in poverty, reducing inequality and dealing with discrimination against, for example, disabled people, women and ethnic groups. As Chapter 1 has noted, Colombia is one of the most unequal countries in Latin America, and although the country has been tackling this issue for more than two decades, more needs to be done to reduce inequality in light of the impact of the COVID-19 crisis.

Even though the coverage of the urban population in public services is almost complete, the demand for services is growing, their quality is uneven and the needs for specific services vary across cities. For example, Cali is struggling to improve its sewage system and to address high costs in electricity; Barranquilla and Medellín face the challenge of illegal connections to public services; Cartagena needs to improve the coverage and quality of the water supply (Borja and Gómez, 2015[17]); Valledupar needs to provide affordable housing for local and international migrants but with limited resources; Barrancabermeja has to deal with illegal settlements and irregular housing; Arauca is experiencing growing levels of poverty and the invasion of environmental reserves for illegal settlements due to international migration; Manizales needs to improve infrastructure for active mobility, considering it has a large cohort of elderly population;

Palmira requires revising its transport plan to connect the city with the airport; Chia has a deficit of affordable land for social housing.

Figure 2.1. Main social policy challenges across municipalities in Colombia, n=81



Note: Answers to question "Q.2.1. What are the main challenges for social development in your municipality?".
Source: OECD Survey on Urban Policy in Colombia, 2021, conducted with the support of the MVCT and AsoCapitales.

Inequality in Colombian cities is leading to insecurity. The lack of safety and security in cities has been a constant challenge in Colombia for several decades. Insecurity is a holistic issue that cannot be solved only through policing measures. It is often deeply rooted in inequality, unemployment and weak social cohesion that permeate Colombian cities. According to Colombian researchers, population density facilitates crime due to the larger possibilities of organisation and secrecy and it is a high-ranking problem in at least the six main cities of the country: Barranquilla, the Capital District of Bogotá (hereafter Bogotá, D.C.), Bucaramanga, Cali, Cartagena and Medellín (Unimedios, 2015[18]).[5]

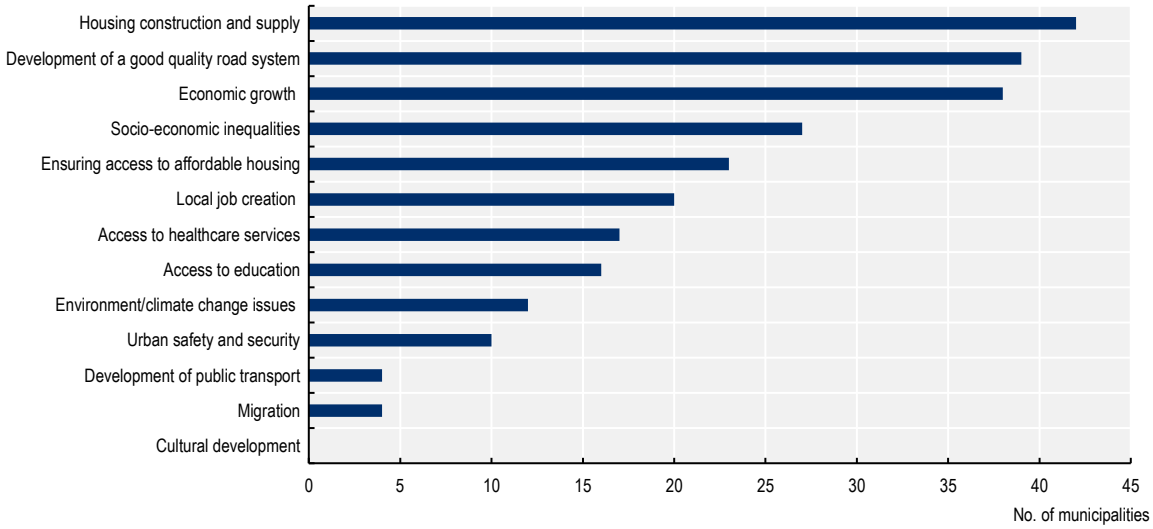
Housing construction, connectivity among cities and informality are important factors for the urban economy dynamics

As in the rest of the world, housing construction and supply has an important impact on national and subnational economic activity in Colombia as it contributes to job creation and economic growth. Not surprisingly, housing construction and supply is a top priority for municipalities in Colombia (Figure 2.2). In the pre-COVID-19 period, the construction sector contributed between 6.2% and 7.3% of the national GDP over the last decade and, in 2018, it employed 1.5 million workers (6.2% of national employment) (Asobancaria, 2020[15]). In 2018, more than half of the activities in the construction sector focused on housing construction (52%), followed by civil works (infrastructure) (28%) (Asobancaria, 2020[15]). Therefore, prioritising housing construction represents the opportunity for municipalities to meet their social and economic goals, and support green recovery if constructions standards are followed (see Chapter 4).

Another challenge for Colombian cities is their isolation from each other. This is due to geographic features but also to the lack of investment in physical and digital connectivity infrastructure. Developing a good quality road network is the second most important priority for development in municipalities (Figure 2.2). This context negatively influences the cities' economic performance and that of the country in general. Colombia's cities have limited industrial specialisation and no complementarity among them (DNP, 2014[19]). The constant industrial mobility "in and out" of cities prevents their specialisation; for example, in Bogotá, D.C., 219 industrial establishments exited while only 120 arrived in the city between 2005 and

2015 (Fuentes López, Jiménez Reyes and Pérez Forero, 2019[20]). As Chapter 1 shows, 23 out of 1 102 municipalities produce half of the country's real GDP and almost 40% is concentrated in 5 cities. The national government has been working to diversify the economy by shifting from commodity exports (such as oil and coffee) to manufacturing and, eventually, a knowledge-intensive economy. To this end, Colombia requires a more efficient urban system that connects cities physically and digitally and serves to strengthen connections to external markets as well as to attract a talented workforce that contributes to economic development. Efforts to improve connectivity would need to take into account the country's natural geography characterised by its mountainous terrain that leads to a dispersed system of cities that limits trade among them. Freight is mostly carried out by road, adding to logistics costs and undermining the country's economic competitiveness. However, freight transport damages road infrastructure and increases congestion at the entrance of cities and in the main urban roads, as the distribution centres are typically located in the city centre.

Figure 2.2. Main policy priorities of municipal development policies in Colombia, n=81



Note: Answers to question "Q. 2.3. What are the main policy priorities for development in your municipality?". Municipalities were asked to select the three main policy priorities.
Source: OECD Survey on Urban Policy in Colombia, 2021, conducted with the support of the MVCT and AsoCapitales.

Unemployment and informality are two main features of the urban economy in Colombia. Although unemployment levels have decreased in recent years (OECD, 2019[14]), the COVID-19 pandemic is likely to halt such progress (see Chapter 1). The challenge for Colombian city authorities is to adopt employment policies that seek to address the informal economy by incentivising informal workers to move to the formal economy. The problem of informality goes beyond street vendors simply occupying public space; many individuals actually wish to remain in the informal sector to avoid paying taxes and the accounting burden, and to increase their income. Although informality does not mean illegality, the difference between the two is rather tenuous. The informal economy may be seen as the origin of informal housing and settlements. Since the housing policy reserves access to formal housing for people working in the formal economy, the only way for informal workers to find shelter is through informal housing since they do not have access to mortgages (see Chapter 4).

As Colombian cities sprawl, people need to travel longer distances to access jobs, education and services (see Chapter 1). No city provides efficient land use for the distribution of facilities shortening the distance residents have to travel, different transport modes and sufficient infrastructure to support non-motorised mobility such as public transport or walking and cycling. Mobility problems are exacerbated by poor

infrastructure conditions, fragmented transport systems, informal public transport and occupation of the public space that hinders mobility (i.e. informal street vendors) (see Chapter 3).

Poor air quality and adaptation to climate change are key urban priorities

Like many other cities around the world, Colombian cities face serious environmental challenges. Poor air quality is a constant problem among the main cities. Bogotá, D.C., Cali, Manizales, Medellín and Santa Marta among others present high levels of particulate matter PM_{10} and $PM_{2.5}$ (IDEAM, 2018[21]). Bogotá, D.C., the capital city, also registers high levels of air pollution by NO_2 and SO_2. Carbon monoxide (CO) emissions across Colombian cities are below the national permissible levels (IDEAM, 2018[21]). Poor air quality has a negative effect on people's health, leading to higher risks of developing respiratory diseases. Informal workers, who are most likely to spend time in the street, are also more likely to suffer from air pollution (see Chapter 1). In Bogotá, D.C. and Cali, 30% of the urban population is exposed to high levels of noise.[6]

Although Colombia only contributes to 0.4% of greenhouse gas (GHG) emissions at the global level, it will feel the impact of climate change more acutely (Gobierno de Colombia, 2017[22]). In Latin America, Colombia has one of the highest levels of disasters caused by natural phenomena associated with climate change, with 600 events on average every year (Gobierno de Colombia, 2017[22]). Cities like Bogotá, D.C., Cali and San Andrés are among the most likely to be affected by climate change through events such as floods and storms. The unsustainable use of natural resources such as water and oil, energy and wood consumption is also creating pressure on the environmental sustainability of cities. The housing sector, for instance, uses 8.2% of national water through sectors such as industry and mining.[7] Moreover, 11% of the urban population lives in areas prone to earthquakes, which although not directly related to climate change, also have a negative impact on people's safety and property.[8]

A comprehensive regulatory framework for urban policy

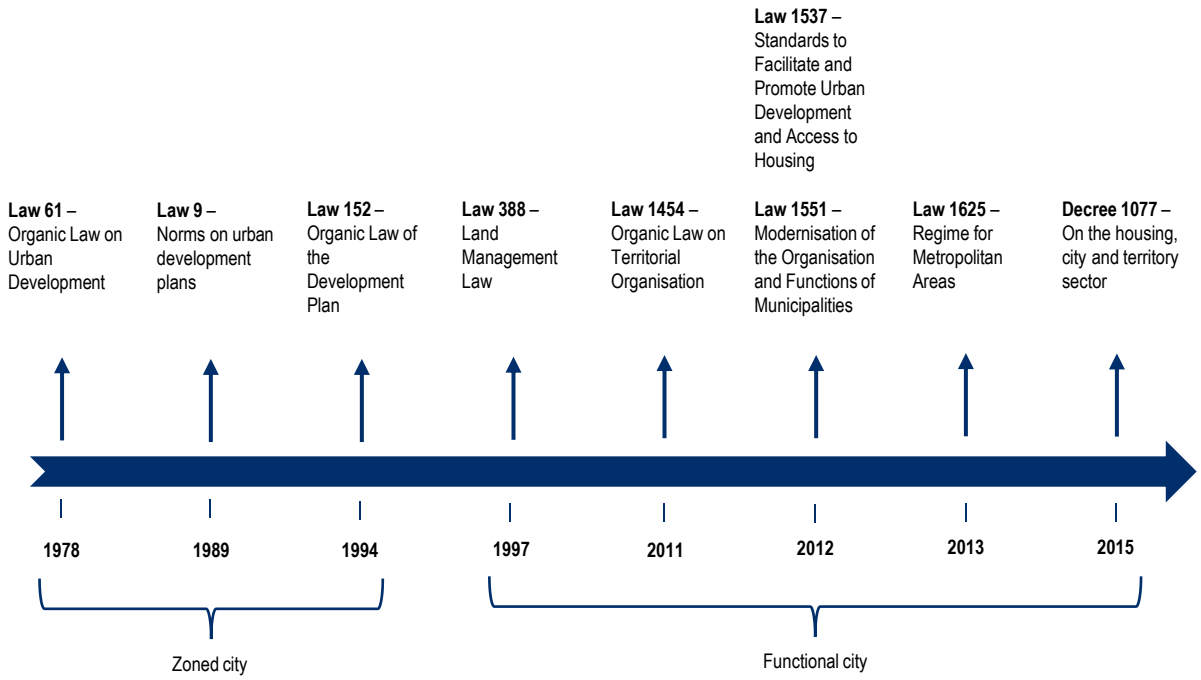
Based on the recognition that cities are critical for national social, economic and environmental performance, the Colombian government has issued a wide range of regulations and national urban development policies over time. They aim to create better living conditions for residents and to help achieve national goals with respect to growth, inclusion and environmental protection.

Urban policy and legislation have a long history in Colombia. Over the last four decades, the government has developed legislation to operationalise the NUP (Box 2.2). The 1991 Political Constitution sets the basis for a general regulatory framework that affects urban development in the country (Gobierno de Colombia, 1991[23]). All these laws and decrees constitute an instrument to achieve the decentralisation objectives set with the enactment of the 1991 Political Constitution, which grants subnational levels of government a prominent role in national development (see Chapter 5). Moreover, they also offer tools to put into practice the objectives adopted by different administrations on urban development as set in national development plans. However, the laws require decrees and other regulatory instruments to be operationalised and their enactment can take some time, which delays their full implementation. For instance, the implementation of Law 388 of 1997 on Territorial Development required a number of decrees, including some that were approved more than 10 years later.[9] Although the laws cover a large number of issues, they do not constitute an articulated, co-ordinated urban policy that provides a holistic framework to help cities increase their productivity and efficiency.

Figure 2.3 suggests that the Colombian regulatory framework that guides urban development has been in constant evolution since at least 1978 with the enactment of the Organic Law on Urban Development. Until 1997, all laws intended to regulate the zoning of cities. From 1997 with the Land Management Law, there was a shift in urban development regulation towards a functional vision of cities. In 2011, the enactment of the Organic Law on Territorial Organisation (LOOT) set the ground for the administrative and political organisation of the territory. It establishes that the final aim of the territorial organisation is to support the

decentralisation process through an improvement in the planning and management capacity of subnational governments. This approach was consolidated with the adoption of the System of Cities in 2014.

Figure 2.3. Evolution of the Colombian urban regulatory framework



Note: The figure only presents some examples of the specific urban regulations and those that have an indirect impact on urban policy.

Box 2.2. Selected Colombian legislation related to urban development

- **Law 61 of 1978: Organic Law on Urban Development** – Seeks to guide public institutions and state intervention to improve the economic, social, cultural and environmental conditions of cities.
- **Law 9 of 1989: Norms on urban development plans** – Set the guidelines and norms for the elaboration of the municipal development plans, and introduced land management and financing instruments.
- **Law 152 of 1994: Organic Law of the Development Plan** – Sets the guidelines, processes and mechanisms for the elaboration, approval, execution, evaluation and control of the national and local development plans as well as the entities that participate in its elaboration and implementation.
- **Law 388 of 1997: Land Management Law** – Formulates the mandate so that municipalities prepare and adopt a land use plan (*plan de ordenamiento territorial*, POT) to regulate the use, transformation and occupation of public space according to their socio-economic development strategies in a sustainable manner preserving their cultural and historical traditions.
- **Law 1454 of 2011: Organic Law on Territorial Organisation** (*Ley Orgánica de Ordenamiento Territorial*, LOOT) – Establishes the standards for the political and administrative organisation of the territory and sets guiding principles and instruments for territorial development. It also defines the competencies of each level of government, including metropolitan areas, regarding

the territorial organisation and the management of the urbanisation process and the system of cities.

- **Law 1537 of 2012: Standards to Facilitate and Promote Urban Development and Access to Housing and other Provisions** – Establishes the competencies, functions and responsibilities of the national and territorial entities and the participation of the private sector in social housing projects and the promotion of territorial development.
- **Law 1551 of 2012: Modernisation of the Organisation and Functions of Municipalities** – Defines the functions of municipalities, municipal autonomy and rights of the municipalities.
- **Law 1625 of 2013: Regime for Metropolitan Areas** – Dictates standards to provide metropolitan areas with a political, administrative and fiscal regime which should serve as a management tool to perform their functions.
- **Decree 1077 of 2015 on the housing, city and territory sector** – Compiles all regulations of the housing, city and territory sector.

Source: Gobierno de Colombia (1978[24]); (1989[25]); (1994[26]); (1997[27]); (2011[28]); (2012[29]); (2012[30]) (2013[31]); (2015[32]). See reference section for full information.

The National Development Plan (*Plan Nacional de Desarrollo*, PND) is the highest planning strategic document in Colombia. Every four years, it sets the roadmap to achieve the socio-economic development goals of the national government. The last three national development plans included a strong component on urban issues and both called for co-ordination and coherence among policies that have an urban impact, such as housing, transport, amenities and environment. The National Development Plan 2010-2014 proposed the establishment of a long-term policy to consolidate the System of Cities (Gobierno de Colombia, 2011[33]). The National Development Plan 2014-2018 promoted the concept of "Friendly and sustainable cities for equity" to achieve policy coherence for planning across the sectors of housing, mobility, basic sanitation and drinking water provision (Gobierno de Colombia, 2014[34]). It also focused on reducing the quantitative housing deficit and improving land use planning. The National Development Plan 2019-2022 seeks to achieve balanced urban development by using the built environment, planning the expansion and suburbanisation with sustainability criteria and the optimisation of financing instruments, and consolidating the system of cities as the driving force for territorial development and productivity. It aims to support 600 000 households to improve their homes, build 520 000 social housing units, enable 16 000 hectares of land for urban expansion and expand the rail network to 1 077 km (Gobierno de Colombia, 2019[35]). The current PND gives continuity to the system of cities policy as it concludes the investment projects started in the previous administration and complements it by giving priority to the existing cities and managing suburbanisation with sustainability criteria.

The National Council for Economic and Social Policy (CONPES) approves the bases of the national development plan and enacts the policies that contribute to the economic and social development of the country (Box 2.3). CONPES has the potential to ensure cross-sectoral co-ordination for urban policy among national ministries as all of them are permanent members and take part in the collective decision-making process.

Box 2.3. The National Council for Economic and Social Policy, CONPES

In 1958, the government of Colombia created CONPES as the highest national planning authority. CONPES acts as an advisory body to the national government in all aspects related to economic and social development. To this end, it co-ordinates and guides the national agencies in charge of economic

and social management in the government, through the study and approval of documents, known as CONPES documents, on the development of general policies. The Department of National Planning (*Departamento Nacional de Planeación*, DNP) acts as the executive secretariat and therefore it is the entity in charge of presenting all policy documents to be discussed and eventually approved.

CONPES acts under the direction of the President of the Republic and is composed of permanent members with the right to speak and vote, the Vice President of the Republic, all ministers, the director of the Administrative Department of the Presidency of the Republic, the director of the DNP and the director of the Administrative Department of Science, Technology and Innovation.

Source: Departamento Nacional de Planeación. El Consejo Nacional de Política Económica y Social, CONPES, at: https://www.dnp.gov.co/CONPES/Paginas/conpes.aspx

Colombia's NUP framework – The System of Cities

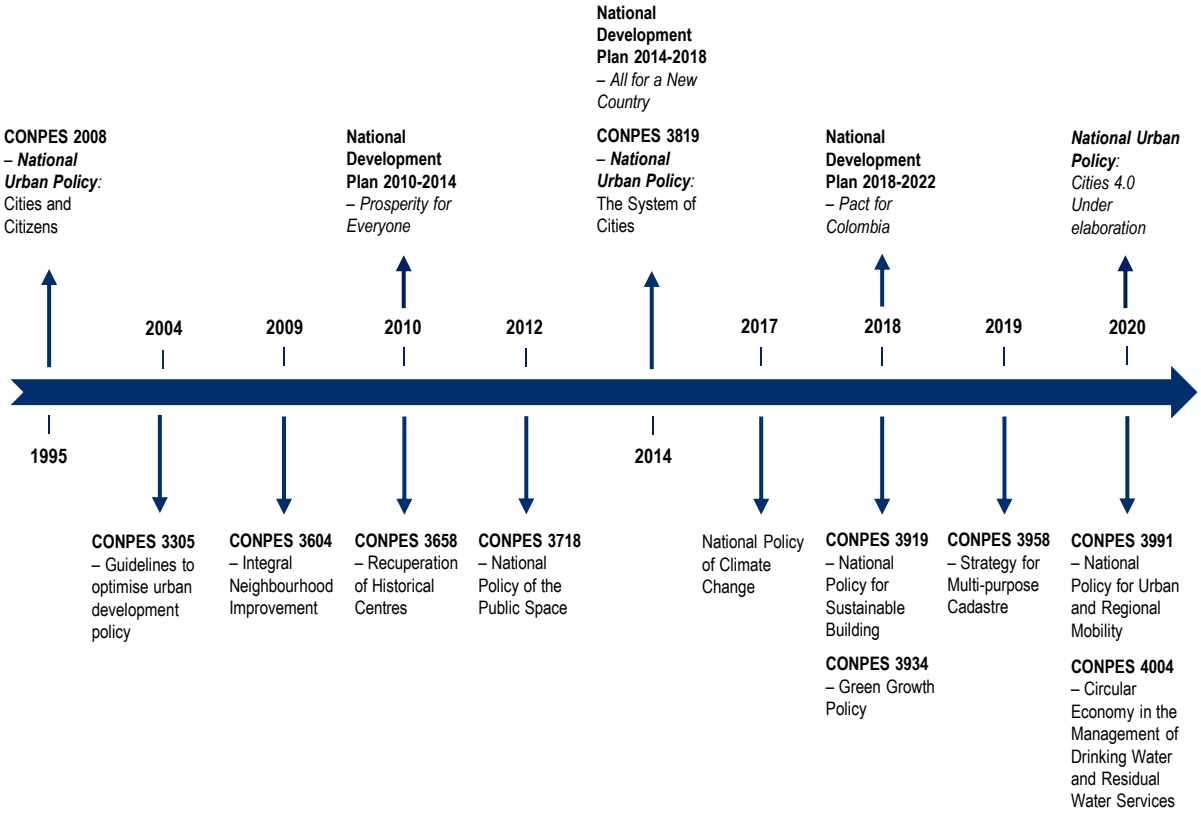
Achieving sustainable urban development and building competitive, resilient and inclusive cities requires a comprehensive NUP that guides the government's intervention in an integrated and co-ordinated manner (OECD/UN-HABITAT/UNOPS, 2021[36]; UN-Habitat, 2017[37]). The OECD defines urban policy "as a co-ordinated set of policy decisions to plan, finance, develop, run and sustain cities of all sizes, through a collaborative process in shared responsibility within and across all levels of government, and grounded in the multi-stakeholder engagement of all relevant urban actors, including civil society and the private sector" (OECD, 2019, p. 8[38]). An NUP helps define the intended national System of Cities through a social, economic, political and sustainability lens. Research has shown that 56% of 162 countries surveyed worldwide have an explicit NUP (OECD/UN-HABITAT/UNOPS, 2021[36]). Of those with an explicit NUP, 90% seek to set a common strategic vision of cities, 83% aim to foster multi-sectoral policy co-ordination, while another 83% aim to enhance a territorial perspective. Colombia has an explicit NUP framework that defines urban policy as the government's actions to strengthen the System of Cities as the country's engine of growth, through the promotion of regional and national competitiveness, the improvement of quality of life, and environmental sustainability (Gobierno de Colombia, 2014[3]).

The consolidation of the System of Cities for sustainable development

NUPs are not a new concept in Colombia. The country has accumulated at least three decades of experience in developing urban policy frameworks (Figure 2.4. In 1995, the national government approved a policy called "Cities and Citizens: The urban policy of the social jump" to guide and give coherence to government work to strengthen the System of Cities and increase the levels of competitiveness, governability, solidarity, sustainability and urban identity (Gobierno de Colombia, 1995[39]). This NUP included the environmental aspect as an integral element of urban development. In 2004, the Colombian government updated its urban policy through guidelines to optimise the urban development policy (Gobierno de Colombia, 2004[40]). Their focus was on the alignment of housing, public space, transport and public utilities, as well as the co-ordination across different levels of government, the private sector and the community in general through an articulated NUP. The guidelines promoted urban densification to concentrate activities, reduce movement, encourage the use of public transport, upgrade public infrastructure and protect the environment. These two generations of NUP, together with Law 388 of 1997 on Land Management, paved the way for the adoption of POTs and other sectoral urban policies such as public transport. In 2011, the enactment of the Organic Law on Territorial Organisation (LOOT) defined the responsibilities of each level of government on urban development and set the standards for the territorial organisation of the territory. The System of Cities also builds on the National Development Plan 2010-2014,

which promoted a long-term policy for the consolidation of the System of Cities to maximise the benefits of urbanisation and economies of agglomeration to reduce regional inequalities and poverty.

Figure 2.4. The evolution of Colombia's urban policy framework – Selected policies



In 2014, Colombia's national government published the System of Cities (Gobierno de Colombia, 2014[3]). It is the latest generation of the NUP framework that guides the development of cities to support economic growth and competitiveness, and the quality of urbanisation to improve people's well-being (Box 2.4). The System of Cities represents an evolution of the previous versions of urban policy as it puts in place a cross-cutting approach to urban development and the identification of functional urban areas (FUAs). This policy seeks to promote complementarity rather than competition among cities. One of its main objectives is to prioritise physical and digital connectivity among cities, as most intra-urban development issues were already addressed in other instruments such as POTs, LOOT, housing policies and municipal mobility plans. The policy also includes issues on financing, quality of life in cities and productivity.

Box 2.4. Colombia's System of Cities

In 2014, the DNP published the National Policy for the Consolidation of the System of Cities in Colombia, known as CONPES 3819 or System of Cities. This policy document is the product of extensive dialogue among national stakeholders (i.e. national and subnational governments, municipal and cities associations, federations, universities and research centres) and international stakeholders (i.e. UN-Habitat, and multilateral banks) through the City Mission (*Misión para el Fortalecimiento del Sistema de Ciudades* or *Misión de Ciudades*).[10] It emphasises the need to improve connectivity among

urban centres, which raises particular challenges due to the country's topography and size that increase the cost of road and rail transport infrastructure.

The System of Cities intends to complement, articulate and co-ordinate policies that have an urban impact. It aims to strengthen the system of cities as the engine of economic growth by contributing to the improvement of regional and national competitiveness, quality of life and environmental sustainability. According to the document, regional planning has not been fully articulated with the system of cities; physical and digital connectivity among cities is insufficient; cities have low levels of productivity and quality of life; financing and investment plans are not in line with cities' needs; and there is weak inter-institutional co-ordination to deal with urban challenges.

The policy document includes an analysis, a diagnosis as well as more than 40 actions with specific budget commitments and time schedules structured in 6 strategic axes:

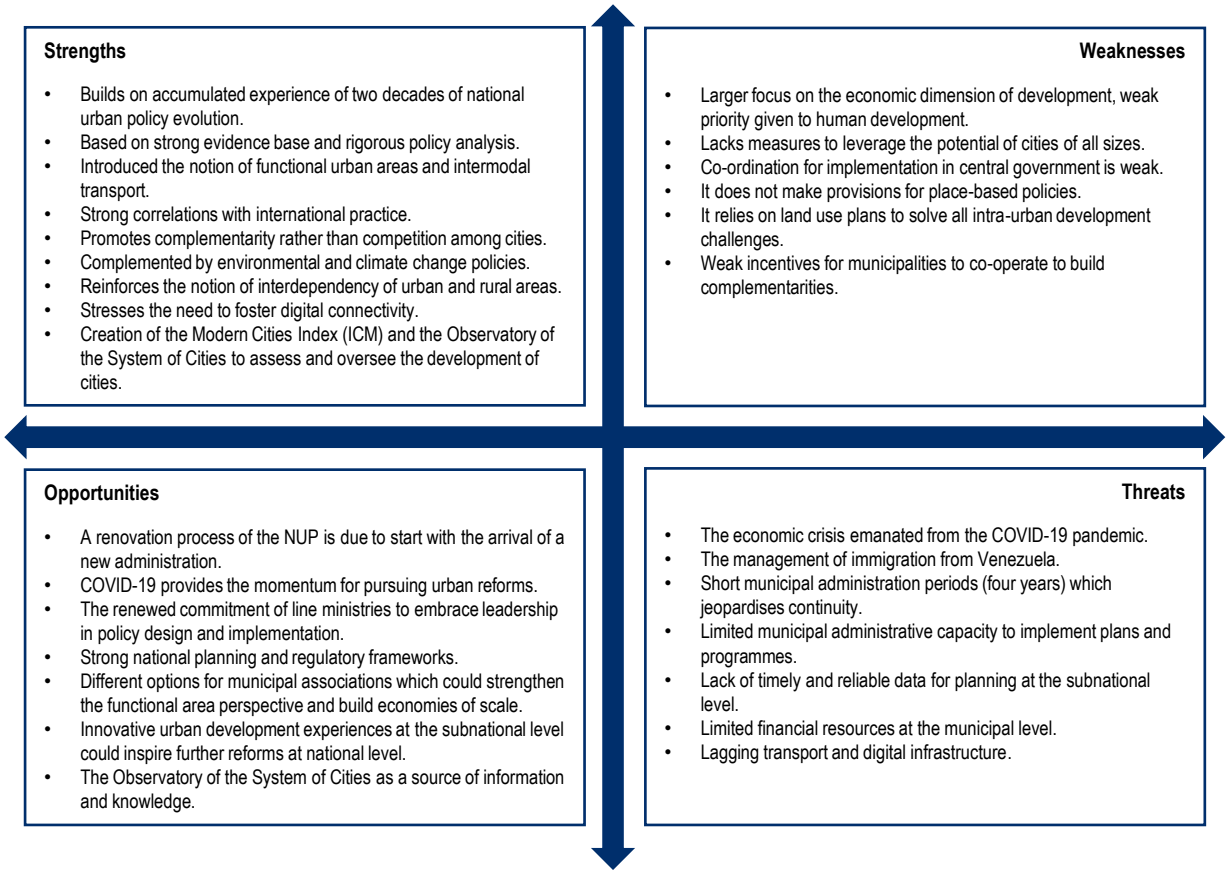
1. **Sustainable vision and green growth** – It seeks to plan the System of Cities in relation to the national land and environmental priorities, integrate environmental planning into the urban system while considering the characteristics of each territory or region, and articulate the planning of urban and rural areas.
2. **Physical and digital connectivity** – It aims to plan national physical connectivity in relation to the System of Cities; improve access to large cities; improve connectivity between municipalities in urban agglomerations; and promote the digital connectivity of the system of cities.
3. **Productivity** – It aims to identify productivity gaps in each region as well as their needs in terms of public services. It explores options to improve the local labour markets by promoting training in the key productive sectors of each region or urban agglomeration with a long-term vision.
4. **Quality of life and equity** – It aims to promote policies to bridge the social gaps in urban agglomerations and by cities categories set by the City Mission according to the demographic bonus (relatively younger population), by improving access to social housing programmes, mobility and urban services. It also seeks to generate land for social housing.
5. **Adequate and efficient financing** – It seeks to improve existing financing instruments and adopt new ones at the supra-municipal level to consolidate the system of cities.
6. **Co-ordination and governance** – It aims at strengthening the Commission for Territorial Planning (*Comisión de Ordenamiento Territorial*, COT), which is a technical body that advises the national government on policy and legislation on territorial organisation. It also seeks to reinforce the schemes of supra-municipal associations as well as provide municipal governments with technical assistance to articulate their POTs with the development plans and regional environmental management plans. It proposes the creation of an Observatory of the System of Cities for information and data gathering to support urban planning and management.

Note: CONPES refers to the National Council of Economic and Social Policy (*Consejo Nacional de Política Económica y Social*). The council approves policy and planning documents known as CONPES documents.
Source: Gobierno de Colombia (2014[3]), *Política Nacional para Consolidar el Sistema de Ciudades en Colombia (CONPES 3819)*, https://colaboracion.dnp.gov.co/CDT/Conpes/Econ%C3%B3micos/3819.pdf.

The City Mission (task force) that led to the elaboration of the policy document on the System of Cities gathered an impressive evidence base, which includes an extensive literature review, 17 studies commissioned by the National Planning Department (DNP) on different aspects of urban policy and studies from the World Bank on urbanisation in Colombia. The System of Cities is a transversal policy as it addresses the urban dimension of a wide variety of issues such as demographics, productivity, cost of living and quality of life, infrastructure, rural-urban linkages, planning and finance (OECD, 2014[13]). The City Mission helped Colombia develop a more comprehensive approach to urban development policy and

gain a better understanding of the System of Cities in the country. The City Mission elaborated a clear diagnosis of the main challenges for urban development in the short and medium terms and elaborated an action plan to be implemented. Figure 2.5 presents a summary analysis of the main strengths and weaknesses of the System of Cities, as well as the opportunities for improvement that the current context offers and the potential threats that may impact its effectiveness and future.

Figure 2.5. Strengths, weaknesses, opportunities and threats of the System of Cities of Colombia



The System of Cities has modernised Colombia's approach to urban development

Colombia has made valuable efforts to improve urban development and strengthen its cities to pursue economic, social and environmental objectives over the last two decades. As mentioned above, the System of Cities is the latest stage in a process of urban policy evolution that has brought about accumulated knowledge and experience. It places Colombia in an advantageous position to face national urban challenges and global megatrends such as digitalisation, climate change and the ageing population. The operational challenge for Colombia will be to use the different legal and policy instruments built over the years in a coherent and co-ordinated manner towards a common vision of the role of cities in achieving national development goals.

Although there has not been any official impact assessment of the System of Cities on the quality of urbanisation in Colombia, it may be argued that the current urban policy has modernised the country's approach to urban development. It has consolidated the urban functional perspective which is now part of the national policy discourse. The functional perspective suggests that cities' social and economic dynamics are not limited to their administrative borders but to a whole area of influence that may cover

rural areas and suburban areas. This is of critical importance for Colombia as it could help to plan and manage urban development more efficiently and effectively.

The functional approach to conceptualise cities brings about the need for a metropolitan approach for urban development. How Colombia manages its metropolitan areas will have a direct impact on productivity, competitiveness, environmental protection, adaptation to climate change and well-being levels. Unfortunately, the System of Cities does not state any provision on how FUAs should operate nor how metropolitan areas and urban agglomerations should contribute to a log-term vision of urban development. Indeed, the LOOT and the Regime for Metropolitan Areas (Law 1625) provide the general dispositions on how metropolitan areas should be formalised and organised but the NUP should state how metropolitan areas should work and to what end.

The System of Cities has been seminal in starting the process to update the POTs. At the beginning of 2010s, 30% of POTs had reached their 12-year period (although they remain valid until a new POT is adopted) and required being updated, and the System of Cities gave POTs a predominant role as an instrument to assist local authorities in tackling urban development challenges. This has had both advantages and disadvantages. On the one hand, it is necessary to update and improve POTs as a policy instrument for local authorities to assist them in decision-making and planning. On the other, including almost every single urban development issue in the POTs, despite the existence of other planning instruments such as the municipal development plan and sectoral plans, has the potential of making them rigid and non-operational (see Chapter 3).

An additional element that has helped to modernise Colombia's NUP is the inclusion of the need to enhance urban-rural linkages. The System of Cities acknowledges the interdependences between urban and rural areas which should be strengthened to attain economic development objectives, facilitate better access to jobs, services and amenities and control urbanisation. The extent to which the System of Cities delivered on this point is still uncertain. Interviews for this review suggest that rural-urban linkages and partnerships in Colombia are still weak as there is no integration or synergy-building between them.

The System of Cities calls for improving physical and digital connectivity among cities to improve competitiveness and productivity, and address inequality. The COVID-19 pandemic has made more evident the need to work on these issues to transform how public services are delivered and facilitate people living in isolated places accessing drivers of social development: jobs, education healthcare services. Physical and digital connectivity are long-term goals that should be included in the future revision of the NUP with provisions to ensure that people and businesses in cities across the country benefit from these technologies. Interviews for this review revealed that cities lack the powers and resources to address the digital divide and the digital skills gaps in their communities. Physical connectivity implies investment in transport infrastructure such as roads and railways which are at the top of local government priorities to reduce commuting times and freight costs that impact the price of goods.

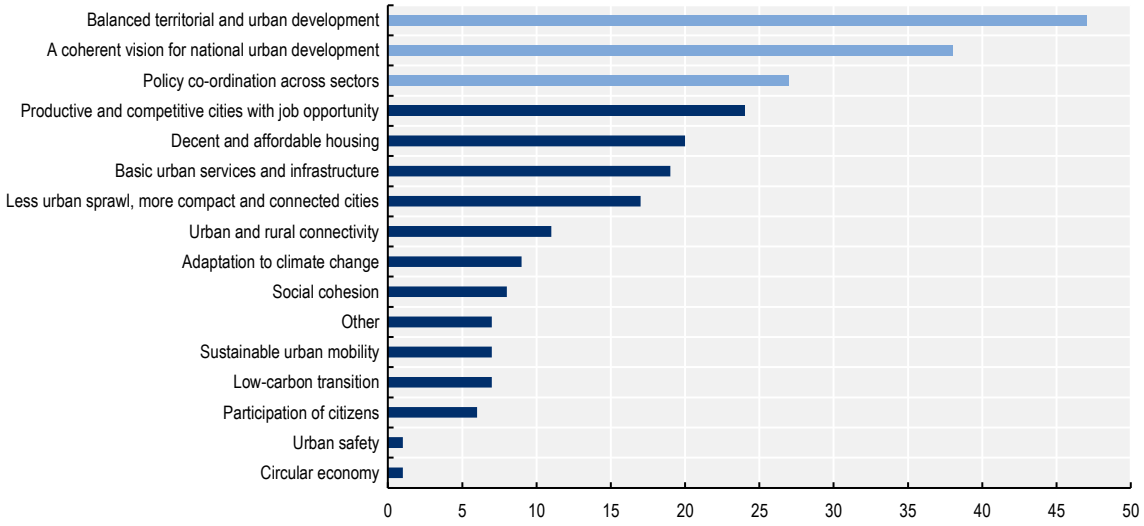
CONPES 3819 on the System of Cities mentions a number of actions to be carried out to meet its objectives such as the elaboration of an intermodal transportation master plan, guidelines for improving urban-rural linkages, the national railway policy, the Observatory of the System of Cities, the urban and regional mobility national policy, the logistics national policy and the regional agendas for competitiveness. All these policy or planning instruments provide all levels of government with additional tools to enhance their planning and management capacity. In particular, the Observatory of the System of Cities and the Modern Cities Index allow monitoring the development of cities and the territorial progress of the SDGs. Both tools allow the creation of knowledge that supports decision-making on urban development policy and follow up the implementation of the NUP. The Observatory of the System of Cities, adopted in 2017, intends to measure the performance of the NUP regarding competitiveness, sustainability, security, social inclusion, governance and the promotion of science and technology.

The System of Cities has attempted to resolve a challenge stemming from the enactment of the 1991 Constitution, i.e. municipal autonomy. As the basic territorial unit of the Colombian state, municipalities were granted the autonomy to decide their own future and make the most of their strengths and address their weaknesses. However, this decentralisation has triggered inter-municipal competition, with many municipalities striving to get their own airport or industrial zone and attract tourism. Although Colombian municipalities are relatively large on average, with 43 370 inhabitants compared to 9 570 on average in the OECD (OECD, 2016[41]), the System of Cities considers that cities with more than 100 000 inhabitants have better possibilities to make the most of economies of agglomeration and have more capacity to deliver public services (DNP, 2014[19]). This inter-municipal competition can hamper competitiveness, productivity and prevent building economies of scale. The System of Cities tried to conceive the country as a system to facilitate spatial connections and independencies. However, the results of the System of Cities have remained limited due to the poor municipal co-operation and engagement (see Chapter 5).

The System of Cities is largely in line with international practices and trends in NUP

The System of Cities has been seminal in adopting a comprehensive approach to urban development and a new understanding of cities beyond their administrative boundaries. Like the large majority of countries that the OECD and UN-Habitat surveyed across the world, Colombia expects three main outcomes from its NUP: balanced territorial urban development, a coherent vision for national urban development and improved policy co-ordination across sectors (OECD/UN-HABITAT/UNOPS, 2021[36]) (Figure 2.6). These expected policy outcomes are in line with those of other Latin American countries, such as Brazil, Chile, Costa Rica, Mexico and Peru.

Figure 2.6. Expected outcomes of national urban policies across the world, n=86

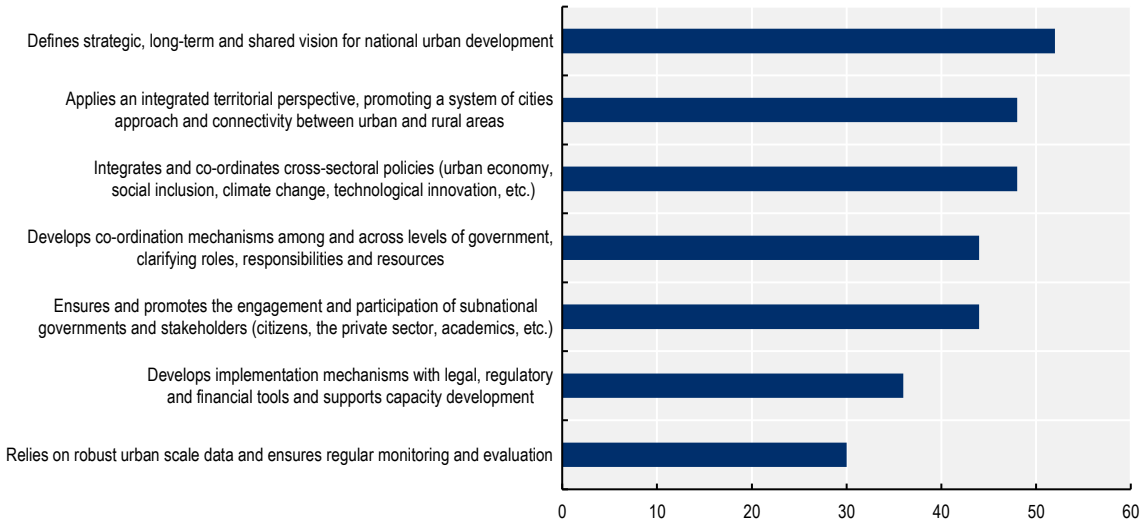


Note: The bars with a lighter shade represent Colombia's answers to the OECD/UN-Habitat/Cities Alliance National Urban Policy Country Survey 2020. Respondents were asked to select three responses. The figure contains the answers of 86 countries.
Source: OECD/UN-Habitat/UNOPS (2021[36]), *Global State of National Urban Policy 2021: Achieving Sustainable Development Goals and Delivering Climate Action*, https://dx.doi.org/10.1787/96eee083-en.

NUP provides a strong basis to guide international policy making and it can help co-ordinate and align policies across levels of government including at the supra-national scale (OECD/UN-HABITAT/UNOPS, 2021[36]). Countries such as Austria, France, Germany, the Netherlands and Poland have cross-border urban policy-related issues such as climate change as addressing it requires co-ordination at a supra-national scale. Similarly, the Colombian government issued the Prosperity for the Colombian Borders Policy, which seeks to promote sustainable growth, reduce inequalities and promote the inclusion of ethnic groups along the border taking into account the specific features of each border region (Gobierno de Colombia, 2017[42]). Although these measures are not included in the System of Cities, they have an impact on border cities, since the latter is already experiencing pressures on their capacity to accommodate a growing population and provide public services due to the arrival of immigrants from neighbouring countries.

The System of Cities shares several characteristics with other explicit NUPs across the world (Figure 2.7). The majority of NUPs "define a strategic, long-term, and shared vision for national urban development", and "apply an integrated territorial perspective, promoting a system of cities approach and connectivity between urban and rural areas". The System of Cities shares the same features. However, it differs in that it does not "integrate and co-ordinate cross-sectoral policies (urban economy, social inclusion, climate change, technological innovation, etc.)". Moreover, it does not "promote the development of co-ordination mechanisms among and across levels of government, clarifying roles, responsibilities and resources" nor "ensure the engagement and participation of subnational governments and stakeholders (citizens, the private sector, academics, etc.) in national urban policy". It may be argued that a CONPES policy document only determines the national government's actions but a CONPES on urban policy will invariably have an impact on subnational governments.

Figure 2.7. Key characteristics of national urban policies in explicit form across the world, n=58



Note: Country respondents could select multiple characteristics fulfilled by their explicit NUP. Data are drawn from the OECD/UN-Habitat/Cities Alliance National Urban Policy Country Survey 2020. Colombia's answers to the survey referred to the draft project called Cities 4.0 which has not been approved by congress.
Source: OECD/UN-Habitat/UNOPS (2021[36]), *Global State of National Urban Policy 2021: Achieving Sustainable Development Goals and Delivering Climate Action*, https://dx.doi.org/10.1787/96eee083-en.

The government is currently considering a proposal to replace the System of Cities with new policy Cities 4.0 (Box 2.5). While this policy is currently at a preliminary stage, Cities 4.0 includes most of the features signalled in Figure 2.7, except the aspect concerning engagement and participation.

Box 2.5. Colombia's proposal for a new NUP: Cities 4.0

The Ministry of Housing, City and Territory of Colombia is working on a proposal for a new NUP called Cities 4.0 that, if approved, would substitute or update the current System of Cities. Based on the experience of previous policies, Cities 4.0 aims to consolidate the progress already achieved and take urban development to a next level by promoting inter-sectoral co-ordination and an integral vision of urban development. The proposal contemplates five axes around which urban policy should be based:

- **Capacity**: The NUP should seek to strengthen the financial, technical and governance capacity of local administrations. It highlights the importance of improving the financing of municipalities through strengthening the fiscal decentralisation process and land value capture mechanisms. The technical capacity would require better information for informed decision-making. Governance improvements would require focusing on functional partnerships to optimise investment in infrastructure.
- **Sustainability**: Through this axis, the NUP would seek to improve living standards in cities by adapting lifestyles based on the changing environmental conditions caused by climate change, which should be the basis for city planning.
- **Planning and land use**: The NUP should support the implementation of planning and land use policies. The aim is to improve the quality of life in cities by optimising the existing city and planning the future city.
- **Productivity**: The aim is that a NUP provides strategies to improve infrastructure for connectivity among cities and within cities with the least possible environmental impact. This axis promotes the construction of infrastructure for mobility and public transport to facilitate the movement of people and goods.
- **Innovation:** The NUP should seek to promote innovation on three fronts: the use of information and communication technology (ICT), the design of a public policy and the adoption of new methods to manage urbanisation.

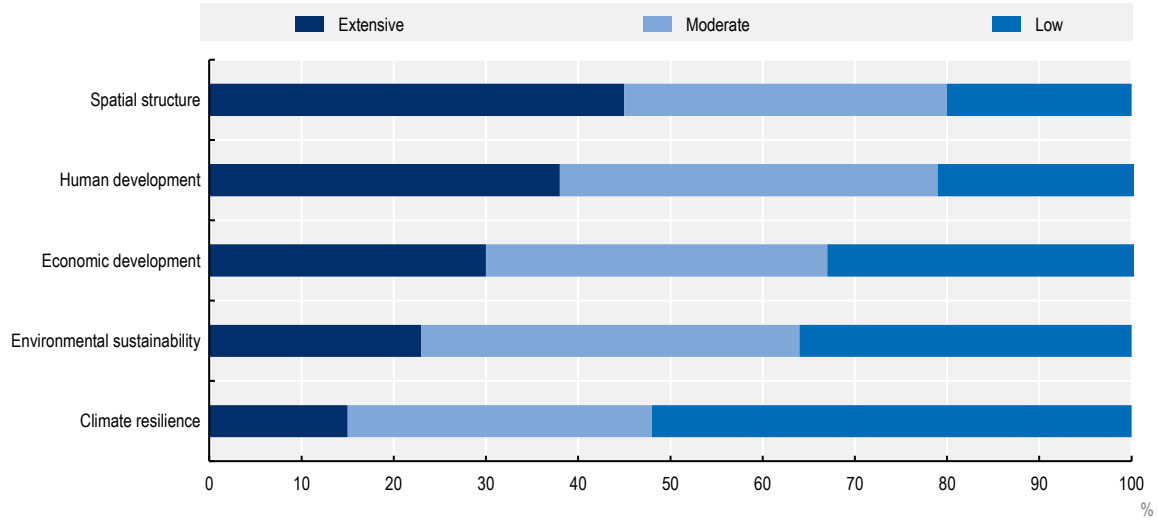
Source: MinVivienda (2020[43]), *Ciudades 4.0 Política Urbana Nacional*, Ministerio de Vivienda, Ciudad y Territorio.

Regarding the thematic scope, Colombia's NUP differs from the majority of NUPs as the System of Cities gives more priority to the economic development dimension whereas others give the highest attention to spatial structure (Figure 2.8). The System of Cities focuses on issues such as balanced territorial development, connectivity among regions, increasing productivity and competitiveness of cities of all sizes, promoting education and skills in cities' labour markets, and adaptation to technological innovation. It is interesting to note that despite the level of urban poverty and spatial segregation, Colombia gives "moderate" attention to human development issues. Table 2.1 presents Colombia's answers to the question on the level of attention its NUP gives to different themes and sub-themes in the OECD/UN-Habitat/Cities Alliance National Urban Policy Country Survey 2020. It shows that economic development receives "extensive" attention in comparison to other themes. This is due to the conclusions of the studies used as input for the elaboration of the System of Cities, which stressed that the efficiency and productivity of cities were key to the transition from a middle-income to a high-income economy (Gobierno de Colombia, 2014[44]).

Like the majority of countries studied, Colombia reported giving less priority to climate resilience issues over other policy priorities such as economic development (Table 2.1), although NUPs are increasingly mainstreaming climate change issues (OECD/UN-HABITAT, 2018[45]). However, the System of Cities calls indeed for the integration of environmental and urban planning based on the specific characteristics of

each territory, the adoption of risk management policies and the promotion of policies for climate change adaptation. In this sense, in 2017, Colombia adopted the National Climate Change Policy (Gobierno de Colombia, 2017[46]) and, in 2018, the Green Growth Policy (Gobierno de Colombia, 2018[47]), which largely complement the environmental and climate change aspects not included in the System of Cities. Any new NUP will certainly have to build on these two recent policies to ensure coherence and establish the role urban development will have in climate change adaptation and green growth promotion.

Figure 2.8. Levels of priority given to selected themes in NUPs across the world, n=113



Note: Data are drawn from the OECD/UN-Habitat/Cities Alliance National Urban Policy Country Survey 2020, the UN-Habitat NUP database and countries' websites.
Source: OECD/UN-Habitat/UNOPS (2021[36]), *Global State of National Urban Policy 2021: Achieving Sustainable Development Goals and Delivering Climate Action*, https://dx.doi.org/10.1787/96eee083-en.

Table 2.1. Levels of attention given to selected themes in Colombia's NUP

Main themes	Sub-themes	Level of attention		
		Extensive	Moderate	Low
Spatial structure	Tackle urban sprawl, pursue sustainable land use and promote compact and connected cities		X	
	Recognise urban-rural interdependency and promote connectivity between urban and rural areas		X	
	Pursue sustainable mobility (e.g. foot, bike, public transit) in and between urban areas	X		
	Develop public space as economic, human and environmental assets for cities	X		
Economic development	Apply a system of cities approach and promote balanced territorial development in a country, connectivity among cities	X		
	Increase productivity and competitiveness in cities of all sizes	X		
	Promote education and skills in the labour market in cities	X		
	Adapt technological innovation	X		

Main themes	Sub-themes	Level of attention		
		Extensive	Moderate	Low
Human development	Alleviate poverty		X	
	Ensure access to basic urban services and infrastructure (e.g. water, sanitation, waste management, public transport, digital infrastructure)	X		
	Ensure adequate and affordable housing	X		
	Promote social cohesion and fight against spatial segregation		X	
Environmental sustainability	Promote circular economy in cities	X		
	Promote sustainable urban consumption and production patterns		X	
	Improve air and water quality	X		
	Reduce GHG emissions and promote low-carbon transition in cities	X		
Climate resilience	Identify risks and promote disaster risk management strategies		X	
	Promote risk-sensitive land use in urban areas	X		
	Promote green and blue infrastructure, ecosystems, biodiversity and nature-based solutions		X	
	Develop disaster risk financing mechanisms		X	

Source: Colombia's answers to the OECD/UN-Habitat/Cities Alliance National Urban Policy Country Survey 2020.

In 2019, OECD countries adopted the OECD Principles on Urban Policy that summarise the lessons from more than 20 years of OECD work in urban policy to help governments better prepare their cities for technological, demographic and environmental change (OECD, 2019[38]). When considering the OECD Principles on Urban Policy, Colombia's System of Cities is aligned with many of the recommended actions. Table 2.2 provides a comparison between the OECD Principles on Urban Policy and the main features of the System of Cities. The table shows that despite a large coincidence on several issues of urban policy (such as taking into account the specific characteristics of each region for environmental and urban planning; co-ordination or urban and rural planning; promotion of inclusive cities particularly in terms of access to housing and public transport; and the need to ensure adequate funding for the implementation of responsibilities of urban policy at all levels of government), some gaps still remain. For example, the System of Cities does not set a clear vision for NUP as stated in Principle 4; it lacks measures to ensure the participation of a wide range of stakeholders in policy design and implementation as mentioned in Principle 9; there are no measures to improve local governments management and innovation capacity as mentioned in Principle 10; and there are no actions taken for policy monitoring and evaluation as stated in Principle 11.

Table 2.2. Comparing the OECD Principles on Urban Policy and the System of Cities

	OECD Principles on Urban Policy	System of Cities
Targeting an effective scale of policy action in all cities	1. Maximise the potential of cities of all sizes to advance national and global prosperity and well-being over time.	It promotes a system of cities through stronger inter-municipal co-operation and better physical and digital connectivity among municipalities in urban agglomerations to increase productivity.
	2. Adapt policy action to the place where people live and work.	It sets the ground for metropolitan planning under a functional perspective, although it lacks a regional emphasis.
	3. Support interdependencies and co-operation between urban and rural areas.	It calls for the co-ordination of planning between urban and rural areas.

	OECD Principles on Urban Policy	System of Cities
Adopting a coherent, integrated and effective strategy to build smart, sustainable and inclusive cities	4. Set a clear vision for national urban policy that is fit for the future.	It mentions the need to formulate and implement a long-term development vision for cities but it does not provide an overarching long-term vision for national urban policy.
	5. Leverage the potential of cities of all sizes for advancing environmental quality and the transition to a low-carbon economy.	It calls for the integration of environmental planning with the urban system based on the features of each territory to preserve ecosystems and improve air quality. It calls for the adoption of policies for climate change adaptation and risk management in the event of natural disasters.
	6. Promote inclusive cities that provide opportunities for all.	It calls for policies to breach social gaps in cities through access to social housing and mobility programmes.
	7. Foster a national and multi-level urban policy approach that sets incentives to align and integrate sectoral policies to jointly promote development and well-being in cities.	It calls for actions to adjust social housing quantity and quality through municipal and metropolitan plans. It promotes the elaboration of studies to improve economic development and access to large cities. It seeks to support the co-ordination of land use plans with local development plans.
	8. Harness adequate funding for effective implementation of responsibilities for urban policy at all levels of government.	It calls for the modernisation of financial instruments and the adoption of new ones for the supra-municipal level.
Engaging stakeholders in a co-designed, co-implemented and co-monitored urban policy	9. Promote stakeholder engagement in the design and implementation of urban policy.	There are no actions proposed to involve stakeholders in the implementation of urban development policy.
	10. Strengthen the capacity of actors in cities to innovate and fulfil their duties effectively, efficiently and inclusively.	There are no measures taken to improve either capacity or innovation in cities.
	11. Foster monitoring, evaluation and accountability of urban governance and policy outcomes.	There are mechanisms for monitoring through the Observatory of the System of Cities and the Modern Cities Index but no measures or actions to evaluate urban policy.

Source: Elaborated based on OECD (2019[38]), *OECD Principles on Urban Policy*, http://www.oecd.org/cfe/ (accessed on 16 March 2020) and Gobierno de Colombia (2014[44]), *Política Nacional para Consolidar el Sistema de Ciudades en Colombia (CONPES 3819)*, Departamento Nacional de Planeación, Bogotá.

Environmental and climate change policies largely complement urban policy

Colombia seeks to align urban and economic development with environmental preservation. In particular, environmental and climate change policies are largely in line with the NUP, complementing each other. This is a commendable effort from the Colombian national government that puts it in a unique position and role to play in promoting zero-carbon and climate-resilient cities. The Urban Management Environmental Policy (UMEP), issued in 2008, aims to guide the management of urban areas by aligning sectoral policies and strengthening institutional co-ordination to contribute to environmental sustainability (Gobierno de Colombia, 2008[48]). The incorporation of the environmental dimension in urban development by aligning environmental planning and territorial planning instruments has been central to UMEP. All land use plans must contribute to UMEP objectives. Moreover, UMEP seeks to raise awareness among citizens on the importance of the environment in the sustainability of cities. It sets actions to foster citizen participation in finding solutions to environmental challenges such as the national environmental education policy. However, while UMEP portrays a proactive leadership of the national government in urban environmental policy and the need to co-ordinate sectoral policies, it does not promote partnerships with regional and municipal levels of government that play a key role in building climate-resilient cities.

In 2017, the national government issued the National Climate Change Policy under the supervision of the Ministry of Environment and Sustainable Development (MADS). Its scope and objectives are broader than UMEP. It seeks to incorporate climate change management into public and private decision-making to promote a more climate-resilient and low-carbon development while reducing the risks of climate change and seizing the opportunities it may bring about (Gobierno de Colombia, 2017[46]). The National Climate Change Policy is related to urban policy in the sense that it seeks to increase urban productivity through a more efficient use of resources and lower GHG emissions (Box 2.6). The climate change policy also proposes measures to reduce the exposure and vulnerability of dwellings, buildings, urban infrastructure and natural ecosystems within the urban perimeter to climate threats such as flooding, rising sea levels and vector-borne disease outbreaks.

Box 2.6. Action lines of Colombia's National Climate Change Policy

The National Climate Change Policy of Colombia, adopted in 2017, aims to incorporate the climate change management dimension in all public and private decisions to enhance resilient development and create a low-carbon economy.

To foster low-carbon urban development and climate change resiliency, the policy has adopted the following action lines to guide urban development:

- Provide cities with urban infrastructure such as water and sanitation, urban transport, etc. resilient to floods and/or rising sea levels.
- Reduce climate change impact such as water shortages in cities through incentives for efficient use of water and reduced losses and unaccounted-for water.
- Provide efficient integrated public transport alternatives that are low-carbon and climate-resilient, and incentives for low-emission vehicles and the implementation of non-motorised modes of transport.
- Encourage constant reduction of solid waste generation and urban liquids, as well as the reuse, recycling and use of waste, including recovering energy from waste before it arrives in landfills and the use of energy generated in landfills.
- Incentivise residential and non-residential energy efficiency and sustainable construction practices.
- Reduce transport emissions through a controlled expansion of urban areas promoting compact and interconnected cities.
- Promote the construction and maintenance of green public urban spaces.
- Promote scientific knowledge to quantify carbon dioxide (CO_2) uptake.

Source: Gobierno de Colombia (2017[46]), *Política Nacional de Cambio Climático*, https://www.minambiente.gov.co/wp-content/uploads/2022/01/9.-Politica-Nacional-de-Cambio-Climatico.pdf.

To implement the National Climate Change Policy, sectoral ministries (MVCT; Ministry of Transport; and Ministry of Mines and Energy) must issue sectoral climate change plans with short-term goals for the reduction of GHG emissions and climate change adaptation. At the subnational level, the National Climate Change Policy is a reference point for the territorial plans for climate change management. Departments, large cities and metropolitan areas must carry out a spatial diagnosis of the expansion of urban areas and the vulnerability of dwellings, buildings, infrastructure and ecosystems within urban perimeters.

The National Development Plan 2018-2022 acknowledges that to build productive and equitable cities, it is essential to link their development to environmental sustainability (Gobierno de Colombia, 2019[49]). The aim of this linkage is to make economic and urban development compatible with environmental objectives. In this sense, the Colombian national government announced its flagship programme called *Biodiverciudades* in 2020 (Box 2.7). The importance of this initiative rests in the linkages between urban and economic development and the preservation of the environment. This initiative intends to protect Colombia's rich biodiversity, which is under increasing threat due to the expansion of the agricultural frontier, infrastructure construction and extractive industries. Illegal seizure of land during the armed conflict and the subsequent displacement of more than 8% of the national population has led to deforestation and intensified pressure on natural resources (Gobierno de Colombia, 2020[50]). Urban sprawl and disorderly urban growth have also added to the pressure on biodiversity.

Box 2.7. The *Biodiverciudades* programme

In 2020, the Colombian government launched the *Biodiverciudades* programme aimed at linking urban and rural areas through actions that promote environmental sustainability. The programme is managed by the Ministry of Environment and Sustainable Development. A *biodiverciudad* is regarded as a city that recognises, prioritises and integrates biodiversity and its benefits towards urban-regional sustainable development. A *biodiverciudad* has four main characteristics: i) it adopts responsible consumption practices; ii) takes care of its biodiversity and recognises its benefits; iii) promotes a sustainable economy; and iv) incorporates biodiversity and its benefits in its territorial planning. This is a new development model where citizens will be more involved in looking after the environment.

To become a *biodiverciudad*, a city must manifest its interests, i.e. local governments must acknowledge the importance of environmental preservation for local development. Once a city begins its participation in the programme, national and local governments conduct a diagnosis to identify the actions or strategic projects a city needs to conduct to consolidate its position as a *biodiverciudad*. A roadmap and indicators are adopted to measure progress every five years.

For the first year of the programme, the national government worked with 13 cities to transform them into *biodiverciudades*: Armenia, Barrancabermeja, Barranquilla, Bucaramanga, Leticia, Manizales, Medellín, Montería, Pasto, Quibdó, San Andrés, Villavicencio and Yopal.

The initiative is financed through the budget of the Ministry of Environment and Sustainable Development and grants from international donors such as the Inter-American Development Bank and the German Agency for Economic Development and Employment (GIZ).

Note: Biodiverciudad is the Spanish for a bio diverse city.
Source: Gobierno de Colombia (2020[50]), "Colombia un país de biodiverciudades", https://www.dnp.gov.co/Crecimiento-Verde/Documents/Comite%20Sostenibilidad/Presentaciones/Sesi%C3%B3n%204/4 (accessed on 28 April 2021). and interviews with national government officials.

In a way, *biodiverciudades* complements the System of Cities in the promotion of economic strategies and instruments to allow productive sectors to be more sustainable, reduce their environmental impact and shift to a circular economy. When a city joins the programme, it receives support from the Ministry of Environment and Sustainable Development on the formulation and management of co-financing of transformational projects that should aim at promoting a sustainable economy, incorporating biodiversity and its benefits into territorial planning, as well as environmental education projects. At least two official conditions need to be met for a city to become a *biodiverciudad*: the first is that local authorities need to be convinced and acknowledge the importance of preserving natural resources; and second, citizens need

to shift attitudes and behaviours to adopt more responsible consumption practices. The latter would require strengthening educational actions to raise awareness among residents of the importance of changing habits to reduce the negative impact of their daily activities on the environment. Both conditions are of a rather subjective nature and it is unclear how the Ministry of Environment and Sustainable Development, which is responsible for the management of the programme, conducts such an assessment.

The *Biodiverciudades* programme is still relatively recent and it is therefore too early to assess its impact. However, the programme faces five main limitations. The first is that there does not seem to be any co-ordination between the programme and the System of Cities managed by the DNP; this may be a missed opportunity to build synergies between them. The development of a new NUP is an opportunity to link *Biodiverciudades* and its objectives to the general NUP goals and it would also be an occasion to revise the programme based on accumulated experience. The second is that *Biodiverciudades* is not a general policy to transition towards zero-carbon cities of all sizes in Colombia as joining this programme is done on a voluntary basis. The third is that it is not clear how *Biodiverciudades* is contributing to reconciling the goals of social inclusion and environmentally sustainable growth. The fourth is that *Biodiverciudades* does not build upon nor create synergies with the Green Growth Policy that intends to create the conditions for economic growth based on the natural wealth and strengthen the mechanisms and instruments to optimise the use of natural resources and energy (Gobierno de Colombia, 2018[47]). And fifth, the main benefit for a city to join the programme and be classified as a *biodiverciudad* is mostly the branding. A city recognised as a *biodiverciudad* does not receive extra funding for further investment projects or privileged access to financing for implementing local development plans. It may be that when a city consolidates its position as a *biodiverciudad*, it might be able to promote nature-based tourism, which is a growing economic sector in Colombia (Gobierno de Colombia, 2020[50]). Thus, the benefits to the city may not be direct funding but rather additional employment in addition to the increased tourism.

The limitations of the System of Cities

Despite its contribution to advancing urban policy in Colombia, the System of Cities also presents some weaknesses. A critical problem is that, despite it being in line with international practice in many respects, it is not accompanied by the tools and governance arrangements necessary to ensure its implementation (see Chapter 5). The multi-level governance structure lacks the mechanisms to ensure co-ordination across levels of government. Although each has a task to perform on the implementation of the NUP, sectoral national ministries do not always co-ordinate actions and strategies with other line ministries and agencies.

Another problem is the scope of the NUP. It is largely focused on enhancing cities' competitiveness by giving priority to inter-urban connectivity. Intra-urban issues were left to sectoral policies (i.e. housing, transport and the environment) and regulations such as LOOT and POTs. Including intra-urban issues in the NUP framework would help ensure coherence across policy sectors supporting a long-term vision for urban development.

Moreover, as mentioned above, the System of Cities pursues the promotion of economic development but without much consideration for the well-being dimension of urban policy. Although progress has been achieved on issues such as transport and housing through other policies and planning instruments, an NUP should have a balance between economic, environmental and social dimensions working together to improve people's well-being. The System of Cities gives prominence to the notion of "how" but less to the "what for" and "for whom". An NUP should enhance social cohesion enabling all people to enjoy a high quality of life by leveraging economic, technological and environmental dimensions. Indeed, the OECD Principles on Urban Policy suggest that NUP should promote inclusive cities that provide opportunities for all by improving access of all residents to drivers of social inclusion, fostering social cohesion and promoting urban identity (OECD, 2019[38]). Furthermore, an NUP should involve all segments of society to

address the needs of the most vulnerable groups in the community (OECD/UN-HABITAT/UNOPS, 2021[36]).

Similarly, the environmental and climate change dimension of the System of Cities is relatively weak. Although Axis 1 refers to a sustainable vision and green growth, it does not define an urban green growth strategy by which cities shift from a linear to a circular economy model and links urban and environmental performance. Every ministry in Colombia makes decisions that influence cities and climate change but the NUP does not take the necessary measures to ensure that each ministry's decisions and actions favour a zero-carbon neutral transition although there are some provisions related to resilience and sustainability in its action plan. The NUP should be guided by a holistic approach rather than trying to ensure that each individual policy measure fulfils environmental, economic and equity objectives (OECD, 2013[51]) A future NUP will have to build clear links and synergies with the National Climate Change Policy and the Green Growth Policy, both approved in 2018.

Although the System of Cities mentions the need for place-based policies for urban development, it does not outline any measures on how to leverage the potential of cities of all sizes to contribute to national socio-economic and environmental goals. For example, there is neither advocacy for an urban development approach tailored to the needs of each city or metropolitan area nor a strategy to maximise the territorial assets of cities of all sizes, as the OECD Principles on Urban Policy suggest (OECD, 2019[38]) (see Chapter 5). In addition, it does not consider how to promote stakeholder engagement in urban policy development nor how to strengthen the capacity of municipalities to innovate and fulfil their responsibilities. As the OECD Principles on Urban Policy suggest, this can be achieved by designing strategies to involve all segments of society, in particular the most vulnerable, engaging with the private sector and promoting an outcome-oriented engagement by clarifying how stakeholder inputs will be used (OECD, 2019[38]).

The System of Cities was prepared and is overseen by the Department of National Planning (DNP) but co-ordination with other sectoral ministries such as housing, environment and transport could be strengthened. There is no evidence that every ministry makes decisions considering how they will affect or impact cities. There are few opportunities to establish partnerships among national government level organisations, and between national and subnational governments to work together towards a common long-term vision to improve the quality of urbanisation. Although there are co-ordination mechanisms across levels of government and among municipalities to work on urban development issues from a more functional approach, they are not exploited to the full due to the lack of financial resources and political will (see Chapter 5).

There is a lack of mechanisms to evaluate the different plans and programmes that form the NUP. Although the NUP includes an action plan with tangible objectives to be achieved (such as the elaboration of further technical studies and policy documents to ensure the achievement of the general policy objective), there is no *ex ante* and *ex post* impact assessment on whether the different activities carried out had the desired effect and what changes in cities' society, economy and quality of life have occurred.

The elaboration of the NUP was based on a diagnosis that still largely reflects Colombia's urban challenges today. According to the main conclusions of the diagnosis, cities were grappling with little economic specialisation, disorderly urban growth, urban sprawl, low productivity, high transport costs, long commutes, territorial planning based on sectoral visions, lack of co-ordination across levels of government for policy design and implementation, and inadequate financing (Gobierno de Colombia, 2014[44]). This implies that not much has changed since the adoption of the System of Cities as those are still important concerns for city governments. For example, the System of Cities aims to articulate the planning of urban and rural areas and reduce social gaps within and among cities. Yet, there is still a wide gap between urban and rural areas that is leading to regional disparities and high inequality (see Chapter 1).

What factors explain the little progress, if any, in terms of improving the quality of urbanisation in Colombia despite having relatively strong policy instruments, experience and seemingly political support from different administrations is an open question. However, two possible answers might be following:

- There is a need to consolidate in one single policy urban-related areas such as the environment, housing, transport and land use planning as they remain disjointed.
- Implementation weaknesses seem to be at the heart of the problem which could derive from: rigid regulation; an inadequate institutional setting to lead and co-ordinate policy; lack of consultation and consensus-building among different stakeholders; insufficient financial, human and technical resources (particularly in municipalities), limited capacity at the local level; the lack of monitoring and evaluation of policy, and co-ordination problems across ministries and agencies at different levels of government (see Chapter 5).

Opportunities and threats for urban policy in Colombia

Contextual and institutional factors may help renew Colombia's NUP

The Colombian NUP will be renewed in the short term. There are three main reasons for this. First, the System of Cities has already reached its lifetime span as most of the activities included in its action plan have been conducted. Colombia has the opportunity to take stock and reflect on the main achievements of the current urban policy and recalibrate or adapt its approach to the new context, in particular in light of recovery from the COVID-19 crisis. Second, there seems to be a renewed interest and commitment from the different line ministries on the need to advance urban development to support the country's national development. The Ministry of Housing, City and Territory (MVCT) has also renewed its commitment to embrace leadership as the main body in charge of policy implementation. And third, the COVID-19 pandemic has stressed the importance of NUP in building more resilient, greener and more inclusive cities as part of a country's recovery package (OECD/UN-HABITAT/UNOPS, 2021[36]). The current context provides Colombia with an opportunity to revamp its urban policy approach and adopt a forward-looking approach to make cities more resilient to a future natural and man-made crisis. This will be essential in light of the global environmental and climate change emergency. Colombian policy makers can take this opportunity to strengthen urban policy as an instrument to contribute to the economic recovery from the COVID-19 crisis and advance the SDGs. The new NUP should not only focus on SDG 11 on "Cities and communities" but also on other goals such as SDG 3 "Good health and well-being", SDG 6 "Clean water and sanitation", SDG 7 "Clean energy", SDG 9 "Industry, innovation and infrastructure", SDG 10 "Reduce inequalities", and SDG 13 "Climate Change".

The new NUP will be supported by the strong national planning framework and the solid regulatory framework that has been developed over the last decades. Now the task is to put into practice the plans and regulations to support urban policy goals. A strong regulatory policy is needed to: restructure infrastructure sectors like water and transport; reduce administrative burdens on citizens and businesses, and open up pathways for innovation in urban planning and public service delivery. Moreover, the creation of the Observatory of the System of Cities and the Modern Cities Index (*Índice de Ciudades Modernas,* ICM) offers an opportunity to bridge the gap on information and data that is currently lacking for decision-making at the subnational level.[11]

The governance arrangements currently available that facilitate municipal association will be paramount to consolidate the position of cities as engines of economic growth. The small size and limited capacity and capability of most Colombian cities make it necessary for them to join forces and resources for service delivery and investment. National support will be necessary to make the different association schemes flexible and functional (see Chapter 5).

To design the new NUP, Colombian policy makers could take advantage of the accumulated experience at the city level. Cities like Bogotá, D.C. and Medellín have been innovating with approaches to urban development that have proven to be relatively successful helping them to overcome economic and social challenges. Those experiences could inspire an NUP with the advantage that they would have already been tested in the country.

The effectiveness of the NUP may be constrained by external factors and institutional limitations

A key challenge in terms of implementing an effective NUP in Colombia is the economic crisis created by the COVID-19 pandemic. Although the COVID-19 crisis affected the country's economic growth in 2020 (-6.8%), the OECD forecasts that Colombia's GDP will experience strong growth of 7.6% in 2021 and then ease to 3.5% in 2022.[12] The question is whether such growth will be sufficient to recover pre-pandemic levels and what role NUP will play in the structural reform priorities to boost recovery, such as labour market, competition and regulation, education and skills, social protection and infrastructure.

Managing the immigration phenomenon, particularly from Venezuela, will be critical for the new NUP. Border cities and the main urban centres have had to use their limited resources to support immigrants and provide them with basic services and accommodation. In Bogotá, D.C., for example, there are more than 300 000 migrants and the local government had to request national government support to service this population as the city's resources were insufficient (Rodríguez Pinzón, 2020[52]). This increased pressure adds to the persistent challenges of inequality and poverty that pervade Colombian cities (see Chapter 1).

On the institutional side, the short term (four years) of municipal administrations without re-election jeopardises the continuity of urban policy and plans, as every new administration means new priorities and strategies. Moreover, the limited capacity and capability of municipal administrations to design and implement land use and development plans threaten the continuation and effectiveness of urban policy. The insufficient sources of revenue at the municipal level could hinder urban development processes by delaying the implementation of investment projects (see Chapter 5). The lack of reliable and timely data could affect planning and decision-making and could potentially lead to an ineffective investment strategy and a financial burden for municipalities for example.

An additional factor that may threaten the effectiveness of urban policy is the lack of infrastructure for physical and digital connectivity. Physical infrastructure is still a major challenge for cities, mostly regarding connecting roads. The lack of infrastructure could hinder efforts to make FUAs more efficient and facilitate rural-urban interactions. Colombia has one of the widest gaps in transport infrastructure in Latin America (OECD, 2014[13]). Moreover, the COVID-19 pandemic has highlighted the importance of digital connectivity for the public sector, households and firms to overcome the crisis and prepare for the new digital context. Colombia will need to step up its effort to enhance connectivity by reducing barriers to competition in the communication sectors to boost access to high-quality broadband Internet networks at affordable prices.[13]

Recalibrating the NUP approach to improve urbanisation

Colombia is currently revising its current NUP. This is an important exercise as urban policy should evolve with the urban context. In doing so, Colombian policy makers may wish to refer to the international urban framework (i.e. the New Urban Agenda, the SDGs, the Paris Climate Agreement, the Sendai Framework for Disaster Risk Reduction and the OECD Principles on Urban Policy) for best practice. Moreover, Colombia may wish to consider the following specific recommendations aimed at nurturing the upcoming policy debate on the definition of a new NUP. Poland's experience suggests that updating the NUP should be conducted using a cross-sectoral approach with broad participation of local governments and members of the academia (Box 2.8).

Box 2.8. Renewing the NUP in Poland

In 2015, Poland's Council of Ministers approved the National Urban Policy 2023. Approximately 60% of the Polish population live in urban areas; including the population located in the surrounding neighbourhoods brings the number to three-quarters of the national population affected by urban issues. Its vision is to build cities that are competitive, powerful, coherent, compact, sustainable and efficient. The strategic objective of Poland's NUP is to strengthen the capacity of the cities and urbanised areas for sustainable development, creating jobs and improving quality of life. Poland's NUP requires all urban actors to work towards the creation of cities that are efficient, compact, sustainable, coherent – and as a result – competitive and strong.

Nowadays, the Polish national government is working to renew the NUP. The process is guided by the principle of openness to dialogue and co-operation with various urban development stakeholders. The national government set up an inter-ministerial committee for the preparation of the new NUP chaired by the Ministry of Development Funds and Regional Policy (MDFRP). Sectoral ministries that have an impact on urban policy are members of the committee as well as representatives of self-governmental associations such as the Association of Polish Cities, the Union of Polish Metropolises and the Union of Polish Local Governments. During meetings, representatives of particular ministries and self-governments present and discuss proposals related to the objectives of the new NUP. The MDFRP co-operates with the Association of Polish Cities to engage and invite cities to submit their proposals and recommendations to renew the NUP. The national government has also invited the Institute of Urban and Regional Development to provide input for the new NUP.

The current proposal for the National Urban Policy 2030 proposes the establishment of an Executive Council for the NUP. Its purpose will be to support the management and co-ordination of the implementation of the NUP. This is in response to demands for a stronger body to co-ordinate the activities under the framework of the NUP. The Executive Council will raise the status of the co-ordinating body and strengthen inter-institutional dialogue.

Source: Government of Poland (2015[53]), *National Urban Policy 2023*, Ministry of Economic Development, Warsaw; and information provided by the MDFRP of Poland for the OECD Urban Policy Review of Colombia.

Adopt a more integrated approach to urban policy

Colombia's national government has shown a strong commitment to "getting cities right". To this end, it has issued several policies, programmes and strategies. However, this might have had the unintended effect of fragmenting the urban policy landscape. A renewed NUP should bring together the vision and objectives of currently separate policies (i.e. the System of Cities, the National Climate Change Policy), programmes (i.e. *Biodiverciudades*) and regulations (i.e. LOOT, Metropolitan Areas Law, etc). Colombian policy makers acknowledge that the physical shape of cities in the country is the product of uncoordinated and unplanned policies without a long-term vision. To support the development of more prosperous cities, Colombia needs a broader and more proactive policy supported by and adopted at all levels of government. This could be a challenge for Colombia as the national government still acts largely in a departmentalised manner and remains highly centralised as municipalities have limited fiscal powers and spending autonomy (OECD, 2016[41]).

In reviewing its NUP, Colombian policy makers may wish to consider adopting an integrated approach. Integrated urban development policy suggests that spatial and sectoral policies are co-ordinated and harmonised. It means that Colombia needs effective co-ordination across established policy sectors such as transport, housing, the environment, spatial planning and economic development. Research suggests

that the NUP framework could be a useful means to achieve policy integration (Rode et al., 2017[54]). Both the System of Cities and the National Climate Change Mitigation Policy aim at developing compact, connected and clean cities, but this requires multi-level, multi-sectoral and integrated policies and strategies. Currently, transport, housing, spatial planning, the environment and other sectoral policies are largely planned in silos despite some attempts for a more integrated approach. They are managed by different authorities in different institutional settings. A similar situation can be observed in the United States (US) where different bodies decide on funding for and decisions on urban-related policies, making for highly complex policy making and management (Box 2.9). Colombia could build on local experience on policy integration. The city of Medellín, for example, adopted an integrated approach to housing planning and spatial planning to increase access to affordable housing through the creation of an advisory council where all sectors are represented and the elaboration of the strategy involved citizen participation (Box 2.10). If Colombia wishes to pursue integrated NUPs, it will have to ensure functional urban land markets (see Chapter 3), to enable the provision of services and infrastructure such as housing (Chapter 4), revamp its governance arrangements and strengthen government capacities at all levels (see Chapter 5).

Box 2.9. Integrated policies for urban development – Lessons from the US experience

In the US, the federal government provides funding and sets policy objectives for housing, transportation and the environment. However, each policy and its corresponding funding come from separate Congressional Committees that set priorities and are, in turn, administered by different executive departments. This feature makes US federal urban policy fragmented and its management complicated.

Land use is a particularly complex issue. State governments have the power to create cities and delegate them decision-making authority on issues such as land use but these powers can be taken away or decisions overruled. Yet, subnational governments spend federal funds according to federal and state rules but maintain autonomy, and ultimately must solve conflicts generated by sometimes-conflicting sectoral policy decisions.

To the extent Colombia can unify and integrate policy formation, funding sources and decision-making for the various resources needed for successful urban development, it can avoid these pitfalls.

Source: Usowski, K. (Usowski, n.d.[55]), "Integrated policies for urban development – Land use, housing, transport and environment: Lessons from the US experience for Colombia", Presentation, 30 November 2021, US Department of Housing and Urban Development.

Box 2.10. Integrated policy planning: The case of Medellín

The city of Medellín has set as a strategic priority to provide affordable housing to the most vulnerable and impoverished segments of the population. The Strategic Housing Plan (*Plan Estratégico Habitacional Medellín 2020*, PEHMED2020) and its revised version PEHMED2030 place housing planning within the long-term (ten-year) context of spatial planning to improve access to affordable housing. The strategic plans were built through a wide consultative process among representatives of public, private, entrepreneurial sectors as well as citizens. Citizen engagement in the process was critical to identifying trends and shifts in urban preferences.

The PEHMED2030 is implemented by the Municipal Advisory Council on Housing Policy (*Consejo Consultivo Municipal de Política Habitacional*), which includes: the mayor and heads of the planning,

housing and public works departments; representatives from other sectoral departments such as well-being and health; representatives from civil society and the private sector; academics; and members of the housing construction sector. Although the focus is on housing, spatial planning and well-being objectives, the transport sector is also represented by the Physical Infrastructure Secretary. This helps ensure policy integration as the opinions of different sectors that have an impact on housing and spatial planning are heard in the council.

Source: Habitante Siete (2019[56]), "Medellín tiene ruta de vivienda a y habitat al 2030", https://www.habitantesiete.com/medellin-tiene-ruta-de-vivienda-y-habitat-al-2030/; ISVIMED (2011[57]), "Plan Estratégico Habitacional Medellín 2020", https://es.slideshare.net/comunicadoreshabitat/plan-estratgico-habitacional-medelln-2020; Rode, P. et al. (2017[54]), "Integrating national policies to deliver compact, connected cities: An overview of transport and housing", http://newclimateeconomy.net/content/cities-working-papers (accessed on 16 March 2020).

Moving forward, Colombia will have to prioritise certain policy linkages over others depending on the long-term urban development objectives it wishes to achieve. According to research, an integrated approach to policy and planning requires redrawing boundaries between sectoral policies rather than erasing them completely (Rode et al., 2017[54]). For example, to address urban inequality, priority could be given to a joined-up transport and housing policy; if the focus is more on local economic development and productivity, then priority may be given to linking transport and industrial policy.

Colombia faces critical urban challenges that require an integrated approach to be addressed more effectively. For example, urban poverty is a complex issue as it has a multi-dimensional nature and is spatially concentrated. To address it, Colombia needs a multi-sectoral approach, multi-level co-ordination and a place-based perspective (regeneration of deprived neighbourhoods and informal settlements) (see below). Migration is also a major issue in Colombian cities. The growing number of migrants and refugees from conflict areas increases the need for a strategy that cuts across sectoral policies. Addressing the situation calls for co-ordination and concerted action across all levels of government, as well as knowledge and information exchange among all urban actors in the country with regards to the reception, housing and integration of migrants into society. Climate adaptation is another key priority for the Colombian government but this can only be achieved if cities and other relevant stakeholders are fully involved. In Colombia, transport projects are somehow the driving force for territorial equity and national integration as they seek to integrate regions and cities across the country to foster economic development and growth (Rode et al., 2017[54]). This practice could be further expanded and continued under the framework of an NUP.

A word of caution on integrated policies

Integrating transport, housing, land use, environment and other urban-related policies offers many potential gains but it does not come without its own risks. Urban issues such as transport and housing are complex and may generate a number of challenges in their execution. Colombia should therefore be aware of potential challenges as it has a history of poor implementation of urban policies and projects. Box 2.11 presents some of the possible issues that could "go wrong" when adopting such an integrated approach. They were elaborated on the basis of ten national case studies, including Colombia and an analysis of the integration of housing and transport policies. Some of the issues are closely related to Colombia's context, such as rigid budgetary practices, political support and poor implementation planning.

Box 2.11. Seeking policy integration for urban development – What could go wrong?

An analysis of the experience of China, Colombia, Ethiopia, Germany, India, Mexico, Nigeria, South Africa, the United Kingdom (UK) and the US on integrating transport and housing policies for building compact, connected and clean cities revealed a number of potential issues that could complicate the execution of policy:

- **Lack of a vision** – The lack of a clear vision of what governments want to achieve in the medium and long terms could render efforts in policy integration fruitless. It can prevent aligning all policy sectors that are involved in urban development.
- **Diminished political support** – Political support is essential to provide access to adequate resources and approval, but transport, housing and land use policies have long-term effects that go beyond political calendars. Politicians may thus prefer to give priority to short-term objectives rather than longer-term strategic ones.
- **Rigid budgetary practices** – Implementation of integrated policies could be compromised due to inflexible budgetary processes that do not allow rebalancing short-term expenditure to deliver long-term savings. Municipalities may not be able to use resources from one year to another or allocate them to sectors where they are most needed.
- **Policy integration can be too complex** – The policy-making process may be too complex, which could lead to an interruption in the process. The large number of policy actors that need to be involved may also compromise policy integration.
- **Poor forward planning for implementation** – In many cases policies and projects can be quickly agreed on and kicked into action without proper implementation planning and the necessary implementation tools. In some cases, potential obstacles and how performance and progress will be assessed are not considered.
- **Reliance on a single technique for policy integration** – There is no single technique that can be used in any context. Techniques for policy implementation depend on the country's particular cultural and organisational context.
- **Considering policy integration as an end in itself** – Policy integration should be seen only as a way to achieve urban sustainability.

Source: Rode, P. et al. (2017[54]), "Integrating national policies to deliver compact, connected cities: An overview of transport and housing", http://newclimateeconomy.net/content/cities-working-papers (accessed on 16 March 2020).

Use urban policy as a tool for recovery from the COVID-19 pandemic

The need to renew the System of Cities and set strategies for the recovery from the COVID-19 pandemic offers Colombia a unique opportunity to rethink how the system of cities should function, deliver services and be organised. The momentum provided by the pandemic should not be wasted and rather seized to adopt a bold approach, taking into account issues prompted by the pandemic. For example, teleworking may remain a feature of the work environment for the long term and more widespread teleworking could improve productivity, regional inequalities, emissions and gender equality (OECD, 2020[58]). To improve gains of widespread teleworking for productivity, cities will need to promote ICT skills among the population and the national government will have to invest in fast and reliable broadband Internet access across the country. The requirement to maintain physical distancing has prompted walking and cycling, and although Colombia has a long tradition of cycling, it could take this opportunity to re-allocate space to allow for physically spaced walking and cycling in a more fluid and safer manner. The pandemic is making more evident Colombian cities' weaknesses. The new NUP for Colombia should consider that "life after

COVID-19" will be "life with COVID-19" (OECD, 2020[59]) and therefore preparedness, resiliency and place-based policies should be prioritised.

According to the OECD and UN-Habitat (2021[36]), an NUP has the potential to create a more balance and polycentric urbanisation and address the uneven impacts of the crisis between and within urban areas, and between urban and rural areas. To this end, a renewed NUP in Colombia should ensure alignment of sectoral policies, encourage and facilitate dialogue across levels of government, foster rural-urban linkages and partnerships, and set the conditions so that policies can be adapted to the specific needs and features of urban areas.

Since no government alone can manage urbanisation effectively, the renewed NUP for Colombia should go beyond the provision of technical assistance for land use planning and environmental management plans, to encourage a continuous dialogue between national and subnational governments. This dialogue should not only be on how to recover from COVID-19 but more broadly on how to move the national urban development agenda forward, how the NUP can create the conditions for more resilient cities in the country and how the national government can support local efforts to improve urbanisation. While this dialogue can nurture a more coherent recovery from both the pandemic and long-term urban issues, it can also prompt specific responses to local needs. Equally important, this permanent dialogue across levels of government should seek answers to local governments' financial needs (see Chapter 5).

Promote a place-based approach to embrace the diversity of urban needs

Cities in Colombia present a high degree of heterogeneity, with different levels of economic, administrative and social development, and a majority of small urban centres (see Chapter 1). However, the System of Cities takes a rigid, broad-brush approach and does not provide the flexibility to meet specific local needs.

Adopting a place-based approach for urban development is an urgent task for Colombia given the high levels of inequality within and among urban areas (see Chapter 1). For example, the Metropolitan Region of Bogotá-Bucaramanga alone produces 32% of national GDP; between 2002 and 2018, only 7 out of 24 regions in the country registered an increase in manufacturing jobs;[14] and within the Metropolitan Area of the Valle de Aburrá, the city of Medellín produces 40% of the department of Antioquia's GDP while the rest of municipalities do not produce more than 7%.[15] By valorising local cultures and traditions, place-based policies can help Colombia overcome public discontent as they can counter feelings of being "left behind" (OECD, 2019[60]). Place-based policies can support Colombia in anticipating and addressing the impact of COVID-19 on issues such as digitalisation and teleworking, but also face the threats and impacts of climate change and resource scarcity such as water. The impact of COVID-19 and megatrends will be different in Colombia's metropolitan areas and smaller cities. The NUP should therefore be prepared for the diversity of challenges presented and help different places be fit for the future.

To promote place-based policies through NUP, Colombia may consider the following elements:

- Use the NUP as a reference framework for departments and municipalities to develop their own specific urban development strategies. Local urban development plans/strategies should be elaborated by promoting the participation of a wide range of local stakeholders from within the FUA and region.
- Harness existing local assets to support cities to address their specific weaknesses. This requires complementary policies to work in parallel with urban policies such as labour and fiscal policies. For example, cities like Cartagena with a strong tourism potential will not only require land use policies to ensure the protection of its historic centre but strategies to improve transport infrastructure and connectivity with other cities, train the local workforce in the hospitality industry and the conservation of its natural assets.

- Continue promoting a functional area approach for urban development. A major contribution of the System of Cities to urban policy in Colombia has been the introduction of the functional area concept, which is a welcome development. This concept should continue to drive Colombia's revised NUP. Colombia should also take advantage of the different mechanisms for municipal association and co-ordination included in LOOT to foster place-based urban policies across administrative boundaries (see Chapter 5).
- Assist urban areas in leveraging their economic potential by helping them use their own potential to create jobs and boost economic growth. In this case, Colombia could encourage a win-win competition among urban areas while lifting the performance of the country's economy.
- Encourage the engagement of citizens from the early stage of the planning process and policy dialogue to make sure that place-based policies actually respond to local needs (see Chapter 5).

The US Department of Housing and Urban Development (HUD) has implemented a number of place-based initiatives aimed at fostering economic and social development in distressed cities and neighbourhoods (Box 2.12). A key lesson is that cities need targeted technical, financial and capacity-building national government support to design strategies and initiatives to foster development. The national government must adopt a place-based approach to make more efficient investments with national resources at the local level.

Box 2.12. US place-based initiatives on housing and urban development

The **Strong Cities, Strong Communities (SC2)** initiative, launched in 2011, is a partnership between the federal government and mayors of chronically distressed cities that face long-term challenges in developing and implementing economic strategies. The initiative piloted a new model of federal-local collaboration to improve how the federal government invest in and offers technical assistance to support locally driven economic development and job creation goals while helping to co-ordinate funds at the local, state and federal levels. The SC2 initiative is managed by the White House Council on Strong Cities, Strong Communities (SC2 Council), which also intends to facilitate alignment between agencies to ensure communities have access to comprehensive, localised technical assistance and planning resources. By partnering with a city to review its capacity, existing tools and goals, the federal government ensures that ongoing investments are made efficiently and in a manner that supports enduring economic growth in cities and regions. One primary way the federal government invests in communities – from states and large cities to small towns and neighbourhoods – is through formula funding and competitive grants. The impact of the federal funds on a community depends on the ability of that community to effectively leverage these resources. The basis of the initiative is that the federal government is most effective at partnering with local communities when it is able to adapt to and better support the priorities and needs of every specific place.

Promise Zones was an initiative created in 2013 to assist high poverty communities through a partnership between the federal government and local leaders to increase economic activity, educational opportunities, leverage private investment, reduce crime and address other priorities identified by the community. The 22 urban, rural and tribal Promise Zones were selected through three rounds of national competition, in which applicants demonstrated a consensus vision for their community and its residents, the capacity to carry it out and a shared commitment to specific, measurable results. The initiative required the participation of 13 federal bodies. The Promise Zone designation lasts for a term of ten years. During this term, the specific benefits made available to Promise Zones vary from year to year, and sometimes more often than annually, due to changes in the agency policies and changes in appropriations and authorisations for relevant programmes.

The **Choice Neighborhoods** programme aims to leverage public and private funds to support locally driven strategies that address struggling neighbourhoods with distressed public or HUD-assisted housing through a comprehensive approach to neighbourhood transformation. Public and private stakeholders come together to create and implement a plan that revitalises distressed HUD housing and addresses the challenges of the surrounding area. The programme has three main goals: i) replace distressed public and assisted housing with high-quality mixed-income housing that is well-managed and responsive to the needs of the surrounding neighbourhood; ii) improve outcomes of households living in the target housing in relation to employment and income, health and children's education; and iii) create the necessary conditions for public and private reinvestment in distressed neighbourhoods to offer the kind of amenities and assets that are relevant for families such as safety, schools and commercial activity.

The **Empowerment Zones (EZs)** is a programme that designates areas of high poverty and unemployment to benefit from tax incentives provided to businesses within the boundaries of the EZs. Such businesses qualify for tax incentives including a tax credit of up to USD 3 000 per year for each of its employees who resides in the EZ, a work opportunity tax credit for hiring 18-39 year-old residents of the EZ, and tax-exempt private purpose "EZ facility bonds" for commercial development. EZs are competitively selected based on the quality of a comprehensive, bottom-up strategic plan which includes input from all community stakeholders and describes the community's vision for economic revitalisation and job creation. The strategic plans must follow four principles: i) a vision for change that identifies what the community would look like in the future and how it would achieve its goals; ii) a description of community-based partnerships that would encourage all stakeholders to participate in achieving economic revitalisation; iii) expanded economic opportunity through increased access to capital and credit for businesses and assistance with job training and placement for residents; and iv) sustainable community development that ensures economic, physical and environmental factors are aligned as the community is revitalised. The programme requires written assurances that the strategic plans would be implemented.

Source: For Strong Cities, Strong Communities: White House Council on Strong Cities (n.d.[61]), Strong Communities, *Strong Cities, Strong Communities Initiative*, www.huduser.gov/portal/publications/huddoc.pdf; for Promise Zones: HUD (n.d.[62]), *Promise Zones Overview*, www.hudexchange.info/programs/promise-zones/promise-zones-overview/; for Choice Neighborhoods: HUD (n.d.[63]), *Choice Neighborhoods*, www.hud.gov/program_offices/public_indian_housing/programs/ph/cn; for EZs: HUD (n.d.[64]), *Empowerment Zones*, www.hud.gov/hudprograms/empowerment_zones.

Continue promoting compact city policies but avoid a "one-size-fits-all approach"

The compact city dimension has been consistently present throughout the various types of NUPs in Colombia. The process to issue a new NUP framework provides Colombia with an opportunity to revamp its compact city approach and take it to the next level based on the experience of other OECD countries. As illustrated by lessons from different metropolitan areas across OECD countries (Box 2.13), compact city policies have the potential to advance sustainable urban development but they need to respond to the diversity of local circumstances in terms of population size, demographic growth or decline, industrial structure, landscape and culture (OECD, 2012[65]). Building compact cities – cities that are denser, with less unused land – based on revitalised urban cores is also seen as having positive economic, social and environmental benefits. However, to generate agglomeration economies, cities require more than population density – as Chapter 1 noted, Bogotá, D.C., Bucaramanga and Medellín are among the densest cities in the world; they need density of transactions and economic activity, which in Colombian cities is very low.

Box 2.13. How can compact city policies respond to local circumstances?

The OECD has identified four issues that need to be considered while designing compact city policies to enhance effectiveness.

Compact city policies should take into account:

- **Different population sizes**: Tools to promote compact urban development in small and medium-sized metropolitan areas should differ from those for large metropolitan areas. Small metropolitan areas like Toyama in Japan face challenges in operating and maintaining their public transport system as its financial feasibility depends on the population size. Rather than building subways, they could operate a bus system or light railways. Large metropolitan areas have more difficulties in maintaining and enhancing open space and green areas in urban centres due to pressures for land for development.
- **Different trends in urban growth**: Although compact city policies are relevant for Melbourne (Australia) and Toyama (Japan), both require different strategies and policy tools as the former is experiencing population growth and the latter a shrinking and ageing population.
- **Changes in industrial structure**: For metropolitan areas with a solid industrial base retaining industry is a priority and may not be willing to convert vacant brownfields to residential use such as Portland (US) and Vancouver (Canada). Other cities with declining industries may be more open to this approach.
- **Other important local contexts**: For example, cities surrounded by mountains or close to the coast have been more successful in controlling sprawl than those with a flat terrain generating more intense competition between urban and rural land uses. Cities located close to the sea or river basins could be more at risk of floods or rising sea levels or natural disasters. Cultural differences also need to be considered, as they shape people's preferences regarding housing and transport. For example, in the US, people may be more culturally inclined to use private cars than European urban residents. Compact city policy instruments need to reflect those differences.

Source: OECD (2012[65]), *Compact City Policies: A Comparative Assessment*, https://dx.doi.org/10.1787/9789264167865-en.

Accessible cities require compact developments, although the concept remains highly debated. Compact cities can play a significant role in updating the System of Cities. A compact city may be described as composed of dense and proximate development patterns, built-up areas linked by public transport systems facilitating accessibility to local services and jobs. The OECD recommends viewing compact cities from an economic and environmental perspective (OECD, 2012[65]). Including a compact city policy approach in its NUP may assist Colombia not only in protecting the local natural environment, something that the *Biodiverciudades* programme tries to achieve, and agricultural land from encroachment, but it can also contribute to energy savings, quality of life, time savings and liveability. Thus, it is also important to take a green growth perspective and incorporate economic growth as an objective of a compact city policy in an explicit manner (OECD, 2012[65]). Colombia could emulate other OECD countries and include elements of compact city policy in its NUP (Box 2.14). The new NUP could include explicit compact city goals, encourage dense and proximate development, strategies to retrofit built-up areas and actions to minimise the negative effects of compact cities.

Box 2.14. Compact city policies in selected OECD countries

Australia – In 2011 the national government adopted *Our Cities, Our Future – A National Urban Policy for a Productive, Sustainable and Liveable Future* under the goals of productivity, sustainability, liveability and good governance. One of the strategic objectives was to integrate land use and infrastructure by aligning land use planning, social and economic infrastructure. For that effort, a key action was to increase densities surrounding transport corridors, interchanges and activity centres. For Australian authorities, maximising the potential yield of land along public transport corridors and around major centres is essential to reduce urban sprawl and metropolitan expansion, facilitating people living closer to jobs and other activities. Compact cities can also support affordable living choices by locating housing close to opportunities like jobs and public transport in more compact mixed-use developments.

France – In 2007, the French national government launched the *Grenelle de l'environment* to define an agenda to promote sustainable ecology, development and planning. This led to the modification of the planning code to include new goals for city planning which should be included in the main French local planning instruments such as the territorial coherence schemes and local urban planning. The aim was to limit the consumption of natural areas by urbanisation, promote urban renewal and alternatives to automobiles reducing GHG emissions.

Japan – Due to population decline and ageing, the national government saw the need to review the city planning system which had been premised on urban growth in order to assure liveability in urban areas. In 2004, three acts were amended to promote compact city policies. The main strategies are: promotion of a comprehensive transport strategy by packaging policies such as: the construction of public transport and improvement of the environment for cycling and walking; revitalisation of central urban areas and promotion of living in urban areas; and conservation and promotion or urban green areas and greening of public facilities.

Norway – The national government included the compact city policy in its general land use and transport policy and the sustainable urban policy. Since the early 1990s, the government has been stressing the need for effective land use policy to limit the need for transport, in particular by private car, and to lighten the pressure on agricultural land. The 1993 Building and Planning Act sets the guidelines for compact city policy such as the location of regional public or private services in the existing and planned centre structure and public transport junctions.

Source: OECD (2012[65]), *Compact City Policies: A Comparative Assessment*, https://dx.doi.org/10.1787/9789264167865-en.

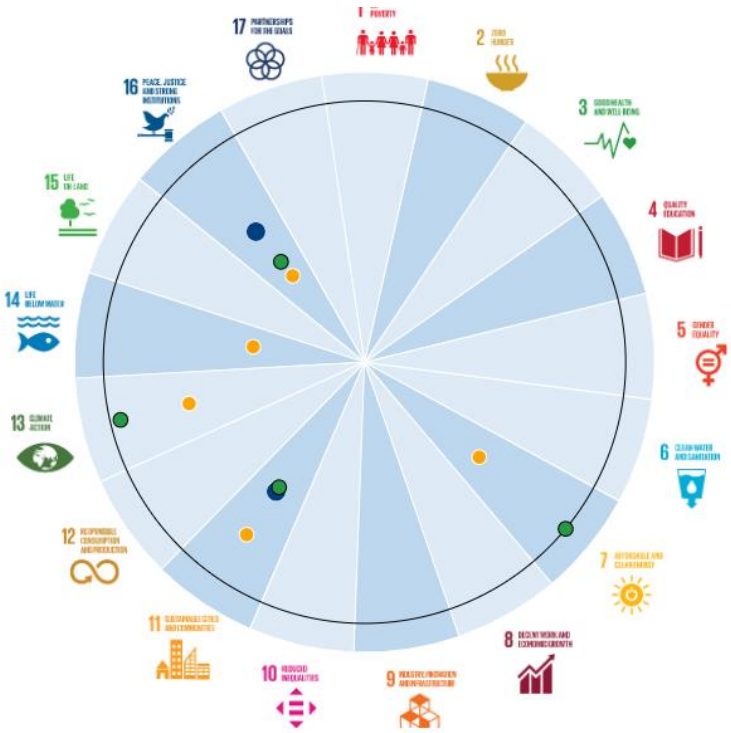
Place cities at the core of a strategy for competitiveness, inclusion and reaching net-zero emissions

Colombia requires a long-term NUP that places cities at the centre of economic growth, raises living standards for all people and facilitates the shift to net-zero carbon emissions urban centres. The current System of Cities and *Biodiverciudades* initiatives would need to be revised to ensure that competitiveness, inclusion and net-zero emissions are analysed and addressed from the perspective of cities. Colombia could frame its new urban policy in the context of the SDGs, in particular (but not only limited to) SDG 11 on making cities inclusive, safe, resilient and sustainable. The 2021 OECD monitoring of NUPs in 162 countries has found that countries are increasingly integrating social and environmental objectives, significantly mainstreaming the SDGs, the Paris Agreement and other global agendas in their NUPs (OECD/UN-HABITAT/UNOPS, 2021[36]).[16]

Colombia could embed these urban policy objectives into the next National Development Plan (PND) or design an explicit NUP. However, it would be better for Colombia to have a specific NUP because even its process of elaboration might be a very enriching and constructive experience for Colombia. It would allow specific discussions on co-ordination, data needs, human, technical and financial capacity issues, and the development of a long-term vision for the cities Colombia needs and wants. In the context of the COVID-19 pandemic, the elaboration of an NUP could facilitate rethinking cities and urban paradigms in the recovery process and how cities could anticipate and respond to future crises. The OECD has found that the majority of countries have an explicit NUP that aims to set a strategic common vision, foster multi-sectoral policy co-ordination and enhance an integrated territorial perspective. The majority of countries address climate resilience and low-carbon transition to leverage synergies with low-carbon mobility, mixed-used and compact development, sustainable buildings, risk assessment and risk-sensitive land use policies.[17]

Linking urban policy to environmental and climate change policies and strategies puts Colombia in a better position to meet the SDGs, the Paris Agreement and another international climate change-related international agendas. Colombian cities still have to make progress to reach the SDGs of the 2030 Agenda. Cities play a key role in reaching not only SDG 11 dedicated to sustainable cities and communities but in most SDGs given their role in public investment and close connection to citizens. For example, Figure 2.9 shows that Bogotá, D.C. and Medellín, the two main cities in the country, have not reached the suggested end values for 2030 in the majority of SDGs, particularly SDG 11 on environmental quality and sustainable urbanisation, namely the average exposure to particulate matter 2.5 ($PM_{2.5}$).

Figure 2.9. Measuring the distance to the SDGs in Bogotá, D.C. and Medellín



Note: Blue dots represent Bogotá, D.C. Green dots represent Medellín. Yellow dots represent the national average. The dots show how far away the cities are from reaching the suggested end values for each of the SDGs where information and data are available for Colombia. For information on the methodology, see OECD (2020[66]).

Source: OECD (n.d.[67]), *Measuring the Distance to the SDGs in Regions and Cities*, https://www.oecd-local-sdgs.org/ (accessed on 15 October 2021).

However, to reinforce its NUP, Colombia needs to consider two issues that are not clearly defined in urban and climate change policies:

- Equity and inclusion should be put at the top of the urban development and climate change agendas. Colombia needs to make progress in the eradication of poverty and the reduction of inequality. In the current context of low trust in government, deprivation and inequality, it will be difficult for Colombia to build public support for any reform measure that negatively changes ways of living, consuming, producing and travelling. Therefore, every climate change urban action must be seen through a poverty and inequality reduction lens.
- Investing in urban resilience to cope with climate change and the COVID-19 pandemic. Climate change mitigation will not be enough as the effects of climate change can already be felt. The melting of glaciers, coral bleaching, loss of beaches and coastal erosion, and extreme weather events are some of the visible effects of climate change in Colombia.[18]

The System of Cities and the National Climate Change Mitigation Policy through the promotion of more compact cities can simultaneously support climate change mitigation, resilience and sustainable urban development. The reason is that compact cities can protect cultivated land and natural habitats within and around urban areas. Avoiding land use change is important to protect biodiversity and therefore should be considered in the land use plans and the megaprojects that change rural land to urban use to build large housing complexes (see Chapter 4). Colombia may wish to consider the six priorities for national action defined by the Coalition for Urban Transitions which reflect the interconnectedness of cities to wider national development and the several ways in which they are influenced by national policy (Box 2.15). While some of these recommendations have already been included to a certain extent in Colombia's national urban and climate change policies, it is necessary to emphasise that national and local governments need to work in partnership to build zero-carbon and climate-resilient cities from a holistic perspective.

Box 2.15. Priorities for national action to achieve inclusive, zero-carbon and resilient cities

- **Develop an overarching strategy to deliver shared prosperity while reaching net-zero carbon emissions putting cities at the core of the strategy**. A national strategy that promotes compact, connected, clean cities and is underpinned by a national and local governments partnership has the potential to eradicate poverty, reduce inequality and avoid a climate crisis.
- **Align national policies behind compact, connected and clean cities**. Measures that could be included are: removing land use and building regulations that limit higher density; reaching net-zero operating emissions in all buildings with minimal use of carbon offsets; promoting the use of electric vehicles; and disincentivising the building of detached housing in established cities.
- **Fund and finance sustainable urban infrastructure**. Some actions that can be conducted are: eliminating subsidies for fossil fuels; scaling land-based financing instruments to fund sustainable urban infrastructure; and prioritising public and active transport in the budget rather than road-building.
- **Co-ordinate and support local climate action in cities**. To this end, it is necessary to clarify the roles and powers of different tiers of government including measures to: enhance their own-sources revenue options; create integrated land use and transport authorities for cities; authorise local governments to introduce more ambitious climate change plans than the national government; and strengthen local capacities to act on climate change.

- **Build a multilateral system that fosters inclusive, zero-carbon cities**. Some actions to this end include: scaling up collaborative climate action in cities in the Nationally Determined Contributions;[19] and helping cities to access international public finance for low-carbon and climate-resilient development.
- **Proactively plan for a just urban transition**. This means using climate change policy to deal with inequality in cities. For that, it is necessary to: strengthen tenure security for the urban poor; educate young people on climate resilience and gender equality; support local governments to identify suitable land for growing urban populations; and support community-led upgrading of informal settlements.

Source: Coalition for Urban Transitions (2019[68]), *Climate Change, Urban Opportunity*, https://urbantransitions.global/en/publication/climate-emergency-urban-opportunity/.

Align sectoral policies to build accessible and inclusive cities

Access to jobs, goods, services and people is the basis of economic and social development in cities. However, the COVID-19 pandemic has shown that in Colombian cities not all residents have access to the same quality of services and opportunities in the same manner. A disorderly and poorly managed urban growth observed in the last five decades has had negative social, economic and environmental consequences. For example, in Colombia, commuters spend on average 191 hours in urban traffic annually, which impact negatively competitiveness and productivity of cities and the poor quality of transport infrastructure has led to an increase in road fatalities with 650 deaths in 2019 compared to 550 in 2010.[20] With an urban population expected to increase even further, Colombian cities need to be built and run in ways that maximise access to jobs, goods, services and people without increasing carbon emissions, congestion and pollution.

The COVID-19 pandemic has highlighted that one of the most important new priorities for cities is enhancing urban accessibility. It may be defined as "…the ease with which people can reach destinations and connect with one another" (Rode et al., 2019, p. 6[69]). It combines the proximity of opportunities and the efficiency of the transport network and therefore depends on both land use mix and the transport system. The pandemic has revealed more clearly that access to opportunities remains unequally distributed. It has highlighted how important it is to think about how different groups are supported or constrained in accessing the city and how this links to wider debates around the just transition. Social benefits of compact accessible cities include the opportunity to revitalise urban neighbourhoods, rehabilitate housing and allocate some of it to current low-income residents. In Colombia, inequalities particularly affect ethnic minorities and displaced people by the conflict, which are disproportionally concentrated in rural areas. The quest for sustainability is leading cities across OECD member and partner countries to transit from mobility-enhancing to accessibility-oriented strategies for sustainable urban planning (OECD, 2020[70]).

In Colombia, cities like Bogotá, D.C. and Medellín are taking initiatives to support economic development, deliver better levels of quality of life with smaller carbon footprints through a vision for more compact and connected urban growth. The premise is that by increasing liveable density, creating more mixed-use urban districts where people can live and access jobs, goods, services and entertainment without excessive travel is a way to ensure cities can benefit from agglomeration effects, use their resources more effectively and efficiently, and achieve more social inclusion at lower economic and environmental costs. This has been the goal of Medellín's social urbanism over the last three decades, which has changed the urban development model of the city (Box 2.16). At the core of these transformations is a vision for more compact and connected urban growth.

Building accessible and inclusive cities in Colombia will require developing a coherent and self-reinforcing policy to deliver compact, connected, clean and inclusive urban development. For that purpose, Colombia's national government needs to enhance its focus on integrated policies through effective co-ordination across policy sectors such as housing, transport, land use planning, environment and economic development (see Chapter 4). Acting on policy integration will place Colombia in a better position to implement the New Urban Agenda and realise the SDGs as well as the Paris Agreement on climate change.

Box 2.16. Medellín's social urbanism model

Since the 1990s, the city of Medellín adopted a development model based on planning, fiscal order, transparency, participation and communication with emphasis on education, inclusion, culture, entrepreneurship and social urbanism. Social urbanism is the most important component, which consists in directing large investment to specific urban projects in the poorest neighbourhoods in the city. It involved the construction of high-quality infrastructure and architectural works with a strong aesthetic and social impact. There was a wide range of projects from educational facilities, and cultural, housing and public space improvement to "metrocables".

"Metrocables" are a public transport system via overhead cables connected to the city's metro system. The first line was opened in 2004. They were designed through an effective communication strategy and with the active participation of residents from the local communities. Although they do not have a large capacity (between 25 000 and 30 000 passengers per day), they notably improve mobility conditions in immediate areas at no additional cost for users, as the price is incorporated into the metro ticket. "Metrocables" have had a major effect on urban integration as marginal areas received modern infrastructure and were connected to the rest of the city (20 minutes from the outskirts located 10 kilometres away from the city centre). Areas previously known as dangerous also opened to tourism. These projects have helped in the reconstruction of the social fabric disrupted by years of violence: there were 698 violent deaths in 1991 and that number dropped to 26 in 2020. The social urbanism model was adopted in a period of economic growth. Nowadays the onslaught of economic recession, aggravated by the COVID-19 crisis, threatens the precarious gains of popular sectors.

Source: UCL (n.d.[71]), "El "urbanismo social' de Medellín, Colombia", https://www.ucl.ac.uk/bartlett/development/sites/bartlett/files/brand-2010.pdf; Alcaldía de Medellín (n.d.[72]), "La Transofrmación de Medellín, Urbanismo Social", http://ingenieria.uncuyo.edu.ar/catedras/medellin-es-solidaria-y-competitiva1.pdf.

Incorporate measures to adapt to natural phenomena, man-made disasters and climate change impact

NUP should incorporate measures that help cities to adapt to unforeseen natural, man-made and climate change phenomena. Urban planning needs to be connected to the strategies to face natural risks. Colombia's geography makes it vulnerable to natural events such as hurricanes, floods, droughts, earthquakes and tsunamis, particularly in the Andean area and the Pacific coast. Man-made risks could come from the massive concentration of people and industrial risks. In Colombia, climate change is expected to increase the average temperature between 2º and 4º by 2070, which will be accompanied by changes in hydrological conditions like a reduction of rainfall by up to 30% according to Colombia's Second National Communication on Climate Change. Climate change will affect people's quality of life, including in rural areas, by accelerating internal displacements and migrations towards cities, creating additional pressure on housing and public services as well as exacerbating marginalisation and poverty.

Mainstreaming or integrating risks of natural phenomena and man-made disasters as well as the impact of climate change on cities into urban planning and decision-making processes is of vital importance as Chile's National Urban Development Policy suggests.[21] The characteristics of natural surroundings are key determinants to be considered for planning socio-economic and territorial development. If not properly taken into account, they could become high-risk elements that could endanger people's safety and well-being, economic development and the environment. Colombia's NUP should provide the directives so that specific measures are developed in local development plans and land use plans (POTs) to address each municipality's specific geographical conditions and socio-economic context. For example, integrating climate change into the NUP could imply the need to: increase the capacity of local communities to withstand and recover from extreme events; decrease the vulnerability of the land due to the negative impacts of climate change; reduce GHG emissions; and build more sustainable, effective and safer development projects. Regarding natural phenomena, consideration must be given to the quality of housing construction and other infrastructure to withstand earthquakes, as well as to make sure settlements are not being built in areas prone to floods or landslides for example.

Consider the rural dimension in the development of urban policy

In Colombia as in other OECD countries, urbanisation and rural development cannot be addressed separately and both processes must be mutually reinforcing. Including small and intermediate cities, towns and even villages and surrounding areas in policies for sustainable development is essential in managing a comprehensive, interlinked and participatory approach to sustainable development. OECD has already noted that Colombia's future depends largely on rural development (OECD, 2014[13]). The armed conflict, which started in 1960, and the agrarian protests of 2012-13 are two examples of how the stability of the country is linked to rural development. In Colombia, rural regions display different stages of development. In general, there is a disjuncture between the contribution of rural assets to national growth (e.g. energy commodities) and the living standards of the rural population. Socio-economic indicators for rural households are significantly lower, with some remote rural communities remaining particularly vulnerable in terms of poverty rates and inadequate infrastructure. In 2020, 43% of the rural population was poor and 48% was in a condition of vulnerability, while in urban areas, 42.4% of the population was poor and 25.3% vulnerable.[22] These levels of poverty in rural areas are largely caused by lower levels of access to markets and public services, and lower levels of employment and productivity combined with high levels of informal employment and economic activities with low added value (OECD, 2014[13]). In rural areas, almost 88% of women work in the informal economy where they receive low levels of income.[23] Furthermore, rural regions remain largely isolated and disconnected from urban areas, and their local institutions are generally weaker than in the rest of the country.

Colombia's national government is well aware of the importance and need to support rural development. The National Development Plan 2010-2014 already identified rural development as a key priority for economic and social development (Gobierno de Colombia, 2011[33]). The DNP, in co-operation with the Ministry of Agriculture and Rural Development, promotes sustainable rural development through the *Misión para la Transformación del Campo Colombiano* (Task Force for the Transformation of Colombia's Rural Areas, or Rural Mission). This policy assessment aims to provide long-term policy guidelines to the national rural development strategy. Currently, the DNP is leading the task force to define public policy guidelines to make better public investment decisions for rural and agricultural development in the next two decades. The mission is structured into six strategies: i) territorial planning and development; ii) closing social gaps with a rights-based approach; iii) productive inclusion; iv) development of competitive rurality with emphasis on the agricultural sector; v) elements of environmental sustainability for rural development; and vi) institutional reform.[24] It is worth noting that there is no reference to urban-rural linkages nor to the contribution rural areas make to urban development. This is one of the reasons why the national government is currently evaluating the NUP.[25]

To move forward, building on the System of Cities, the development of a new NUP should include provisions to support rural development acknowledging the level of interdependency between urban and rural areas, which is not thoroughly developed in the current Cities 4.0 proposal. The axis on territorial planning and development of the Rural Mission and a new national rural policy provide a window of opportunity to link national urban and rural agendas to regulate the ownership, distribution and conservation of land and natural resources.[26] The success of urban areas is highly dependent on the state of development of rural areas. When rural areas are lagging, it creates pressure for cities as they tend to experience migration waves from rural areas. The increase in the number of residents coming from rural areas translates into higher demand for housing and services in cities and their surroundings. Food production and distribution may be impacted as there may be fewer farmers and lower production, and products may have to come from further away. The loss of rural areas opens the possibility of more urbanisation and sprawl. Moreover, particularly in a polycentric urban country such as Colombia, promoting better integration of urban and rural policies can unlock new growth opportunities and create hubs of development around small- and medium-sized cities.

Linking rural and urban policies is a way of acknowledging the functional approach to territorial and urban development promoted in the System of Cities. However, the challenges of rural and urban areas and the strategies to face them should not be designed and implemented in isolation as it would produce a self-weakening effect of both policies. It is also important to ensure that the NUP focuses on investment promotion and growth in urban-rural projects rather than on solely transfers, subsidies and social policies.

Mainstream urban-rural linkages in urban policy

Colombia is not capitalising on its high urbanisation level due to weak urban-rural linkages

As noted in Chapter 1, Colombia has an important number of intermediate cities (56) with a population ranging from 100 000 and 1 million inhabitants. These cities rank second in socio-economic importance after the big four: Bogotá, D.C., Medellín, Cali and Barranquilla. The System of Cities makes a distinction between functional (18) and uninodal (38) cities (Gobierno de Colombia, 2014[3]). Functional cities refer to the set of cities and their contiguous urban zones – including their territories of influence – linked by functional relationships. Uninodal cities refer to the urban centres whose functional area is still within the political-administrative borders of the municipality. All in all, this system of cities represents 65% of the total population of Colombia and 80% of its urban population. The functional cities represent 81% of the population of the System of Cities and include 113 municipalities of different sizes. There are 38 uninodal cities, including 16 that have more than 100 000 inhabitants and 14 with fewer than 100 000 inhabitants. This classification suggests that, in Colombia, urban and rural places are strongly interdependent and functional areas have different degrees of rurality. More remote and in many cases isolated regions tend to be more rural.

According to OECD research, on average, when urban and rural areas are closer and institutions more inclusive, places tend to perform better than others in terms of population growth and GDP per capita (OECD, 2021[73]; 2013[74]). In Colombia, rural regions that are part of the national economy have strong links with urban areas and with international markets. Developed economies are more integrated and experience stronger urban-rural linkages. However, Colombia faces critical challenges for strengthening rural-urban linkages to support economic growth, well-being and environmental protection. For example:

- In Colombia, rural and urban areas are separated by both traditional administrative boundaries and geographical conditions, as the mountainous territory led many areas to develop isolated from the rest of the country. The lack of physical and digital connectivity between these areas makes it more difficult to plan development and prevents them from building economies of scale and developing complementarities. Colombia's urban and rural linkages are also shaped by specific geographic and subnational characteristics (OECD, 2014[13]).

- Small- and medium-sized cities, where over 50% of the national population live, have an enormous potential for development but their lack of transport and broadband infrastructure limits their interactions and exchanges with other cities and rural areas. Large metropolitan areas seem to be the priority for development while small- and medium-sized cities are not given the same level of importance, thus their gaps in infrastructure as the System of Cities focuses on those over 100 000 inhabitants.
- The connection and interdependencies between rural and urban areas are not taken into account in territorial and land use planning. Although a large part of the population lives in functional cities, which are predominantly urban regions with some degree of rurality, the land use plans (POTs) do not consider these relations and interconnections in depth. POTs, by regulation, must consider of rural spatial planning but within the administrative area of the municipality only. As a consequence, POTs do not provide for mechanisms to build synergies between rural and urban areas from a functional perspective.
- Rural areas are not a key part of the urban development policy discussion and decision-making to support interdependencies and bolster co-operation. It is clear that rural policy applies to rural areas and urban policy to urban areas; the intersecting fringes between these areas require a different approach to make the most of potential complementarities. For example, cities are not planned or conceived in an agri-food context. Food provision in Colombia is highly centralised as 40% of farm products are distributed across the country via the Bogotá, D.C. supply centre (*central de abastos*).[27]
- The System of Cities called for the articulation of urban and rural planning but there was no provision of concrete policy interventions and a vision on how these interactions should work and be governed. Moreover, there is a lack of incentives for co-investments among urban and rural municipalities. Projects on transport, sewage or waste systems tend to be mediated by the departmental government, without much scope to integrate the governments of rural municipalities. In addition, the lower capacity of rural municipalities and the dominance of political interests tend to undermine trust and co-operation with predominantly urban municipalities.

The national government should continue promoting urban-rural linkages through the national urban and rural policies

The promotion of urban-rural linkages through functional territories can help reduce regional inequalities and increase resource efficiency. Earlier OECD work suggested that Colombia could benefit from encouraging urban and rural linkages (OECD, 2014[13]). A key recommendation was to differentiate between the different types of rural regions: remote rural regions and rural regions with strong linkages to cities. This is relevant due to the paucity of linkages between urban and rural regions (OECD, 2014[13]). To strengthen rural-urban linkages, Colombia may consider the following additional actions:

- The NUP framework should make explicit use of urban-rural partnerships as a means to achieve national development objectives and address territorial challenges at the most adequate territorial level of planning. The NUP should raise awareness of the advantages of creating and strengthening urban-rural linkages. If possible, the national government could create a database of good practices, with the support of the Association of Capital Cities (AsoCapitales) and the Federation of Municipalities, to disseminate the accumulated experience, good practices and potential benefits of urban-rural partnerships, as well as foster innovation in supporting urban-rural linkages.
- The national government should develop a range of financial incentives for building partnership projects. It could offer financial support for wider infrastructure projects (i.e. sanitation system, drinking water provision). This is important because a context of fiscal pressure, such as the one created by the COVID-19 pandemic, may hinder the development of rural-urban linkages as a drop

in income may result in fewer investment projects at the local level. Resources like own revenues and subsidies allow for innovation and diversity of undertakings conducted within urban-rural partnerships as they are not earmarked and municipalities have more room for manoeuvre on how to spend those resources (see Chapter 5).

- The national government could formulate a scheme for structuring rural-urban partnerships between governments including formal and informal agreements, and between non-governmental entities including educational, not-for-profit organisations and the private sector. As the experience of France, Germany and Korea shows, the national government should act as the driver of rural-urban partnerships providing the incentives and facilitating the organisation of partnerships and installation of governance frameworks (Box 2.17).
- Rural areas should be considered peers of urban areas to enhance trust and this should be the foundation of any rural-urban partnerships. The experience of the Nuremberg Metropolitan Region in Germany exemplifies the use of the "one voice, one vote" principle to overcome the fears rural leaders may have of being dominated by the larger cities (Box 2.17). There should be a notion of reciprocity where both sides are expected to contribute to the relationship and get something back in return as was done in France. However, although the national government could promote the creation of urban-rural partnerships, their creation should be voluntary.
- Simple contracting processes between non-governmental organisations can be considered as a tool to foster rural-urban linkages. Canada's experience suggests that, in some cases, it is not necessary to have formal agreements between governments: regional and even national governments can facilitate the formulation of contracts between non-governmental organisations to support rural development (Box 2.17). This could be a practical solution for Colombia as agreements between governments can be time-consuming and require political leadership and commitment, which cannot always be taken for granted.
- The *Biodiverciudades* programme could be used to foster urban-rural linkages and expand the scope of co-operation beyond environmental issues. By helping identify rural assets (both natural and human) and leveraging these to support *Biodiverciudades,* rural areas can play a key role in the economic development of rural and urban areas. In fact, a strategy to foster rural-urban interactions could be added as a requirement to join the *Biodiverciudades* programme. In other words, urban and rural areas could jointly apply to be part of the programme and receive the technical support from the national government that is normally granted through the programme.
- Land use plans should adopt a functional approach by including rural-urban linkages. The development of the new POTs is an opportunity to foster territorial planning in a way to cover the functional area rather than just the area within the administrative boundaries by co-ordinating POTs among neighbouring municipalities. Reinforcing the territorial associative schemes for the elaboration of a common land use plan in a functional area would help strengthen urban-rural linkages. The reason is that land use decisions in one municipality (urban or rural, large or small) affect its neighbours. Especially in densely populated urban areas, the management of land requires a co-ordinated approach to contentious issues such as regional transportation investments, the location of industrial areas and the amount of housing that is needed and developed. This would allow for the territorial integration of policy sectors such as housing, transport and industry. Colombia needs to ensure that spatial and land use planning evolve together with changes in functional territorial boundaries.

Box 2.17. Fostering urban-rural linkages in Canada, France, Germany and Korea

In **Canada**, Southern Ontario is a key part of the economic engine of the country as it hosts more than 46 000 SMEs and employs 1 million workers in knowledge-intensive sectors in cities like Ottawa, Toronto and Waterloo. However, despite being close to cities and well connected by road, rail and broadband services, rural areas in the region have not shared in the success of the major cities. Therefore, the Federal Economic Development Agency for Southern Ontario, which provides funding for major business accelerators, included provisions in funding negotiations to develop rural-urban linkages between the three major business accelerators and other innovation centres serving smaller communities and rural areas across the region. In 2019, the Southern Ontario Scale-up Platform was announced, bringing together MaRS, CommuniTech and Invest Ottawa into a new partnership. Its aim is to make the programming, advisory services and other support services offered by these three organisations in their urban locations available to entrepreneurs and SMEs located outside the three major cities, creating partnerships with local innovation centres. One early result has been the funding Invest Ottawa is providing to Queens University, in Kingston (population of 117 660, 196 km from Ottawa) to develop their Launch Lab initiative, including a boot camp for early-stage start-ups and a growth accelerator programme for SMEs.

In **France**, in 2016, the national government realised the potential for complementarity and co-operation of its different rural and urban territories. Thus, to reduce the gap between urban and rural territories and strengthen linkages across traditional administrative boundaries, the government launched an initiative called “city-countryside reciprocity contracts” (*contrats de réciprocité ville-campagne*). This is an experimental tool to promote inter-municipal co-operation and empower a new subnational entity: metropolitan areas. The agreements can be adapted to different realities and jurisdictions are not predefined, giving them the flexibility of whom to include in the contract. Potential areas of co-operation include environmental and energy transition, economic development and quality of services and administrative organisation. One of the four selected territorial partnerships was the metropolis of Brest and Pays Centre-Ouest Bretagne. The city of Brest and the rural areas of Centre-Ouest Bretagne have been working together to fulfil their respective priorities and support innovative projects on economic development, social inclusion, health, culture and services, and the environmental and energy transition. To determine these priorities, members met three to four times in 2016 to negotiate win-win partnerships and joint activities addressing common challenges. The Brest-Bretagne urban planning agency developed a joint roadmap adopted by the different local assemblies. A year after signing the reciprocity contract, early results in the areas of healthcare, bioenergy and support for an audio-visual cluster began to emerge.

In **Germany**, the Nuremberg Metropolitan Region (NMR) has been facing a declining and ageing population. The region is also struggling with young and skilled labour after educating them. In this case, the leaders of Nuremberg and the core cities of Erlangen, Furth and Schwabach acknowledged that, due to their small size, it would be difficult to achieve their objective of becoming a leading hub for innovation and compete in a globalised world without the co-operation of surrounding rural areas. Thus, they sought to build a region better equipped to compete nationally and internationally, together with leaders of other districts and levels of government. The plan, shared by all urban and rural partners in the region, was to become a more integrated, cohesive and recognised single entity. At the core of the power-sharing structure is the council of elected officials; decisions are only made by consensus and each member has a vote regardless of their population size or economic strength. The “one voice, one vote” principle has been seminal in building trust. The council is supported and guided by several entities such as the NMR Presidency, the NMR Central Office, the Steering Committee and the management office. The integrated public transport system has been a strong unifying element that allows reciprocal exchanges of the population (carrying workers from the periphery to the centre and

tourists from the centre to the periphery). Since 2005, districts have been voluntarily co-operating in projects of shared interest. The national government's Demonstration Project of Spatial Planning for cross-border functional regions – the MORO initiative – launched the three-year pilot project on spatial development to provide incentives for urban and rural areas in Germany to engage in project-oriented co-operation.

In **Korea**, in 2004, the central government launched the Innovation Cities initiative to ease the pressure on Seoul by relocating 153 public institutions in 10 secondary cities along with their staff and families. The process was complete in May 2020 and the number of people relocated was just over 200 000. The initiative also sought to bring together academia, research institutions and enterprises to denote new areas of innovation and economic growth. The national government is also investing in the improvement of public services, housing, cultural amenities and public transport services. With the relocation complete, the central government asked local governments to take the lead on planning for further development of their innovation city over the next five years. This new phase aims at better integrating the relocated institutions into the local community and improving quality of life for residents by building social infrastructure. New targets have been set for 2022 on local hiring (30%) and leveraging local suppliers in procurement activities (20%). In 2019, 25.9% of individuals hired by the relocated public institutions were of local origin (21% was targeted) and 13.4% of procured goods were locally sourced. To support these objectives, improving rural-urban linkages will be seminal. As the initiative evolves into a more organic engine of regional development, local and central governments try to ensure that rural residents and firms are integrated into the strategy of development.

Source: OECD (2021[73]), *Perspectives on Decentralisation and Rural-Urban Linkages in Korea*, https://dx.doi.org/10.1787/a3c685a7-en.

Introduce an implementation and evaluation system for the plans and programmes that form the NUP

As mentioned above, one of the main drawbacks of the current System of Cities policy is the lack of an implementation and evaluation system. The experience of OECD countries suggests that it is essential to put in place an implementation system that allocates clear responsibilities across levels of government for achieving the results of the NUP – within the scope of their competencies. The OECD Principles on Urban Policy highlight the importance of fostering monitoring, evaluation and accountability of urban governance and policy outcomes (Principle 11) (OECD, 2019[38]). The System of Cities policy document does stipulate some tasks that some national sectoral ministries should undertake to implement the NUP. However, there is little indication of the role and responsibilities of departments and municipalities in this respect. There might be an assumption that these levels of government will stick to the responsibilities as defined in LOOT. However, subnational levels of government, in particular municipalities, must be regarded as the primary and fundamental actors in the implementation of the NUP. Although subnational governments are autonomous and their responsibilities are specified in national legislation such as the constitution and LOOT, the NUP could at least specify how those responsibilities should be aligned and contribute to national urban objectives. Their role and responsibilities should therefore be clearly stated in the policy document. This is of the utmost importance given Colombia's longstanding challenge in terms of implementing plans and strategies (see Chapter 5).

Similarly, the renewed Colombian NUP should include an evaluation system on the implementation of the urban policy. The aim is to generate knowledge that could be used to draw lessons on how cities and functional areas could be managed more effectively as well as in the decision-making process. An evaluation system should help diagnose the level of impact of the activities undertaken in urban areas on the basis of data. The DNP has set up SisCONPES, an online platform to record the progress in the implementation of the activities listed in all CONPES documents, and the Observatory of the System of

Cities that helps to collect data on the state of cities. However, there is no provision to evaluate the impact of NUP. Simply registering how many of the actions listed in the System of Cities action plan have been carried out does not allow for assessing the impact they have had on the urban system as a whole and in every urban area. This is not an easy exercise as the impact of action in urban areas is determined by the impact of several policies. As the Polish experience suggests, the monitoring system should be adapted to monitor urban policy at the functional area level in accordance with predefined standards and local needs (Box 2.18).

Developing an NUP evaluation system will require the participation of several actors at the national and subnational levels. In particular, the National Administrative Department of Statistics (DANE), the Agustín Codazzi Geographic Institute (IGAC), the Ministry of Housing, City and Territory (MVCT) and the National Planning Department (DNP) should play a prominent role in this respect as natural actors in the monitoring and evaluation process. The reason is that impact evaluation will require regular rounds of data collection in collaboration with subnational governments to develop a sound system of indicators to assess and benchmark urban policy actions and impact. DANE would then have the responsibility to ensure the reliability of data and their adjustment to the functional scale. The method for conducting this evaluation is of the utmost importance as it has to be objective and based on evidence. In this case, the experience of the US HUD method of monitoring grantees at the local level through its Office of Community Planning and Development, combined with the Office of Policy Development and Research's policy evaluations, provides useful insights for Colombia. Some of the main lessons are: i) establish measurable and objective indicators prior to programme implementation (the Consolidated and Annual Action Plan); ii) mandate stakeholder input in programme development and the creation of indicators (public comment process); iii) monitor financial management, regulatory compliance and programme performance on a regular basis both remotely (reporting in systems) and through detailed onsite evaluations (audits); iv) require grantee self-evaluations at regular intervals with requisite public disclosure (the Consolidated Annual Performance and Evaluation Report or Annual Performance Report); v) follow up on issues of non-compliance identified during the monitoring process to verify they have been addressed; and vi) evaluate programmes at a national level through established research methods utilising data gathered throughout the process.[28]

Box 2.18. Poland's implementation and monitoring systems of the NUP

A key aspect of Poland's NUP is the introduction of an implementation and monitoring system. The implementation system consists in establishing clear roles for the Council of Ministers, sectoral ministries and in particular the ministry competent for regional development, which has a co-ordinating role. The NUP sets a Team for Territorial Dimension, Spatial Order and National Urban Policy to co-ordinate the activities carried out by government agencies to deliver urban policies. It sets the Joint Central Government and Local Government Committee as a platform for strategic dialogue across levels of government on the implementation of the NUP. Moreover, the implementation system specifies the tasks cities (local government) and voivodeship (regional government) have. It highlights the importance of improving the co-operation between local government units to achieve the goals of the NUP. The voivodeship regional governments are responsible for preparing and implementing the regional development strategy in accordance with the regional land use plan. The regional development strategy should define the areas of the individual functional urban centres in the region. The implementation system also includes social and economic actors as partners to achieve urban objectives through social dialogue, citizen participation in city management and close co-operation with the academic and business sectors.

Poland's NUP includes a system to monitor the implementation of urban policy. The aim is to use the conclusions of the monitoring to develop long-term urban strategies, identify challenges and sources of knowledge. The success of the monitoring system is based on the ability to monitor the activities of

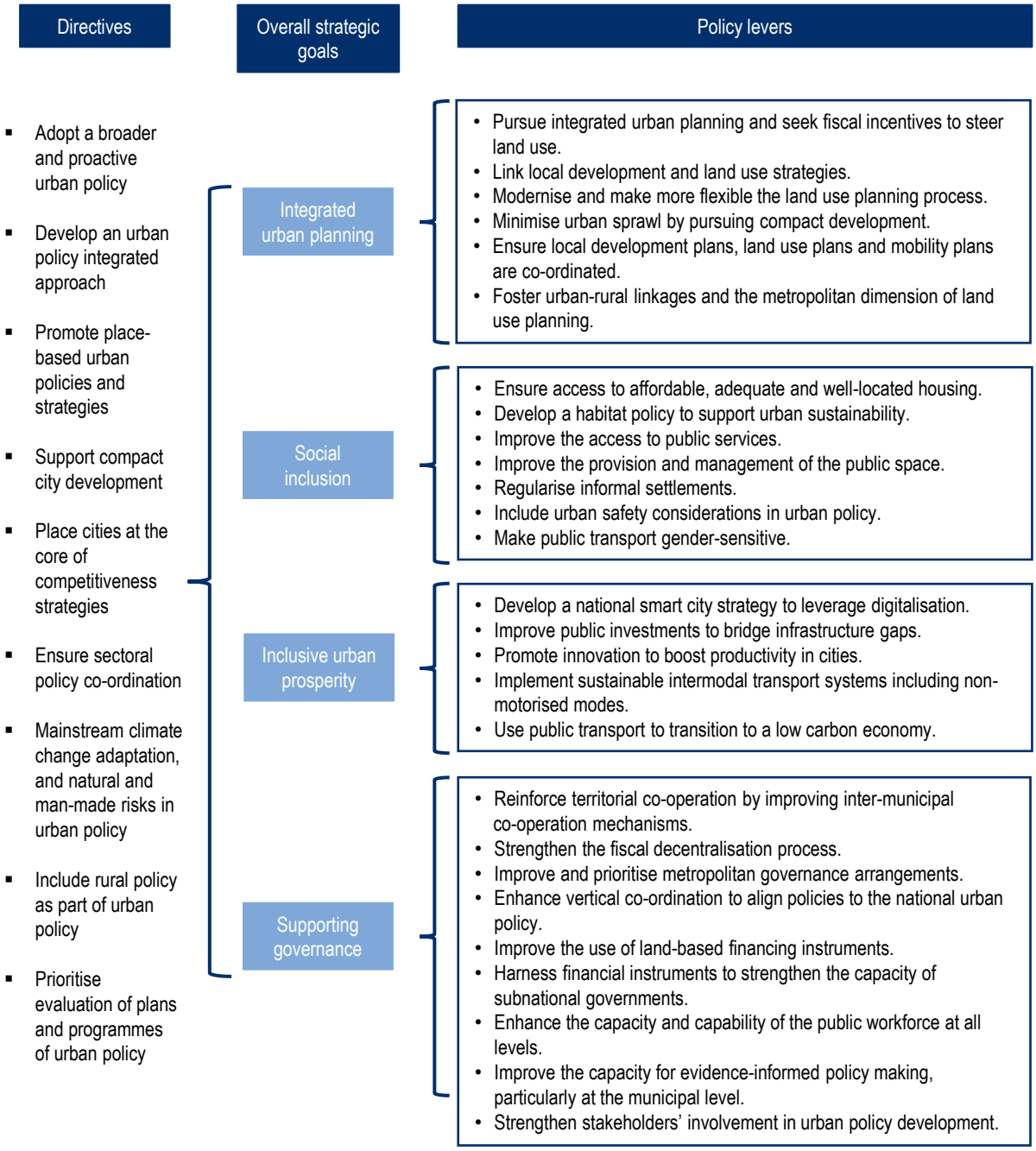
urban policy on the level of FUAs. To this end, the national government, through the Central Statistical Office, formulates and expands the data set territorially within cities and uses it as a foundation for databases and searches for opportunities to obtain necessary, currently unavailable data for cities of all sizes. The monitoring system obtains data from various sources (especially public ones) through a co-operation network integrated by the ministry competent for regional development, the Central Statistical Office, the administratively-competent ministry and the Head Office of Geodesy and Cartography. The system encourages municipal authorities to make use of the research data and tools to enhance knowledge-driven territorial planning. Data are used to benchmark cities comparing similarities and giving cities the opportunity of self-assessment.

Source: Government of Poland (2015[53]), *National Urban Policy 2023*, Ministry of Economic Development, Warsaw.

In summary – What elements should be included in a new NUP?

Developing a new NUP for Colombia will have to be a participatory process that builds on the achievements and experience of the previous policies. Figure 2.10 outlines the main proposed components of a renewed NUP for Colombia. It suggests that the construction of the new NUP will have to be guided by a number of directives intended to make the policy more integrated, place-based, proactive, co-ordinated and with a focus on evaluation. It may follow four main general strategic objectives: integrated urban planning, social inclusion, inclusive urban prosperity and supporting governance. The different policy levers intend to provide a way to achieve the overall strategic goals. Those constitute the policy recommendations formulated in the subsequent policy chapters of this review and cover areas such as land use planning, mobility, housing, productivity, social issues, fiscal decentralisation and multi-level governance arrangements.

Figure 2.10. Proposed elements for a new Colombian NUP



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[26] The OECD is currently conducting a rural policy review where specific recommendations on rural development will be formulated.

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3 Policies for sustainable cities in Colombia

This chapter looks at the major elements of Colombian urban policies. It begins with an exploration of land use planning, looking at the current process to formulate land use plans (POTs), which is costly and prone to political influence. This is followed by an examination of Colombia's barriers to mobility, which suggests building a more competitive and cost-effective public transport network in Colombian cities. The chapter then moves on to discuss the digitalisation of cities and how it can foster inclusive development. The chapter also examines the challenges to raising productivity levels in Colombian cities currently deterred by infrastructure gaps. It ends with an exploration of urban inequality, emphasising the need to improve the management of the public space, the regularisation of informal settlements and the inclusion of urban safety measures in urban policy.

Introduction

Colombia is at a crossroads in its urban development process. Although the country is urbanising rapidly, it is not fully prepared to profit from and deal with the consequences and effects of urbanisation. The urban population is growing but this is largely, although not uniquely, due to the rural and international migration process that is creating pressure on cities to provide additional housing and services. Moreover, although Colombians living in cities have increasing access to basic services, this is not guaranteed for all residents. Access to affordable housing, reliable and safe commuting options, jobs and opportunities, drinking water, good air quality and safe public spaces are some of the still pending tasks in most cities in the country.

As Chapter 1 noted, Colombia has gone through an accelerated but disorderly urbanisation process. Colombian cities are in a context where densification has co-evolved with suburbanisation, in other words, urban low-density areas are growing faster than high-density areas. A similar situation is observed in countries like Greece, Ireland, Spain, Sweden and the United Kingdom (UK) where increases in urban average population density are accompanied with an urban growth footprint occupied by areas of very low density (150-1 500 inhabitants per km^2) (OECD, 2018[1]). Migratory waves due to forced or voluntary displacement have largely contributed to the emergence of informal settlements around cities, generally in risk locations, making residents vulnerable to disasters. The expansion of agricultural and urban land without integrated planning is damaging biodiversity and the natural environment. In high-density areas, the price of land is out of reach for low-income households, which pushes them out towards suburban areas poorly connected to jobs and services.

The National Policy for the Consolidation of the System of Cities in Colombia (CONPES 3819 or hereafter “System of Cities”) has been seminal in highlighting some key strategic areas where the country needs to make more progress. It is the latest in a series of national urban policies (NUPs) implemented to have a more orderly urbanisation process. As noted in Chapter 2, Colombia has also issued a long series of regulations designed to facilitate the implementation of the NUP. However, those policies and regulations have not been enough to improve the quality of urbanisation. This could be partially explained by limitations in the governance arrangements (see Chapter 5) and the lack of a holistic approach to urban development where civil society takes a central role.

Colombia needs to invest more in building competitive, inclusive and sustainable cities in line with the United Nations (UN) Sustainable Development Goals (SDGs). Urban development should be approached from a holistic view, while specific sectoral policies need to be recalibrated to take into account their impact on people’s well-being, economic competitiveness and environmental sustainability.

The assessment and recommendations formulated in this chapter are based on the information collected through: a literature review; the background questionnaire answered by the national government of Colombia; interviews with different stakeholders from the national and subnational governments as well as members of the academia; and the OECD Survey on Urban Policy in Colombia, 2021, conducted with the support of the Ministry of Housing, Cities and Territory (MVCT) of Colombia and the Colombian Association of Capital Cities (AsoCapitales).

This chapter focuses on key urban policy priorities that could help Colombia underpin its next generation of urban policy. These priorities are not meant to be addressed separately but as part of a holistic interdependent mix of sectoral policies that shape cities’ competitiveness, inclusiveness and sustainability.

Pursuing urban sustainability

A comprehensive regulatory and policy framework, and the accumulated experience with NUP built over the last two decades, put Colombia in a strong position to strive for building sustainable cities in terms of environmental quality, equity and economic viability. Urban compact developments have the potential to contribute to sustainability through dense and proximate development patterns, urban areas connected by public transport, and accessibility to jobs and services (OECD, 2012[2]) (see Chapter 1). Lowering reliance on the surrounding countryside for food, energy, water and land for housing, and landfills to dispose of waste should be at the core of this goal. A compact city has the potential to foster social cohesion and mobility: for example, shorter intra-urban travel distances mean lower travel costs, which will benefit low- and medium-income households in particular. However, policies to encourage more intensive use of built-up areas may create challenges such as increased traffic congestion, air pollution, a lack of vegetation in cities, loss of open green space and insufficient affordable housing if they are not planned and implemented efficiently. By combining housing and transport costs in urban development, it is possible to strengthen affordable housing policies as low-income households may have more disposable income to spend on other goods (Litman, 2017[3]). Compact urban development patterns can also reduce the cost of building and maintaining infrastructure, which is of key importance for Colombia to bridge the infrastructure gap (DNP, 2014[4]; Gobierno de Colombia, 2014[5]). It may also contribute to increasing labour productivity, as employment density increases with the diversity of skills and diffusion of knowledge (OECD, 2012[2]).

Thus, Colombia should promote links among economic, social and environmental goals to build sustainable cities. Figure 3.1 shows how the three dimensions are connected and have an impact on each other. For example, mobility (public transport) solutions can deepen labour markets and reduce commuting costs for workers while reducing greenhouse gas (GHG) emissions and increasing access to jobs and services, thereby enhancing liveability. The recommendations proposed in this chapter intend to contribute to fostering urban sustainability. A key aspect is to ensure that these policy actions are co-ordinated within an overarching nationwide vision of how Colombian society sees the future of its cities, which should be stated in an NUP. Figure 3.1 highlights some recommendations that refer to specific policy sectors. The new NUP and these recommendations are mutually reinforcing.

Improving spatial and land use planning

Despite efforts to plan land use more effectively and ensure a more orderly urban growth, Colombian cities continue to experiment with illegal settlements, partly due to inadequate planning and the lack of land on which to build formal housing. A key feature of this urbanisation process is “legalised illegality”, as many informal settlements are legalised by local authorities expecting political support, which might become an incentive for illegal developers to continue illegal urbanisation. This phenomenon often occurs during electoral processes, when political candidates promise to legalise illegal land occupation in return for political support in elections. Some settlers occupy land, expecting that it will eventually be legalised and equipped with public services. Housing units are self-built by occupants but without following construction codes. Municipalities then have to resort to urban improvement programmes to improve living conditions in informal settlements.

Colombia has two main instruments to guide strategic and spatial planning: land use plans (*planes de ordenamiento territorial*, POTs) and territorial development plans (*planes de desarrollo territorial*, PDTs). Even though both instruments are mandatory for subnational governments, their relevance is not always understood by local policy makers and these plans are therefore not always aligned and implemented.

Figure 3.1. Enhancing urban sustainability in Colombia

Selected recommendations	Urban sustainability		
	Efficiency and productivity	Equity	Environmental sustainability
Land use planning • Simplify land use plans. • Use fiscal incentives to steer land use. • Seek compact development and be forward-looking. • Link land use to territorial development. • Prioritise urban regeneration and urban-rural linkages. • Foster the metropolitan dimension.	Changes in land use can impact wealth generation and incentivise (or not) investments. Land use regulations could be used to steer competition between businesses by allowing new firms to enter markets.	Land use regulations may lead to affordable-accessible housing. It could allow governments to react to growing housing demand without increasing costs. It can facilitate to align housing and transport policies.	Land use can incentivise densification by easing land use restrictions; create walkable cities; protect rural land and conservation areas; incentivise urban regeneration; and contribute to the long-term stability of ecosystems, and adaptation to climate change.
Urban accessibility • Strengthen CONPES 3991. • Embrace sustainable urban mobility. • Co-ordinate land use, development plans, and mobility plans. • Use public transport to transit to low-carbon economy and compact cities. • Facilitate active mobility in cities. • Make public transport gender-sensitive.	It facilitates the access to a wider labour market and attract highly skilled workers. It is essential to connect the city to regional networks for trade and facilitate freight logistics. It can reduce commuting times and travelling costs; contribute to increase property values; and increase transit efficiency.	It allows low and medium-income households to access opportunities contributing to social mobility. It allowing residents of informal settlements to be part of the urban fabric. It considers the needs of different groups to enable them to access jobs and services in a safe manner.	It contributes to promote compact developments and reduce traffic congestion, energy consumption and pollution. It promotes sustainable transport modes such as public transport, walking and cycling.
Urban productivity • Develop a national smart city strategy. • The diversity of cities potential should be considered in a smart city strategy. • Improve public investment to bridge infrastructure gaps. • Promote innovation in cities.	Accelerates economic growth and promotes job creation. There is a positive impact on companies' sales. It can contribute to higher productivity by allowing sharing knowledge and efficient production processes. It contributes to improve productivity and competitiveness by improving infrastructure, attracting a skilled workforce, and promoting innovation in the local economies.	Provides access to services and solutions based on real needs, as well as access to information. If properly managed it can reduce inequality by facilitating teleworking and access to job opportunities and services. It can improve access to better paid jobs which in turn translate into improved levels of income and well-being.	Digital tools can contribute to circular economies reducing green house gas emissions, promote renewable energies and protect ecosystems. It can accelerate the transition to a climate-neutral and more resilient economy. It can contribute to make a more efficient use of natural resources available in the city.
Inclusiveness • Improve public space strategies. • Regularise informal settlements. • Include urban safety in urban policies.	Allows using the talent available in the population for economic growth. By tackling informal economy and settlements and improving safety, cities are in a better positon to attract investment and create jobs.	Contributes to social cohesion, reduces inequality. Helps to improve quality of life and health.	It can minimise the impact of climate change on the vulnerable population. It can allow the poorest and most vulnerable groups to benefit from green investments.

Note: The recommendations in this figure are explained in this chapter.

Strategic planning is underexploited and reduced to a bureaucratic requirement

Colombia has developed a comprehensive set of planning tools and has made significant efforts to improve coherence between those and budgeting investments at all levels of government (OECD, 2016[6]). Subnational governments (departments and municipalities) design four-year PDT to guide socio-economic

development and environmental management and are supposed to be in line with the National Development Plan (*Plan Nacional de Desarrollo*, PND). PDTs are the basic planning instrument through which subnational administrations define the programmes and projects to be carried out during their four-year political term. They are regulated by the Organic Law of the Development Plan (Law 152 of 1994) (Gobierno de Colombia, 1994[7]). They include the objectives, goals and programmes of the departmental or municipal government as well as the medium- and short-term investment plan (Gobierno de Colombia, 1994[8]). To be approved, any public investment project at the subnational level must be in line with the departmental and municipal PDT. A territorial planning council in each department and municipality oversees the implementation of the PDT and includes representatives from civil society and the private sector.

However, OECD research found that the potential of subnational development plans to guide effective investment has been underexploited (OECD, 2016[6]). For many subnational authorities in Colombia, the planning activity is a merely formal exercise and transformed into a bureaucratic activity, which limits their effectiveness. In many cases, external experts are hired to design the PDT, which are elaborated based on a diagnosis that does not reflect actual local needs and political orientations. Their implementation is characterised by isolated projects, which are disconnected from any strategy. PDTs also lack financial resources, which leads to weak monitoring of their implementation (OECD, 2016[6]).

POTs are too complex and mostly outdated and underused

Land use planning in Colombia is guided by Law 388 of 1997 on Land Management (Gobierno de Colombia, 1997[9]). Municipalities must adopt and implement a 12-year POT and the PDT, of shorter duration (four years), should, in turn, be articulated with the POT. The POTs should guide the organisation of the municipal territory, the equitable and rational use of land, the preservation of their ecological heritage and the execution of urban planning. The land use planning system is grounded in the legal framework as Law 388 sets the rules for the formulation of the POTs (Box 3.1).

Box 3.1. Land use plans (POTs)

Colombian municipalities have to formulate a land use plan (POT). These plans are supposed to be revised at a minimum every three constitutional periods, which last four years. The POTs establish the policies, objectives, strategies, programmes and projects, norms, instruments and execution programmes to guide and manage the physical development of a territory and use of land. There are three different types of POTs defined according to population levels. Law 388 of 1997 specifies that when it refers to POTs, it is understood that it includes all types of plans, POTs, PBOTs and EOTs as follows:

- Land use plans (*planes de ordenamiento territorial*, POT) for municipalities with over 100 000 inhabitants.
- Basic land use plans (*planes básicos de ordenamiento territorial*, PBOT) for municipalities with a population of 30 000 to 100 000 inhabitants.
- Land use schemes (*esquemas de ordenamiento territorial*, EOT) for municipalities with a population of fewer than 30 000 inhabitants.

According to Decree 1077 of 2015, the elaboration of a POT and its subsequent modifications must pass through the following stages: diagnosis, formulation, agreement, consultation, approval and adoption, and monitoring and evaluation.

POTs are defined as the ensemble of objectives, directives, goals, programmes, operations and regulations adopted to guide and manage both the physical development of the territory and land use. POTs are the basic instrument to develop the process of planning the municipal territory.

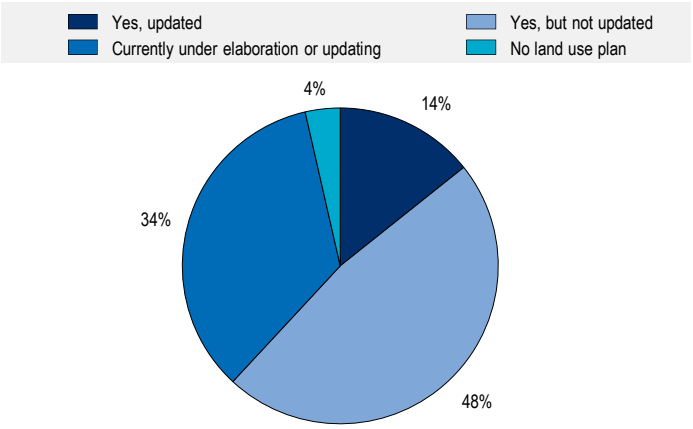
POTs and PBOTs must have three main components:

- **General component**: This includes long-term objectives and strategies for the management of land use. It also includes the communication system between urban and rural areas, the delimitation of conservation and protected areas, and classification of the territory into urban, rural and urban expansion land.
- **Urban component**: This includes medium- and short-term policies for the use of urban land and areas of expansion, localisation of infrastructure for transport and intercommunication across urban areas; delimitation of conservation areas in urban land; the strategy for the development of social housing programmes (*viviendas de interés social*) in urban areas; strategies for orderly city growth; operation areas of urban macro-projects; and guidelines for partial plans.
- **Rural component**: This includes long- and medium-term policies for managing human settlements in rural areas; conditions for the protection and improvement of agriculture, forest and mining areas; determination of suburban areas and delimitation of maximum densities; identification of rural settlements and provisions for infrastructure provision; and water provision schemes.

Source: Gobierno de Colombia (1997[9]), *Ley 388 de 1997 - Ley de Ordenamiento Territorial*, https://www.minenergia.gov.co/documents/10180//23517//22687-Ley_388_de_1997.pdf (accessed on 21 April 2021); MinVivienda (2015[10]), *Decreto 1077 de 2015Por medio del cual se expide el Decreto Único Reglamentario del Sector Vivienda, Ciudad y Territorio*, https://minvivienda.gov.co/sites/default/files/normativa/1077%20-%202015.pdf (accessed on 15 October 2021).

There have been two generations of POTs (1999-2001, 2012 onwards). In 2008, almost all municipalities had a first-generation POT but by 2012, most of those POTs had reached their validity period and were susceptible to be updated. In 2021, according to the MVCT, 80% of the POTs were outdated or in process of being updated. Indeed, Figure 3.2 shows that almost half of municipalities that participated in the OECD Survey on Urban Development in Colombia reported having a POT but not updating it, 34% were currently elaborating or updating their POT and only 14% had an updated POT.

Figure 3.2. State of land use plans across Colombian municipalities, n=84



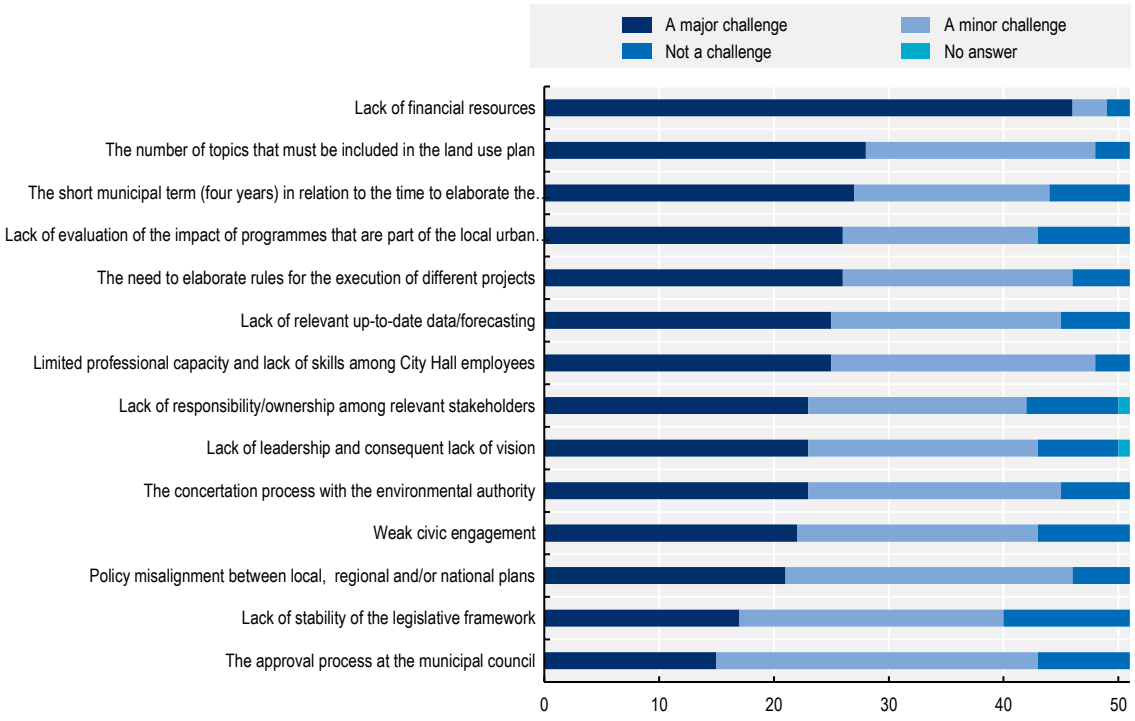
Note: Answers to question "Q.2.1 Does your municipality have a land use plan?".
Source: OECD Survey on Urban Development in Colombia 2021, conducted with the support of the MVCT and AsoCapitales.

Similarly, cadastral information for territorial planning is outdated. According to the MVCT only 7% of municipalities had updated information in 2020. As part of the Commitment for the Future of Colombia (*Compromiso por el Futuro de Colombia*), a recovery programme from the COVID-19 pandemic, the national government has set the goal of updating 60% of cadastral information by 2022 and 100% by 2025 through a "multipurpose cadastre". The objective is to strengthen territorial planning, support decision-making in the regions and facilitate property formalisation processes.[1]

The POT formulation process is costly and prone to political influence

Formulating or updating a POT following the requirements established by law is a long, costly process for most municipalities as not all have the resources and capacity to update their POT. Indeed, according to Figure 3.3, the lack of financial resources is by far the major challenge for municipalities to elaborate or update their POT. The elaboration of a POT requires access to data, background studies, expert advice and administration costs that sometimes tend to exceed municipalities' budget for the four-year term. One of the main obstacles faced by municipalities in the updating of POTs is associated with environmental risk management, required by current legislation, which is technically very detailed and therefore very costly.

Figure 3.3. Factors that represent a challenge for the elaboration of land use plans in Colombia, n=51



Note: Answers to question "Q.2.3. How would you qualify the following factors in the elaboration of the land use plan (POT)? A major challenge, A minor challenge, Not a challenge at all, No answer.". Municipalities that have a land use plan, even if outdated, were asked to qualify every factor.
Source: OECD Survey on Urban Development in Colombia 2021, conducted with the support of the MVCT and AsoCapitales.

Moreover, the POT formulation process takes a long time and is prone to be framed by political interest rather than by actual local needs, although this is not always the case in every municipality. A municipal government takes office for four years and cannot be re-elected for a consecutive term. Within this short time frame, the elaboration of a POT absorbs over two years in general. Thus, municipal administrations

have few incentives to work on the elaboration of a planning instrument that they will not have the opportunity to use themselves. Moreover, the POTs have to be approved by the municipal council at the recommendation of the mayor. In many municipalities, however, members of the council have no experience or professional background in planning. To be a member of the municipal council and the territorial planning council does not necessarily require a specific professional background in planning and therefore members of those councils do not have the basis to comment or approve the plans. In addition, some bottlenecks may emerge during the phase of inter-institutional concertation and consultation. Before being presented for approval, POTs must be submitted for consultation with citizens and with the environmental authority of the region. The latter must review and approve the environmental aspects included in the POT. When this approval is not obtained, the issue is then taken to the Ministry of Environment and Sustainable Development (MADS) which may delay the process even further. Since the environmental authorities are autonomous, in many cases, there is no consensus on the approval criteria, even though the legislation applies to all of them and is sometimes interpreted differently. In many cases, the environmental authorities demand additional requirements that are not currently in the legislation. This is often the reason why municipalities need to address MADS.

Some municipal governments face difficulties in publicising their planning instruments and decisions, even though according to Law 388, municipal authorities must put in place mechanisms of community participation in land use planning (Gobierno de Colombia, 1997[9]). Not all municipalities have published their POT on their official website. Thus, most of the time, residents are not familiar with the POT of their municipality, unless there is a specific issue that affects them or their property. If residents are not familiar with the POT of their municipality, it means that the mechanisms for fostering citizen participation in land use planning are not adequate or widely used. The lack of easily accessible information on the POT also limits the possibility to implement any monitoring mechanism.

POTs include a large number of topics that makes them complex to elaborate or update

The large number of topics that must be included in the POTs is another factor that makes their elaboration or updating more complex (Figure 3.3). POTs are supposed to cover a long list of issues, such as socio-demographic analysis, physical components such as infrastructure localisation, environmental protection guidance, risk management analysis, provisions for the location of social housing, and others. The exercise of preparing or updating a POT, therefore, requires a high level of technical expertise that municipal governments do not always have, in particular those with low levels of human and financial resources. Certainly, POTs for larger municipalities have to be more comprehensive than those of smaller municipalities, which have to elaborate PBOTs or land use schemes. But even in these cases, the elaboration of POTs represents a burden on municipal capacities. The elaboration of POTs is a long-term process that the four-year municipal term is too short to cover. The completion of the process often has to be concluded by another administration, which delays the process. The inclusion of the various issues required in the POT also calls for co-ordination among different sectors of the municipal administration, which is not always easy due to the silo approach to government work in Colombia (OECD, 2013[11]). Moreover, according to the MVCT, there is a lack of information for the elaboration of risk management studies required for POTs, which are highly technical.[2] For example, hydrometeorological information is lacking and basic mapping may take years to develop depending on the methodologies and technology used.

POTs usually include specific programmes related to mobility, housing and public services. On mobility, the POTs of municipalities such as Armenia, Barranquilla, Capital District of Bogotá (hereafter Bogotá, D.C.), Cali, Medellín, Valledupar and Villavicencio include projects on transport infrastructure, maintenance, paving or widening roads, and the installation of public transport systems (MinVivienda, 2017[12]). On housing, POTs such as those of Manizales and Piedecuesta, include projects for new social housing, reallocation and improvement. In some cases, POTs consider the reallocation of dwellings in high risks areas but they do not specify the new location. Regarding public services, POTs include projects for

the expansion and improvement of water and sewage networks, wastewater treatment plants and solid waste disposal. The municipalities of Armenia, Espinal, La Macarena, Pereira, Valparaíso and Villavicencio have projects in all those areas. It is worth pointing out that although the majority of POTs include the expansion of the urban perimeter and the development of rural areas, they do not include specific projects for the expansion of public service provision, which prevent planning for needed infrastructure investments such as water and sanitation provision (MinVivienda, 2017[12]).

The POTs alone are expected to meet spatial and urban development objectives. While the wide diversity of issues included in the POTs suggests that authorities see them as the only instrument that affects land use, this is not necessarily the case. The experience of OECD countries suggests that a number of policy instruments have an impact on how land is used, such as land use regulations as well as environmental and building code regulations (OECD, 2017[13]). Those instruments restrict how land can be used but do not impact how individuals and businesses would like to use land. Land use and development are generally influenced by the incentives that businesses and individuals face and how private developers respond to them. These are known as "market forces", which are beyond the influence of planning. The incentives and motivations of businesses and individuals concerning land use are influenced by a wide array of government policies. Policies such as tax policies, fiscal systems and inter-governmental transfers, agricultural policies and energy policies could be used to influence the demand for development more effectively. Colombian authorities may need to consider that the planning system alone will not meet the spatial objectives stated in the POTs. There is no evidence that Colombian governments largely use tax policies as incentives to steer land use. Law 388 does not include any provision on how land use can be managed with policies outside the domain of spatial and land use nor even measures to ensure that they do not run against land use related objectives.

POTs do not always reflect the specific needs of the residents in the content of the plan. In 2017, the MVCT found that POTs are designed and approved without taking into account the conditions of extreme poverty and vulnerability of some groups (i.e. Indigenous population) and the lack of some basic public services such as water and sanitation (MinVivienda, 2017[12]). In the municipality of Sipí in the Department of Chocó for example, 93% of the population is afro-Colombian and 7% Indigenous, and 99% of the total population lives in extreme poverty without access to basic public services. The municipal POT has not been able to support local development as it was designed without ensuring the necessary resources to build infrastructure. In the municipality of Murindó in the department of Antioquía, 40% of the population is Indigenous, 50% with African origins and 10% are *mestizo*[3] and displaced, which means that 100% of the population is vulnerable. In 2013, the municipal POT declared the urban core as an area of high risk due to flooding. Therefore, the national and departmental governments were not able to invest public money in infrastructure improvement due to the legal and administrative problems linked to its location in a risk zone (MinVivienda, 2017[12]).

In 2019, the National Council for Economic and Social Policy (*Consejo Nacional de Política Económica y Social*, CONPES) adopted the National Programme for the Formulation and Updating of the Land Use Plans, known as *POT Modernos* (Modern POTs). Through this programme, the national government, together with national and international experts and the private sector, intended to provide technical and financial assistance to municipalities to update their POT following high-quality technical standards. The *POT Modernos* programme had an initial budget of COP 66 billion (USD 17 million approximately) for 2016-18. The programme co-financed a dedicated unit within each selected municipality to update the POT, and provided capacity building for its implementation. Despite these efforts, by 2021, 80% of the POTs remained outdated or were still in the process of being updated.[4] Some second-generation POTs will soon reach their validity period and will need to be updated, whereas other municipalities will remain with a first-generation POT. This may create a heterogeneous landscape in the evolution and level of sophistication of planning instruments across Colombia. This situation highlights that it is not necessarily the lack of financial resources and technical support that prevent the elaboration or updating of POTs but the governance arrangements for the planning of land use. Land is governed both by formal and informal

actors. In the case of Colombia, on the formal side, land is governed by national legislation that determines the rights associated with it (i.e. Law 388 of 1997 on Land Management and Decree 1077 of 2015 on housing, cities and territory) but municipal governments make the decisions about detailed land uses, the political context, the capacity of the municipal administration, the relationships between government and a wide range of land use stakeholders (residents, businesses, non-governmental groups, etc.). Depending on the municipality, there may also be informal partnerships between the many actors involved in the governance of land use, which may challenge or facilitate the elaboration of POTs. Elaborating a POT is a balancing act between private and public interests.

Moreover, municipalities within metropolitan areas are expected to adapt their POTs to the guidelines of the metropolitan development plans, which are supposed to define metropolitan development strategies and investment priorities such as infrastructure (i.e. transport, communication) and service delivery (Gobierno de Colombia, 2013[14]). An additional difficulty is that municipalities lack access to up-to-date and accurate data necessary to elaborate a POT and they may not always have the capacity to process data to generate information and knowledge.

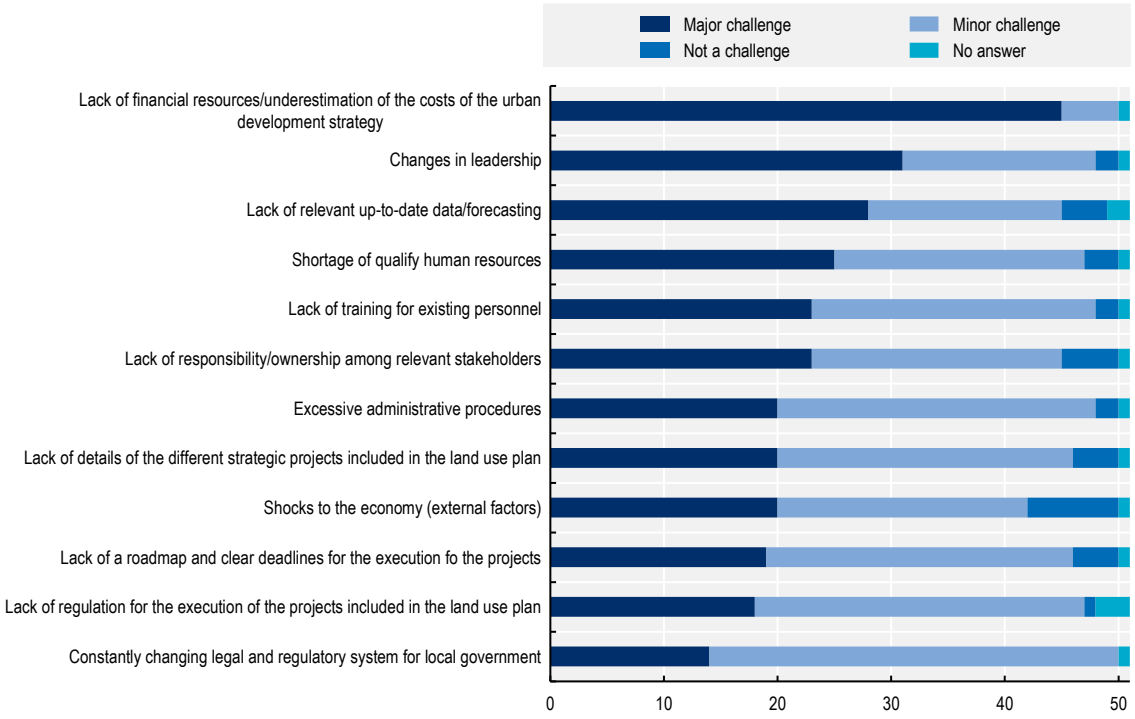
Lack of sufficient financial resources hinders the implementation of POTs

POTs are not always implemented in full. This is a critical issue in urban development as municipalities invested time and resources in the elaboration of an instrument that is not used, in some cases for political reasons. The lack of implementation is largely due, according to Figure 3.4, to the lack of financial resources and/or the underestimation of the costs of the urban development strategy. According to the MVCT, the lack of implementation of POTs, which is evident in many municipalities of the country, is due to the lack of harmonisation with the development plans, the low allocation of resources to municipalities of Categories 4, 5 and 6,[5] and the lack of monitoring and evaluation of objectives, programmes and projects. There are no measures or mechanisms to monitor the level of achievement of the goals set in the POTs. The OECD had already observed that a challenge for regional development in Colombia was related to underestimating total operating costs over time due to pursuing a sector-specific silo approach (OECD, 2013[11]). As with the PDTs, the lack of financial resources suggests a disconnection between the POTs and the budget. A study conducted by the MVCT in 2017 found that POTs of the first and second generations have low regulation of management and financing instruments such as certificates of development and construction or land banks, which could impact their implementation (MinVivienda, 2017[12]).

Another factor that hinders the implementation of POTs is the changes in leadership every four years (Figure 3.4). Given the electoral cycle, municipal governments may prefer to focus on short-term issues or projects that offer more visibility and are faster to achieve regardless of what is included in the POT. PDTs must include dispositions contemplated in the POTs but, in some cases, POTs are changed to meet the shorter-term goals of the PDT. For municipal leaders, the main planning document is the PDT which instead of following the POT, tend to modify sections of the POT to make them in line with the PDT. One reason is that political candidates, in some cases, are not aware of the POT and its content and give priority to their short-term projects than to the longer-term POT objectives.

Many POTs and PDTs lack technical rigour and even when they are technically sound, they tend to be of limited use as they lack serious participatory analysis (OECD, 2016[6]). This could be exacerbated by the low capacity of municipal administrations to use those instruments. Some POTs include execution programmes or are linked to support technical documents; but in most cases, those execution programmes are too general and lack an implementation timeline. In addition, POTs tend to be rigid instruments and municipalities have difficulties adapting them to emerging challenges or unexpected events. Moreover, land use measures included in the POT can take a long time before they have any impact, which may lead governments to look for alternative practical solutions.

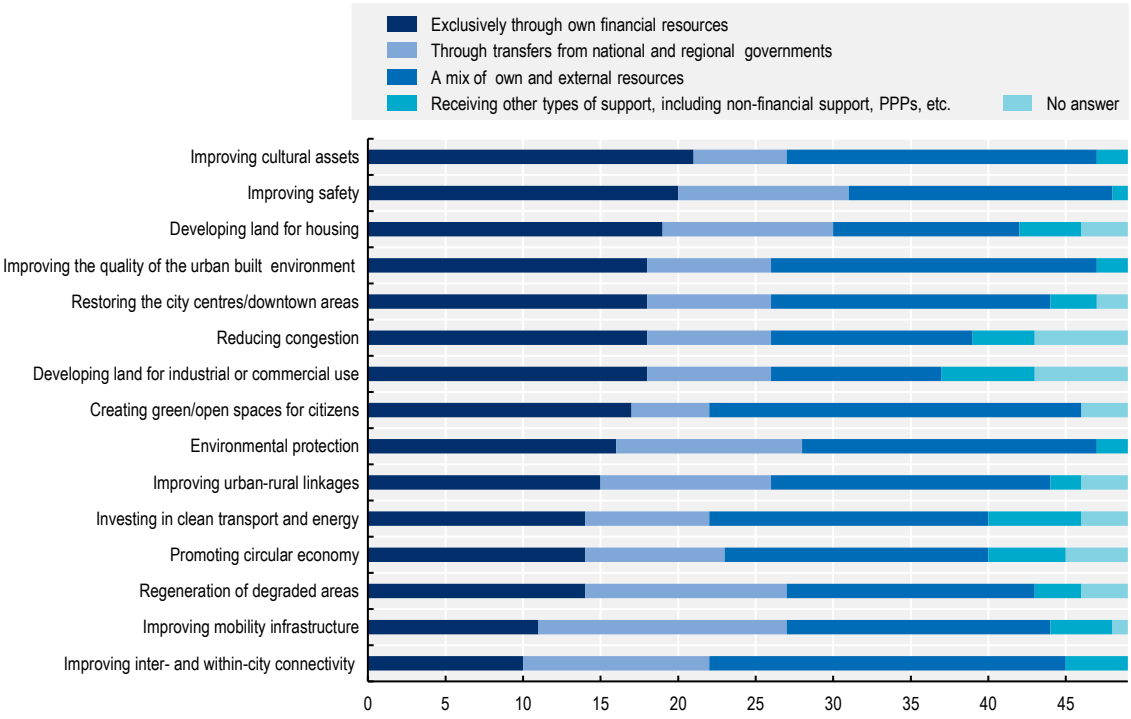
Figure 3.4. Factors that have an impact on the implementation of land use plans in Colombia, n=51



Note: Answers to question "Q.2.3. In general, how would you qualify the influence of the following factors in the implementation of the land use plan in your municipality? A major challenge, A minor challenge, Not a challenge at all, No answer.".
Source: OECD Survey on Urban Development in Colombia 2021, conducted with the support of the MVCT and AsoCapitales.

Colombia has a wide range of fiscal instruments that governments could use to steer land use but are not using to their full potential. Incentives for brownfield redevelopment, transfers of development rights and land value capture instruments are examples of instruments that exist but remain underused. These instruments could offer an untapped source of revenues for infrastructure investments. The municipality of Yopal is an example where the population is growing but municipal resources remain the same. Between 1973 and 2013, Yopal's population increased from 10 000 inhabitants to 140 000, largely due to the armed conflict in the country. It shifted from an agrarian economy to one of services and mining. Its POT approved the doubling of urban land from 1 900 hectares to 3 800 hectares, but without considering the expansion of public services and without the financial instruments (i.e. cadastre update, land value capture) to increase municipal resources for public service provision (MinVivienda, 2017[12]). Figure 3.5 shows how a sample of municipalities finances the different projects included in their POT. It reveals that critical issues for urban development such as inter- and within city connectivity, environmental protection, improving the built environment, mobility infrastructure and creating green spaces for citizens need to be financed through a mix of own and external resources as municipal own resources are not sufficient.

Figure 3.5. How Colombian municipalities finance projects included in the land use plan, n=49



Note: Answers to question "Q.2.4. How does your land use plan finance the different policies and projects included in the table?".
Source: OECD Survey on Urban Development in Colombia 2021, conducted with the support of the MVCT and AsoCapitales.

Land use planning must be more flexible and simplified

Land use planning is a critical tool to build accessible cities and contribute to positive environmental outcomes. It could also help co-ordinate public and private investment and ensure efficient patterns of development. In 2014, the OECD had noted that the Colombian land use planning system needed to be simplified, re-sequenced and better co-ordinated (OECD/ECLAC, 2014[15]). This recommendation is still valid today. To reform the land use planning system and the POTs, Colombia may wish to consider the following recommendations:

- **Adopt more flexible approaches to land use planning and management**. Municipal governments need to react to changing conditions such as immigration, climate change and the inequalities highlighted by the COVID-19 pandemic. Flexibility does not mean a hierarchy of laws and regulations; it means fewer rules about how land is used, judging the different projects on their own merit frame by community needs, and avoiding restrictive and single-use zoning regulations. One option would be to establish specific zones in a community for experimentation and temporary uses. This would imply fewer rules about how land is used. With greater flexibility, municipalities would be able to judge every investment or development project on its own merit under overarching guidelines and community needs and aspirations, as opposed to systems that promote certainty under rules and regulations. The experience of OECD countries such as the UK suggests that flexibility breeds innovation and make the planning system more responsive to emerging challenges (OECD, 2017[13]). Two caveats should, however, be taken into consideration. First, some areas would still need more stringent rules, for example in historical districts and environmentally sensitive areas. Second, greater flexibility should also not circumvent regular planning and appeal processes. For example, Israel developed the language of "textures" in national plans to enhance flexibility by which it identified and distinguished between development-

oriented and preservation-oriented areas across five texture typologies: urban texture, rural texture, mixed preserved texture, national preserved texture and coastal texture; this facilitated the definition of restrictions while providing a degree of flexibility as well (OECD, 2017[16]). Another option for Colombia to make the land use planning system more flexible is to avoid single-use zoning. The idea is to focus primarily on preventing the most important externalities such as inefficiency and inequities, and do not regulate beyond what is required for this purpose, for example not prohibiting mixed-use developments as long as they do not create nuisances (OECD, 2017[13]). An example of this is the national zoning system of Japan which focuses on the prevention of negative externalities; as a result, none of the zones in the system is strictly single-use (Box 3.2). Zones are not exclusive and less restrictive than in other OECD countries.

Box 3.2. Japan's national zoning system

In Japan, the national government defines the content of zoning regulation for Urbanisation Promotion Areas and a set of rules that prefectures and municipalities have to follow when determining the location of zones through local plans. The Japanese legislation distinguishes between Urbanisation Promotion Areas where development is possible and Urbanisation Control Areas where development is generally not permitted.

Urbanisation Promotion Areas are divided into 12 standardised zones. According to Japanese regulations, the zones range from low-rise residential zones to exclusively industrial zones that allow successively denser development and greater nuisance levels. Basically, each zone specifies the maximum level of nuisances allowed in an area. Any development that causes fewer nuisances than the maximum allowed level may be constructed in the zone. For example, a "commercial" zone allows for virtually all types of residential uses too. Even the most strictly regulated residential zone permits basic non-residential uses (i.e. primary schools, places of worship). As a result, the zoning system permits mixed-use in every zone.

Source: OECD (2017[13]), *The Governance of Land Use in OECD Countries: Policy Analysis and Recommendations*, https://dx.doi.org/10.1787/9789264268609-en.

- **Streamline the number of issues to be included in the POTs**. POTs in Colombia have high ambitions to address a large number of economic, environmental and social issues and to propose both medium- and long-term goals. Even municipalities with resources and technical capacity may struggle to comply with such a long list of requirements. POTs should not be used as instruments to define sectoral policies as this makes them too complex and adds no value. They should be regarded as a means to territorialise sectoral policies. Colombian authorities may therefore wish to revise the requirements set by law and streamline the number of issues a POT should include, or determine a minimum requirement that every POT should fulfil depending on the municipal socio-economic and urban context, not only by population size. Making POTs more flexible and easy to adapt could enhance their implementation. For example, the Paris Land Use Plan provides an example of a comprehensive highly technical document that depicts effectively how land should be used, distinguishing only between general provisions, the general urban zone, zones of major urban service, green urban zones and a natural and forest zone (Mairie de Paris, 2016[17]). At the same time, Colombia should ensure that certain requirements of POTs are not excessively easy to change to prevent the plans from becoming a political instrument. However, in order not to modify structural issues in POTs, it would be necessary to adopt effective monitoring mechanisms to ensure that the vision and expected occupation model is achieved in the stipulated times. Municipalities may wish to create municipal oversight bodies (*veedurías*) that report to the national

instances and guarantee the fulfilment of the POTs' objectives. However, this may be costly and complicated for smaller municipalities and, in the first instance, this could only be done by larger municipalities.

- **POTs should place more emphasis on more sustainable use of rural land and strengthening urban-rural linkages**. According to Law 388, all POTs should have a rural component but not all POTs include provisions for the sustainable use of rural land and the planning of infrastructure for the provision of basic services. First-generation POTs, in most cases, did emphasise the residential use of rural land but without considering amenities for service delivery (MinVivienda, 2017[12]). Thus, new generation POTs must include provisions to reassess the vocation of rural land, protect their environmental and agricultural value, and include norms for the development of public space and rural amenities.
- **Invest in capacity building in municipal administrations on land use and spatial planning**. Improving the technical planning skills of municipal officials is paramount. Many national institutions offer technical assistance on land use issues; however, it is necessary to promote the co-ordination and articulation among them to achieve an effective and less exhausting accompaniment. For example, the Department of National Planning (*Departamento Nacional de Planeación*, DNP) provided support to candidates for local elections in 2015 and to municipalities in 2016 to help them better understand the strategic nature of both the POTs and their formulation process. The DNP developed a planning kit called KiTerritorial to guide municipalities on the numerous programmes and plans such as the PDT and the POT, the *Contratos Plan* (contract plans) and others. While this support has been key to increasing capacity, more still needs to be done. With the assistance of departments '(*departamentos*) and the national government, municipalities could reach agreements with universities and other research institutions to train their staff and update their planning skills and competencies. Alternatively, when municipalities hire private consultants to formulate their PDT or their POT for example, they could make sure that the contract includes some form of knowledge exchange for municipal officials to get some training so that the outsourcing exercise also increases in-house capacity.
- **Territorial development plans (PDTs) should be linked to land use plans (POTs)**. Although there is a legal requirement to link PDTs to the POTs, municipal authorities do not always comply. Colombian authorities may wish to reinforce the mechanisms to ensure that POTs and PDTs are linked. The departmental authorities could play a role here by reviewing the coherence between the plans. This is not to suggest what should be included, as this would go against municipal autonomy, but to stress the need to co-ordinate municipal PDTs and POTs. This is of critical importance as POTs should provide the basis for the projects included in the investment plans of the PDTs. This is a way of linking POTs, PDTs and the budget lines that are necessary for their execution. Moreover, POTs and PDTs are only useful if they are implemented and enforced consistently, ensuring that land use considerations are fully integrated into the analysis of the PDTs. The preparation of a PDT should not be done arbitrarily under the guise of municipal autonomy, as this would create confusion, lack of credibility and lead to planning inefficiency. Following the process provided in the legislation under the departmental government, supervision may be necessary to ensure that POTs and PDTs are always current and coherent, and decisions are consistent.
- **Support municipalities with different incentives for the development of POTs**. To incentivise and support the formulation, adoption and implementation of the POTs, the national government could develop incentives like financing and technical support in processes of regional articulation. It could also facilitate private sector participation in urban development projects in partnership with the national government.

POTs should be supported by fiscal incentives to steer land use

Increasing flexibility in land use planning implies that municipal planners exert less direct control over land use. To avoid the risk of uncontrolled development that could lead to more sprawl and inefficient transport systems, Colombian policy makers would need to adopt the right incentives that could lead to desirable patterns of development. These incentives are generally outside the land use planning domain. For example, fiscal policies could be used more widely to encourage private actors to pursue more compact developments.

Taxes can steer land use since they have varying effects on the costs and benefits of land use in different locations. High fuel taxes, for example, may provide incentives for more compact and transport-oriented patterns of development by making it more costly to use land in locations that need long commutes. Similarly, Colombia could make greater use of transport taxes to encourage compact city developments. Taxing car use to reflect its true costs (including carbon emissions, congestion and noise) may help reduce dispersed settlement patterns. Parking charges, which should be under the control of municipal governments rather than departmental, could also discourage driving and the use of valuable land for parking. Property taxes could be further used in Colombia to steer land use towards desirable outcomes by viewing them in the context of other policy instruments to influence land use such as land use planning and transport policy as property tax alone has typically a low impact on land use (OECD, 2017[13]). At the same time, Colombian policy makers should ensure property taxes are clearly structured to avoid treating politically well-connected developers and landowners preferentially. Pure land value taxes could also be considered, as they do not tax sparsely built-up land less than densely built-up land making it unprofitable to use expensive land at low densities and encourage densification, especially in central areas (OECD, 2017[13]).

POTs should pursue compact development and be forward-looking

POTs constitute an ideal tool for Colombian authorities to foster orderly urban growth. Urban sprawl and peri-urbanisation are common features in Colombian urban areas, be they large, medium or small. Peri-urbanisation is imposing significant costs on municipal authorities and the private sector. As Chapter 1 shows, the current patterns of development mean high travel costs (in time and money) for residents, especially to people living far away from jobs and services. At the same time, they make infrastructure and service provision more costly, creating pressure on the already low municipal fiscal resources. Peri-urbanisation is not necessarily bad when it occurs in a planned fashion and provides willing residents with the opportunity to live in semi-rural environments. However, considering current urban conditions and past planning decisions, it is important to ensure that POTs do not perpetuate or exacerbate existing problems. Thus, the POTs need to be designed in a way that balances the interests of individuals and those of the community. Residents who choose to live in semi-rural areas should bear the costs associated with these locational choices. When residents do not have that choice, they have to live in peri-urban formal or informal areas for lack of other options. In this case, they tend to be far from central areas where jobs, education and healthcare services are provided; if they live in informal settlements, residents are exposed and vulnerable to environmental hazards and lack of basic services, pollution, overcrowding and poor water and solid waste management.

Pursuing a more compact urban development is key to achieving Colombia's economic and environmental objectives. This has been an explicit spatial goal for cities such as Amsterdam, Netherlands, and Clermont-Ferrand, France (OECD, 2017[13]). One of the key lessons from OECD countries and cities to build compact cities, as Colombia is aiming for, is that a strategy to combat peri-urbanisation is needed. Peri-urbanisation is not inherently bad as many individuals may prefer to live in a semi-rural environment but the challenge for local authorities is how to balance the interests of individuals against those of the community as a whole. Typically, residents who choose to live in these locales should bear the full cost associated with their choices, although the broader public will necessarily have to bear some costs. Peri-urbanisation can

impose costs such as costly infrastructure and service provision affecting a municipality's fiscal sustainability. The strategy to tackle peri-urbanisation should be built in co-ordination among the different local authorities within a functional area to protect natural spaces and promote more compact development. The planning system, governance framework, and broader incentives and disincentives should be co-ordinated across municipalities to generate land-based outcomes. The case of the metropolitan area of Nantes Saint-Nazaire, France, could be an interesting example for Colombia on how to protect environmental amenities while encouraging densification. It shows that integrated land use planning that promotes densification and rests upon a series of joint agreements among local communes led by the two urban cores of Nantes and Saint-Nazaire are essential to protect local land and water resources (see Chapter 5).

The national and/or departmental governments could assist municipalities that request it by developing a methodology for identifying land use designations aligned with general plan goals. It may involve, for example, guidance on how to designate residential and commercial areas along existing transit routes to encourage compact development and promote accessibility. Adopting a flexible and context-sensitive urban design strategy can also help shape more walkable and cyclable environments, contributing to better health outcomes.

It is critical that POTs provide an opportunity to determine the future of Colombian cities. By ensuring equitable and accessible distribution of different densities, land uses and land use intensity, and by aligning with other sectoral policies and the PDT, POTs can help address long-term challenges such as climate change and inequality, strengthen local economies, reduce infrastructure costs, promote healthy lifestyles, increase transport choices, improve air quality and promote housing quality and resilience. For this purpose, the POTs should designate the general distribution, location and allowable intensity of use for housing, commercial and industrial activities, as well as services (i.e. schools, hospitals). Depending on the population size, economic power, and municipal administrative and planning capacity, POTs should:

- Examine population data (departmental, and local population and growth forecast) and identify demographic trends.
- Include an inventory of existing residential, commercial and industrial land use.
- Identify key municipal assets such as historic centres, natural reserves, etc. that should be preserved.
- Identify elements that may affect future growth such as infrastructure gaps and environmental concerns emanated from climate change.
- Differentiate clearly between functional and physical land uses (i.e. neighbourhoods, districts, employment centres, etc.).
- Analyse existing urban form.
- Include intensity standards (i.e. minimum and maximum number of dwellings per km^2, floor area ratio) ensuring that they include provisions for flexibility such as density bonuses, cluster zoning and planned unit development.
- Analyse properties subject to land use redevelopment such as vacant, underdeveloped, transit-oriented, etc.
- Determine project needs for specific land use considerations based on estimates of the future population.
- Determine the connection between housing, transport and labour markets.
- Determine actions towards climate change mitigation.

It is important that POTs are kept simple and not unnecessarily complex, as the capacity for conducting planning and implementing plans at the local levels varies a lot depending on municipal capacity. POTs of smaller municipalities should be simple and at least set the measures for meeting the most basic needs of the municipality. POTs and PDTs should be rooted in what people perceive as their needs.

The metropolitan dimension in land use planning should be reinforced

Colombia has been striving to adopt a metropolitan dimension in urban and land use planning. The current NUP, the System of Cities (CONPES 3819), has strengthened the concept of functional urban areas (FUAs) by distinguishing between uninodal and functional cities. Although there are only six formalised metropolitan areas in Colombia regulated by Law 1265 of 2013 (Gobierno de Colombia, 2013[18]), the task force that elaborated the NUP identified 18 agglomerations whose functional area expands more than one municipality (DNP, 2014[4]) (see Chapters 1 and 5). This suggests that land use decisions in one municipality, large or small, urban or rural, has an impact on other municipalities and since there is a growing functional relation among them then it is necessary to co-ordinate POTs at the metropolitan level. The System of Cities and the National Development Plan 2014-2018 included specific actions for the creation of metropolitan transport authorities that would require land use planning at the metropolitan level but there has been no progress. Some metropolitan areas like the Valle de Aburrá already have a metropolitan POT that includes measures for water management, public transport services, infrastructure, social housing and management of rural and suburban land.[6] This practice should be continued in other metropolitan areas and strengthened. OECD research has revealed that countries that have metropolitan POTs use on average 32% less developed land per capita than countries with a fragmented approach (OECD, 2017[13]).

As the purview of the POTs expands to address broader objectives such as economic development, environmental sustainability and social equity, they require a broader metropolitan scale. If Colombian metropolitan areas or agglomerations develop a more fragmented approach to land use, there is a risk of greater urban sprawl. It is important that POTs keep pace with changing functional territorial boundaries, which is particularly relevant given Colombia's polycentric urban structure. Metropolitan planning can be achieved through formal and informal institutions. OECD studies suggest that metropolitan authorities that co-ordinate land use policies have been effective in reducing the growth of developed land per capita (Ahrend, Gamper and Schumann, 2014[19]). The effectiveness of formal or informal institutions in Colombia will depend to a large extent on the types of issues every territory faces, the relationships among stakeholders, the resources at their disposal and the capacity of the municipalities to implement a common agenda. The work of the Rural Agricultural Planning Unit (UPRA) regarding the formulation of guidelines for agricultural planning in metropolitan areas could underpin efforts to build metropolitan POTs in their rural component (i.e. more than 60% of the agricultural frontier is in metropolitan areas). The guidelines could be used as another instrument to prevent peri-urbanisation recognising the economic and cultural value of rural land in functional areas.[7] In this respect, France's Territorial Coherence Plans provide a useful example of how to incentivise and plan at the supra-municipal level and govern land use issues across urban, peri-urban and rural territories. In the process, both large and small communes are brought together to elaborate joint solutions on such issues as housing, urban planning and transportation (Box 3.3). Since the introduction of Territorial Coherence Plans in 2000, 354 plans have been approved and cover 95% of the national population. Particularly relevant for Colombia, the French experience suggests that a metropolitan POT does not need to be highly detailed but rather present fundamental guidelines. Municipal POTs should be aligned with such guidelines and provide the details. Participation in a metropolitan POT should be on a voluntary basis, in line with municipal autonomy, but the national government can provide incentives for municipalities in functional areas to develop such an instrument.

Box 3.3. France's plans for territorial coherence to address peri-urbanisation

In 2000, the French government created the Territorial Coherence Plan (*Schéma de cohérence territoriale,* SCoT) as a key mechanism for intercommunal planning, using a sustainable development framework. It covers the "local labour market" or "urban area" (*bassin de vie,* or *aire urbaine*) for parts of the country. A SCoT links housing, urban planning and transportation plans and supports cohesive development strategies for the entire area. There is no compulsory requirement for communes or groups of communes to participate in a SCoT but there are incentives to do so. For example, according to national law, natural areas can be developed only if the area is covered by a SCoT. To encourage the adoption of SCoTs, the French government has set up annual calls for proposals starting in 2010 to increase participation in rural territories with limited human and financial resources to draw up SCoTs.

The Territorial Coherence Plan establishes a reference framework for territorial planning over a time frame of 20 years. As such, it does not give granular detail on land use development – that task falls to plans and planning decisions at the scale of the commune, but these must align with the principles or fundamental guidelines. Every municipality covered by the same SCoT commits itself to integrated and joint development, which can help mediate and settle territorial issues for the whole area. SCoTs have become the reference strategic planning documents for urban planning and development in large residential zones or urban areas. They constitute plans that go beyond commune, inter-commune or departmental administrative boundaries.

The SCoT is intended to serve as a reference framework for the various sectoral policies such as spatial organisation and urban planning, housing, mobility, commercial development, environment, energy and climate. It must respect the principles of sustainable development: i) principle of balance between urban renewal, controlled urban development, the development of rural space and the preservation of natural spaces and landscapes; ii) principle of diversity of urban functions and social diversity; and iii) principle of respect for the environment, such as ecological corridors and the fight against urban sprawl.

Source: Ministère de la transition écologique de France (2021[20]), "Le SCoT : un projet stratégique partagé pour l'aménagement d'un territoire", https://www.ecologie.gouv.fr/scot-projet-strategique-partage-lamenagement-dun-territoire.

Land use planning should prioritise urban regeneration and environmental preservation

Building compact cities requires paying greater attention to urban regeneration. Focusing urban development on the existing city does not necessarily imply inhibiting urban expansion but more efficient use of land. It allows for linking land use, environmental preservation and human settlements (formal and informal). However, rural and conservation land are currently threatened by the process of informal land occupation. Urban perimeters have grown three or four times more than planned and mostly in an informal manner (see Chapter 1). According to the MVCT, the average annual growth of the urban footprint has been 2% and 25% of the residential built-up area is informal. This not only endangers conservation areas but also food production. Moreover, first-generation POTs tend to place more emphasis on construction (i.e. infrastructure and housing) and economic growth without fully considering that urban development is taking place in a context of climate change and environmental degradation.

Although some POTs include provisions for improving the existing city and using urban land more effectively through urban regeneration projects, these projects have not been implemented due to complex and costly land management processes. A critical issue is land speculation as some landowners acquire urban land expecting an increase in value over time without investing in it. There is a lack of an adequate land management policy. Urbanised land in many cases remains empty, which means a waste of public investment in urban services and risk to public health and safety. Some low-income households move to

the suburbs, expanding the city and requiring new investments in public transport, public facilities and amenities. The city also expands because high-income households move to suburbs looking for more space and safety. Therefore, the cost of housing in central urban areas increases because the supply of land and dwellings is reduced.

The national government could consider issuing a land policy framework that addresses strict regulation and zoning that limits the supply of serviced land. If land supply is inelastic, any effort to increase the purchasing power of low-income households will only result in higher land prices offsetting the impact of any housing subsidy (Freire, 2013[21]). Ensuring that land markets and solutions are available to all levels of income is a way to prevent the creation of more informal settlements (González Alcocer et al., 2010[22]). Policies, rules and/or guidance to assist municipalities in the development of neighbourhood improvement programmes and the legalisation of informal settlements through financing instruments must be included. In this respect, the experience of Medellín could be a source of inspiration to other Colombian cities, as the local authority is no longer focused on urban expansion but urban regeneration. Medellín's experience offers three main lessons. First, dense cities should change their focus to urban regeneration to ensure high levels of living standards; second, to have a successful urban regeneration programme, it is essential to implement land use management and financing instruments; and third, there must be a package of strategies and plans that involve housing owners and economic activities in renovation processes.

The experience of OECD countries shows that to ensure sustainable urban development, land use and urban regeneration must be closely linked. In the majority of OECD countries, land use planning and urban regeneration include social, economic and environmental issues that are essential elements for land use allocation in urban regeneration processes. This system requires strong co-ordination and sound governance arrangements to be dynamic. For example, the experience of Korea suggests that to guide urban regeneration in an integrated manner with land use, it is necessary to have a dedicated national legislative framework that allocates clear responsibilities to each tier of government and ensures coherence between sustainable urban development and urban regeneration regulations (Box 3.4). This could be a challenge for Colombia due to weak co-operative relationships between municipalities. Following the Korean experience, Colombia could set up a special committee for urban regeneration and regional development to align and co-ordinate activities across national and subnational governments. Colombia could avoid making urban regeneration more complex with too many pieces of legislation, bodies and plans as it would require considerable resources spent on co-ordination avoiding duplication rather than on policy design and implementation. Like Korea, Colombia could ensure that housing renewal plays a central role in urban regeneration programmes, ensuring that programmes are economically viable and socially and politically acceptable.

There is also a perception of misalignment between POTs and environmental policy. This is surprising since in principle, the regional environmental authority or, in some cases, the Ministry of Environment and Sustainable Development (MADS), should assess and approve the environmental dimension of draft POTs. POTs may also impose restrictions on land use for environmental reasons. When land use is severely restricted, the municipality must compensate the landowner. The lack of financial means to compensate landowners may explain why the environmental provisions of POTs are not always fully enforced. Moreover, the elaboration of a POT requires the inclusion of environmental issues such as the definition of conservation land and the protection of natural resources. Enforcement of the environmental provisions of POTs is based on granting construction licenses for housing or infrastructure, but there are no provisions or instruments to ensure that rural land use is compatible with the POTs. This may be due to an incomplete integration of environmental criteria into land use planning. In 2014, the OECD already recommended Colombia to strengthen the means of enforcing environment-related land use in POTs, particularly in rural areas and coastal zones (OECD/ECLAC, 2014[15]).

The elaboration of second-generation POTs should consider environmental protection and the impact of climate variability and climate change as key elements to promote socio-economic development. POTs must tackle the environmental and climate change challenges from a metropolitan perspective while

enhancing urban-rural linkages. To this end, their elaboration could be based on the concepts of "environmental zoning"[8] and the "main ecological structure"[9] as the basis for the prevention and mitigation of environmental challenges and their impact on people's well-being (Villegas Rodríguez et al., 2016[23]).

Box 3.4. Land use planning and urban regeneration – The Korean experience

Korea has a long experience of urban regeneration since the national government introduced its first comprehensive urban renewal programmes in the 1960s. Since then, Korean authorities have been linking land use, spatial planning and regeneration to pursue long-term development and economic growth objectives.

The Korean national government has issued a specific legislative framework for urban regeneration. In 2013, the government approved the Special Act on the Promotion of and Support for Urban Regeneration to promote a more integrated approach to urban regeneration and tackle the complex challenges of social inclusion, job creation and economic revitalisation. The Special Act provides national guidance, strategic planning and implementation strategies focused on the economy and community and provides a vision to make cities more competitive and sustainable while promoting well-being. The act states that the Urban Regeneration Strategic Plans should be built in accordance with the Comprehensive National Land Plan and the Urban Master Plan. In 2017, the new government placed specific emphasis on urban regeneration by strengthening the act through a five-year Urban New Deal with 500 projects supported by an investment of KRW 50 trillion.

To implement the Special Act, the national government promotes building partnerships between national and local governments. This has also led the government to establish the Basic Policy for National Urban Regeneration to push forward urban regeneration in a more efficient, planned and comprehensive manner. However, regional governments are responsible for creating their own Urban Regeneration Strategic Plans while local governments are responsible for the Urban Regeneration Master Plans. The strategic plans provide guidance on socio-economic development, environmental protection and well-being and spatial and non-spatial factors related to urban regeneration. The master plans are set once the urban regeneration areas have been designated. Urban Regeneration Master Plans define land use and zoning while Urban Regeneration Strategic Plans designate urban regeneration areas. Once local governments designate the areas to be regenerated, a process of evaluation, project implementation and annual performance take place. Critically, a comprehensive evaluation of outcomes at the end of the project and evaluation of the roles of the different stakeholders takes place.

To ensure some level of success, the Korean system for urban regeneration requires strong co-ordination across levels of government and between plans that are formulated at different spatial scales. Thus, the national government set up the Presidential Committee for Regional Development and the Special Committee for Urban Regeneration to strengthen co-ordination across levels of government.

Housing renewal is a critical element of urban regeneration in most Korean cities. In Busan, for example, the Gamcheon Culture Village and Sanbokdoro Renaissance Project exemplify a holistic approach to urban regeneration aligning housing renewal with economic and social development. Local authorities implemented the Urban Regeneration New Deal that includes the Public Housing and Facilities Model.

Source: OECD (2019[24]), *The Governance of Land Use in Korea: Urban Regeneration*, https://doi.org/10.1787/fae634b4-en.

Improving urban accessibility

Ensuring access to jobs, services, goods, information and people is a core component for economic development and well-being in cities. As in other Latin American countries, over the last decades in Colombia, the motorisation of transport and decrease in transport costs relative to incomes allowed cities to de-densify and expand horizontally, resulting in what could be termed as "access to opportunities by movement" boosted by an increase in privately-owned cars. Colombia has been working to improve mobility intra- and inter-urban mobility over the last two decades to improve competitiveness and productivity. However, private vehicles (motorcycles and cars) remain the main transport mode in Colombian cities despite investment in improving public transport systems. According to the results of the OECD Survey on Urban Policy in Colombia, the share of transport modes across municipalities is: motorcycle 31%, private cars 25%, buses 16%, bicycle 13%, walking 12%, and metro and cable cars 2%. Since 1996, Colombia has issued several pieces of legislation aimed at improving mobility in cities through land use planning, mobility planning, inter-modality in freight transport and integral management of urban and regional mobility (Box 3.5). The national government has tried to harness agglomeration economies to improve competitiveness, gross domestic product (GDP) per capita and productivity. This requires improving mobility to reduce costs, travel time and increase the safety of the movement of passengers and goods.

Box 3.5. Regulatory framework for urban mobility in Colombia

Some of the main pieces of legislation that have an impact on urban development issues are:

- **Law 105 of 1993** – Sets the basic dispositions on public transport and the distribution of competencies and resources between the national and subnational governments, and regulates public transport planning.
- **Law 336 of 1996** – Sets the principles and criteria for the regulation of public transport.
- **Law 1083 of 2006** – Establishes that municipalities with more than 100 000 inhabitants must adopt a land use plan (POT), a mobility plan and a master plan for intermodal transportation.
- **Law 1955 of 2019** – Modifies Law 1083 of 2006 to set the regulations for sustainable and safe mobility plans.
- **Law 1964 of 2019** – Promotes the use of electric vehicles and zero emissions.
- **CONPES 3167 of 2002** – Establishes the Policy for Improving Urban Public Transport Service.
- **CONPES 3260 of 2003** – Defines the National Policy for Urban Massive Transport.
- **CONPES 3527 of 2008** – Establishes the national policy for competitiveness and productivity with specific emphasis on infrastructure for logistics and transport.
- **CONPES 3819 of 2014** – Establishes the national policy for the consolidation of the System of Cities and formulates actions to strengthen physical and digital connectivity.
- **CONPES 3982 of 2020 Logistics National Policy** – Promotes inter-modality in transport to facilitate trade and reduce costs and logistics time.
- **CONPES 3991 of 2020 National Policy of Urban and Regional Mobility** – Sets the general guidelines for the integral management of urban and regional mobility.

Note: This list is not exhaustive but only presents some selected legislation.
Source: Gobierno de Colombia (1993[25]) (1996[26]); (2006[27]); (2014[5]); (2019[28]); (2019[29]); DNP (2008[30]); (2020[31]); (2020[32]); (2003[33]); (2002[34]). See reference section for full information.

For almost 20 years, the national and local governments have been working to improve public transport through the Policy for Improving Urban Public Transport Service (CONPES 3167) and the National Policy for Urban Massive Transport (CONPES 3260). The latest National Policy of Urban and Regional Mobility (CONPES 3991), adopted in 2020, updates the national transport policy. Despite these efforts, in Colombia, public transport systems are still characterised by low quality in terms of reliability, comfort, safety and environmental friendliness (see Chapter 1). Public transport also suffers from poor planning and low efficiency, which leads to informal and – in many cases – illegal transport means. A critical problem for Colombian cities is to find reliable sources of financing for the operation of the public transport systems. According to Law 310 of 1996, the national government can contribute 40% minimum and 70% maximum of the financial costs of construction of transport infrastructure (Gobierno de Colombia, 1996[35]) but financing the operation of the public transport systems is left to the cities, which lack adequate sources of income. Cities also present specific mobility challenges. For example, the city of Cali has one of the highest rates of deaths caused by road accidents in the country. Between 2017 and 2019, almost 1 000 people lost their lives as a consequence of driving at high speeds.[10] In Bogotá, D.C., there are at least 500 car accidents every day[11] and, in 2020, almost 400 people died in road accidents.[12] Some Colombian cities like Bogotá, D.C. and Medellín have been praised for their initiatives to improve mobility but more needs to be done to make public transport a driver of competitiveness, sustainability and well-being in urban areas.

Colombian cities are struggling to make public transport the axis of mobility and urban land reorganisation. According to the National Policy of Urban and Regional Mobility (CONPES 3991), in addition to institutional weaknesses and poor financing, mobility in Colombian cities faces three critical challenges: congestion, pollution and road accidents. Traffic congestion makes mobility slow, which undermines productivity, competitiveness and health. In a way, traffic congestion is the by-product of economic activity, as people and goods travel throughout the urban centres. However, the challenge is to make this movement more efficient and less disrupting. Congestion on urban roads is fuelled by the growing vehicular fleet (private cars, motorcycles) as more and more commuters opt for alternative means of transport to public transport, inefficient freight transport that contributes to the deterioration of the road infrastructure, informal transport means and the infrastructure deficit for mobility. Other factors of congestion include the lack of planning and urban sprawl, which means that a growing number of suburban residents flow into the central areas to work and study on a daily basis. The limited public revenues and the growing costs of building and maintaining transport infrastructure constrain national and subnational governments' ability to deliver new transportation facilities.

Urban mobility plans are not widely adopted and face financial difficulties

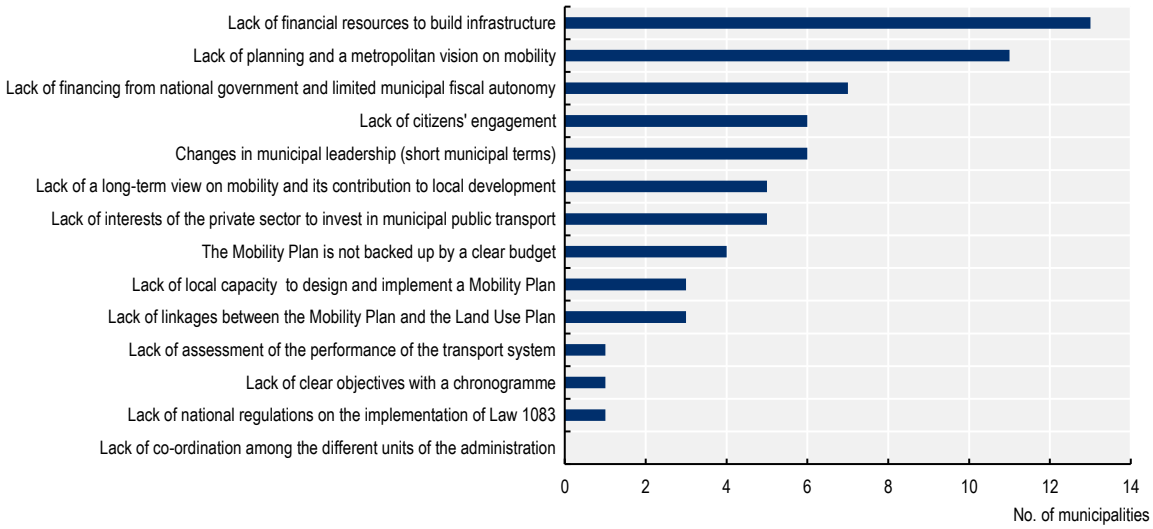
Law 1083 of 2006 establishes that all cities with more than 100 000 inhabitants must issue a Sustainable and Safe Mobility Plan (*Plan de Movilidad Sostenible y Segura*, PMSS). However, PMSS are generally not supported by a delivery plan for short-term implementation that includes a timetable and a budget plan. According to the DNP, PMSS are not backed by the necessary financial mechanisms for the implementation of programmes and projects, and they are not linked to the municipality's general vision for its development (DNP, 2020[32]). This complicates the completion of transport infrastructure projects such as workshops for the Metrolínea system in Bucaramanga, the Mio system in Cali, and the Metroplus in Medellín. In many cases, the financial costs of transport infrastructure are estimated based on conceptual designs but, when detailed studies were conducted, costs turned out to be much higher than originally considered. In 2006, Law 1083 established that municipalities with a POT and over 100 000 inhabitants (i.e. 69 municipalities approximately) must issue an urban mobility plan to promote sustainable mobility prioritising active mobility (walking and cycling) and the installation of public transport systems that operate with clean energy (Gobierno de Colombia, 2006[27]). However, according to the MVCT, out of the 40% of cities that have formulated a PMSS, only 29% are updated, as was the case with

POTs. Since 2020, the Ministry of Transport regulates the mobility plans to ensure their articulation with POTs. Municipalities have two years to adopt or update their mobility plans.

According to the results of the OECD Survey on Urban Development in Colombia, only 17 out of 72 municipalities have adopted an urban mobility plan. This may be explained by the fact that most of the municipalities that took part in the survey have less than 100 000 inhabitants and are therefore not obliged to plan mobility, although discussions are analysing the possibility for these cities to issue a mobility plan. However, those that have adopted an urban mobility plan reported that the main benefit has been a reduction in road accidents, which are a recurrent problem in Colombia. Moreover, the plans have also contributed to promoting active mobility (walking and cycling), making transport more efficient and reducing traffic congestion.

Financing the operation and maintenance of transport systems is an additional challenge for local authorities in Colombia. This is part of a vicious circle in which most of the transport systems based their financing on tickets sales but revenues from ticket selling are not enough to cover operational costs as demand is lower than what had been estimated. Demand is often low, among other things, because of the poor quality of transport services, which results in fewer passengers, less income for transport providers, and fewer resources to invest in infrastructure modernisation, higher frequencies and a modern fleet. According to municipalities that responded to the OECD survey and have an urban mobility plan, the implementation of urban mobility plans faces financial obstacles to building infrastructure due to the lack of funding from the national government as, by law, local governments are responsible for finding sources of financing alone, the limited fiscal autonomy of municipalities, and the lack of mobility planning at the metropolitan level as there are not robust metropolitan governance institutions nor metropolitan sources of financing (Figure 3.6).

Figure 3.6. Factors that hinder the implementation of the municipal mobility plan, n=17

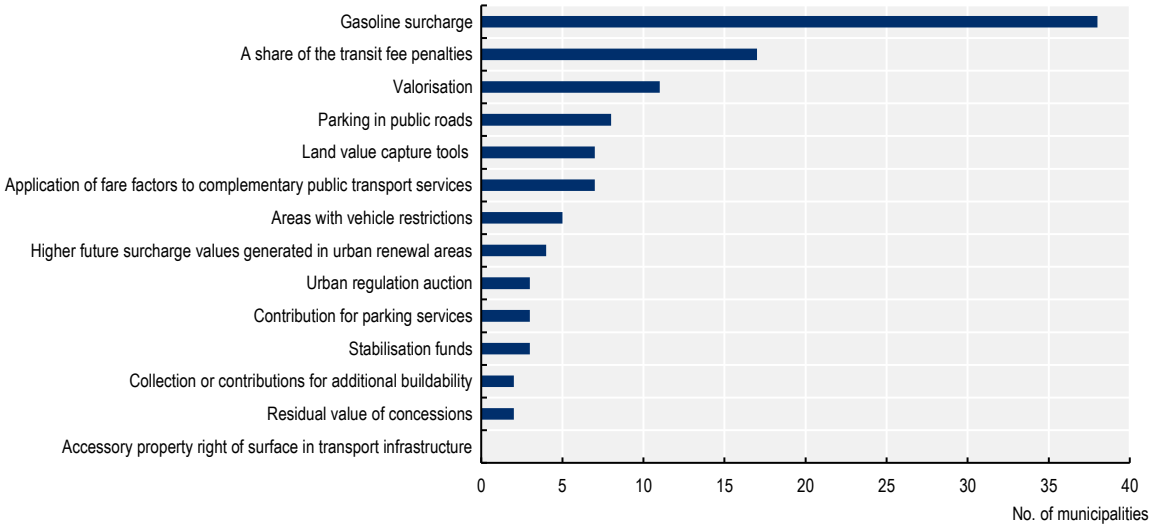


Note: Answers to question "Q.4.5. What have been the main obstacles to the implementation of the municipal mobility plan?".
Source: OECD Survey on Urban Development in Colombia 2021, conducted with the support of the MVCT and AsoCapitales.

Although the System of Cities included provisions for the regulation of integrated regional transport systems and the National Development Plan 2014-2018 promoted the creation of regional transport authorities, there has not been progress on any of those issues. Law 1955 of 2019 provides municipalities with a wide range of options for financing transport such as stabilisation funds, contributions for off-street parking or on-street parking, parking on public roads, areas with vehicle restriction, allocation of a collection

percentage for traffic fines, residual value concessions, valuation, urban regulation actions, value capture tools, a surcharge of gasoline or diesel, resources obtained through non-operating income, among others (Gobierno de Colombia, 2019[28]). Figure 3.7 shows that municipalities rely on gasoline surcharges and to a lesser extent on transit fee penalties to obtain resources to finance transport. Despite the availability of different tools to finance transport investments, municipalities use them very little, as shown in Figure 3.7. The reason may be unawareness of the possibility to use them and a lack of technical capacity to implement them.

Figure 3.7. Main municipal sources of funding for public transport in Colombia, n=72



Note: Answers to question "Q.4.4. According to Law 1955 of 2019, territorial entities can establish different sources of funding and financing for public transport; which ones are the most used in your municipality?".
Source: OECD Survey on Urban Development in Colombia 2021, conducted with the support of the MVCT and AsoCapitales.

Public transport and urban planning are not always aligned

In Colombia, the evolution of cities is based on the assumption that physical proximity in cities can be overcome by increasing travel speed through the use of rapid, motorised modes of public and private transport. Moreover, the phenomenon of suburbanisation at lower densities observed in Colombia has been facilitated to a large extent by the introduction of private cars, which take up significantly more space than any other means of transport, thereby contributing to congestion, largely due to the discrepancy between the POTs and the infrastructure development projects. The introduction of mass transit systems such as the bus rapid transit (BRT) systems in some cities can alleviate the problem to a certain extent but they require density to be profitable and they struggle to attract enough passengers to finance transport operations. This provides a critical challenge for Colombian cities as motorisation (motorbikes and cars) far outpaces the provision of road infrastructure and public transport system provision (see Chapter 1).

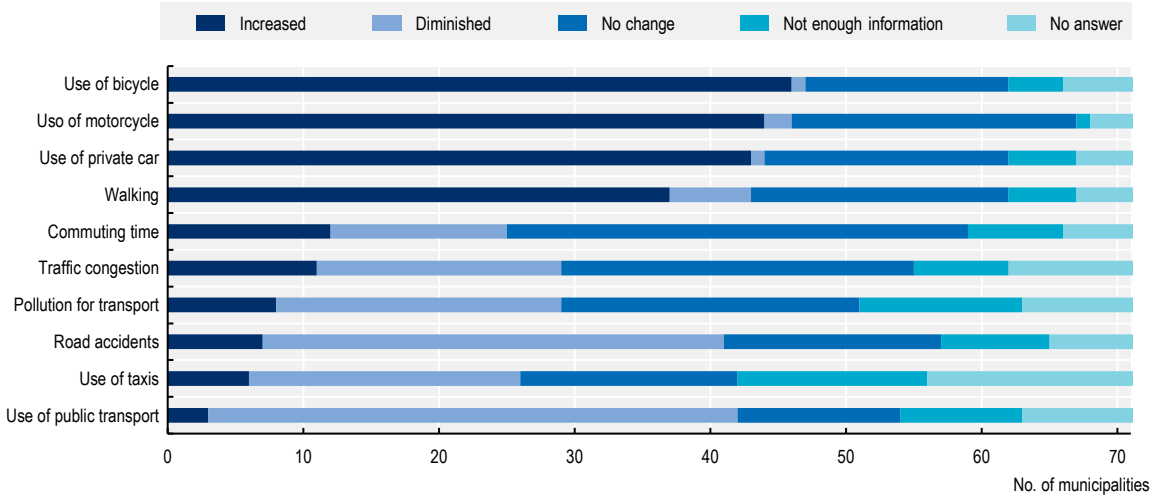
In addition, urban mobility plans are not always co-ordinated with POTs, infrastructure investment strategies and local development plans. It seems that in Colombia, transport planning and land use planning are often carried out as separate functions, which leads to inconsistencies between urban mobility plans and POTs. This fragmentation hinders accessibility within metropolitan regions and prevents cities from leveraging agglomeration economies. This division may also reflect fundamental differences in the training of the planners responsible for land use and transport. In a context of shrinking revenues, escalating costs, environmental concerns and social impacts require different administrative units and levels of government to share responsibility for improving public transport and mobility.

Moreover, although some cities may have an urban mobility plan, the latter is not fully implemented due to the lack of regulations for their operationalisation. Without secondary regulation, urban mobility plans have no legal support and may not have continuity beyond the government term of four years. Finally, there is little evidence of co-operation and consultation on mobility plans with upper levels of government or with neighbouring localities. This suggests that mobility plans do not systematically consider the needs of the core city and its hinterland (forming the FUA) but only those of the municipal administrative area, which may lead to inefficiency and lost opportunities for joint investments. A central limitation is the lack of a metropolitan governance structure through which municipalities are able to plan and invest at the metropolitan level. In Colombia, there are no supra-local development strategies like in Poland that guide actions and investments of individual municipalities towards a common metropolitan (or functional) objective. This also limits the possibilities of financing metropolitan investment projects (see Chapter 5). Only since 2020, metropolitan areas legally constituted have the possibility to formulate their metropolitan mobility plan, although no action has been taken so far.

COVID-19 imposed constraints on the use of public space and movement

The COVID-19 pandemic has revealed that Colombian cities, like many others around the world, are not prepared for physical spacing guidelines imposed by the sanitary crisis. Citizens were asked to reduce their movements to the strict minimum to lessen transmission risks. However, for many workers, staying at home was not an option because they work in the informal economy or the health sector, emergency services, food retail and essential services. The challenge for Colombian authorities was to facilitate the movement of such essential workers without increasing risks of contagion. Figure 3.8 shows that as a consequence of COVID-19, the use of bicycles, motorcycles and private cars increased to comply with the safety measures. This is not surprising as cycling and motorcycling are well adopted in many Colombian cities. Physical distancing requirements have kept some people away from public transport and some people opted for walking and cycling, partly to avoid public transport whose use decreased as a result of the pandemic (Figure 3.8). In Bogotá, D.C. for example, in 2020, authorities announced the construction of an additional 35 km of temporary cycleways, adding to the 550 km cycleway network built since the 1970s.[13] Similarly, Medellín plans to revive its economy after COVID-19, reduce carbon emissions through a focus on transport and become an ecocity. The city plans to expand bike lanes by almost 50% by 2023 to reach 145 km and more than double the number of interconnected public transport lines (trains, trams, cable car lines) by 2030. The city is also working to provide 50 000 e-bikes as part of a bicycle-sharing programme where residents can rent an e-bike at a low cost.[14]

Figure 3.8. Changes in transport modes and mobility trends due to the COVID-19 crisis across municipalities, n=72



Note: Answers to question "Q.4.6. How has the COVID-19 crisis changed the transport modes and trends in mobility in your municipality?".
Source: OECD Survey on Urban Development in Colombia 2021, conducted with the support of the MVCT and AsoCapitales.

However, low densities and long distances may hinder further use of active mobility as the latter is better suited for low density and short-distance areas. People travelling from the suburbs to the city centre for work or study may not be able to cycle or walk. Moreover, walking is made difficult by the use of public space (sidewalks, squares) for activities such as informal trade. This makes movement even more complicated for those with disabilities, as they run into obstacles that prevent the use of devices such as wheelchairs. In addition, current sidewalk widths in many Colombian cities cannot accommodate a large number of pedestrians while maintaining physical distancing.

A new national policy to overcome mobility challenges has been adopted although some limitations remain

The National Policy of Urban and Regional Mobility (CONPES 3991), the result of five years of cross-sectoral discussion, is a response to address national mobility challenges and modernise public transport policy in Colombia. Its general objective is to provide guidelines for the comprehensive management of urban and regional mobility to contribute to social welfare, protection of the environment and economic growth of the cities. The DNP, and the Ministries of Finance, Environment and Sustainable Development, and Transport led the elaboration of policy. It is worth noting that the MVCT was not part of the leading group despite transport being a critical urban-related topic (although it may have been consulted). The document foresees the elaboration of many studies to be commissioned whose conclusions will dictate the way forward. The documents include actions that are certainly needed to improve mobility in cities such as: the alignment of POTs with transport plans; the promotion of integrated transport systems; the improvement of the road network; the strengthening of the institutional setting for the implementation and follow-up of mobility projects; the provision of the national government's support on metropolitan transport planning; and the mechanisms for financing public transport (DNP, 2020[32]). Its priorities are: reducing the negative externalities associated with transport, such as pollution, congestion and lack of road safety; enhancing the institutional capacity of local administrations to plan, execute, control and follow up urban mobility; and adopting new financing models for transport to ensure the sustainability of public transport systems and improve the quality of services (DNP, 2020[32]). The national government acknowledges the importance of promoting sustainable mobility and an efficient transport system. Investments for more than COP 66 billion (approximately USD 18.3 million) on transport and logistics to improve competitiveness and

regional integration have been considered as part of the National Development Plan 2019-2022 (Gobierno de Colombia, 2019[28]).

The national urban mobility policy lacks a focus on accessibility and equality

It is too early to say whether CONPES 3991 will solve the mobility and accessibility challenges of Colombian cities. It will depend on how the strategic actions included in the document will be implemented. However, based on the experience of OECD countries (OECD, 2020[36]), it may be argued that the new national mobility policy has a limited focus on accessibility, understood as the need to ensure that people cannot only move around efficiently (as sought by CONPES 3991) but actually get to everything they need to thrive. Although CONPES 3991 aims to address some major mobility challenges and build a high-quality transport sector, it does not include a vision for transport or a strategy that enhances urban accessibility. It is necessary to consider that transport policy is only one of several key elements to ensure urban accessibility. From an accessibility perspective, it is also important to consider how land is used and managed, and how economic activities, services and amenities are distributed. There is no discussion on how digital technologies can be used to bridge accessibility gaps. At the same time, focusing on accessibility requires considering that social norms and differences in people's economic means, abilities and technical capacities affect their access to urban opportunities (i.e. education, jobs, public services and leisure).

Equally relevant is that public transport in Colombia is neither planned nor designed to be gender-sensitive. Indeed, CONPES 3991 seeks that all residents regardless of their socio-economic background and physical abilities, can use public transport but its challenge is to translate this into urban mobility plans at the local level that acknowledge that it is usually women who have to take care of domestic chores, children, the elderly and sick, while also participating in productive activities; this dictates their travel patterns and behaviours, and they tend to travel more if they have a family. The time lost in travelling is therefore far more penalising for women. However, as reflected in CONPES 3991, it is widely perceived that transport investment and improvement benefit everyone equally. In addition, women tend to have a perception of insecurity in public transport, which limits their mobility options and possibilities to access opportunities. If they perceive public transport is not safe enough, they will not travel.

Some projects aim to improve mobility through urban planning

The MVCT, based on CONPES 3991, is promoting at least three initiatives to improve urban mobility. The first refers to the use of urban planning instruments for which the ministry has issued guidelines on sustainable mobility and urban development and promotes the "complete street" concept to define urban transport infrastructure needs. The second involves the promotion of urban projects under the transit-oriented development (TOD) approach, together with urban regeneration strategies. The third initiative lies in the development of a study on functional relations associated with mobility in urban agglomerations. Moreover, within the framework of CONPES 3991, the MVCT in co-ordination with the Ministry of Transport (MT) and the DNP is currently working on guidelines for territorial entities on how to develop mitigation instruments to face the negative impacts on mobility and public space related to congestion and land use for commercial purposes. Similarly, the MVCT, the MT and DNP are working on guidelines for the incorporation of urban and regional mobility criteria in urban development strategies.

Electric mobility is being promoted

Promoting clean mobility through electric and more energy-efficient vehicles has become a policy priority for the national government over the last decade. In 2018, the transport sector represented 40% of the energy used in Colombia and 92% of that energy came from fossil fuels, while only 24% was transformed into useful energy due to the obsolescence of the automotive fleet (Gobierno de Colombia, 2019[37]). In 2019, the national government published the National Strategy for Electric Mobility (SNME) to promote the

electrification of the transport sector to reduce its impact on the environment and reduce GHG emissions (Gobierno de Colombia, 2019[37]). The SNME is in line with Colombia's commitment to the Paris Agreement on Climate Change and the UN Agenda 2030 on Sustainable Development; it is expected to contribute to the national goal of reducing CO_2 emissions by 51% through the incorporation of 600 000 electric vehicles by 2030. One of the actions of the SNME is to evaluate the relevance of converting combustion vehicles to electric vehicles by 2023. However, achieving the objectives stated in the strategy requires overcoming a number of challenges ranging from regulation to economic, technological, infrastructure and land use challenges. Implementing the strategy will also require the co-ordination of stakeholders from different sectors (i.e. energy, transport and environment) and different levels of government. City planners will also have to adapt the urban space to define the most appropriate places for the installation of electric vehicle recharging stations across the city.

In 2019, Colombia passed Law 1964 aimed at promoting the use of electric vehicles and contributing to sustainable mobility (Gobierno de Colombia, 2019[29]). The government uses fiscal tax incentives to promote the acquisition of electric vehicles. For example, Law 1964 establishes that all tariffs applicable to electric vehicles should not exceed 1% of their commercial value. Other incentives include discounts in the technical-mechanical review of polluting emissions, discounts on the registration or vehicle tax, differentiated rates for parking spaces, tax exemptions, exemption to vehicle restriction measures such as *Pico y Placa*[15] or one day without a car, and preferential parking. The law establishes that after 6 years of its implementation, 30% of the vehicles of the national government, municipalities of Category 1[16] and public transport providers should be electric. Decree 2051 of 2019 sets a 0% tax for electric vehicles and for vehicles with an exclusive natural gas operating engine a 5% for import tax. The Tax Statute establishes a 5% value added tax (VAT) for electric vehicles.

Law 1964 gives regional and municipal authorities ample powers to regulate the use of electric vehicles, which may help tailor traffic schemes. However, without proper monitoring procedures on the part of the national government, there could be some delays or even omissions in the implementation of the law. For example, according to the law, cities that have mass transportation systems must implement public policies and actions aimed at guaranteeing that a percentage of the vehicles used for the operation of the fleets are electric or have zero polluting emissions. This also applies in cases when it is intended to increase the transport capacity of the systems, when a vehicle needs to be replaced due to total or partial destruction that makes it impossible to use or repair, and when its useful life ends and it needs to be replaced. The aim to have 100% of new electric vehicles by 2035 will depend on the financial capacity of every city and service provider.

COVID-19 has given a new impetus to investment in transport infrastructure

Investing in transport infrastructure has been a constant priority for Colombian authorities, although efforts mostly focus on road construction. They have worked closely with the private sector on the supply, operation and maintenance of buses and trains and to build infrastructure under public-private partnership schemes. The COVID-19 pandemic has enhanced efforts to invest in transport infrastructure such as roads and motorways. For example, under the COVID-19 recovery plan *Compromiso por Colombia*, the national government aims to accelerate public-private partnerships to implement projects tendered under the Fourth Generation (4G) transport infrastructure projects, as well as the launch of the planned Fifth Generation (5G) transport infrastructure programme, and the implementation of the tertiary road building programme to boost territorial integration and a road improvement programme. The transport projects (4G) refer to the construction of motorways across the economic hub in the country that had already been announced since 2018, whose execution and completion represent an opportunity to reactivate the national economy.[17] The Colombian Chamber of Infrastructure proposed to the government an investment plan for the rehabilitation and maintenance of the secondary and tertiary road network that amounts to COP 6.8 billion (USD 1.8 billion). Over the next decade, the chamber proposes to invest COP 54 billion

(USD 14 billion) on strategic transport infrastructure projects, which would contribute to an annual increase of the GDP by 0.8%.[18]

Building accessible cities in Colombia

Prioritising compact urban growth, affordable mass transit and high levels of active mobility are the most cost-effective means of providing access to opportunities while boosting economic competitiveness and protecting the environment (Rode et al., 2019[38]; OECD, 2020[36]). Based on the experience of OECD countries, Colombian authorities may wish to consider the following recommendations to strengthen national and local mobility initiatives and strategies.

Strengthen the implementation of CONPES 3991

The implementation of CONPES 3991 is vital to building capacity at the subnational level for sustainable urban mobility in Colombia. The document is in its early stages and provisions should be taken to ensure its continuation and improvement in the long term. However, most of the transformation is required at the subnational level and this is where the national policy should have an impact. Some actions could include:

- **Realign the national mobility policy (CONPES 3991) and budgets**. The national government plays a central role in shaping urban mobility patterns and is a major funder of both high- and low-carbon transport infrastructure. Colombia could use the COVID-19 stimulus and recovery package to promote transformative change. Priorities may include: expanding established sustainable travel, such as walking, cycling and public transport use; rapidly electrifying road transport; and shifting away from individual car ownership and towards sharing and pooling (Rode et al., 2021[39]).
- **Consider the development of a CONPES document on land use management (*ordenamiento territorial*) that supports accessibility**. This could help develop an accessibility approach complementing CONPES 3991. This CONPES should consider how land is used and managed.
- **Ensure that the sustainable and safe mobility plans and the POTs help cities meet their primary function of connecting people with one another and with opportunities, resources, goods and services**. Municipal governments will lead much of the work to achieve this but, to succeed, they need strong national-level support. The national government often defines what is possible, through everything from building codes to infrastructure investments, and can accelerate or stifle urban transformation towards more compact, connected, clean and inclusive cities.
- **Continue providing support for the design, implementation and evaluation of the urban mobility plans** to build capacity in local governments for the development and management of their own mobility plan. Not all cities in Colombia have the technical and financial capacity to develop a high-quality technical mobility plan. The national government, through the MT and the DNP, could assist willing local governments with the necessary technical support, together with the pre-existing possibility of co-financing projects for public transport. This could also be supported by raising awareness through training courses, the dissemination of examples of good practices and networking opportunities to facilitate knowledge sharing and capacity building.
- **Ensure that development, land use and mobility planning are conducted with a functional area perspective** to facilitate coherent investment decisions and provide guidance to local decisions. Despite provisions taken in the System of Cities regarding metropolitan governance, progress has been limited. The OECD Principles on Urban Policy call for an adaptation of policy action to the place where people live and work by adapting development strategies and public service delivery to the diversity of urban scales (OECD, 2019[40]). If large cities develop a mobility plan in isolation from neighbouring municipalities, generally with smaller populations, this hinders the co-ordination of actions for improving mobility and accessibility.

- **Develop new sources of finance for metropolitan-wide transport**. Financing public transport should not be seen as a cost but an investment that yields economic, social and environmental returns to cities. Public transport plays a particularly critical role in large metropolitan areas, by helping ensure accessibility and reduce the need to drive. Investing in metropolitan-wide public transport is an urgent priority for Colombian cities given the growing urbanisation levels and the need to promote sustainable mobility to tackle climate change. It is also essential from an equity perspective, as it is the main mode through which lower-income residents are able to access jobs, education and core services. In addition, high-quality public transport can help mitigate the negative effects of urban sprawl by facilitating movement within and between peripheral neighbourhoods and into core employment centres. National and local authorities could explore, in addition to direct subsidies and support from the national government, new financing models that could include how cities might cross-subsidise public transport, for example through road pricing and land value capture instruments (Rode et al., 2021[39]). Other actions could include reallocating new transport infrastructure investments to maintain and improve existing assets and services and reinvesting the proceeds from fees, pricing and taxation related to private car use in public transport. Colombia may consider adopting a medium-term budget framework for transport investment. It may help cities promote more efficient use of resources by creating stable and predictable conditions to plan their investment expenditures. A medium-term budget framework has the potential to facilitate multiyear planning, spend resources as needed and identify and exploit efficiency-related savings (OECD, 2020[36]). Official spending authorisations would remain annual but a medium-term budget framework can enable transport authorities, as well as any other government ministry or agency, to make clearer commitments in their budget allocations. Transport authorities would be in a better position to plan their investment projects and activities.
- **Include digital connectivity as part of mobility plans**. The COVID-19 pandemic led to a situation in Colombia, and elsewhere, where public transport and mobility were substituted by digital connectivity. Digital technologies can be major enablers of social and economic development, enhancing access to urban resources while reducing the need to travel. Digital connectivity can also make a considerable contribution to decarbonisation by reducing the need to travel. Indeed, digital technologies have great potential to reduce GHG emissions from transport, as Chapter 1 shows the transport sector produces 12% of GHG emissions in cities, of which 90% are produced by road transport. However, digital connectivity remains deeply inequitable in Colombia. The national government needs to treat digital connectivity as an integrated component of urban accessibility policy. This means putting equitable virtualisation requirements and opportunities on par with physical transport infrastructure, so they can offer real alternatives to physical mobility. To regulate digital connectivity, Colombia needs to consider the connectivity plans of each city and their particular geographic circumstances. Colombia could include digital connectivity requirements as part of urban planning and building regulations, incentives to bridge the digital divide, direct investments in and delivery of digital connectivity through the public sector and enabling new finance, such as universal service funds. The national government needs to treat digital connectivity on par with physical transport access. This implies positioning virtualisation requirements and opportunities as an integral part of national transport policy. The challenge for Colombia will be to ensure equitable access to digital connectivity as well as affordability.

Improve the quality of urban mobility plans

To improve mobility in Colombian cities and contribute to sustainable development, it is also important that municipal mobility plans are taken to the next level by:

- **Ensure that urban mobility plans have a holistic approach to foster accessibility and not just mobility**. Enhancing accessibility requires a holistic planning approach that links social, economic and environmental aspects. The aim is to ensure that planning of the city's movement

and traffic contributes to building accessible and attractive cities. By taking a holistic approach to planning, cities can use the movement of people and public transport to achieve bigger objectives such as sustainability, equity, inclusiveness and growth.

- **Widening the scope to include key issues that impact mobility and accessibility**, as suggested in CONPES 3991, such as: the different needs of citizens, businesses and industry in terms of mobility and transport services; multi-modality; balance between the need for economic viability, social equity and environmental protection; efficiency and cost-effectiveness; strategies for better use of public space and existing transport infrastructure; and the adoption of a gender approach to guide mobility strategies.
- **Assessing current and future performance of the transport system**. This could include an analysis of the institutional setup, planning and delivery mechanisms as well as realistic performance indicators (i.e. on energy, environment, quality of transport services, social inclusion, gender equity, health, etc.). The national government should ensure that transport planning is target-led rather than prediction-based. In other words, there should be realistic targets to achieve based on local needs and the specific socio-economic context. The transport strategy should avoid forecasts as they are not useful for measuring progress. In Australia, for example, the New South Wales (NSW) transport strategy from 2016 sets a vision for the next 40 years on how transport can help build a productive economy, liveable communities and sustainable society (OECD, 2020[36]).
- **Fostering a balanced and integrated development of all transport modes**. This could be done at the same time as CONPES 3991 encourages a shift to sustainable transport modes such as electric vehicles or active mobility.

Ensure that local development plans, POTs and mobility plans work in a co-ordinated fashion

Authorities need to ensure that local development plans, POTs and urban mobility strategies work in a co-ordinated fashion following a regional/metropolitan approach. If Colombia wishes to pursue transit-oriented development (TOD) projects, sound strategic planning needs to guide land use, transport and mobility, housing, environmental, economic and social policy decisions. Moreover, mobility plans by themselves will not have the desired impact in terms of accessibility and sustainability unless they are co-ordinated with other policies, notably housing, environmental protection and economic development. To align land use, transport and development planning, Colombian authorities may wish to consider the following recommendations:

- **Integrate the planning of transport with land use planning** to prevent costly consequences of urban sprawl, congestion and air pollution, and promote sustainable development. While Colombia acknowledges that transport, land use and development planning must be co-ordinated, some institutional barriers still need to be overcome, such as the fact that the two issues are planned by separate institutions at the local level without much co-ordination. CONPES 3991 already refers to the need to co-ordinate transport and land use planning issues but it is regarded as a national directive for national-level institutions. However, land use planning decisions largely influence public transport service provision and how cities are planned determines mobility needs. According to the experience of Greater Vancouver (Canada), a good POT is a good transport plan (Huerta Melchor and Lembcke, 2020[41]). Achieving the goals of the POTs and the mobility plans requires aligning land use and transport planning. The location of jobs and housing fundamentally determines where and to what extent people, goods and services need to travel. POTs could help shorten trips and promote sustainable transport choices (cycling, walking and public transport). For that purpose, they could prioritise dense and mixed development, as well as business activity located near transit stations. POTs should also provide the framework for planning utilities (water, liquid waste and solid waste), transport, housing and air quality. In this sense, Colombia could adopt the Frequent Transit Development Area (FTDA) concept, defined as a moderate to high-

density, mixed-use residential and commercial development located around a transit station or corridor. This would help encourage a compact and pedestrian-oriented city that improves access to residential, retail, office and community uses nearby.

- **Consider conducting a comprehensive housing and land use policy reform**. It is essential to consider housing affordability and public transport policies in tandem to improve quality of life, competitiveness and productivity in cities. Colombian authorities should focus not only on housing construction but on building communities and neighbourhoods where residents can access the opportunities, services and amenities they need to thrive. Housing developments in locations without good connectivity have limited access to goods and services and act to the detriment of the economy, the environment and people's well-being. It is important to provide a wide array of options, including both homeownership and rentals, to address the needs of people at different income levels and in different life situations. When transport investments are conducted without taking into consideration how housing can remain affordable, it may in turn make housing expensive for low-income households. The MVCT and the MT in co-ordination with local authorities must also ensure that decisions on where to build homes are based on real costs to society, and avoid providing direct or indirect subsidies for dispersed urban development. The experience of OECD countries suggests that achieving affordable housing and transport requires creating high-density, mixed-used places (OECD, 2020[36]). When designing POTs, Colombian municipalities could analyse housing and transport needs together to ensure housing affordability. This approach provides a more comprehensive view of affordability by looking not just at the price of housing (buying or renting) but also the location of housing and transport expenditure. The challenge for authorities here is to strike a balance between housing prices and closeness to public transport stations as maintaining affordability when expanding the transport network or building closer to transport hubs could be a complex issue. The experience of London suggests that to use transport as a driver of economic growth and well-being, it is necessary to maximise the capacity of the public transport network, extend the network to open up new areas for homes, optimise land use around stations and improve conditions for walking and cycling (Box 3.6).

Box 3.6. Promoting affordable housing and transport in London

London's Transport Strategy includes a series of proposals intended to embed public transport in current and future developments. Authorities explore options for developments around the more than 600 rail and tube stations in the city. Some of the options involve converting land use from low-density uses (retail, storage, parking) to high-density mixed-use development. For this purpose, the transport authority and the boroughs:

- Seek opportunities for densification of development supported by the public transport network, in particular around public transport stations and stops, and investment in improving station environments, interchanges and local walking and cycling networks.
- Impose high expectations of developers to deliver transport solutions that will promote a shift to active, efficient and sustainable modes, reduce road congestion, improve air quality and assist in the development of attractive and healthy places.
- Restrict car parking provision within new developments and ensure that new developments contain high levels of cycle parking and storage.
- Support growth through transport investment and planning in the Central Activities Zone (CAZ), in and around town centres, in close proximity to stations and opportunity areas.

Source: Greater London Authority (n.d.[42]), *Mayor's Transport Strategy*, https://www.london.gov.uk/what-we-do/transport/our-vision-transport/mayors-transport-strategy-2018.

Explore the viability of creating metropolitan transport authorities

Although the System of Cities and CONPES 3991 make reference to the need to adopt territorial associative systems for public transport provision, progress has been limited. It is increasingly common across metropolitan areas in OECD countries that a metropolitan-wide transport authority has facilitated the implementation of the transport strategy. These transport authorities are responsible for the organisation and provision of transport services in multiple jurisdictions in a metropolitan area. Some examples are Transport for London (TfL), the Consorcio Regional de Transportes de Madrid (CRTM), the South Coast British Columbia Transport Authority (TransLink), the Regional Organiser of Prague Integrated Transport (ROPID) and the Île de France Mobilités (France). Since metropolitan areas in Colombia, including the Metropolitan Region of Bogotá-Cundinamarca (*Región Metropolitana de Bogotá-Cundinamarca*, RMBC), are responsible for transport and the environment, local authorities with the support of the national and department governments could explore the relevance of creating such institutions. They could be either direct providers of transport services (e.g. TfL and TransLink) or co-ordinators of the different service providers (i.e. CRTM, Île-de-France Mobilités, ROPID and RMV) (OECD, 2020[36]). However, they should be responsible for planning the transport system across the metropolitan area aiming at discouraging the use of private vehicles, define investment projects on mobile and fixed infrastructure, and introduce a harmonised fare structure. If Colombian metropolitan areas and the RMBC wish to build a transport authority, they need to make sure they have the technical and financial capacities to perform their tasks and support from the highest political levels.

Having a metropolitan transport authority could be a way to fund transport, reduce competition between modes and facilitate much closer collaboration within and between the public sector and private franchise holders and operators. One of the first elements to boost cities' investment capacity is to motivate metropolitan co-ordination and co-operation for planning and investment. Co-ordination is particularly relevant in metropolitan areas where there is no metropolitan government but a fragmented administration. The United States (US) offer an example where metropolitan planning organisations (MPOs) were explicitly created for planning and programming federal transport funds (Box 3.7). The goal was to ensure that existing and future expenditures for transport investment projects were based on a continuing, co-operative and comprehensive planning process.

Box 3.7. Metropolitan planning organisations in the US

In the US, urban areas of more than 50 000 residents are required to have an MPO to qualify for federal transport funding. In 2013, there were 342 MPOs in the country. The reason for their creation was to facilitate adaptation to local conditions in order to best allocate federal transport funding. To access federal funding, MPOs need to develop long-range transportation plans with planning horizons of at least 20 years. The plans must be based on demographic, travel and employment trends for their regions and propose a series of transport improvements to meet projected needs. The plans must be elaborated based on a realistic assessment of the available funding over the planning period to avoid transport projects exceeding identified revenues. Moreover, every decision must be evaluated against a set of alternatives to ensure that the most cost-effective solutions are chosen. The long-term plans are then translated into rolling five-year transport improvement programmes containing all projects to be funded in the metropolitan area over the next five years, identifying the sources of funding allocated to each.

Source: OECD (2015[43]), *Governing the City*, https://doi.org/10.1787/9789264226500-en (accessed on 9 August 2017).

There is no common blueprint that defines the responsibilities of a transport authority. Some transport authorities are direct providers of transport services (e.g. TfL and TransLink), while others co-ordinate the work of different service providers (CRTM, Île-de-France Mobilités, ROPID and RMV). However, some typical responsibilities of transport authorities are: i) planning the transport system by ensuring the provision of the services across the metropolitan area and discouraging the use of private vehicles; ii) managing the operation or co-ordinating the operation of transport services; iii) defining investment projects on mobile and fixed infrastructure; iv) co-ordinating the planning of transport service provision across municipalities in the metropolitan area; v) ensuring inter-modality to facilitate the movement of people and goods and make the most of the existing infrastructure; vi) setting fees and tariffs for transport services across the metropolitan area; and vii) contributing to the achievement of regional development objectives (i.e. housing, environmental, economic) through transport provision.

Enable urban accessibility through compact cities and public transport

Building accessible cities requires retrofitting and re-densification of established urban cores through urban transit-oriented development (TOD). As mentioned above, Colombia's national government plans to conduct TOD projects in a quest to improve urban mobility. CONPES 3991 already refers to the need to enable accessibility through compact cities and transport, but more needs to be done to make it a reality. Authorities should keep in mind that TOD planning should cover diverse scales, not only small land plots around stations as is done in some European cities. TOD planning on a large scale is a way to ensure a sufficient number of public transit customers and to underpin the investment in public transport. In Metro Vancouver (Canada), TOD is considered an effective way of concentrating growth on brownfield sites while generating and attracting transit ridership to shift the modal share to public transport (Huerta Melchor and Lembcke, 2020[41]). Colombian cities could follow three principles when combining urban transport policy with re-densification projects. First, cities need to reduce travel intensity in cities through greater physical proximity and co-location of different urban functions; second, they need to promote the adoption of public, shared and non-motorised transport; and third, improve the efficiency of road-based vehicles (Rode et al., 2014[44]).

If Colombian authorities plan to conduct TOD projects, it will be necessary to build compact multifunctional spaces. Policy makers will need to approach compact city policies as a way to achieve both environmental and economic growth objectives. TOD will need to be pursued under a compact city policy approach;

national guidelines on re-densification should be incorporated into local regulation, and the need to always co-ordinate land use, transport and urban regeneration policies. This could not only contribute to environmental goals but also economic growth.

Use public transport to contribute to cities' transition to a low-carbon economy

Colombian cities have an opportunity to curb carbon emissions and improve air quality through public transport. There are two complementary ways in which this can be achieved. First, the promotion of multi-modal public transport, disincentives to discourage residents from using private cars such as congestion charges and incentives to opt for more active mobility options like walking and cycling can certainly contribute to reducing CO_2 emissions (OECD, 2020[45]; 2020[36]). The second option refers to investments in hybrid and electric buses for public transport service since most of the transport networks in Colombian cities are organised around bus fleets. Although buses still produce a large aggregate amount of emissions, they can still contribute to reducing emissions per capita.

Investing in an electric bus fleet is financially prohibitive for most cities in the country, including Bogotá, D.C. (Box 3.8). An option to be explored could be to use resources from the recovery and stimulus packages related to the COVID-19 pandemic to support the modernisation of the bus fleets in the main cities. However, the electrification of the bus fleets requires careful planning to balance expected costs and benefits. For this, the national government could integrate electrification objectives into existing legal frameworks and national regulations that guide and promote the shift to a zero-carbon emission bus fleet across Colombian cities and highlights the importance of e-mobility as a tool for climate change mitigation. The National Strategy for Electric Mobility is a key asset in this respect as it provides guidance to local investments.

Box 3.8. The challenges of electrifying Bogotá, D.C.'s bus fleet

In 2000, despite the introduction of an environmentally improved TransMilenio bus rapid transit (BRT) system, Bogotá, D.C.'s bus fleet was still responsible for 23% of CO_2, 55% of PM_{10} and 40% of NO_x vehicle emissions in the city while representing only 5% of total vehicles in the city. In recent years, more than 50% of the articulated buses of the TransMilenio fleet were put into service when the BRT system opened (and still in operation) failed to meet government emission standards. Although current buses are cleaner than private cars on a passenger-per mile basis, a zero-emission fleet would provide substantial benefits in a country where the transport sector generated over 30% of energy-related emissions in 2013.

City authorities have recognised the benefits of a zero-emission bus fleet and, since 2012, have considered and evaluated the economic and technological viability of hybrid buses. However, early e-bus efforts failed because TransMilenio faced many of the common challenges related to adopting e-buses. From a technological point of view, e-buses do not offer the same range of distance covered as conventional buses. Due to battery constraints, e-buses averaged 235 km per day, while diesel buses averaged 440 km. Bogotá, D.C.'s hilly topography and rough roads were also a challenge for the articulated e-buses. Financially, e-buses represented a high financial risk due to the high upfront costs. Conventional procurement models were unable to evaluate the return on investment that e-buses offer in operational costs, compared with conventional buses. Institutionally, e-buses have suffered from a lack of political momentum.

Despite these challenges, in 2018, the city government issued a draft tender to replace 1 441 articulated and bi-articulated buses that were among the oldest in the total fleet of 2 884 BRT buses. At the beginning, the tender did not include any incentives for adopting e-buses. After stakeholders voiced their concerns, TransMilenio included some incentives for e-buses. However, in December 2018,

TransMilenio decided that the selected bidder would provide 741 compressed natural gas (CNG) buses and 7 000 Euro V diesel buses, but no e-buses. This tender still had the merit of sparking public dialogue on e-buses. For the 2019 tender, TransMilenio wanted to promote e-buses as part of a large fleet overhaul. This tender also included TransMilenio's smaller, non-articulated fleet, which better aligned with the commercially competitive and available e-bus sizes and provided a greater opportunity to go electric. However, so far, no electric bus is part of the TransMilenio fleet.

Source: Ryan Sclar, E. (2020[46]), "The future of urban mobility: The case for electric bus deployment in Bogotá, Colombia", https://urbantransitions.global/wp-content/uploads/2020/04/The_Future_of_Urban_Mobility_web_FINAL.pdf; TransMilenio (n.d.[47]), *Historia de TransMilenio*, https://www.transmilenio.gov.co/publicaciones/146028/historia-de-transmilenio/.

Give active mobility (walking and cycling) the highest priority over any other means of transportation for short-distance trips

Building transport-oriented communities require giving pedestrians the highest priority over any other means of transportation by promoting walking and cycling for the last mile or short-distance trips. Although this may not be an option for everyone anywhere, cycling and walking are the fastest and least expensive modes for door-to-door travel for many short-distance trips. Colombia's high levels of cycling must be preserved and increased. The MVCT Neighbourhood Improvement Programme includes the construction of walking and cycling infrastructure while promoting safer use of streets for pedestrians and cyclists. Promoting active mobility may be at the neighbourhood level as non-motorised transport is more suitable for shorter distances. For that purpose, Colombia may wish to consider the following actions:

- **Rethink and recalibrate the way in which public space (streets) is used and allocated**. Colombia could promote the reallocation of road space and tactical urbanism. In Colombian cities where cycling and micromobility (i.e. scooters) are already popular, the emergence of COVID-19 and the physical spacing imperatives will require allocating more space to cyclists, pedestrians and micromobility. The "tactical urbanism" used during the pandemic to accommodate the urgent need for physical distancing could prove to be a powerful tool for Colombian local governments to push back against the dominance of cars. This offers a window of opportunity to make physical and behavioural changes permanent and ensure that they are integrated into strategies for more sustainable urban and transport planning (Rode et al., 2021[39]). Support from the national government will be critical in scaling up these early successes in some cities and making them a national-wide practice. For example, in Brussels, Belgium, authorities are re-timing traffic lights to give more time for pedestrians and cyclists and avoid crowding at junctions.[19] They are also fast-tracking the implementation of the Good Move Regional Mobility Plan for the Brussels Capital Region, which places citizens at the centre of decision making (Box 3.9).

Box 3.9. Brussel's Good Move Regional Mobility Plan 2020-2030

Brussel's Regional Mobility Plan, called Good Move, defines the main policy guidelines for mobility in the capital region. It aims to improve the living environment while supporting the demographic and economic development of the city. The plan was built over four years, involving the participation of a vast number of stakeholders. The Good Move plan places the user at the heart of all daily travel.

The Good Move plan adopts a transversal approach to mobility aiming to improve living standards and change travelling habits based on needs and constraints. For this purpose, regional authorities have adopted a regulatory framework and an action plan divided into six transversal focuses:

- **Good neighbourhood**: to manage mobility in the neighbourhood and improve quality of life.
- **Good network**: to organise transport networks and ensure and efficient service.
- **Good service**: to provide a wide range of integrated services.
- **Good choices**: to guide individual and collective choices without compromising individual freedom.
- **Good partner**: to ensure partnership governance for implementing the mobility plan.
- **Good knowledge**: to update mobility data and evaluate the mobility plan regularly.

Source: Brussels Mobility (2020[48]), *Good Move – The Regional Mobility Plan 2020-2030*, https://mobilite-mobiliteit.brussels/en/good-move.

- **Improve sidewalks, street crossings and other walking infrastructure**. This includes removing barriers to walking and cycling and expanding walking access to transit to make more efficient and safer use of streets for short journeys. COVID-19 has created the momentum for Colombian cities to invest more in walking and cycling infrastructure as part of their emergency infrastructure projects. However, it is important that cities link emergency infrastructure to long-term urban accessibility objectives by investing in building infrastructure now that they want to keep it for the future (ITF, 2020[49]). In light of COVID-19 restrictions, Colombian authorities will need to adjust to a new environment in which travel options, preferences and even behaviour may change. Temporal infrastructure built to allow physical distancing may be in use for the long term. To ensure safe urban travel, particularly walking and cycling, authorities may consider the following measures:
  - Do not compromise safety when rapidly deploying emergency infrastructure for active mobility.
  - Link emergency infrastructure to long-term objectives.
  - Monitor the use of infrastructure and expand it wherever it is required.
  - Consider fast-tracking upgrades in places with high use levels.
  - Link emergency active mobility infrastructure to other resilience-enhancing measures (ITF, 2020[49]).
- **Promote the safe use of micromobility devices (including e-micromobility)**. As Chapter 1 shows, Colombia has a high-level use of micromobility devices (motorcycles and motorised scooters). These can be an option to move people out of single-occupancy cars for the first and last-mile trip, which would free up road capacity for people who need to travel further. Cities like Medellín plan to expand the use of e-bikes to make more efficient use of public space. This is certainly a positive move in terms of flexibility and low cost. E-bikes have lower operating costs than owning and operating private cars, and their costs are even further reduced when sharing schemes become available. However, micromobility (including the electric version) should be promoted with care. Local authorities would need to bring clarity on what constitutes an electric micromobility device and where and how it can be used. Cities could classify e-bikes and scooters

as non-motor vehicles and clearly define the maximum speed for low (25 km/h) and moderate (top speed 45 km/h) speed electric devices. Colombian cities may wish to look at the experience of Madrid, Spain, where local authorities have enacted a regulation that addresses the circulation of alternative means of transport (Box 3.10).

Box 3.10. Rules for micromobility in the city of Madrid

The city of Madrid, Spain, is becoming a lab for innovative mobility regulation. Local authorities plan to transform mobility in the city and have enacted regulations to provide clarity on the use of alternative means of transport. The approach makes a clear distinction among different types of vehicles:

- **Vehicles for urban mobility** (electric kickboards, Segways, etc.): The local regulation uses the classification of the type of motor vehicles (A, B, C0, C1 y C2) established by the national General Traffic Directorate through Norm 16/V-124. It then establishes that this type of vehicle has to circulate either on roads (where maximum speed is 30 km/h) or bicycle lanes. It also regulates the equipment (lights, braking device, whistle, etc.) that these vehicles have to incorporate to circulate legally.
- **Rollerblades and kickboards**, or similar vehicles, with no motor: Will be able to circulate on sidewalks at a maximum speed of 5 km/h and on all types of bicycle lanes.
- **Skateboards***:* Follow a similar regulation to rollerblades and kickboards, but their circulation will be forbidden on sidewalks or bicycle lanes that are too steep. This is to ensure safety since this kind of device has no brakes. For sports purposes, users will have to go to specific authorised areas.

Source: OECD (2020[36]), *Improving Transport Planning for Accessible Cities*, https://dx.doi.org/10.1787/fcb2eae0-en.

Make urban public transport gender-sensitive

Colombia, like many countries in Latin America, needs to include a gender lens in planning urban accessibility. The public transport system needs to give everyone access to their city and therefore be designed and used considering the needs of all travellers equally. City planners need to better understand the links between accessibility, inclusiveness and well-being, as well as the travel patterns of different categories of users such as women, the elderly, children, etc. This can only be achieved when considering the potential synergies between improving the access to goods, services and information and goals such as environmental protection and limiting social exclusion from the outset. The Sectoral Committee for the Co-ordination and Implementation of the National Policy on Gender Equity in the Transport Sector created in 2019, has begun discussion and work on making urban transport gender-sensitive, although the challenge is to translate its resolutions to the sustainable and safe mobility plans elaborated at the subnational level.

Planning and designing the transport system should go beyond technical considerations to ensure well-being, inclusiveness and accessibility. City authorities need to engage the local community in the planning of the transport system. If Colombia wishes to promote gender-inclusive urbanisation and transport, it needs to empower the participation of a wider range of stakeholders, including women and disadvantaged groups (i.e. the elderly and minorities) in the planning and operation of the public transport system. Promoting gender equality in the transport sector may be a way to have more women involved in the transport sector as workers.

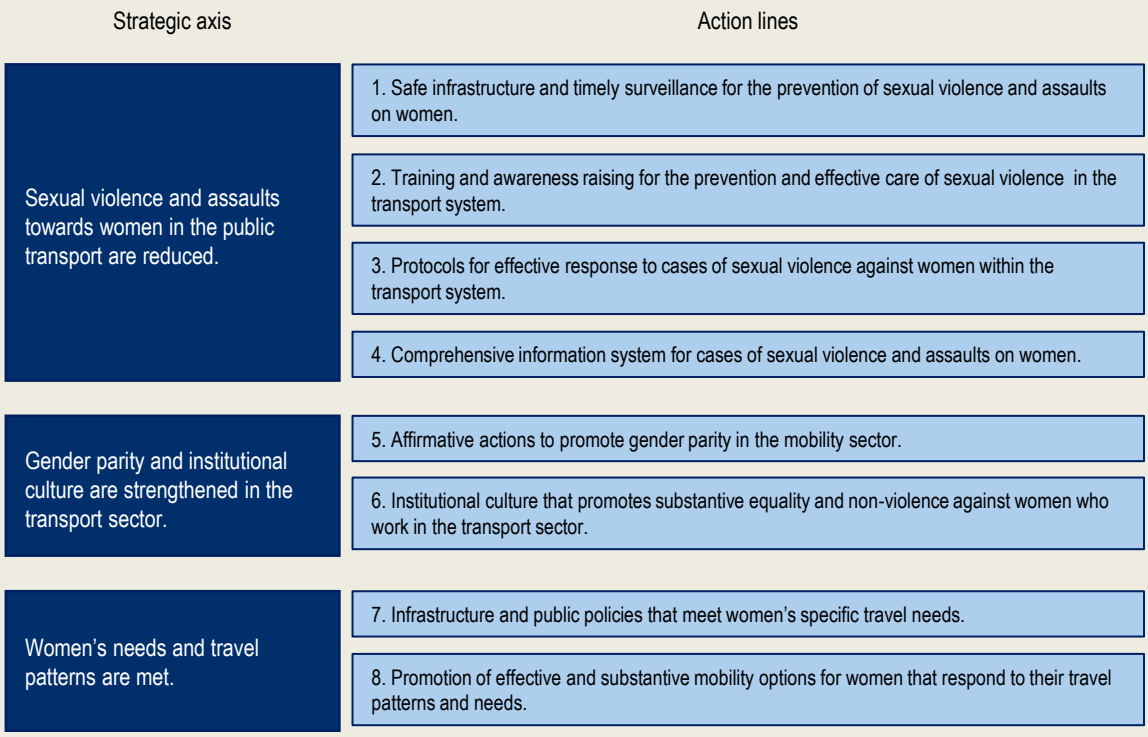
The national government could provide guidelines to municipal governments so that they include a gender perspective in their mobility policies. Mexico's experience suggests that designing a mobility plan under a

gender perspective is a multi-disciplinary and multi-sectoral process (Box 3.11). A key lesson for Colombian cities is the promotion of employment of women in the transport sector from planning to operation.

Box 3.11. Mexico City's Gender and Mobility Strategic Plan

In 2019, the government of Mexico City issued the Gender and Mobility Strategic Plan elaborated through an interdisciplinary and multi-sectoral process. Its aim is to ensure that women are able to commute with accessibility, comfort, safety and less transfer time. This is the local government's response to three main problems women face when using public transport: sexual violence and assaults, unacknowledged and unsatisfied mobility needs, and unequal participation in the transport sector. It includes targets for the participation of women in the transport sector. By 2024, the plan aims to have at least 5% more women in positions at the director-general level and in areas where women make up less than 30% of the workforce. Figure 3.9 shows the specific action lines per strategic axis of the Gender and Mobility Strategic Plan.

Figure 3.9. Mexico City gender and mobility priorities



Source: Mexico City Government (2019[50]), *Plan estratégico de género y movilidad 2019*, https://semovi.cdmx.gob.mx/storage/app/media/estrategia-de-genero-140319.pdf.

Boosting inclusive urban economic development

Although cities are the engine of economic growth, their productivity levels remain low

Colombian cities are large contributors to national economic growth (DNP, 2014[4]). Cities like Barranquilla, Bogotá, D.C., Bucaramanga, Cali, Cartagena and Medellín concentrate a larger share of human capital, manufacturing installations and services activities. For example, according to the MVCT, 70% of the qualified workforce is in Bogotá, D.C., Cali and Medellín, but 50% of the urban economy is informal. The Metropolitan Region of Bogotá-Cundinamarca alone produces 32.1% of the national GDP in 2020.[20] This is a similar level observed in France where the Île-de-France Region accounted for 31.2% of the national GDP in 2018 (Choose Paris Region, L'Institut Paris Region, Paris Île-de-France Regional Chamber of Commerce and Industry, 2021[51]). However, the OECD has found that the growth potential of the Colombian economy has declined over the last decade due to weak productivity and differences in productivity across regions (OECD, 2019[52]).

Colombian urban economy has been affected by concentration on few sectors of low sophistication and added value, skills shortages, high levels of informality, poor infrastructure and corruption. The six largest cities in the country lack specialisation, register low levels of productivity and have a low absorption capacity. Moreover, Colombia's innovation system is still small and lacks a strong business core which hinders productivity in cities and the development of new economic activities (OECD, 2014[53]). Investment in research and development (R&D) grew 111.9% between 2010 and 2019; in 2010, it represented 0.48% of GDP while in 2019 it amounted to 0.74% (Consejo Privado de Competitividad, 2021[54]). Across OECD countries, investment in R&D represented 2.5% of GDP in 2019.[21] As suggested above, the digital gap among regions and cities as well as among individuals hampers productivity levels. The Colombian authorities are working on policy measures to help address current shortcomings in this domain and further develop the Internet economy and increase productivity and competitiveness. For example, the national government's Vive Digital strategy is a comprehensive set of proactive digital policies that address the four main pillars of the Internet economy (infrastructure, services, applications and users) and information and communication technology (ICT) supply and demand.

The service sector represents nearly 60% of the national GDP and 70% of the total workforce in Colombia (Olaberría, 2017[55]). However, its potential to boost cities' economies, in particular in the context of the COVID-19 pandemic, is being undermined by high informality and poor education and training policies that prevent workers from adopting new skills rapidly. Informality is both the cause and the consequence of low productivity. According to government data, 70% of informal workers work in informal enterprises; the rest are independent workers or employees without fixed remuneration. Labour informality reduces job quality, labour protection and income. According to OECD calculations, informal workers in Colombia suffer from an hourly wage penalty of 49% after controlling for worker and job characteristics (OECD, 2019[52]). The national government has made several efforts to reduce informality, such as the 2012 tax reform, which reduced non-wage costs by 13.5%, helping to create more formal jobs but informality remains high.

Moreover, despite progress over the last decade, the transport and logistics infrastructure, which underpins trade and mobility of the labour force, remains less developed than in OECD and other Latin American countries (Olaberría, 2017[55]; DNP, 2014[4]; OECD, 2016[6]). Colombian cities need to invest in infrastructure in sectors such as transport, health, education and housing to move up in the value chain, make economic growth more sustainable and reduce inequality. Poor transport infrastructure, for example, is leading to high costs of domestic transportation costs and even contributes to more inequality across regions and cities as those far from main transport facilities cannot compete in national and international trade. Moreover, transport infrastructure (roads, railways, ports, and airports) is of much lower quality than in OECD countries (Olaberría, 2017[55]).

Another factor that hinders productivity in Colombian cities in the low skill level of the labour force (see Chapter 1). Companies face difficulties in finding skilled workers, particularly in the industrial sector.

Colombia requires reforms to improve education quality at all levels. In particular, improving technical education is necessary to help companies fill shortages of technically skilled workers.

In 2014, the Mission of the System of Cities (*Misión del Sistema de Ciudades*) provided a clear diagnostic on the low productivity levels registered in the System of Cities. It identified low productivity as one of the major challenges of the national economy that needs to be addressed to maintain and improve growth levels. As Chapter 1 shows, most of those challenges are still present and the recommendations formulated in 2014 are therefore still valid and should be strengthened (Box 3.12). To complement those recommendations, this review proposes two additional points: improving the practice of public investment for infrastructure to make the most of available resources; and fostering local innovation.

Box 3.12. The Mission of the System of Cities' recommendations to improve productivity

Productivity levels vary across cities according to the size of their labour market, human capital, formal employment and high productivity clusters. The mission concluded that to improve productivity in cities, it is necessary to understand and eliminate the barriers to making the most of agglomeration economies in Colombia. Urban policies could be seminal in this regard as long commuting, affordable housing shortages, low physical and digital connectivity and fragmented spatial and land use planning are part of the problem.

To increase productivity and empower agglomeration economies, the Mission of the System of Cities proposed: i) developing competitively agendas (strategies) based on local restrictions that hinder productivity such as transport infrastructure, high logistics costs, formal business and employment, workforce skills, etc.; ii) formulating "Doing Business Subnational" for urban agglomeration to assess the barriers that limit making business; and iii) the formulation of *Contratos Plan* for urban agglomerations to build a shared vision of the territory and make the most of regional assets.

The Mission of the System of Cities also recommended increasing the level of industrial clustering by: i) identifying productive activities on high productivity activities; ii) territorialising national strategies for productive development; iii) installing regional development agencies; and iii) promoting the regional appropriation of national development policies.

To improve labour mobility, the Mission of the System of Cities proposed: i) implementing specific training programmes in priority sectors for every agglomeration or region under a long-term approach; ii) promoting labour mobility through the flexibilisation of interregional labour mobility; and iii) producing and publishing employment information across the System of Cities.

Source: DNP (2014[4]), *Misión Sistema de Ciudades: una política nacional para el sistema de ciudades colombiano con visión a largo plazo*, https://osc.dnp.gov.co/administrator/components/com_publicaciones/uploads/Misin_Sistema_de_Ciudades.pdf (accessed on 4 August 2021).

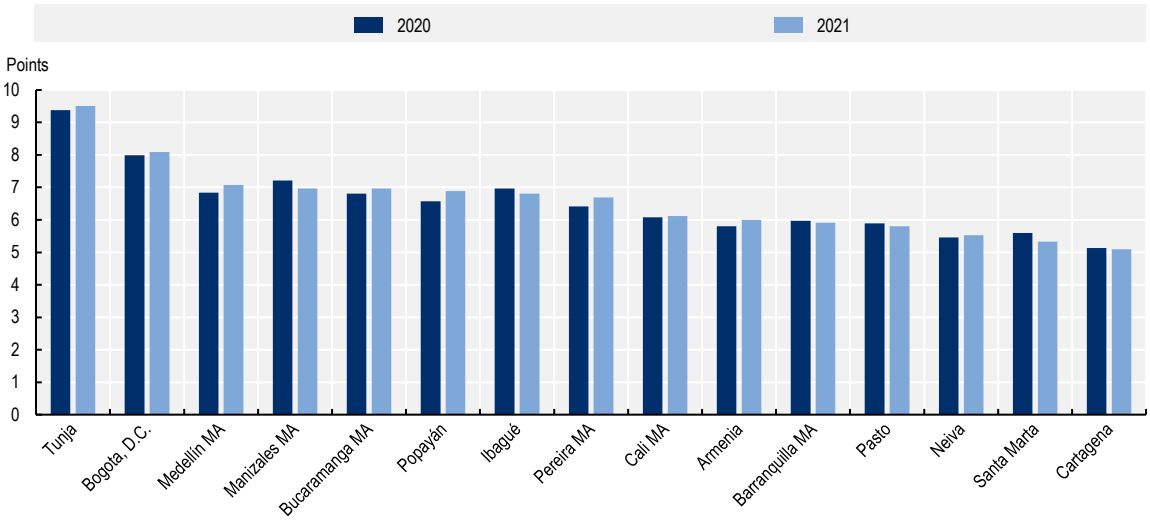
This translates into lower GDP levels or the economic output of cities in comparison to the number of people. Low productivity suggests Colombian cities are not utilising their skills and competencies to their maximum potential. To address this situation, apart from improving land use planning and public transport and accessibility as stated above, Colombia needs to act on three other fronts: digitalisation, innovation and better investments while ensuring inclusiveness.

Leveraging digitalisation to foster inclusive urban development

Colombian cities need to ensure affordable Internet services to bridge the digital divide

Colombia has taken important steps towards digital transformation (OECD, 2019[56]). The number of people accessing the Internet in the country rises every year. At the end of March 2021, 8.05 million people had Internet access at home, compared to 6.08 million in March 2019 (MinTIC, 2021[57]). Figure 3.10 shows that in cities and metropolitan areas the adoption of ICT has been growing in general over the last two years. However, Colombia faces a double digital divide. First, while city dwellers have greater opportunities to access Internet, connectivity in rural areas still face challenges. Colombia's difficult geography (huge mountains, rainforest and marshland), the fact that the country is sparsely populated in many areas and the lack of political interests in rural areas make it difficult to build infrastructure. As Figure 3.11 shows, people enjoy significantly different access to high-quality Internet, particularly broadband connections across Colombia. Compared to other OECD countries, Colombia has the lowest levels of coverage with only 17% of households having access to fibre optic connections in the capital region and less than 1% of households in the region of Vichada (OECD, 2020[58]). And second, Internet access in cities is not equitable as digital services are not affordable enough for the vast majority of the population. For example, in Bogotá, D.C., a 30 Mbit landline connection costs about USD 30 per month but, in small towns, the same amount only pays for 2 Mbit.[22]

Figure 3.10. Adoption of ICTs in Colombian cities, 2020 and 2021

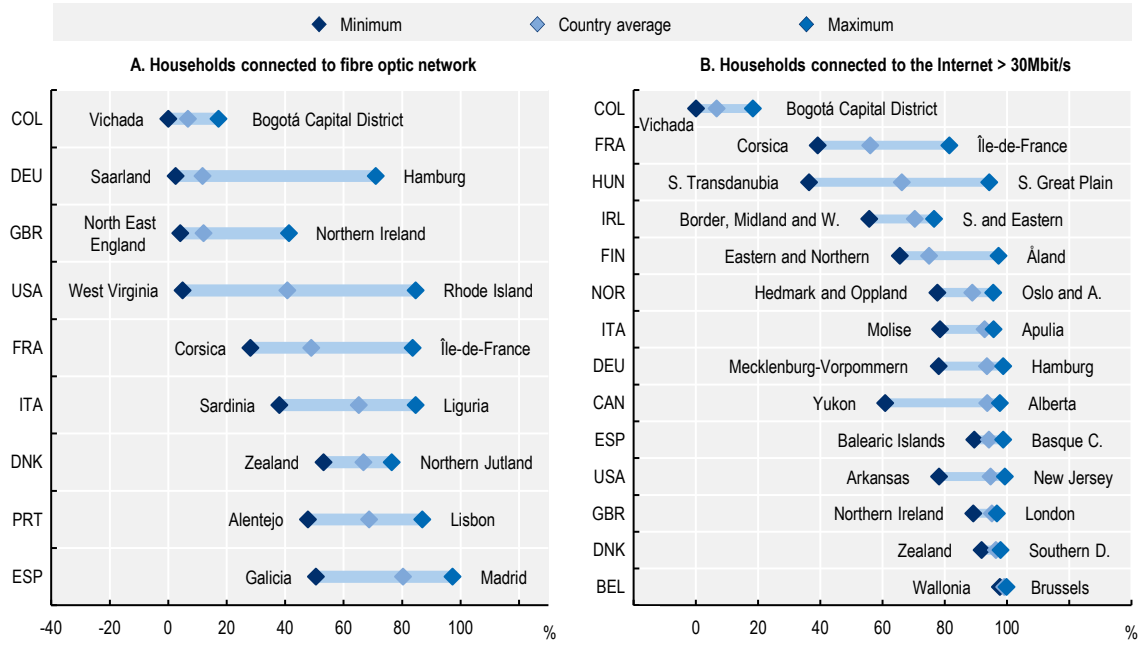


Note: The figure shows the variation in the ranking regarding the adoption of ICTs between 2020 and 2021.
MA: Metropolitan area.
Source: Consejo Privado de Competitividad/Universidad del Rosario (2021[59]), *Índice de Competitividad de Ciudades 2021*, https://compite.com.co/wp-content/uploads/2021/10/ICC_2021_Final.pdf (accessed on 15 October 2021).

For Colombia, as for any other country, the adoption of digital technologies and the spread of the Internet have been key in sustaining continuity in some economic sectors during the COVID-19 pandemic lockdowns. Examples include commercial transactions, financial services, communication services and education services. However, the digital divide is of great concern in Colombia and Latin America in general as it can further enhance inequalities. Only workers, students and residents with proper infrastructure, the means to pay for it and the right skills to use it are benefitting from the advantages of technology. During the COVID-19 crisis, digital technologies allowed part of the population to telework or study remotely. However, few in Colombia have the infrastructure, notably high-speed broadband Internet, and the skills

to benefit fully from these technologies (OECD, 2019[56]). Such differences are deepening inequalities between regions and cities (OECD, 2019[56]). Colombia has a combination of high inequalities and a poor capacity to generate and incorporate technologies into its productive structure (OECD et al., 2020[60]). This certainly has a negative effect on cities' productivity levels and the creation of high-quality, high-wage jobs.

Figure 3.11. Differences across regions in access to high-quality Internet in 2020, large regions (TL2)



Note: TL2 regions represent the first administrative tier of subnational government, for example, the Department of Cundinamarca in Colombia.
Source: OECD (2020[58]), *OECD Regions and Cities at a Glance 2020*, https://dx.doi.org/10.1787/26173212.

The government's Last Mile Plan aims to connect 500 000 low-income households to the Internet. The programme provides a subsidy for Internet connection that varies depending on the households' income level. This goal represents 150% of what has been achieved in the last eight years regarding Internet connections. According to the Ministry of Information and Communications Technology (MinTIC), 98% of households in the high-income group have access to the Internet, while only 50% of medium- and low-income households (86% of the population) are receiving the service.[23] Until 2020, over 260 000 low-income households in 184 municipalities were connected as part of the Last Mile Plan. The national government also plans to finance infrastructure deployment in municipalities without market development which could help bridge the gap between urban and rural areas.

The national government is also promoting access to digital services through the Digital Zones initiative. It plans to install 2 390 digital zones in rural and urban areas, so that low- and medium-income households have free access to the Internet through smartphones or portable computers, 7 days a week, 24 hours a day for rural communities and 1 hour for urban areas.[24]

A national smart city framework is needed

While the digital transformation is still at an early stage in Colombia, it can still underpin efforts to build more competitive, sustainable and inclusive cities in the aftermath of the COVID-19 crisis. For this purpose, Colombia may wish to develop a national framework for smart cities supported by the work of the Ministry of Information and Communication Technologies (MinTIC) on the "general guidelines for the adoption and

implementation of smart cities and territories strategies in the framework of the Digital Government Policy" (MinTIC, 2022[61]) that are currently under discussion.[25]

The experience of OECD countries suggests that although cities and private sector stakeholders play an important role in building smart cities, the national government should play an enabling role to support innovative solution delivery, capacity building and upscaling and this can be done through a national smart city framework (OECD, 2020[62]). The aim is to leverage the potential of digital technologies to boost innovation for residents' well-being and enhance inclusive growth. It could also enable cities to deliver more efficient and affordable services such as smart parking systems and smart contracts (OECD, 2020[45]). The experience of OECD and G20 countries suggests that a smart city policy framework could provide Colombia with the opportunity to examine to what extent new (digital) technologies can improve, and are improving, the efficiency, sustainability and quality of public services and infrastructure projects (ITF/OECD, 2020[63]). It can also help the national and subnational governments use data to provide more citizen-focused services and stimulate innovation. OECD research suggests that smart city policies need to be designed, implemented and monitored as a tool to improve well-being and bridge social inclusion challenges (OECD, 2020[62]). In Latin America, for example, Argentina and Brazil are developing smart city strategies to foster inclusion and sustainability in urban development (Box 3.13).

Box 3.13. National Smart City Strategies in Argentina and Brazil

Argentina is working on the development of its National Smart Cities Strategy. It will set the goals and objectives on smart cities to contribute to addressing, through the use of ICT, the main socio-economic challenges of the country. The strategy is expected to make an explicit reference to equity and inclusiveness objectives to improve public services for the whole community, access to information for all, reduce the digital gap in the society and create an optimal environment for individual and business development. Gender equality will also have a predominant role, given that it is a top priority for Argentina's national government. The strategy will be led by the Under-Secretariat of Open Government and Digital Nation within the Chief of Cabinet's Office. However, the Ministries of Transport and Mobility, Environment, Education, Security and Health, among others are also co-participants in the design and implementation of the strategy.

In 2019, **Brazil** launched the National Programme on Strategies for Sustainable Smart Cities that sets goals and indicators to transform Brazilian cities into smart cities. It involves the use of (digital) technological infrastructure, innovation and communication to promote welfare. The programme began with the creation of the National Chamber of Smart Cities integrated by the Ministries of Science and Technology, and Regional Development among others. This is a long-term programme that aims to bridge digital gaps and make cities more efficient and productive. The programme is part of the national government's Digital Transformation Strategy that guides governments' actions to enable the digital transformation of the economy's productive sectors.

Source: For Argentina: ITF/OECD (2020[63]), *Leveraging Digital Technology and Data for Human-centric Smart Cities: The Case of Smart Mobility*, https://www.itf-oecd.org/sites/default/files/docs/data-human-centric-cities-mobility-g20.pdf (accessed on 29 July 2020); Government of Argentina (2019[64]), *Estrategia Argentina de Ciudades Inteligentes*, https://www.argentina.gob.ar/sites/default/files/estrategia_argentina_de_ciudades_inteligentes.pdf; for Brazil: Agência Brasil (2019[65]), "Brazil launches initiative on sustainable smart cities", https://agenciabrasil.ebc.com.br/en/geral/noticia/2019-07/brazil-launches-initiative-sustainable-smart-cities; MCTIC (2018[66]), *Brazilian Digital Transformation Strategy, E-Digital*, http://otd.cpqd.com.br/otd/wp-content/uploads/2018/11/180629-E-Digital-English.pdf.

The experience of OECD countries suggests that implicitly or explicitly, national smart city frameworks are expected to enhance equity and inclusiveness objectives. Smart city plans pursue goals that have a direct

impact on citizens' lives such as safety, environmental care, welfare and accessibility. For example, the smart city strategies of Canada and Italy aim at meeting all citizens' needs while encouraging innovation in cities (Box 3.14).

A national smart city framework could also guide the adoption of smart city initiatives at the local level. The framework should include a vision for cities and a plan to maximise their potential through the use of technologies. The framework may also incorporate a diagnostic on the challenges and opportunities of cities and how government action could promote investment and growth. The national smart city framework should target cities of all sizes rather than just capital cities or the larger metropolitan areas. However, in a first phase, a group of cities could be chosen to test the framework, as the adoption of a smart cities approach should be gradual and requires experimentation.

The national smart city framework may be an explicit smart city policy on its own or an implicit objective immersed in a broader NUP. It may also be an input for broader national strategic plans or development programmes. For instance, in the US, the smart cities and communities' effort contributes to the US Digital Economy strategy. In China, the Guidance on Promoting Healthy Smart City Development is a contribution to the National Plan on New Urbanisation 2014-2020.

Box 3.14. Fostering innovation and inclusive development through smart city strategies in selected OECD countries

Canada's Smart Cities Community Support Program supports not-for-profit organisations to provide advisory and capacity-building services directly to communities of all sizes across the country, as they explore and implement smart city approaches that aim to improve the lives of residents and develop specific capacity-building services for Indigenous communities.

In 2019, **Italy** announced a National Digital Growth and Innovation Plan. It includes 20 actions to address digitalisation, technical innovation and ethical and sustainable development. The plan proposes enabling digitalisation of public services and the private sector by launching a single application for all government services called IO. To promote local innovation, the plan seeks to strengthen innovation through digital infrastructure, the right to innovate for start-ups, as well as the development of artificial intelligence (AI) solutions, hubs and ecosystems. To promote inclusive and ethical development, the Italian government plans to create a training hub to solve the digital divide and a lab called Ai Ethical Lab-EI to establish principles for ethical use of AI.

The **US** Smart City effort focuses on projects that make communities of all types and in all regions safer, more secure, liveable and workable for their residents. These projects are expected to simultaneously improve economic growth, generate job opportunities and enhance workforce development for upskilling and reskilling. Explicit goals of the strategy include: expanding job opportunities for economically disadvantaged communities; providing accessibility for disabled residents, including transportation and services innovations; and expanding technology access in regions without broadband connectivity.

Source: ITF/OECD (2020[63]), *Leveraging Digital Technology and Data for Human-centric Smart Cities: The Case of Smart Mobility*, https://www.itf-oecd.org/sites/default/files/docs/data-human-centric-cities-mobility-g20.pdf (accessed on 29 July 2020); for Italy: AcceleratingBiz (2019[67]), "Italy announced plan for country's digital growth by 2025, through digitization of services, supporting innovation, as well as inclusive development", https://acceleratingbiz.com/briefing/italy-announced-plan-for-countrys-digital-growth-by-2025-through-digitization-of-services-supporting-innovation-as-well-as-inclusive-development/; for the US: Smart Cities Council (n.d.[68]), *Smart Cities Policy Task Force*, https://www.smartcitiescouncil.com/ .

A Colombian smart city framework should be based on international experience

If Colombian authorities wish to move ahead in building smart cities, there are at least four critical points to consider.

- First, according to the experience of the UK, what makes a city smart is not technology per se, but rather how technology is used as part of a wider approach aimed at making the city work more effectively (BSI, 2015[69]). The use of technologies per se will not automatically strengthen local economies, foster inclusion or improve the quality of urbanisation. This will be defined by how Colombian cities use technologies.
- Second, digital technologies by themselves will not translate automatically into benefits for everyone. It is therefore critical to measure the performance of smart cities to identify cost-effective solutions to deliver public services, improve government's accountability with regards to citizens and track progress and impact (OECD, 2021[70]).
- Third, Germany's experience shows that cities must not only use (digital) technologies but also design and manage them in a way that allows them to achieve their own particular objectives (German Government, 2019[71]). Digital transformation is not an end in itself, thus Colombian municipalities should use digital technologies to make their development socially compatible, equitable and energy- and resource-efficient. Germany's experience suggests that digital transformation requires cities to be open to new technologies and aware of their broader value to achieve long-term objectives. For that purpose, the national government issued a Smart City Charter to guide the digital transformation in cities (Box 3.15).
- Fourth, building smart cities requires putting people at the centre of the strategy by co-constructing policies with citizens throughout the policy cycle (OECD, 2020[62]). Policy makers at all levels of government must be explicit about applying an inclusion lens to the smart city projects.

Box 3.15. Germany's guidelines for digital transformation in local governments

The German government has issued guidelines to ensure that the digital transformation – the transition to smart cities – is sustainable. The guidelines aim to ensure that digital technologies are used for pursuing goals of sustainable development. According to the German Smart City Charter, the digital transformation requires:

1. **Goals, strategies and structures**
   - Integrating digital transformation into urban development and in the implementation of urban SDGs.
   - Identifying fields of application, examining the impacts of interconnectedness and developing strategies.
   - Adapting organisational structures in municipalities.
2. **Transparency, participation and co-creation**
   - Strengthening transparency and democracy, strengthening evidence-based policies.
   - Ensuring digital participation, integration and inclusion.
   - Promoting co-creation to design and deploy digital technologies as target-oriented as possible.
3. **Infrastructures, data and services**
   - Creating and securing access to digital infrastructures such as high-performing broadband Internet.

- Generating data responsibly while maintaining data integrity. Access to relevant and timely data is key.
- Ensuring the long-term viability of networked infrastructures and local services for what technologies are reversible and backward compatible (i.e. with older devices) is paramount.

4. **Resources, skills and co-operation**
   - Providing the necessary human and financial resources to local administrations and municipal corporations as well as legal regulations.
   - Developing digital skills and promoting lifelong learning through appropriate educational opportunities as well as intergenerational and interdisciplinary learning.
   - Expanding co-operation with business and research, creating innovative spaces and strengthening local knowledge and value creation.

Source: German Government (2019[71]), *Smart Cities: Urban Development in the Digital Age*, https://www.bmi.bund.de/EN/topics/building-housing/city-housing/national-urban-development/smart-cities-en/smart-cities-en-artikel.html.

A key lesson from OECD countries is that if smart city policies or strategies are to promote equality and inclusiveness, cities should not be treated in a homogeneous way. Moreover, ensuring that people of all ages and backgrounds develop digital skills and literacy to be able to access and profit from technological developments is a key step in promoting inclusiveness through smart city policies. Initiatives such as *Ciudadanía Digital*[26] (Digital Citizenship), which seeks to develop and certify citizens' digital skills free of charge, should continue as they can contribute to bridge the digital skill gap and contribute to enhancing cities' labour markets. A case in point for Colombia is the city of Bilbao in Spain, which seeks to reinvent itself as an inclusive city taking advantage of the opportunities brought about by digitalisation (Box 3.16). Bilbao's experience shows that a smart city is not just about the use of new (digital) technology but rather how this technology is used and for what purpose, which in this case was to reduce and prevent social exclusion of vulnerable social groups. To increase the probabilities of success of a smart city transition, national and subnational governments need to give priority to a policy of values, solidarity and human growth.

As Colombian cities work to leverage the use of new (digital) technologies for service delivery, it is critical they also start using technology to foster their innovation potential to boost productivity and inclusive and sustainable growth. Digital technologies can certainly be used to empower the competitiveness of local enterprises but city governments could use them to innovate themselves. Innovation can come in different forms, for example through new approaches to service delivery, the implementation of local development plans and programmes, streamlining services, managing capacity of the local public administration (human, financial and technological), data gathering for decision making and engaging with citizens.

Box 3.16. Developing digital skills of groups at risk of exclusion in Bilbao, Spain

Currently, the city of Bilbao is striving to revamp its economic competitiveness, attracting a talented young population and improving the quality of life in the city. One key problem is that some neighbourhoods present deficits in social cohesion that may lead to urban and social polarisation if not properly managed. For that purpose, Bilbao city council promotes an inclusive growth model that encourages innovation, creativity and talent development, shifting from being an industry-focused to a knowledge-based city. Authorities seek to improve the capacities and digital resources of the society, particularly for groups at risk of exclusion such as the elderly, women and people with disabilities. In Bilbao, 79.8% of the population over 15 years old were Internet users in 2019, which represents a 2.7%

increase from 2018; however, there is still a digital gap of 6.7 percentage points between men (83.4%) and women (76.7%). Digital literacy, i.e. the skills to understand and benefit from the new technologies, is particularly lacking among the elderly and women. This could exacerbate poverty and social exclusion, preventing people from seizing the advantages of digitalisation.

Initiatives to support lifelong learning and the acquisition of new skills for adults are central in Bilbao's efforts to increase the digital outreach. The Basque Country regional government, with the support of the city of Bilbao, has implemented some initiatives to foster lifelong learning. For example, the Basque employment service Lanbide and the digital portal for lifelong learning Hiru offer access to training courses and publish different educational materials. It has also developed a digital network of centres for the continuous improvement of citizens' digital skills. The KZGunea centres offer an extensive catalogue of free courses and services related to the use of new ICT such as the NagusiWeb, which is a programme focused on training the elderly. Moreover, as part of the recovery plan from the COVID-19 pandemic, Bilbao's government offers digital training services, innovation and competitive improvement for commerce, micro enterprises, small- and medium-sized enterprises (SMEs) and self-employed people.

Through these initiatives, regional and local authorities expect to:

- Prevent the elderly from being excluded of the benefits of the digital society and help them access services that contribute to their well-being such as healthcare.
- Promote the use of ICT and smart solutions among residents as well as in the planning and management of public services.
- Encourage entrepreneurship and strengthen SMEs to create jobs and retain talent.

Source: Observatorio Bilbao (2020[72]), *Bilbao 2020 Anuario Socioeconómico*, https://www.bilbao.eus/cs/Satellite?c=Page&cid=1272993174224&language=es&pageid=1272993174224.

Enhancing cities' innovation capacity

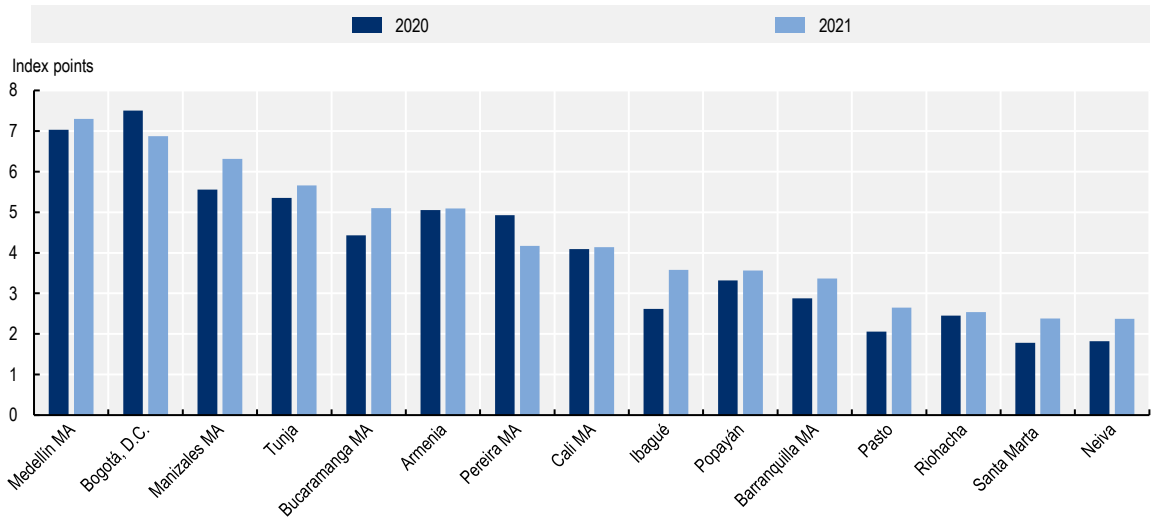
Promote productivity through a broad-based approach to innovation in cities

Colombia has a strong imperative in improving productivity and reducing inequality in cities. Innovation can help Colombia in these tasks. COVID-19 opens a window of opportunity for improving innovation capacity through the recovery strategy. In Colombia, innovation is concentrated in the larger metropolitan areas with more resources to invest in innovation, Bogotá, D.C. and Medellín for example (Figure 3.12). Those cities can attract top talent from other cities as well as financial resources for innovation. Small- and medium-sized cities, which account for the majority of cities, face generally more barriers to innovation due to insufficient capacity and capability. They face difficulties in attracting skilled human capital, new technologies and technological expertise, and financial resources. They also have connectivity constraints and weak absorptive capacities of individuals and firms located in their territory (Planes-Satorra and Paunov, 2017[73]). These disparities in innovation across cities affect well-being and have a negative impact on the economy of the cities and Colombia's general economic performance. These differences are contributing to increasing the gap in productivity performance between the larger cities (metropolitan region and areas) and lagging regions, which are more rural or small urban centres isolated due to geographical conditions, and the lack of communication infrastructure.

In Colombia, like in many other OECD countries, spatial segregation represents an additional challenge for social inclusion and innovation. The concentration of lower incomes, lower skills and education levels combined with the stigmatisation of the place of residence (i.e. informal settlements or districts with high

levels of insecurity, see Box 3.21), makes it more difficult for residents in those areas to access good quality jobs, benefit from the digital area and move up the labour market ladder.

Figure 3.12. Ranking of innovation in Colombian cities, 2020 and 2021



Note: The maximum rate is 10 points. MA: Metropolitan area.
Source: Consejo Privado de Competitividad/Universidad del Rosario (2021[59]), *Índice de Competitividad de Ciudades 2021*, https://compite.com.co/wp-content/uploads/2021/10/ICC_2021_Final.pdf (accessed on 15 October 2021).

Promoting a strategic approach to innovation

In Colombia, like cities across the world, cities are reinventing themselves and their systems to adapt and respond to their evolving contexts, now even more due to the effects of the COVID-19 pandemic. Colombian municipalities need to develop policies, programmes and services to address changes in demographic, cultural, social, economic and environmental needs. They need to promote experimentation and flexibility taking into account the social needs of citizens.

A key step in this direction would be for Colombian cities to formulate a formal innovation strategy with a clear political message on the importance of innovation and how it will be promoted. OECD research has found that "[a] dedicated strategy encourages cities to stimulate their long-term capacity to innovate by publicly stating those goals so that the city can be held accountable to achieving them" (OECD, 2019, p. 11[74]). A formal innovation strategy is a key document that highlights the city's priorities and objectives on pursuing innovation and the way to achieve them. It also provides a long-term approach or vision to innovation. In many cases, the strategy is the product of collaboration among city administration, community leaders, academia, private sector representatives and residents. Its main advantage would be to encourage and justify cities' efforts to stimulate their long-term capacity to innovate in a strategic manner. Box 3.17 presents some examples of cities that have adopted a formal innovation strategy and that could be of inspiration to Colombian cities.

Box 3.17. Cities innovation strategy, the cases of Kansas and Stockholm

- **Kansas City**, KS (US) convened leaders from agencies and departments across the administration, resident and neighbourhood associations, and civic leaders to develop an innovation strategy resulting from an evaluation of where the city was falling short with service delivery. Kansas City's innovation strategy focuses on operational efficiency, customer experience and citizen engagement.
- **Stockholm's** (Sweden) innovation strategy (adopted by the Stockholm City Council in November 2015) provides an inward-looking perspective where innovation plays an important role in the improvement of city operations. It also provides an external perspective as it gives weight to the need to contribute to the overall development of the Stockholm region's innovation capacity and work.

Source: OECD (2019[74]), *Enhancing Innovation Capacity in City Government*, https://dx.doi.org/10.1787/f10c96e5-en.

Other actions that Colombian cities could consider to promote innovation to foster inclusiveness and productivity are the following:

- **Adopt a broad-based approach to unlock regions' and cities' innovation potential**. OECD research suggests that a broad-based approach to innovation that acknowledges that different places have different needs to fully unlock their potential can help to boost the innovation capacity of regions and cities (OECD, 2020[75]). To this end, policies and strategies to promote innovation need to consider and adapt to local assets engaging local actors as they create, share and distribute knowledge. To ensure continued improvement, the regional innovation system needs to be suitably adaptive. Colombia could also promote knowledge sharing networks to disseminate practices that worked in other places, the aim is to make evaluation and learning part of the innovation system. For example, Colombia's national urban forum, which has been seminal to share good practices and experience, could have regional meetings where stakeholders from different sectors could gather to discuss more in-depth regional challenges and possible solutions. The Observatory of the System of Cities should have an active role in these discussions. Moreover, mapping and foresight exercises can help learn about the strengths and weaknesses of the regional innovation system. Moreover, cities and regions in Colombia could establish links or mechanisms by which actors from different domains can engage regularly, build trust and a common vision of the area where they live and work.
- **Strengthen the role of digital technologies to promote innovation in cities**. To foster innovation capacity, cities need to invest in access to technological developments. Cities could make use of new technologies to allocate resources more effectively, improve infrastructure resilience and incentivise the development of a knowledge-based economy. Cities could also invest in new data storage and analytic infrastructure, develop big data strategies and launch open data platforms (OECD, 2019[74]). The Internet and ICT could certainly support local business innovation by increasing efficiency and serving as a platform for innovation that leads to productivity growth. To that end, cities could adopt policies and programmes to expand the use of the Internet and digital technologies by micro enterprises and SMEs, and their skills, to increase their efficiency and innovation potential.
- **Reinforce and give continuity to the initiatives to develop ICT skills**. Colombia's programmes such as *Ciudadanía Digital* could be broadened to focus on the skill spectrum (on-the-job training, vocational training and higher education) as they are indispensable for the creation of new jobs,

injecting dynamism to the labour market, and providing the needed trained workforce to companies. Local universities, research centres and enterprises should be part of these efforts.

- **Provide financial support to projects that use science, technology and innovative solutions to tackle local challenges** (Planes-Satorra and Paunov, 2017[73]). For example, Chile's Prototype for Social Innovation programme (CORFO) provides financial support to local social innovations that lead to the development of new and better social practices. Innovative solutions must address a specific social challenge, have the potential of having a high social impact and be potentially replicable.[27] Colombia could expand its Ideas for Change (*Ideas para el Cambio*) programme to promote innovation in cities. The programme currently allows vulnerable communities to identify specific needs and challenges with the support of researchers, academics and firms and proposes specific solutions to address those problems. The national government provides grants to implement the chosen solution.[28] This programme could be expanded to support start-ups and SMEs in small- and medium-sized cities that provide solutions to local needs in a sustainable manner and contribute to the local economy.
- **Support the development of tailored-made plans to support research and innovation in (lagging) cities**. One example for Colombia is the US Experimental Program to Stimulate Competitive Research (EPSCOR). It aims to ensure that all states are capable of participating in research. The programme started in 1979 and, since then, it has been working to reinforce national research capabilities, promoting an equitable distribution of research funding, and integrating its efforts with other similar initiatives.[29]

Fostering productivity through better public investment

Colombia requires a more strategic and regional approach to investment

Earlier OECD work concluded that if Colombia is to improve productivity, cities and national government need to engage in more and better public investment to respond to huge infrastructure gaps and territorial disparities (OECD, 2016[6]; Olaberría, 2017[55]). This requires articulating different investment priorities into coherent territorial strategies. Instead of focusing on individual investment projects, Colombia should move to a more strategic and regional approach to investment, through articulated programmes. According to the Cities Competitive Index 2021 of Colombia, infrastructure gaps (e.g. drinking water installations, sanitation, transport) pose major obstacles for cities to improve their competitiveness levels. From a maximum of ten points, the cities of Bogotá, D.C. and Medellín metropolitan area are the best performers but do not even reach seven points, and many others have scored lower points in 2021 than in the previous year (Figure 3.13). The OECD already noted that for Colombia to sustain public investment to improve infrastructure investment and in turn productivity, it needs to reinforce its governance framework: better horizontal co-ordination and sound sources of revenue to finance investment (OECD, 2016[6]). Box 3.18 summarises the main recommendations formulated to Colombia, which are still valid today, on how to improve public investment. They highlight the need for greater links between planning and budgeting, incentives to support horizontal co-operation across jurisdictions, in particular to strengthen functional urban areas, which are relatively small in Colombia.

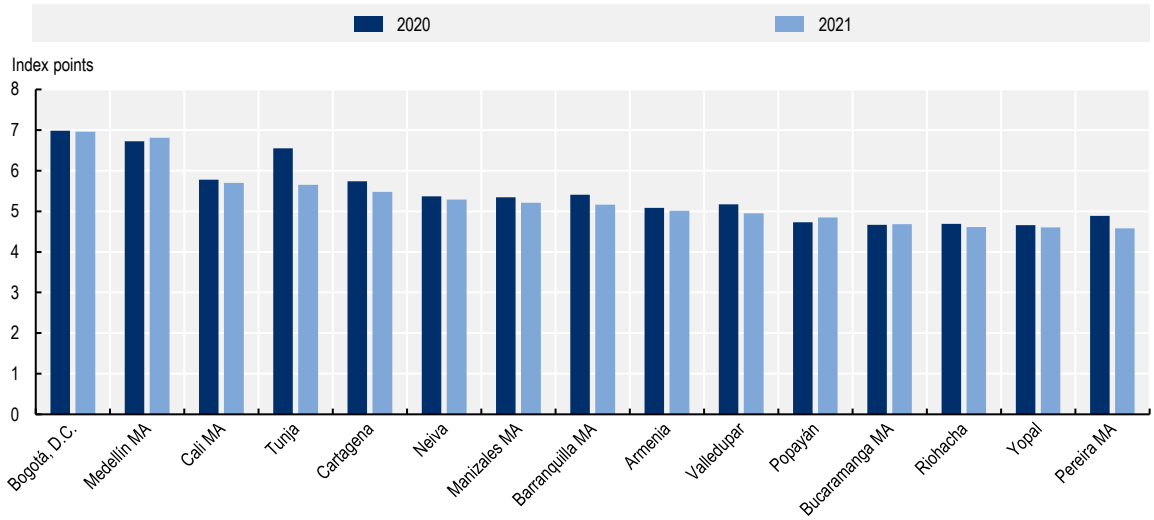
Box 3.18. Making the most of public investment in Colombia

The 2016 OECD study on public investment in Colombia provided a diagnosis of the strengths and challenges of the Colombian investment system and provided recommendations on how this can be further improved. Some of the main recommendations of the study are:

- **Enhancing subnational revenues to finance investment**: This requires more flexibility in the transfer system to re-allocate unspent funds, enhance the capacity of subnational governments (departments and municipalities) to raise own-source revenues, expand the use of borrowing by subnational governments and reinforce equalisation mechanisms.
- **Achieve more strategic investment prioritisation and co-ordination**: To this end, Colombia requires: using local development plans as strategic planning tools and linking them to budgeting and implementation; supporting subnational governments in the preparation of integrated investment programmes and projects; and providing financial incentives to support horizontal associations across municipalities and departments.
- **Strengthen subnational capacities for effective public investment**: For this purpose, Colombia should: reinforce the capabilities of public officials involved in public investment; support asymmetric decentralisation; put more emphasis on the design and selection of projects; adopt a systemic approach to capacity building for public investment; and improve data management.

Source: OECD (2016[6]), *Making the Most of Public Investment in Colombia: Working Effectively across Levels of Government*, https://dx.doi.org/10.1787/9789264265288-en.

Figure 3.13. Infrastructure gaps in Colombian cities, 2020 and 2021



Note: The maximum number of points is 10. MA: Metropolitan area.
Source: Consejo Privado de Competitividad/Universidad del Rosario (2021[59]), *Índice de Competitividad de Ciudades 2021*, https://compite.com.co/wp-content/uploads/2021/10/ICC_2021_Final.pdf (accessed on 15 October 2021).

Addressing urban inequality

Colombia is one of the most unequal countries in Latin America.[30] Years of civil unrest, violence and insecurity have also affected quality of life and economic activity. The COVID-19 crisis exposed and exacerbated inequality across people and places in particular large cities where the most vulnerable groups such as migrants, the poor, women and the elderly were and are still being hit hard (OECD, 2020[45]). One example of this inequality is the proliferation of illegal or informal settlements due to the lack of land for affordable housing and the difficulties of benefitting from housing programmes when workers lack stable jobs. Reducing inequality in cities has been a top priority for Colombian national and subnational authorities. Over the last two decades, Colombia had made progress in bridging the inequality gap (see Chapter 1). The Mission of the System of Cities had made specific recommendations to improve quality of life such as: strengthening and differentiating social policies according to the demographic characteristics of cities; reinforcing cities' capacity to intervene in infrastructure projects (i.e. roads and public services) and social housing; and identifying cities amenities (i.e. cultural assets, parks, libraries) to contribute to well-being (DNP, 2014[4]). Those recommendations should continue to be taken into account in the formulation of a new national urban policy. However, more needs to be done to ensure an equitable urban society. Colombia needs to lay the foundations for a new social contract through urban development. Its urban development model so far has not been able to address the problems of urban poverty and social exclusion that are endemic in many cities across the country. The rise of social discontent and the growing aspirations for better quality public services and greater well-being and quality of life in the context of the COVID-19 pandemic require a new social contract between citizens and the government in Colombia. The pandemic may have furthered deepened social discontent but it also creates an opportunity for consensus building among citizens around the importance of ensuring that all residents exercise their right to the city.[31] This means enhancing a human rights perspective in the planning and management of cities, ensuring equal access to opportunities (services, jobs, goods, etc.). It requires a renewed urban development model that minimises socio-spatial segregation and promotes equity, inclusion, political participation and well-being. COVID-19 may be the triggering force to push through reforms in urban development that would take much longer otherwise.

According to the OECD Principles on Urban Policy, to promote inclusive cities that provide opportunities for all it is necessary to: i) improve access for all urban residents regardless of gender, age, ethnic background, to drivers of social inclusion such as public services, affordable quality housing, transport, education, health, employment, cultural amenities, leisure and safe public spaces; ii) support inclusive growth policies that help cities cope with demographic change and foster social cohesion at all urban scales; and iii) promote urban identity and culture and a quality living environment for all neighbourhoods, in particular those most degraded (OECD, 2019[40]). To put these points into practice, Colombia could consider, in addition to the recommendations of the Mission of the System of Cities, working on improving the public space due to its social value, regularising informal settlements to tackle a tangible example of poverty and exclusion, and improving security that affects living standards and economic development.

Improve the provision and management of public space

The 1991 Constitution indicates that municipalities must give priority to the planning, construction, maintenance and protection of public space over other land uses. According to Decree 1077 of 2015 (MinVivienda, 2015[10]), public space is understood as all spaces of permanent character consisting of green areas, parks, squares, pavements, streets, environmental reserves and sports venues are also public spaces. This lack of clarity complicates the actions that municipal authorities undertake to regulate and control the use of public space. In addition, many municipalities have difficulties enforcing the norms that regulate public space use. They also lack financial resources and, in many cases, political support to provide and improve public spaces as mayors' policy proposals do not refer to the public space.

According to national regulation, every resident must have 15 m^2 of public space, following the recommendation of the World Health Organization (WHO).[32] However, only the cities of Popayán, Santa Marta and Soacha comply with the national standard, while other cities like Barranquilla, Cali, Ibagué and Pereira only provide 4.3 m^2 of public space per capita (DNP, 2017[76]). Cities like Cartagena (8.14 m^2) and Manizales (7.15 m^2) have seen an increase in public space per inhabitant but they are still far from the national standard (Red Cómo Vamos, 2018[77]; 2019[78]). Public space regulation is generic for the entire country, whereas it should be adapted to the particular case of every city, acknowledging the differences between the existing city and newly built areas. The reason for the need for locally differentiated regulation is that the distribution of public space is very heterogeneous. For example, in Manizales, residents in the communes of Cerro de Oro (27%), Tesorito (24%) and Atardeceres (19%) have access to more public space than those of central communes such as Cumanday, La Estación, La Macarena and San José (2%) (Red Cómo Vamos, 2019[78]). Central consolidated areas tend to have less public space than new ones. Without this consideration, it will be very difficult for the government to achieve the WHO standard of 15 m^2 and Colombian experts consider that the maximum public space per person that can be achieved will be 6 m^2.

Public space is used for multiple activities but some of them constitute law infringements, such as informal trade in the streets, parks and public squares. In some cases, there is an unlawful appropriation of public space when, for example, residents begin to close access to public areas such as parks, controlling access to those areas themselves.

The quality of public space also requires improvements in Colombian cities, including in terms of access to green areas. Manizales has the highest number of trees (51.8) per person, whereas Santa Marta has the lowest (6.2). Security in the urban public space also needs to be improved, as most violence takes place there. In Cartagena, for example, 69% of homicides have occurred in the public space (1 844 cases) (Red Cómo Vamos, 2018[77]).

Improving public space in Colombian cities is central to well-being. As the COVID-19 pandemic has shown, public space is the extension of a person's house, mostly for those living in small housing units. To this end, Colombia may wish to consider the following aspects:

- **Clarify the definition of public space in legislation**. It would facilitate the intervention and investment of local authorities. A new definition could include: all open spaces that generally serve the function of recreation and sport (i.e. parks, gardens, corridor links, amenity spaces, civic squares, etc.); public facilities (i.e. libraries, community centres, municipal markets, public sports facilities); and streets (i.e. sidewalks, avenues, boulevards, pavements, bicycle paths, etc.). Legislation could support the creation of multifunctional urban spaces, avoiding streets being used only for motor vehicles.
- **Include qualitative aspects in the norms and policies rather than purely quantitative ones** such as square metres per person. Cities' strategies must improve and manage public space take into account the particularities of every neighbourhood. For example, the street fulfils different functions in different zones of the city: in central areas, it is used for walking, trading, socialising, whereas in other parts it is just a commuting space. Moreover, a city-wide public space strategy has to cater for a diversity of uses and preferences of the same space. For example, in some cities, informal vendors will try to make a living despite their inability to afford commercial rents, while others may oppose such activities for legal, aesthetic or economically competitive reasons. This is another reason why a purely quantitative focus is not enough in a public space strategy. A citywide public space strategy should integrate political, economic, social and cultural elements.
- **Ensure political commitment and adequate financing for public space provision and improvement**. Cities require a political champion to ensure that public space strategies are given the necessary priority. A strong endorsement from political candidates and mayors would be seminal in ensuring action. However, mayors' leadership may not be enough: a public space

champion should come from within the community (either from the private sector or non-governmental organisations) and will be instrumental in lobbying for public space improvement. Political and community support should ensure that any public space strategy is backed by adequate financial resources. Municipalities may require expanding their sources of funding for public space management, for example fees from using the public space for commercial activities, publicity and others. Building partnerships with the private sector would also be a way to obtain additional resources.

- **Ensure there is an economic use of public space**. This would ensure that local authorities have access to sources of financing for providing and maintaining public space, but also giving more order to its use. It would also reassure individuals who want to make use of public space for lucrative activities as it would require a contract with the municipality. In this respect, Bogotá, D.C.'s Handbook on the Economic Use of the Public Space could be an example to be followed by other Colombian cities on how to regulate the use of public space.[33]
- **Connect public space strategies with public transport to make the most of existing infrastructure**. Places must be connected to facilitate the flows of people between them, encourage walking, generate street life and efficiently move goods and services. POTs, partial POTs and mobility plans should consider streets and public transport stations as active and important components of the public space rather than only as parts of the transport system.
- **Engage a broad range of stakeholders in the preparation and implementation of a public space strategy**. Participatory planning is critical for creating ownership and sustainability of a public space strategy over time. The process should involve the whole community and combine expert-based and local knowledge. This could be achieved via workshops, surveys, interviews, focus groups, etc. (see Chapter 5). Restrictions to use public space during the COVID-19 lockdown may have raised awareness among citizens about its importance. The re-evaluation of public space through participatory means and citizen activism would allow influencing local governments so that urban agendas with sustainability approaches have a much faster implementation. It would also help prioritise ideas about "walkability" and accessibility and inclusion, starting with the recovery of pavements and pedestrian paths.[34]

Upgrade informal settlements

Colombia's disorderly urbanisation process, lack of housing at affordable prices, insufficient resources for infrastructure and scarcity of serviced land, have led to a situation in which low-income households settle in inadequate and informal places that lack basic amenities and live in low-quality dwellings in overcrowded conditions. Rapid urban growth has outpaced the ability of Colombian city authorities to provide housing and basic infrastructure in most metropolitan areas. Indeed, access to basic public services and infrastructure for transport is limited. The lack of affordable accessible housing and land for development within consolidated urban areas has led to irregular settlements, generally in high-risk areas, with problems of insecurity. According to the MVCT, more than half of cities' growth in the last three decades has been due to informal settlements, mostly in small- (less than 30 000 inhabitants) and medium-sized (between 100 000 and 30 000 inhabitants) cities. The lack of capacity of local authorities to control irregular settlements as well as the lack of co-ordination among different authorities in charge of economic development, urban planning and land allocation have been part of the problem.

Addressing urban inequality through proper management of the urbanisation process may contribute to reducing poverty levels and boosting economic growth in cities and regions. This requires addressing the factors that have led to the creation of informal or illegal settlements around cities and formalising and improving the living conditions in those that existed already. Research suggests that a key challenge is the lack of policy attention and control of illegal occupation with sufficient resources and administrative co-ordination to prevent future illegal settlements and deal with the existing ones (Cuéllar Melo, 2018[79]). In addition, residents in illegal settlements tend to resist their relocation to legalised areas or the legalisation

of their space where they live, due to the costs this may imply. Being reallocated could mean reduction of subsidies and having to invest in the city via taxes rather than in home improvements and family support. There is also a concern regarding regularising informal settlements as it could be an incentive for their continuous proliferation. However, not regularising informal settlements in locations that do not pose any risk to residents (i.e. settlements located near river banks or areas with unstable terrain) could just perpetuate the problem of inequality. When illegal settlements are in high-risk areas, then local authorities could certainly prioritise reallocation. A phenomenon that occurs in several Colombian cities is that when public services are provided (e.g. water, electricity) even when the homes are informal, this eventually leads to the legalisation of the settlements and property. However, this seems an ad hoc approach and it may take years before legalisation is ensured and a more formal process is required.

Building inclusive cities requires working with three factors: urban, social and economic (Córdoba Hernández and Pérez García-Burgos, 2020[80]). Urban inclusion is achieved by rescuing or recuperating urban spaces for the communities in a situation of vulnerability and exclusion and allowing them access to basic health, environmental education and cultural services. Social inclusion aims at ensuring people in situations of vulnerability and exclusion take part in the life of the community. Economic inclusion is achieved through real and sustainable access and use of economic opportunities allowing residents to improve their human development.[35] In this sense, Colombia could support local governments to territorialise national policies and programmes aimed at bridging the gaps in access to infrastructure, services and community life in deprived urban areas. Colombia should continue with the process of regularising homeownership and providing assistance to vulnerable and low-income households to improve low-quality dwellings according to residents' own needs. Home improvement programmes should provide subsidies to vulnerable households so that they can improve their dwellings rather than being reallocated unless they are in areas of high risk (see Chapter 4). A key aspect would be to engage the community in the use of the local space, ensuring that the urban space is public and owned by people. Those policies and programmes should focus on promoting local identity and a quality living environment. Governments take advantage of the fact that residents in illegal settlements tend to form cohesive communities in most cases. Hence, any policy and programme aimed at the formalisation of informal settlements should not only focus on the construction or improvement of housing but also the neighbourhood (*barrios* or *villas*) through a process known as the social production of habitat (see Chapter 4). It requires that local authorities involve residents in the process of community improvement. Residents should be made aware of their role as stakeholders by incentivising and facilitating their participation in the planning of their communities and being part of the implementation; otherwise, they may resist any intervention programme. Technical and financial assistance could be provided by national, regional or local development agencies. Interventions do not necessarily have to be on a large scale; small interventions could also be considered as part of an urban regeneration strategy.

In this respect, Colombia may draw inspiration from the experience of some OECD countries that are conducting processes of formalisation of informal settlements. For example, the US experience shows that improving housing standards and conducting urban regeneration is essential to work together with local residents and minimise disruption (Box 3.19). The experience of Greece suggests that any formalisation initiative should not be seen as an opportunity to impose unnecessary expenses on informal settlers (Box 3.20). If Colombia decides to impose fees and penalties for legalisation, they should be kept affordable in terms of time and money. Like Greece, Colombia may wish to enact a formalisation law and ensure that it protects the environment, encourages secure tenure and promotes economic growth. Moreover, if Colombia wishes the estate market to contribute to the formalisation process, formalisation procedures should not be overly strict and expensive.

Box 3.19. Urban policy should minimise disruption and treat citizens fairly – The US experience

After World War II, the US had a problem with low-quality housing in cities. To improve substandard housing in urban areas, US authorities adopted the Urban Renewal programme, which involved taking large spaces of land and turning the land over to private sector developers to redevelop. This policy frequently involved removing residents and businesses to clear land with compensation going mainly to landowners, excluding renter households and businesses, with no established right to return.

Related to urban renewal, the US also engaged in the development of large-scale public housing projects for low-income households living in blighted neighbourhoods. Those neighbourhoods were redeveloped with high rises, which were not the best place for households' quality of life.

Similarly, in the 1950s, the US government started investing in the Interstate Highway System, which prioritised moving cars into and out of the central business district. However, this implied dividing or displacing low-income and minority neighbourhoods.

To fix these problems, the US government adopted the Uniform Relocation and Real Property Acquisition Act. This is a federal law that sets minimum standards for federally funded programmes and projects that require the acquisition of real property. It provides protection and assistance for people affected by federally funded projects. People whose real property is acquired, or who move as a result of projects receiving federal funds, are entitled to compensation for and assistance in moving from the property they occupy. Because of this act, when the government undertakes large neighbourhood redevelopment projects to build better housing, residents are supported in their relocation and ensured a right to return to the neighbourhood. In addition, current housing and urban development programmes are conducted with extensive citizen consultation to try to balance interests. Most recently, the Infrastructure Investment and Jobs Act, passed in 2021, includes a programme to reconfigure or even remove interstate highways in cities to reconnect neighbourhoods that were divided in the past.

The policy lesson from the US experience in dealing with substandard housing, urban regeneration and transportation improvements is to minimise disruption for residents by understanding their needs in the scheme of urban redevelopment and supporting them either in the place where they live or with any moves that are absolutely necessary.

Source: Usowski, K. (2021[81]), "Integrated policies for urban development – Land use, housing, transport and environment: Lessons from the US experience for Colombia", Presentation, 30 November 2021, US Department of Housing and Urban Development.

Box 3.20. Formalising illegal settlements in Greece

Greece has a long history of informal or unplanned settlements due to poverty, immigration, lack of affordable housing and inefficient land administration and planning. Poverty and social exclusion in Greece have been exacerbated by the economic crisis of the last decade (2009-18) and more recently the COVID-19 pandemic. Residents living in poverty, unemployed and marginalised groups experience social exclusion. The Roma population of Greece is estimated to be around 104 000 individuals residing in 354 settlements and neighbourhoods, generally suburban areas.

To address the situation of unplanned settlements the country has focused on educating land professionals and raising importance about state rather than market-based development, protecting public land, safeguarding the environment, preserving cultural heritage and taxing private real estate. Civil engineering standards have been updated several times since 1959 because of high-risk

earthquakes. Due to a continuous provision of social services to the poor, there are very few slums, and the majority of informal buildings are safe and strong, built on legally owned land. However, national and local governments have not followed the trend of land privatisation despite the country being a member of the European Union (EU) since 1981. They have not encouraged private investment in land (except for areas covered by a detailed city plan) or developed standards for the protection of private property, especially against the appropriation of the land for public benefit.

Under Greek legislation, any forested land is considered the property of the state and any construction in parcels within forest areas is considered informal. Private small or medium investors suffer from a lack of cadastral, forest and other zoning maps. They often have to research a long series of deeds in the land registry to establish ownership rights before purchasing the land. This is time-consuming and costly for small and medium investors. Squatting on private land is possible. If a squatter uses the land for 10 years believing he/she is the owner, or for 20 years without the owners' objection, then they may claim legal ownership but this is not valid if the owner is the state. Nowadays, in Greece, informal developments in urban and/or rural areas are the result of zoning, planning and building violations, or construction without permits and less from squatting. Most informal development consists of single-family houses in unplanned areas or illegal extensions in urban areas, built on legally owned parcels. Approximately one-fifth of constructions in the country are informal. Many informal neighbourhoods have been provided with basic services such as water piping and road-paving when local authorities implemented environmental improvements.

In Greece, spatial and urban planning is centrally driven, costly and bureaucratic although the relevant legislation is comprehensive but very complex. On average, planning studies take more than 15 years and cost more than EUR 6 000 per hectare. Although construction is allowed in unplanned areas, the building permit process involves more than 25 agencies (among them the forest and the archaeological services) and may take several years to be completed and in many cases requires court decisions.

In 2013, the Greek government issued a new formalisation law "on tackling informal development and environmental balance provisions". This allows the possibility to deduct up to 50% of the costs for energy efficiency and stability improvements from the penalty of violating legislation. However, the total costs for both formalisation penalties and energy or stability improvements are high. Thus, formalisation under this law is unaffordable for low- and middle-income households, taking into consideration that annual property taxes will also be applied following formalisation. In 2013, the law was amended and it now includes measures for environmental recovery.

Source: UNECE (2015[82]), *Formalizing the Informal: Challenges and Opportunities of Informal Settlements in South-East Europe*, https://unece.org/sites/default/files/2020-11/Formalizing_the_Informal_Challenges_and_Opportunities_of_Informal_Settlements; OECD (2020[83]), *Regional Policy for Greece Post-2020*, https://dx.doi.org/10.1787/cedf09a5-en.

A policy or strategy to upgrade informal settlements should include the provision of basic services and affordable infrastructure, improvement of housing conditions and security of land occupancy rights (Freire, 2013[21]). In this sense, Colombia should adopt a policy package to lift the income of informal settlers and policies to improve the supply side of housing and land markets. Policies need to be proactive to avoid the emergence of more informal settlements; for this purpose, Colombian cities need to reinforce urban planning at the local and metropolitan levels to make land available to the poor at affordable prices and ensure the provision of housing, transport services and basic infrastructure at the fringes of cities. Upgrading strategies will have to be place-specific (Freire, 2013[21]).

Upgrading informal settlements will require access to financial resources, which are hard to estimate. Housing policies will require complementing low-income households' purchasing power with a combination of upfront subsidies, microcredits and access to housing finance. The National Development Plan as well as national urban, infrastructure and housing policies should acknowledge the need for ensuring financing

for upgrading informal settlements. They should make provisions for integrating finance for housing construction, infrastructure construction and livelihood improvement. Any strategy to upgrade informal settlements should include an income generation component to enable households to finance their own home improvement and ensure the sustainability of the provision of basic services (González Alcocer et al., 2010[22]). The MVCT should acknowledge that homeownership is not the solution to the problems of all informal settlers: provisions for the development of affordable rental housing, as suggested in Chapter 4, is an important component of financing informal settlements upgrading.

There are different alternatives to intervening in informal settlements but evictions and relocations must only be a last resort once all other alternatives have been explored and evacuation from areas and buildings that pose a threat to people's lives must be given priority. The MVCT has a Neighbourhood Improvement and Settlement Legalisation Programme (*Programa Integral de Barrios y Legalización de Asentamientos*), which legalises human settlements in the urban context of a city without contemplating the property rights in favour of eventual owners. This is a way of controlling incentives for further informal settlements as settlers are not automatically given property rights but at least their living conditions could be improved.[36] Other intervention procedures such as servicing, partial adjustments, onsite redevelopment and SDGs could be applied after careful analysis as not all upgrading interventions are sustainable (Nassar and Elsayed, 2017[84]).

Colombia may wish to reinforce its programmes to rescue degraded neighbourhoods and define a national strategy for urban regeneration focused on both informal settlements and urban degraded areas. This should be part of a nationwide comprehensive housing policy, with low-income housing at its core. Across OECD countries urban regeneration is a way to deal with poverty that characterises distressed neighbourhoods. In particular, tackling the problems of neighbourhoods with distressed social housing is becoming a priority. The different initiatives adopted aim to improve outcomes of households living in the target housing related to employment and income, health and children's education. In several countries, national and local authorities work together with the private sector to regenerate not just housing units but the habitat. France, for example, adopted in 2014 the New National Programme of Urban Regeneration (*Nouveau Programme National de Renouvellement Urbain*, NPNRU), as an effort to correct the issue of social segregation via the demolition of damaged social housing and its reconstruction, regenerating the existing capital stock. The programme has a EUR 12 billion budget, partly funded by the national government (EUR 1.2 billion) social housing agencies (EUR 8.4 billion) and the *Union sociale pour l'habitat* (EUR 2.4 billion). Through the programme, 160 000 social housing units have been demolished, 140 000 have been built and 340 000 (including more than 500 schools) have been rehabilitated, for a total of 600 neighbourhoods and 4 million people involved. The main challenge has been to reduce physical segregation. The programme has reduced poverty in the targeted neighbourhoods by one percentage point but this has been caused by the outflow of displaced poorer households rather than by the inflow of richer households.

In other countries like Argentina, Brazil, Chile and Mexico, national governments promoted the production of social housing which led to the construction of large housing complexes (buildings or single-family houses), physically and socially homogeneous and located in distant peripheries. A few years after being built, they entered a process of acute physical and social deterioration, particularly in Chile and Mexico. In this context, the regeneration of these housing complexes became a challenge for national and local authorities. Urban regeneration programmes are based on the experience of neighbourhood improvement programmes widely popular in Latin America, with the participation of the local community. In the US, the Department of Housing and Urban Development (HUD) implemented the programme Choice Neighborhoods to support with public and private funds locally driven strategies that address struggling neighbourhoods with distressed public or HUD-assisted housing through a comprehensive approach to neighbourhood transformation. The programme helps communities transform neighbourhoods by revitalising severely distressed public and/or assisted housing and catalysing critical improvements in the neighbourhood, including vacant property, housing, businesses, services and schools. The programme

aims to replace distressed public and assisted housing with high-quality mixed-income housing that is responsive to the needs of the community.

Colombia should keep in mind two aspects to make urban regeneration a tool for regularising informal settlements and improving living conditions in downgraded urban areas. First, urban regeneration needs to involve private actors working together with national and local governments but it must not be completely market-oriented; otherwise, there is a risk of gentrification and social exclusion. In the UK, for example, there have been some examples of urban regeneration projects that have been entrusted to the private sector entirely leaving economic interests to prevail over social concerns. The case of the London Docklands project which aimed at improving the conditions of a highly neglected area became the paradigm of a market-led approach to urban regeneration with little regard for the needs of local residents in terms of jobs and affordable housing. The governments of Santiago de Chile in the 1990s and Mexico City in the 2000s launched important initiatives to densify their central areas through new housing construction. This goal was to be achieved by attracting a new population from different levels of income to central areas. The guiding principle in both cases was to leave the re-densification process in the hands of the private real estate sector but there was no urban and town planning vision. The consequence was the detonation of an uncontrolled real estate boom that expelled the poorest households from the central city to the suburbs.

The second point is that not all cities are prepared for engaging in urban regeneration. There is a clear interest of the real estate sector to invest in the existing city and there is still enormous social potential in central areas of cities. However, for many cities in Colombia, as in Latin America in general, governance is a clear limitation. Urban regeneration requires a governance structure characterised by seamless co-ordination among sectoral ministries, collaboration across levels of government, mechanisms of association and partnership among jurisdictions (municipalities) and joint public-private investments. The governance structure is not adequate to promote and guide urban regeneration projects. Cities face critical problems to incentivise private investment in social housing in central areas. There are no experiences of joint public-private investments to look for the common good. For this reason, Colombia may wish to design urban regeneration projects with a parallel top-down and bottom-up dynamic. Projects need to be elaborated together with local dwellers and actors to make the most of investments. Citizens must be actively involved on a permanent basis (e.g. through citizens' committees, neighbourhood associations, etc.) in order to ensure their support for the potential changes.

Include urban safety considerations in urban policy

Colombia has a long record of insecurity, violence and criminality in its cities. This is generally the result of historical conditions, geographic position, economic crisis and increase in inequality among others.[37] As urbanisation continues in Colombia, the sheer population growth in cities may outpace national and local governments' ability to provide basic services that could, in turn, breed the growth of violence and crime and alternative governance structures dominated by organised crime, which will control life in neighbourhoods. Urbanisation patterns have had a negative effect on the urban fabric, leading to the division of cities reflected in large-scale urban violence due to socio-economic exclusion and urban/spatial fragmentation. The case of Medellín's 'Comuna 13' exemplifies clearly how these historical urban growth patterns have led to inequality, poverty, vulnerability, exclusion and certainly violence, but also how a neighbourhood can be transformed into a recreational and touristic area through social intervention (Box 3.21). Providing an adequate level of security for urban areas will be costly and will require a much higher level of interagency information sharing and co-operation. Moreover, the higher concentration of population in cities will increase the impact of man-made and natural disasters.

Box 3.21. Tackling insecurity in Medellín through social urbanism

Medellín is Colombia's second-largest city with approximately 2.5 million inhabitants and the wealthiest in the country. For most of the 20th century, its development model from a small town to an industrial city has been framed by the dominance of private over public interests. For most of the century, business lobbyists enjoyed great influence over planning decision making and public works initiatives including the conversion of rural to urban land, the razing of slums, the development of landmark projects, etc., but no priority was given to the growing need for affordable housing.

The urban development patterns led to the displacement of poor dwellers from central areas to the peripheral hills of the valley disconnected from the rest of the city. The lack of affordable housing and constant evictions from slums led poor people to adopt squatting, pirate developments and land invasions on slopes and geologically unstable lands. That is how Comuna 13 (San Javier) developed in the late 1970s with 5 000 households built within a 5-year period. Nowadays, there are over 139 000 inhabitants in Comuna 13. Due to its location in areas prone to landslides and generally unsuitable for human settlement, the city's master plan prohibits the provision of infrastructure and public services. Moreover, inhabitants were considered as land invaders by the local government. So, spatial practices and ways of inhabiting have largely defined the precarious status of Comuna 13's residents.

In the 1980s, youth gangs arose in peripheral neighbourhoods of Medellín. Anti-gang organisations known as militias appeared to tackle banditry and petty crime, performing judicial, policing and development functions. Drug dealing also proliferated alongside militias and gangs. Different forms of criminality quickly intertwined and, in 1991, the city had on average 19 homicides on average every day and a murder rate of 433 per 100 000 inhabitants making it the most violent city in the world. Recruits for the gangs were enrolled from low-income neighbourhoods such as Comuna 13.

Different policy cycles to tackle crime and violence evolved, from a thin state presence and discretionary interventions (1978-2002) to securitisation and (para) militarisation (2000-03) to social urbanism (2004-11). The latter urban policy round was based on a civic network turned political movement: the Citizen Commitment Movement. The movement sought to reduce locational disadvantages through comprehensive neighbourhood upgrading with the participation of local communities to preside over the allocation of 5% of the municipal budget.

The municipality conducted "integrated urban projects" that included mobility infrastructures such as the metrocable (aerial cable car), schools, library parks, day care centres, risk-mitigation public works, regeneration of public space and local economic development initiatives. These projects had a positive impact on the perception of quality of life and in the frequency of violent events. The projects presented an opportunity for urban reform. However, despite growing commerce around areas served by the metrocable, residents and shop owners are still victims of extortion and weekly or monthly security tax levied by criminal actors. Although Comuna 13 has the highest concentration of armed forces in Colombia, residents still have a perception of insecurity and armed forces face difficulties in enforcing the law. Paramilitary actors have adapted to the expansion of participatory governance in Medellín. They have created their own non-governmental organisations (NGOs), which has allowed them to gain contracts with the state and legalise their social and political influence.

Source: Sotomayor, L. (2017[85]), "Dealing with dangerous spaces: The construction of urban policy in Medellín", https://doi.org/10.1177/0094582X16682758.

In Colombia, the lack of proper urban planning tends to generate a chaotic urban design, which results in a deficient physical environment and poor living conditions fostering violence and insecurity (Universidad Nacional de Colombia, 2016[86]). Urban safety has become a vital issue due to the prevalence of fragmented cities with marginalised areas controlled by non-state actors that monopolise violence and taxation. Those actors dispute the control of the territory amongst themselves and with the state, which escalates violence. Mass migration to cities, including migration of foreigners, is leading to overcrowding and poverty, rapidly overwhelming local governments' ability to provide basic services, which may allow for the proliferation of violence and crime and alternative forms of organisation. The situation is aggravated by robberies, assaults, kidnappings and murders, which in many cases are conducted by juvenile delinquents. The violence levels that Colombian cities are facing highlight the challenges and limitations of governmental institutions to ensure territorial control and law enforcement. COVID-19 has contributed to a temporary decrease in criminality in cities but the challenge is to maintain the trend in the longer term. In the city of Palmira, for example, during the 2020 lockdown, there was a 29% decrease in the homicide rate compared to 2019. The local government aims to decrease the homicide by youth rate from 80% to 66% in 4 years.[38] In Cartagena, interpersonal violence has increased over the last decade. In 2008, 22% of homicides were due to interpersonal violence, whereas in 2018 the rate was 55% (Red Cómo Vamos, 2018[77]). In Ibagué, the crime rate increased between 2015 and 2018 regarding theft and personal injuries (Red Cómo Vamos, 2019[87]).

Other challenges to urban safety in Colombia come from new (digital) technology developments and climate change. While developments in technology increase productivity potential for cities and enterprises, they are also enabling delinquents to advance their own capacity for disruption. Technological developments such as automation, analytics and communications may also challenge law enforcement and security, as they also allow non-state actors to evade justice and control urban life. On the other hand, the impact of climate change and the scarcity of resources will add to the economic and social pressures on cities. Colombia has a vast reserve of natural resources but these need to be managed in a sustainable manner. As the urban population grows, the stress on the natural resources supply chain to deliver at much higher levels will also increase. However, this makes the supply chain more vulnerable to disruptions, especially in urban centres. Climate change will also increase this vulnerability through rising sea levels, water scarcity and the loss of farmable land leading to conflict and disruptions.

To support local governments and tackle violence, criminality and insecurity, the national government issued a new Framework Policy of Coexistence and Citizens' Safety in 2019 (Box 3.22). The framework policy rightly considers that the issue of urban safety is multidimensional and requires co-ordinated action from a wide range of stakeholders. However, it lacks specificity on how to tackle the problem from the origin: inequality and poverty. It aims to strengthen the institutional capacity of police response to insecurity and criminality but the strategy is not linked to complementary policies such as urban and rural development, social assistance programmes for youth that could address the problem from a different angle. A key question that remains for the national government is how to scale up local initiatives. Some cities such as Bogotá, D.C., Medellín and Palmira have longstanding experience in dealing with insecurity. The challenge for the national government is how to integrate that accumulated knowledge into national urban development plans and programmes.

Box 3.22. Colombia's Framework Policy of Coexistence and Citizens' Safety

Due to the importance of urban safety for Colombian cities, since 2010, the national government has issued a national policy of coexistence and citizens' safety. Since then, the National Administrative Department of Statistics (*Departamento Administrativo Nacional de Estadística*, DANE) has conducted surveys among the main cities of the country to widen the information and databases on criminality.

In 2019, the national government issued a new Framework Policy of Coexistence and Citizens' Safety. Its purpose is to build and maintain the conditions for the exercise of rights and freedoms of public relations, respect for human dignity and the validity of the social rule of law, in an environment of democratic coexistence, peace and harmony with nature.

The policy operates under seven guiding principles:

- **Integral** – Issues on social coexistence and citizen safety are multidimensional and of a complex and diverse nature.
- **Interagency** – The effective, efficient and timely co-ordination of national entities, police authorities and administrative authorities at all levels of government.
- **Interdependency** – All matters of the policy of coexistence and citizen safety are dependent on each other.
- **Inclusion** – The strengthening of the co-responsibility with the private sector, civil society, academia and international co-operation.
- **Information** – The policy is based on evidence, information and planning.
- **Innovation** – Policy measures must be reviewed to adopt the best practices to ensure continuous innovation.
- **Integrity** – All police and administrative authorities in charge of the policy are accountable and must act under a code of ethics.

Source: Gobierno de Colombia (2019[88]), *Politica Marco de Convivencia y Seguridad Ciudadana*, https://www.mininterior.gov.co/sites/default/files/politica_marco_de_convivencia_y_seguridad_ciudadana.pdf.

To contribute to the improvement of safety and inclusion in cities, Colombian authorities may wish to consider the following recommendations:

- **Connect safety, urban development and inclusion through the NUP framework**. A new NUP could make explicit the observation that building safe cities is an essential component to building inclusive cities. It must acknowledge the linkages between inadequate urban development, local governance, social and territorial exclusion, and the spread of crime and violence in cities. The NUP must highlight how urban planning contributes to peaceful coexistence and how urban development can prevent crime and insecurity. The Integrated Urban Development Framework (IUDF) of South Africa may be an inspiration for Colombia because it includes safety as part of the urban development strategy (Government of South Africa, 2016[89]). The IUDF, which is an all-of-society approach, is a new concept of framing safety at the national level; it brings together and integrates the urban and rural sectors. The IUDF focuses on cross-cutting issues such as urban safety, urban resilience and rural-urban interdependence. The South African experience shows that as a cross-cutting issue, urban safety has implications for all local government planning efforts. Urban security is connected to the economy, gender relations, how children are treated and conflict resolution mechanisms. The IUDF shows that community mapping is key, as is the local adoption of global standards. Therefore, collaboration is key among all sectors: government, private sector, civil society and community. It is of key importance that the new NUP sends the message that investing in a safety strategy will make cities better equipped to adapt more easily to new challenges.
- **Ensure that urban safety strategies are inclusive**. All local stakeholders should take part in the design and implementation of urban development and urban safety strategies. Community groups and community members themselves must be included in the planning process, ensuring that youth and women, who are rarely decision-makers, take part in the process. Governments at all

levels should adopt a more cohesive, inclusive approach to urban safety, which builds in better accountability mechanisms. Urban safety strategies on a citywide scale must be guided by the principle of co-production of safety.

- **Support local governments to develop their own safety strategies**. All interventions must be tailored to meet local realities and remain prepared to adapt to evolving risks and vulnerabilities. Authorities should acknowledge that social cohesion may manifest differently to people depending on: their gender, age, profession; their place of residence (formal or informal neighbourhoods, inner-city, periphery); and political jurisdictions (migrants refugee camps). Longer-term safer cities interventions will need to reflect local history, norms and values, taking advantage of the ways in which local communities self-organise and regulate collective behaviour. Building neighbourhood connections and a sense of community can be key drivers of safety and security.
- **Make urban regeneration part of the urban safety strategy and recognise the importance of the public space**. A key lesson from the experience of Medellín is that an urban safety strategy based on policing and punishing alone, or on investment in infrastructure alone, does not provide lasting results (Box 3.21). The strategy has to be complemented with a more nuanced approach, such as urban regeneration based on arts. Art can encourage urban design and housing features that foster social interaction among neighbours and enable natural surveillance. The experience of Korea, although with different levels of violence to those of Colombia, shows that supporting welfare through culture-led urban regeneration could have lasting effects not only in crime reduction but on triggering economic activity. The Gamcheon Culture Village and the Sanbokdoro Renaissance Project in the city of Busan shows how participatory arts reduce violence and increase the safety of neighbourhoods and that it is a feasible way to co-construct a safer, inclusive and attractive city (OECD, 2019[24]). In Italy, the city of Palermo used to be the headquarters of mafia organisations for over 30 years. The city promoted cultural activities to change the image of violence. Nowadays the city is considered the cultural capital of the country.[39] The reason is that the arts redirect violence towards socially cohesive and inclusive activities. A strategy based on art should be viewed as a process, where anyone can be an artist. Moreover, urban regeneration strategies should focus on the creation of alternative spaces in the public domain for those facing gender-based violence such as young girls.
- **Complement urban safety strategies with social programmes**. Deep-seated social problems such as unemployment, alcoholism, poor education and degraded infrastructure cannot be fixed through policing. Ensuring that public services and programmes are available for youth is also critical. In the context of the COVID-19 pandemic, it is of the utmost importance to focus on vulnerable groups as Colombia has done through social support programmes. However, it is also important that the police does not unduly persecute those who depend on public spaces for their livelihood. These livelihoods are likely to be informal and already highly vulnerable to the economic and social impacts of lockdown policies. Equally, these professions provide key services for other vulnerable and at-risk groups. For example, street vendors are the source of food for the poorest and most vulnerable urban residents. The police must find negotiated ways with informal vendors so they can trade as safely as formal supermarkets. City governments, supported by the police force, must take steps to ensure that eviction drives, targeted at informal settlements and the homeless or pavement dwellers, cease during the pandemic. Eviction may increase vulnerability to a range of risks including violence. The police are central to COVID-19 responses but police brutality is another potential challenge.
- **Strengthen cities' safety strategies through a comprehensive urban safety monitor**. The national government could develop an urban safety monitor using disaggregated data and indicators that assess the impact of the efforts taken to promote safety. Municipalities, with national government support, will need to improve data collection and analysis for urban safety. Cities should ensure that urban safety strategies focus on the neighbourhood as the key level and unit of analysis.

- **Local governments need to promote the local implementation of global standards**. The national government could, as part of the decentralisation process, delegate or devolve authority and responsibility for local government to undertake resilience-building actions. Cities can include in their development vision the concept of resilience and adopt risk-informed plans and disaster management plans. This could help local governments implement the humanitarian crisis tools that already exist, such as the Sendai Framework for Disaster Reduction and the 2019 Minimum Standards for Child Protection. However, the national government, NGOs and research and academic institutions will have to provide capacity development to municipalities. Financing these activities could be part of the royalties that subnational governments receive.

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[4] Information provided by the Ministry of Housing, Cities and Territory to the OECD (PowerPoint presentation November 2020).

[5] In Colombia, municipalities are classified into categories one to six and special category according to their number of inhabitants and their Current Income of Free Destination -ICLD-. The current income of free destination ICLD are the tax and non-tax revenues, excluding the income of specific destination, that is, those destined by Law or by Administrative Act to a specific purpose. For further information see: https://www.quienesquien.co/cuales-las-categorias-los-municipios-colombia/

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[31] According to UN-Habitat, the "right to the city" encompasses all civil, political, economic, social, cultural and environmental rights as enshrined in existing human rights treaties, covenants and conventions. It is a new paradigm that provides an alternative framework to rethink cities and urbanisation. It envisions the effective fulfilment of all internationally agreed human rights, sustainable development objectives as expressed through the SDGs and the commitments of the Habitat Agenda (UN-Habitat, 2017[90]).

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[37] Urban societies are integrated by individuals who mostly have opposing and divergent interests that generate conflicts; when negotiations to maintain coexistence fail, it is when violence occurs (Universidad Nacional de Colombia, 2016[86]).

[38] Participation of the mayor of Palmira, Oscar Escobar, in the webinar "Strengthening the safer cities strategy while responding to COVID-19", Co-hosted by UN-Habitat and the Global Parliament of Mayors (GPM) on 27-28 May 2020.

[39] Participation of the deputy mayor of Palermo, Adham Darawsha, in the webinar "Strengthening the safer cities strategy while responding to COVID-19", Co-hosted by UN-Habitat and the Global Parliament of Mayors (GPM) on 27-28 May 2020.

4 Policies for housing and habitat in Colombian cities

This chapter examines Colombia's housing policy and its impact on sustainable urbanisation. It acknowledges the important quantitative progress made recently in housing provision while underlining shortcomings regarding urban sustainability. The chapter begins with a discussion on housing affordability in Colombia from a comparative perspective. It then focuses on social housing and its different financing mechanisms, offering policy recommendations to improve their effectiveness. The chapter moves on to the impact of housing policy on sustainable urbanisation and provides policy options to link social housing solutions and urban development patterns. The chapter ends with a discussion on the measurement of the housing deficit and affordability to improve the government's capacity for evidence-informed policy making.

Introduction

Building a dynamic economy and an inclusive society is among Colombia's top policy priorities. To achieve these goals, the Colombian government has been using housing policy tools over at least the past two decades as part of its national development strategies. Due to its impact on productivity and job creation, housing policy is an important driver to unleash Colombia's economic potential. Over the last decade, the construction sector (housing, infrastructure) created 14.7% of total employment in the country and represented 7.5% of the national gross domestic product (GDP) (Asobancaria, 2020[1]). Housing policy is also expected to contribute to reducing inequality by addressing the housing deficit across the country and facilitating the access of the most vulnerable groups to adequate and affordable housing, as well as to public services and amenities.

Despite a number of achievements over the past decade, including Law 2079 of 2021 on housing and the habitat, challenges remain, such as adopting concrete new financing instruments for housing and lowering high transaction costs in policy implementation. It is also necessary to find new ways to promote access to housing (i.e. social lease, home upgrading, acquisition of used housing). Colombia's housing policy needs to respond to its demographic, urban, social and economic conditions. For that, a long-term housing policy will need to: i) go beyond the four-year political mandate (something already permitted by the status of State Policy of Law 2079); ii) be concretely articulated in its implementation with other policies such as transport, land use, climate change and urban policy; iii) adapt to household needs and the diversity of regions and cities; and iv) be flexible to respond to changing contexts such as the COVID-19 pandemic.

Across OECD countries, including Colombia, households are dedicating an increasing share of their income to housing costs and less than half of the population, on average, is satisfied with the affordability of housing in the city where they reside (OECD, 2021[2]). The OECD defines housing affordability "… as the ability of households to buy or rent adequate housing without impairing their ability to meet basic living costs." (OECD, 2021, p. 4[2]). A key challenge for many countries including Colombia is to strike a balance between providing low- and medium-income households with access to affordable housing and incentivising private investment in the construction of affordable housing.

Over the last decades, Colombia's housing policy has influenced the process of urbanisation. Urban areas are expanding to accommodate more housing for, in most cases, low-income households. The expansion of cities makes public service delivery more complex and costly for municipal administrations. One critical aspect is that despite its importance for socio-economic development and quality urbanisation, the link between the national urban policy (NUP), known as CONPES 3819 or the System of Cities, and housing policy remains theoretical and is rather weak regarding its implementation. Colombia requires a new vision for housing and urban policy that helps to control the expansion of urban sprawl and build cities that improve residents' quality of life in a sustainable manner. The assessment and recommendations formulated in this chapter are based on the information collected through: a literature review; the background questionnaire answered by the national government of Colombia; interviews with different stakeholders from the national and subnational governments as well as members of the academia; and the OECD Survey on Urban Policy in Colombia, 2021, conducted with the support of the Ministry of Housing, City and Territory (*Ministerio de Vivienda, Ciudad y Territorio*, MVCT) and the Colombian Association of Capital Cities (AsoCapitales).

This chapter explores housing subsidy programmes in Colombia, their impact on sustainable urbanisation and puts forward a set of policy recommendations, based on the experience of OECD countries, to ensure that housing subsidies are more effective in responding to the housing needs of the most vulnerable households and that urban development is more sustainable. The methodology used for this analysis was based on a literature review and interviews with local officials and experts.

Housing provision remains a national priority

Housing policies have shaped Colombia's urban model

Housing is probably one of the most challenging aspects of urbanisation in Colombia. The design and implementation of housing policies have not met people's expectations of decent and affordable housing. This is reflected in the proliferation of informal settlements around many Colombian cities and the lack of affordable and adequate housing in centrally located areas. Colombia's housing challenge will continue as the country continues to urbanise. The urban population will likely keep on growing and housing provision will have to be at the pace of population growth. It will imply dedicating growing amounts of public money to public service provision (i.e. water, sanitation, electricity, Internet, public transport) in new housing developments generally located far from the core city. Moreover, Colombia's population is beginning to age (DNP, 2014[3]), which will require adapting housing design to meet the specific needs of an elderly population. Colombia needs to provide affordable housing to a diverse population: youth, the elderly, displaced persons and migrants, the homeless, female heads of family and afro and Indigenous populations. Households with low and/or informal incomes have to be particularly targeted.

Colombia's national government has taken the lead in the provision of planning, regulatory frameworks and financial mechanisms to facilitate low-income households' access to adequate and affordable housing. Municipal governments, or at least some of them, have also designed and implemented programmes and plans to facilitate housing construction. Significant efforts have been made to bridge the housing gap but more needs to be done as still many Colombians cannot afford housing.

As the MVCT now has the legal authority to formulate rural housing policies, it has been working on the structuration and implementation of housing programmes that will support construction and housing upgrades in rural areas. The fact that social housing had to be located in urban areas so that households could benefit from the agglomeration benefits put pressure on urban land for housing construction and public services provision. Today, the rural housing policy should contribute to easing part of the pressure on cities.

Colombia faces a double challenge, providing affordable housing to millions of residents but in a way that contributes to the sustainable future of cities. Housing policy has been largely implemented in isolation from urban policies. The System of Cities acknowledges the need to locate suitable land for social housing construction (Gobierno de Colombia, 2014[4]) but does not make housing a key element in the "consolidation of the system of cities" or manage an orderly urbanisation process. To move forward, Colombia needs to make housing and habitat a priority in the elaboration and implementation of the new NUP and urban development plans.

Positioning housing at the centre of the new NUP will contribute to more sustainable urbanisation as it would facilitate more rational use of urban land and the preservation of natural resources. It would stimulate the economy as it could promote economic activity in areas better connected to services. It can reduce poverty and foster inclusion in cities, not just by facilitating households' acquisition of a house at an affordable price but by ensuring that housing is well served by public transport. Experience has shown that if a low-price dwelling is located in areas with few public services and far from areas of economic activity then it becomes expensive in terms of acquisition price. Linking housing to the new NUP, specifically regarding implementation, will ensure that housing is considered more than just walls and a roof: public space should be regarded as an extension of housing.

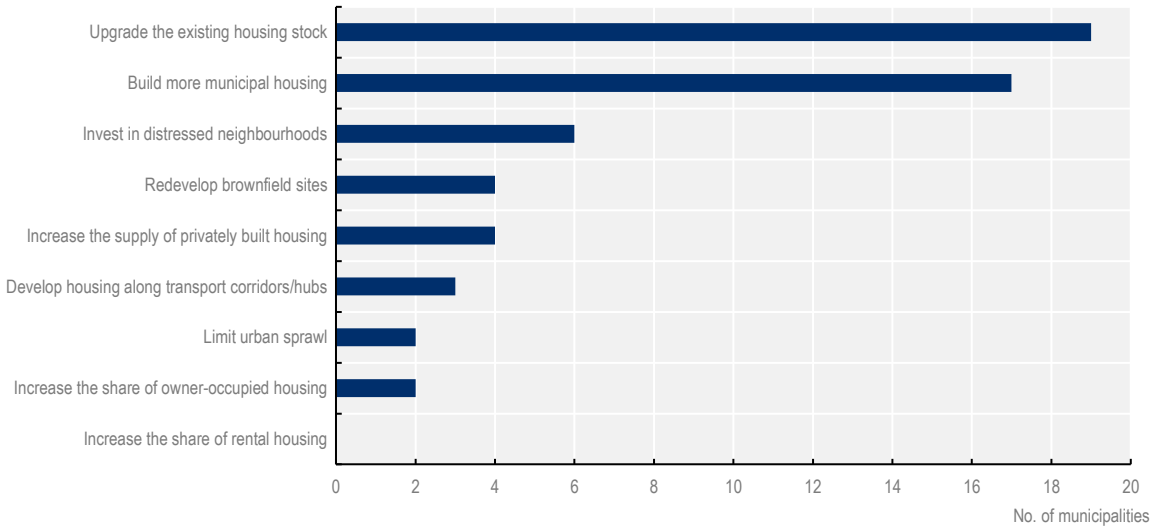
Giving housing a prominent role in the new NUP will contribute to improving the quality of urbanisation. Colombian cities, as in other Latin American countries, are growing fragmented, unequal and dysfunctional. Housing production and consumption have been at the centre of the problem as mass housing production of social housing usually takes place in cheap and peripheral land with limited access to jobs, services and opportunities. Colombian cities present contrasting realities: slums and gated

communities, overcrowded areas and urban sprawl, homelessness and vacant houses, affluent neighbourhoods and very poor communities. Past and present Colombian housing policies have been shaping cities, giving rise to a disorderly urbanisation process. The resulting urban model is one with high social, economic and environmental costs, which go far beyond the financial capacity of Colombian cities.

Municipal governments' priority is to promote home improvements

Upgrading the existing housing stock is by far the main priority for municipalities with a specific housing programme, followed by the construction of more municipal housing (Figure 4.1). To satisfy households' need for affordable and decent housing, some municipal governments have issued a municipal housing plan but this is not a general trend. Only 25 of the 76 municipalities that responded to the OECD Survey on Urban Development in Colombia 2021 have a specific housing programme. This reflects the structure of the housing deficit in urban areas in Colombia, related to the quality of housing rather than to the number of housing units, as highlighted by the 2018 Population and Housing Census (see Chapter 1).

Figure 4.1. Main priorities of municipal housing programmes in Colombia, n=25



Note: Answers to question "Q.3.4. If your municipality has a specific housing programme, what are its main objectives?". Municipalities with a housing programme were asked to select all relevant options.
Source: OECD Survey on Urban Development in Colombia 2021, conducted with the support of the MVCT and AsoCapitales.

To contribute to addressing the quantitative and qualitative housing gap, some municipalities have adopted a municipal housing subsidy. According to the OECD Survey on Urban Development in Colombia 2021, 10 out 76 have adopted a subsidy for acquiring a newly built home, while 13 out of 76 have a subsidy for housing improvement. Subsidy amounts vary across municipalities but they mostly complement national social housing subsidies. For example, when acquiring a newly built home, subsidies vary from USD 2 197 in Capital District of Bogotá (hereafter Bogotá, D.C.) to USD 1 330 in Santa Rosa de Osos, while subsidies for housing improvements may range from USD 5 300 in Bucaramanga to USD 1 300 in Villamaria.

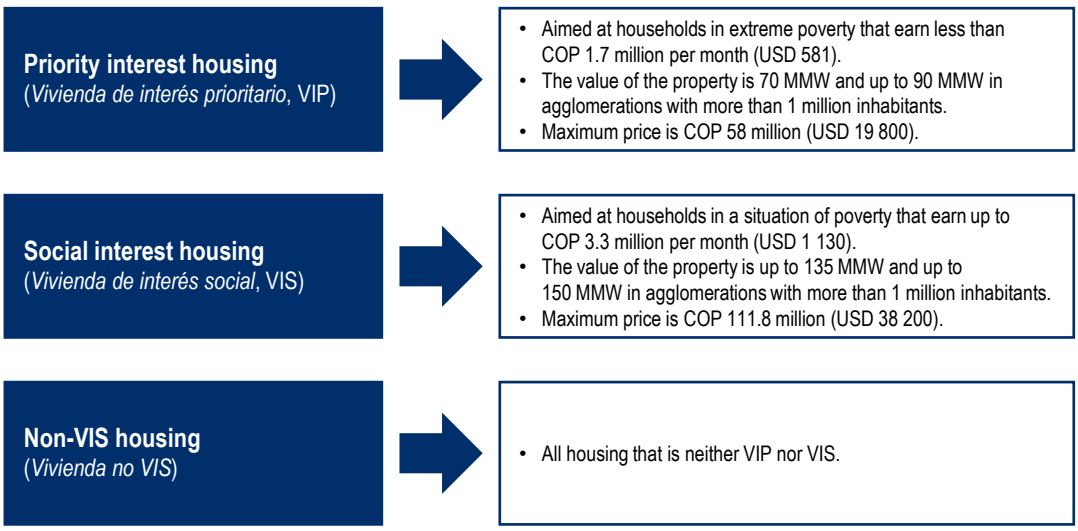
Financing social housing in cities in Colombia

Social housing ownership is the main pillar of Colombia's housing policy

In the early 1990s, Colombia went through an important paradigm shift in its housing policy, favouring a demand subsidy scheme. In 1991, Colombia adopted the Third Law (Ley Tercera de 1991), which sets the basis for social housing policy in the country and is still in place today. Before this law was enacted, the Colombian housing policy was driven by a supply-and-demand logic. The national government, through national institutions, was in charge of both building social housing for low-income households and providing them with subsidies and loans so that they could acquire accommodation. Between 2009 and 2019, the national government invested COP 15.7 billion (approximately USD 4.1 million, 0.2% of GDP over that period) in subsidised and free housing programmes to reduce housing poverty (Asobancaria, 2020[1]). Over 681 000 households, mostly from low-income groups, have benefitted from 1 subsidy programme in the past 10 years (Asobancaria, 2020[1]). According to Law 1955 of 2019, social housing (VIS) is defined as "a housing unit that has the necessary elements to guarantee its habitability and meets with quality standards regarding its urban, architectural and sustainable construction design". There are no specific regulatory requirements regarding the characteristics of this type of housing. Typologies, construction materials and minimum size are not fixed at the national level but depend on the specifications that may be set by cities in their land use plans (*planes de ordenamiento territorial*, POTs). The only requirement of a VIS relates to its maximum sale price, which was established by Decree 4466 of 2007 at 135 minimum monthly wage (MMW, USD 261 on April 2021). This ceiling has been increased to 150 MMW for urban agglomerations with more than 1 million inhabitants, where urban land is generally more expensive (Decree 1467 of 2019, issued by the MVCT).

As for VIS units built in renovation areas, their maximum sale price can reach 175 MMW (Decree 75 of 2013, issued by the MVCT). As seen in Chapter 1, social housing in Colombia is divided into two types: i) priority housing (*vivienda de interés prioritario,* VIP); and ii) social housing (*vivienda de interés social*, VIS). All other housing that falls outside these categories is called "non-VIS". Figure 4.2 presents the main characteristics of each type of social housing. Law 1537 of 2012 regulates access to social housing and lists the eligibility criteria for social housing subsidies (Gobierno de Colombia, 2012[5]). Households eligible for both VIS and VIP can apply for government subsidies to purchase a new home.

Figure 4.2. Types of social housing in Colombia



Note: An MMW in Colombia is equivalent to COP 908 526 (approximately USD 238). For more information, see www.salariominimocolombia.net.
Source: Author's elaboration based on Law 1537 of 2012 and mission notes.

Since the 1991 reform, social housing is no longer produced by public institutions. Private developers are in charge of the entire process of production of VIS units, while the national government finances the demand, by providing low-income households with a family housing subsidy (*subsidio familiar de vivienda*, SFV) (Yepes and Ramirez, 2017[6]; Chiappe, 1999[7]). The SFV is a monetary subsidy towards a household's initial payment to acquire a social housing unit. The 1991 reform gave households the opportunity to choose and purchase freely their social housing unit directly on the market. At the same time, the decentralisation reform made municipal governments responsible for elaborating their own POTs, a task that included the habilitation of urban land to receive social housing projects. Moreover, in 2009, the government introduced an interest rate subsidy (*subsidio de cobertura a la tasa de intéres*) to help households further finance their housing acquisition through a bank credit (mortgage). The objective of the interest rate subsidy is to reduce the household's monthly payment when getting a mortgage.

Social housing production: A quantitative achievement and an important economic driver

In the 1990s, the Colombian government introduced the current social housing production scheme, which only began to have an effect in the 2010s when it coincided with the introduction of credit rate subsidies. The production of social housing has been increasing considerably in Colombia, especially in the past five years, occupying an ever-larger part of the general housing production. Between 2011 and 2020, around 2 million housing units of all types were built in Colombia, approximately 44% (959 000) of which were VIS housing (Tellez, Llanes and Hernandez, 2021[8]). Between 2015 and 2018, 462 861 social housing starts benefitted from the SFV and the national government granted 110 077 interest rate subsidies in the same period (DNP, 2019[9]). In 2018, 60.5% of all units built in the country were VIS housing. In 2020, despite the COVID-19 crisis, over 200 000 housing units were sold, of which 68% were VIS according to data from the Colombian Construction Chamber (*Cámara Colombiana de la Construcción,* CAMACOL) on new housing sales, and the speed of VIS unit sales increased between the end of 2019 and February 2021. The housing stock for sale, therefore, dropped from 7.2% to 5.8% of the total housing stock in the same period (Tellez, Llanes and Hernandez, 2021[8]; World Bank, 2019[10]). In 2019, 107 300 VIS units were sold across the country, amounting to COP 11.4 billion, while just over 51 400 non-VIS housing units sold for a total of COP 17 billion (Asobancaria, 2020[1]).

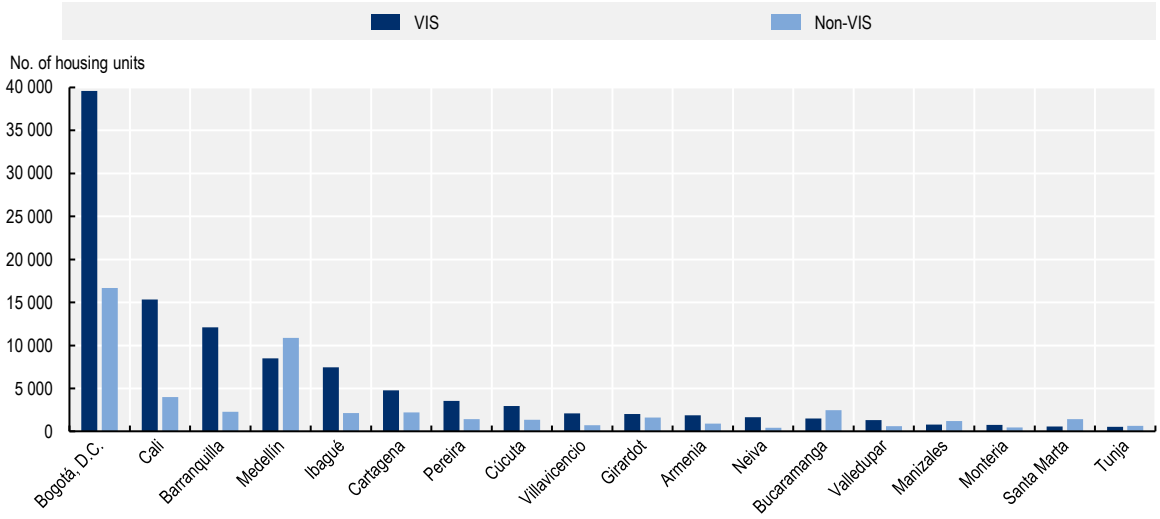
However, the number of new homes being built dropped from over 196 000 units in 2016 to 147 000 in 2018. The high-end housing market has been the most impacted, as the construction of new homes in this category fell by 44.5% in 2017 and the construction of mid-range housing declined by 15.4% in the same year. Figure 4.3 shows that the number of VIS housing units sold exceeded the sale of non-VIS units in most major Colombian cities between 2018 and 2019.

The rise of VIS sales is also reflected in the evolution of the housing mortgage credits granted in Colombia by housing types over the past 15 years. At the beginning of 2005, the difference between credits granted for VIS and non-VIS units was small. The difference increased significantly between 2005 and 2020. At the end of 2020, it reached its maximum, with a difference of around 152 000 credits more for VIS than for non-VIS categories (Table 4.1).

Even if their sale prices are low, VIS have proven to be very attractive for private developers (Table 4.1). The existence of significant needs for low-cost housing in cities, combined with the important efforts made by the government to allocate homeownership subsidies to the lower segment of the demand, turned the VIS market into an opportunity for the construction sector, which has also been able to benefit from the exemption of value added tax (VAT) on social housing projects as well as from tax benefits on this market. The VIS sector is now considered a major component of the construction industry in Colombia. The Colombian construction industry generates 2.4% of the national GDP and 946 000 jobs (Asobancaria, 2020[1]). It is estimated that each Colombian peso invested in construction results in COP 2.3 in the general

economy. The contribution of the housing sector itself to the national GDP is estimated to be 1.7% and 1 700 firms work directly in it (Tellez, Llanes and Hernandez, 2021[8]).

Figure 4.3. Sales of VIS and no-VIS housing units between October 2018 and September 2019



Source: Asobancaria (2020[11]), *Pasado, Presente y Futuro de la Financiación de Vivienda en Colombia*, 1st edition, Asociación Bancaria y de Entidades Financieras de Colombia, Bogotá, DC, based on La Galeria Inmobiliaria.

Table 4.1. Housing credits granted in Colombia since 2005, VIS and non-VIS units, cumulative totals

	VIS	Non-VIS	Difference VIS/non-VIS
2005-quarter I	393 135	381 938	11 197
2010-quarter I	455 133	305 631	149 502
2015-quarter I	535 536	443 947	91 589
2020-quarter IV	703 082	521 099	181 983

Source: DANE (n.d.[11]), *Construcción/cartera hipotecaria de vivienda/Anexos estadísticos/Numero de créditos según rango de vivienda/A13*, https://www.dnp.gov.co/programas/vivienda-agua-y-desarrollo-urbano/Vivienda/Paginas/Estadisticas-del-sector.aspx.

Main characteristics of the social housing programme Mi Casa Ya

In 2015, the national government created the *Mi Casa Ya* programme (My Home Now, MCY) to promote access to social interest housing while reducing the housing deficit and dealing with poverty. The MCY programme targets households with income lower than eight MMW. The Family Housing Subsidy is only available for those with income under 4 MMW, whereas the credit rate subsidy can apply to those with income up to 8 MMW. Households must be first-time buyers to be able to benefit from the programme. The housing units that are being purchased have to be new and located in an urban area. However, since 2021, living in them is no legal obligation. Unlike other Latin American countries with an analogous framework of housing subsidy like Chile and Mexico, households in Colombia cannot receive the benefit more than once.

Subsidies for VIP and VIS units are now allocated throughout the MCY programme (Table 4.3). The National Housing Fund (*Fondo Nacional de Vivienda*, FONVIVIENDA) manages the Family Housing Subsidy, of which there is a limited supply per year. Subsidies amount to 30 MMW for households whose

income is between 0 and 2 MMW, and 20 MMW for those earning between 2 MMW and 4 MMW. Subsidies on interest rates for new home buyers amount to 4% for VIS and 5% for VIP, over a period of 7 years.

Table 4.2. Maximum sales prices for VIS and VIP

		MMW	USD value (April 2021)
VIP	General	Up to 70	Up to 23 490
	Large cities*	Up to 110	Up to 28 710
VIS	General	Up to 135	Up to 35 235
	Large cities*	Up to 150	Up to 39 150
	Renovation areas	Up to 175	Up to 45 675

Note: MMW in Colombia (April 2021) is COP 908.526 (USD 261).
* The term "large cities" refers to urban agglomerations with up to 1 million inhabitants.
Source: Information provided by the MVCT to the OECD.

Table 4.3. Housing subsidies – The MCY programme

Family Housing Subsidy (initial payment subsidy) - VIS and VIP	MMW	USD (April 2021)
Household income up to 2 MMW	30 up to 50*	7 830 up to 13 050
Household income between 2 and 4 MMW	20	5 220

Note: MMW in Colombia (April 2021): COP 908 526 (USD 261).
* Includes the Family Compensation Funds (*cajas de compensación familiar*).
Source: Information provided by the MVCT.

The national government aims to allocate 255 000 subsidies (both monetary and credit rate) through the MCY programme between 2018 and 2022. According to the MVCT, from August 2018 to January 2021, 148 055 had been distributed (96 309 households received both monetary and credit rate subsidies, and 51 746 only a credit rate subsidy). The maximum level of indebtedness for VIS credits has also been raised from 30% to 40%, thereby increasing the purchasing capacity of low-income households.

Several modifications to the initial MCY programme have been made in recent years in order to make VIS housing accessible to a larger number of households. For example, it is now possible for households that benefitted in the past from a subsidy to apply again. It is also possible to receive both the family housing subsidies granted by the MVCT through the MCY programme and the housing subsidy provided by the Family Compensation Funds. In that case, the amount of the housing subsidy received by the households can reach 50 MMW instead of 30 MMW. Family Compensation Funds (*cajas de compensación familiar*) that have been around in Colombia since the 1960s. Those non-profit private corporate entities are funded by a mandatory employer's contribution that corresponds to 4% of the salaries. The 43 Family Compensation Funds that currently exist in the country have provided 22 million people with family subsidies in a wide variety of sectors, including housing, since the beginning of the 1990s (Acevedo Tarazona and Gil Montoya, 2010[12]). Moreover, based on the principle of the complementarity of subsidies, the MVCT has also developed strategies to join efforts and resources with the territorial entities, authorised by the national government, to make additional contributions to allocate up to ten additional MMW in order to complement the MCY subsidies. National government subsidies, Family Compensation Funds and territorial subsidies can be cumulated.

The recently enacted Law 2079 of 2021 on housing and the habitat has brought some other novelties to housing financing. In order to foster accessibility to subsidies for eligible households, it is now possible to

benefit from a subsidy to acquire a VIS even if a housing improvement subsidy was already granted in the past. Newly acquired VIS can also be sold without having to wait for several years (previously ten).

The new housing law also facilitates the provision of land for social housing projects by local authorities. The elaboration procedure of the urban partial plans, which are required in order to urbanise peripheral land as well as renovation areas, has been updated. Article 29 of the 2079 Law enabled a clear definition of the different stages of the whole process, as well as of its times. The latter is expected to increase the potential offer of building land for the construction of VIS projects, which is considered crucial for private developers and for the national government to maintain the high production rate of VIS units in the future.

Limitations of the MCY programme regarding housing and urban sustainability

Low-income households are not the main buyers of social housing

The high level of social housing production and especially its recent growth have boosted the national economy and contributed to an increase in the affordable housing supply in Colombia. However, it is important to stress that half of the social housing units recently sold have been bought without any subsidy (family housing or interest rate subsidy) (Table 4.4), suggesting that the high level of production of social housing in the country does not necessarily imply greater access to housing for low-income households. It may well be that a significant share of VIS housing units is being purchased by higher-income households (who do not need any subsidy) as an investment strategy and not by those most in need, especially as anyone can purchase social housing in principle, without restrictions of income, if no subsidy is being asked for.

Table 4.4. New VIS units purchased in 2019

With family and interest rate subsidies	With interest rate subsidy only	Total credits for new housing	Without any subsidy
38 761 (33%)	19 278 (16%)	58 039	60 949 (51%)

Source: DANE FIVI data (housing financing data) and CAMACOL data (new VIS sales).

According to a World Bank survey, 300 000 housing units need to be built each year in Colombia to cover all housing needs. Due to income levels and housing prices in the country, at least 60% of those (180 000 units) would need to benefit from public grants for their construction or acquisition (World Bank, 2019[10]). In view of these numbers, more subsidies should be offered than initially granted. Between August 2018 and January 2021, about 150 000 subsidies were granted, which means an average of 60 000 housing solutions subsidised each year. To match housing supply and demand, the government would have to increase its goals set for the current four-year term, currently 255 000 units in total and an average of 63 750 per year.

This assertion seems to corroborate the priorities of the current housing policy, based on social housing production. However, it is also very important to point out that, regardless of its scale, such a subsidised housing production would not be enough to enable low-income households to access homeownership. Indeed, many of them, especially (but not only) informal workers who are not creditworthy, are excluded from the option provided by the MCY programme to take out a bank loan. Furthermore, VIS sale prices are still too high for low-income households, especially in poor regions, and they do not have the capacity to make savings to meet the requirement of the programme.

To benefit from a social housing subsidy, households are also required to have some savings. However, the level of income of the Colombian population is too low to cover their basic needs as well as put aside savings to buy a house. Poverty rates are particularly high in some cities in Colombia, with 44% in Santa

Marta and 60.9% in Quibdo for instance. In that context, it is not surprising that only 2.2% of low-income households are home buyers (mortgage borrowers and future homeowners). This indicates important limitations for this category of the population to access home property through credit. Only 28.2% of low-income households own their home, which can be explained by the fact that a significant portion of low-income families has built their homes themselves progressively, in formal and informal settlements. Approximately 42.6% of the poor population are tenants (Tellez, Llanes and Hernandez, 2021[8]).

Because of their lower price, VIP housing units are more accessible to vulnerable households, especially when municipalities can supplement subsidies provided through the MCY programme with local grants and provide urban land to reduce the housing sale prices even further. Large capital cities, such as Bogotá, D.C. and Bucaramanga, are indeed quite active in that matter. In addition, unlike VIS, savings are not required in order to benefit from the VIP subsidy. Nevertheless, the production of VIP social housing has been limited (Table 4.5), notably due to high land price levels.

Table 4.5. Housing starts in Colombia, per housing type, 2016-20

	VIP	VIS	Non-VIS
2016	15 830	48 520	100 978
2017	20 724	53 080	91 484
2018	12 557	52 408	82 383
2019	17 856	52 598	75 728
2020	17 150	40 688	58 672
Total	**84 117**	**247 294**	**409 245**

Source: DANE (2018[13]), *Census of Construction Data, 20 Reference Urban Areas*, https://www.datos.gov.co/Estad-sticas-Nacionales/Censo-de-Edificaciones/i9x3-68t3/data?pane=feed.

Between 2010 and 2020, the housing demand of the most vulnerable households (especially populations displaced by violence and female heads of household) was partially covered by the Free Housing Programme (*Programa de Vivienda Gratuita*, PVG), specifically aimed at them. The Colombian government considers the PVG as an important achievement due to the large number of units that were built (estimated at more than 100 000 units) and the impacts in significantly reducing the Multidimensional Poverty Index, as shown by a recent external evaluation report (DNP, 2020[14]). However, the PVG is no longer in place, even though some projects are still active as their construction is just being completed. The PVG had 2 phases: in the first, 100 000 housing units were built in 205 municipalities in 2015; in the second, 30 000 housing units are currently under construction in the smallest municipalities.

Drawbacks of the social housing policy exacerbate irregular urbanisation

The Colombian social housing policy is currently unable to cover the full magnitude of the housing needs of the low-income population, including those of the large number of immigrants who arrived in Colombia over the past five years, especially from Venezuela. Although the national government has been making a significant effort to regularise the status of many of these residents, providing them with access to decent housing remains a challenge. The national government issued Decree 057 of 2021, which enables migrant households to have the possibility of accessing a family allowance applied to the canon monthly lease of up to 0.40 MMW.

However, for many poor households displaced by violence or international migrants, irregular urbanisation often remains the unique option to satisfy their housing needs, strengthening a pattern of precarious urban expansion that has predominated for decades in Colombian cities. Small and medium border cities are the most affected by this phenomenon (see Chapter 1). Unfortunately, there is no precise monitoring of urban

informal settlements in the country. Municipal governments are expected to report them to the national government but they do not always do so.

Social housing policy is contributing to urban sprawl

The localisation and scale of the housing projects tend to contribute to urban sprawl as social housing projects are generally built in areas where land is affordable and abundant. There are at least two reasons for this: i) the reduced availability of accessible land and its high cost in established urban areas leads housing developers to build in the outskirts; ii) the legal requirement of selling VIS units at a maximum price incentivises large-scale projects to create economies of scale (Libertun, 2018[15]). As a consequence, although it seems to have a positive effect on multidimensional poverty as households' housing conditions improve, social housing often has limited access to urban amenities and employment opportunities (Beuf, 2016[16]; Franco Calderón, 2020[17]). As in other countries in Latin America such as Chile and Mexico that experimented with mass social housing production, there could be a risk that social housing projects in Colombia increase socio-spatial segregation, as they do not provide for a social or functional mix. Even though it is mandatory to include a minimum area for VIS and VIP units in all urban development plans or partial urban development plans, both in urban expansion and renovation areas, private developers often circumvent this obligation legally by building the corresponding quantity of units on another land plot within the city or by contributing to a municipal fund for the provision of social housing by the local authorities.

Social housing macro projects also contribute to urban expansion. Macro projects are housing settlements that are built predominantly in peripheral urban areas (aside from a few projects in renovation areas in Barranquilla and Manizales) and can contain several tens of thousands of similar units. At the end of the 2000s, the national government introduced social housing macro projects to boost the construction of social housing in urban areas. They were initially designed to help the national government take back control of urban land use to generate a significant supply of building land for social housing production. However, in 2010, the mechanism was deemed anti-constitutional by the Constitutional Court because it encroached on the prerogatives of municipal governments. It was thus modified and is now based on a co-operation scheme between municipal and national authorities in order to foster the provision of land suitable for large housing projects. While macro projects allow for building a large number of housing units with basic urban infrastructure and services, they also result in the construction of socially and functionally homogeneous housing developments, with pockets of poverty that have low access to urban amenities and accessibility and mobility problems (Alfonso, 2019[18]; Yepes, 2014[19]).

The low quality of social housing units remains a challenge

Although the quality of housing has improved over the past decades in Colombia, with the share of homes in acceptable living conditions increasing from 76.2% in 2005 to 90.2% in 2018, the quality of social housing remains an important concern. As mentioned above, no specific regulation regarding quality applies to VIS. Municipal governments have the possibility of establishing the rules for social housing standards within their land use plans (POTs) but such standards differ considerably among cities. The absence or obsolescence of POTs causes a large variety of social housing quality standards across cities in the country. The quality of social housing is an issue that is not reflected in Colombia's housing policy. Discussion on housing has been mostly limited to funding policies and the strategic importance of the housing sector for the national economy, setting aside the real discussion of the housing issue itself, which is a key priority within a proper social housing policy (González and Londoño, 2012[20]).

The size of the social housing units is part of the problem. The size of low-cost housing has decreased significantly between the 1980s and the 2000s, falling from 60 m^2 to 35 m^2, especially as a consequence of the 1991 reform (Correa, 2018[21]). Indeed, since 2004, there is no minimum surface area for social housing. Recently, some large cities, especially Bogotá, D.C., are now noticing a drift in the social housing production. Some very small flats (which used to be called "false VIS") are built within the category of VIS.

If the unit prices stay below the legal ceiling amount (enabling to sell these flats as social housing), values per square metre become too high and no longer correspond to what can be considered as social housing standard prices. Moreover, developers obtain benefits such as lower taxes to build housing units not destined for lower-income households.

Conception and materials are also an important concern regarding the quality of VIS production. Despite several initiatives from sector professionals, especially over the past decade and in the context of the elaboration of the 2020 new Housing and Habitat Law, no specific national regulation to guarantee social housing quality and sustainability has been adopted so far. In 2011, the MVCT published a set of four technical assistance guides on social housing (*Guias de asistencia tecnica para vivienda de interes social*), including one focused on the quality of social housing. However, this guide was limited to recommendations for technical design in social housing projects, which were not mandatory. Moreover, the recommendations regarding the main components of a social housing unit were only generic. The new Housing and Habitat Law introduced the notion of "cultural interest housing" to promote a better adaptation of social housing design and materials to diverse climate and cultural contexts within the country. In the future, this should enable the national government to channel monetary and in-kind resources to locally foster the development of more adequate housing. It would open the path to a process of adaptation of VIS to local conditions, which is a request that many professionals have been putting forward for years.

Private developers tend to consider that the introduction of such a regulation would result in a significant increase in the price per square metre of VIP and VIS units (Chávez Calle, Pérez Ruiz and Serrano Guzmán, 2018[22]). For them, the low quality of construction and limited size of the social housing units are a consequence of technical regulations that apply to social housing as well as to all types of housing and constructions (Chávez Calle, Pérez Ruiz and Serrano Guzmán, 2018[22]). These technical regulations include, in particular, the Colombian Seismic Resistant Construction Regulations, last updated in 2010 (NSR-2010), the Technical Regulation of Electrical Installations (RETIE) and the Technical Regulation of the Drinking Water and Basic Sanitation Sector (RAS). They would generate construction cost overruns in social housing, which are then reflected in a lower quality of construction. According to research, the implementation of the RETIE would lead to a 6.5% increase in production costs of VIS housing units (Chávez Calle, Pérez Ruiz and Serrano Guzmán, 2018[22]). As a result, many private developers think that it would be necessary to increase the established maximum values for VIP and VIS projects.

Low social housing quality may widen the qualitative housing gap in the short term

Given the high level of social housing production, the quality of VIS and VIP units and projects remains a major issue for Colombia. The pandemic crisis, which forced the population to stay at home for months, highlighted even more in Colombia and in other OECD countries the problem of reduced-size social housing units and, thus, the necessity to set minimum housing standards. Like in other countries in Latin America with similar schemes based on social housing mass production by private developers such as Chile and Mexico, physical and social deterioration will probably occur rapidly within the social housing settlements in Colombia. Although the qualitative housing deficit is now being tackled in Colombia through the *Casa Digna Vida Digna* programme (see below), the deterioration of social housing units and neighbourhoods might increase it in parallel and, thus, call for the implementation of expensive and complex regeneration strategies to repair the urban and social fabric of the new social housing peripheries, as in Chile (Box 4.1) and Mexico (OECD, 2015[23]; Heeckt and Huerta Melchor, 2021[24]).

Box 4.1. Housing policy in Chile: From a quantitative to a qualitative vision

At the beginning of the 1980s, Chile was the first country in Latin America to implement a housing policy based on a demand subsidy scheme. The production of social housing, previously ensured by public institutions for decades, was entirely transferred to private developers. The national government, through the Ministry of Housing and Urban Development (MINVU), became responsible for only providing low-income households with family housing subsidies to acquire accommodation. On this basis and in order to reduce the huge accumulated housing deficit, the country began to carry out massive social housing production. According to the lowest estimates, from 1984 to 1996, at least half a million social housing units were built in Chile (an important production for a country of 13.5 million inhabitants by 1990). Large housing settlements made of small apartment buildings were built mainly in urban peripheral land, in particular in the capital city and the largest urban agglomerations. Housing standards were very low, regarding quality and the size of the units (27 m² on average). This production helped significantly reduce the quantitative housing deficit. It also contributed to increasing access for the urban poor to urban public services such as water, electricity and sanitation.

By 2006, due to the predominance of the qualitative dimension within the Chilean housing deficit, the national government reoriented housing policy from a quantitative vision to a qualitative approach. On the one hand, the issue of the regeneration of vulnerable neighbourhoods was addressed as a new strong priority through several programmes run by MINVU. The neighbourhood recovery programme *Quiero mi barrio* (I love my neighbourhood) began to be implemented, involving local actors in reconstructing their physical and social environments. Other initiatives were conducted to tackle specifically the deterioration of social housing settlements, as severe problems had started to emerge since the late 1990s, due to their rapid social and physical deterioration. Some of them included the demolition of social housing buildings to allow urban restructuring in neighbourhoods. On the other hand, the Chilean government sought to diversify its national housing policy to expand options for the different population groups and increase significantly the quality, size and urban location of the housing solutions subsidised by the state. Tackling the qualitative housing deficit (a challenge that also includes avoiding the development of new low-quality housing) was a major priority for the government, as well as fostering urban regeneration through the implementation of the housing policy.

This approach has been maintained and developed continuously by the various administrations since the mid-2000s. The current Chilean housing policy provides a large diversity of programmes, several of which are strongly focused on urban regeneration. The issue of rental housing, first addressed a decade ago through a leasing scheme (renting as a previous step leading to homeownership), is now being tackled by the Ministry of Housing as a real alternative to homeownership. This is being achieved through the creation of a permanent public rental housing stock located primarily in old buildings in core areas to foster urban regeneration and facilitate access to urban services and resources for the dwellers. Regarding homeownership, as part of the so-called micro-settlement programme, new small buildings are being built on individual plots of land where several households are sharing the same housing unit. The programme contributes to the densification and regeneration of intra-urban vulnerable areas, which helps limit urban expansion. Finally, as a response to existing issues regarding urban segregation (one of the main problems generated by the social housing production of the 1980s and 1990s), MINVU is also subsidising “social and territorial integration housing projects”, in which several types of housing are being built to encourage social cohesion.

Source: Based on Marambio, C. (2021[25]), “Housing policy in Chile”, Presentation for the OECD National Urban Policy Review of Colombia, 30 November 2021, Ministry of Housing and Urban Development of Chile.

Expanding the coverage of the housing policy

Since 2018, the national government has been updating and expanding housing policy to address some of its limitations, in particular to improve the focus of the different housing programmes to reach the target population groups. Reforms consist mainly in the creation of two new housing programmes: Homeowners' Seedbed (*Semillero de Propietarios*, SP) and Decent Home Decent Life (*Casa Digna Vida Digna,* CDVD) to address housing issues not covered by previous programmes, such as rental housing, and urban and housing improvement. A subsidy for non-VIS housing has also been created to boost this segment of the offer. As with all other housing programmes or subsidies, those new options might have indirect impacts on urbanisation that are important to consider in the perspective of urban sustainability.

A new housing programme based on housing savings and a family rental subsidy

In June 2019, the national government launched the SP programme, a sort of toolbox that promotes savings as an instrument for more families to become homeowners. The programme targets households whose income is lower than 2 MMW, who are not yet homeowners and have not received any previous housing subsidy. Around 20% of the grants are reserved for specific vulnerable population groups (e.g. households displaced by violence, women who are heads of household, members of Indigenous communities, people with disabilities and informal workers).

SP and MCY programmes are closely linked as both aim to encourage access to bank loans for low-income households, especially informal tenants. SP seeks to enable its beneficiaries to apply to an MCY subsidy in a second stage. SP is directly expected to contribute to the Colombian government's objective of promoting the construction of 520 000 VIS units during its 4-year mandate, through widening demand at the very bottom of the income pyramid. The initial goal was to grant 200 000 SP subsidies by the end of the present 226andatee in 2022.

SP offers two types of subsidies. The first, "Savings Reward" (*Premia tu Ahorro*), consists in promoting housing savings. Households that decide to apply to this modality have to feed a housing savings account for 18 months until they reach at least 4.5 MMW. During that period, they receive from the national government a COP 400 subsidy for each COP 300 saved. On completion of the 18-month period, households can apply to the MCY programme to acquire a VIS unit through the programme's family and credit rate subsidies.

The second type of SP is a short period rental housing subsidy. It also includes a housing savings component. As in the first modality, the purpose is to steer low-income households, especially tenants, towards the acquisition of a social housing unit through the MCY programme. Households that apply to this programme receive 60% of a minimum monthly salary for 24 months to cover housing rental. This way, households can save 25% of a minimum monthly salary until they reach 4.5 MMW (over COP 4 million), increasing their chances to apply for a subsidy from the MCY programme or other housing financing mechanisms. In all cases, their housing budget (rent plus mandatory savings) remains lower than it would have been without the rental subsidy.

The SP programme also promotes acquiring newly built VIS housing units. When households decide to apply for a rental subsidy modality, they can use the subsidy to rent either a newly built VIS unit that they could potentially buy once they complete their savings. They can also rent an existing dwelling available in the programme, from which they have to move out when they acquire a newly built VIS unit at the end of the 24-month period. Candidates for the programme register on an online platform, where they can find a catalogue of eligible rental offers proposed by property agents and eventually other private players approved by the MVCT. The latter supports them during the entire process.

Although the quantitative objectives of the SP programme were quite high (200 000 subsidies), it has experienced a slow start, with only 330 subsidies granted in 2019, 2 100 in 2020 and an estimate of around 4 000 in 2021. By mid-2021, 52 property agencies and 80 000 households had registered on the platform

to participate in the programme. The active involvement of private developers (VIS builders) in the SP programme was an objective of the MVCT. However, to date, very few developers have decided to participate as the rental market is perceived as too distant from their traditional activity.

A new programme for urban and housing improvement

To improve the existing housing stock in precarious conditions and the neighbourhoods or settlements that have developed outside building regulations, the national government introduced the Decent Home Decent Life (CDVD) programme. The programme is aimed at individuals who have owned property for at least 5 years prior to the application for the 18 MMW subsidy and home occupants who have housing deficiencies that can be addressed through improvements to the buildings. The aim is to improve the sanitary installations (i.e. toilets, plumbing and sewerage), the quality of common areas as well as the housing structure of beneficiary households. It targets low-income households with a monthly income of less than 4 MMW.

The CDVD programme is a national government strategy to address the housing quality gap and improve living conditions in informal settlements. The programme has three separate lines of action: i) land titling; ii) housing improvement; and iii) improvement of the urban environment. The consolidation of those three lines of action is expected to cover the major issues generated by informal urbanisation and contribute to reducing significantly the qualitative housing deficit in the cities. The MVCT aims to achieve 225 000 improvement actions during its current term of office: 60 800 in land titling, 108 200 in housing improvement and 55 810 in the improvement of the urban environment.

One of the common characteristics of the three lines of action is that they rely strongly on municipal governments for their implementation, while the national government plays a very active role in supporting them from a technical and legal perspective. Some capital cities, such as Bogotá, D.C. and Medellin, have accumulated particularly solid experience in urban improvement over several decades.

The innovative aspect introduced by the Decent Home Decent Life programme is the fact that the national government is now providing a clear and coherent framework of action towards urban and housing improvement. The programme acknowledges the important experience and the key role of municipal governments in urban improvement. Clearly based on the long experience of municipal governments, CDVD is an interesting example of how national urban and housing policies can build on local initiatives.

Land titling underpins the regularisation of illegal settlements

Land titling is the first component of the CDVD threefold strategy and one of the priorities of the Colombian government included in the current National Development Plan. The national government considers it is a crucial step towards the improvement and consolidation of informal settlements, as it enables households to initiate a process of improvement of their home. This component also contributes to the constitution of assets that may facilitate access to banking services.

In practical terms, the national land titling programme (*Programa de Titulación*) allows and supports free transfer of public land occupied illegally from public entities to occupying households. Those households must meet specific requirements, such as not yet being homeowners, not having received any previous housing subsidy and having occupied the land for at least ten years without interruption. For the first time, the programme sets a national framework of action as well as a national methodology and support for titling public land illegally occupied at the local level.

In order to avoid encouraging the invasion of public land, the titling programme applies only to land that has been occupied permanently for a period of ten years prior to Law 2044 issued in June 2020. The programme sets the rules for the treatment to apply to illegal urban settlements. It is also expected that urban development control by local governments will prevent new invasion of land.

The implementation of the titling programme is based on the establishment of agreements between the MVCT and the municipalities. By April 2021, 231 agreements had already been signed, involving 55 600 legalisation actions on the field. It is important to stress that, in parallel and for historic reasons, land titling is also carried out in Colombia by the Superintendent of Notaries and Registries (*Superintendencia de Notario y Registro,* SNR). The combined efforts of both institutions achieved 50 760 land titling actions in the country between August 2018 and April 2021 (20 090 by the MVCT and 24 670 by the SNR). By the end of March 2021, 54 334 households had benefitted from the titling programme of the CDVD programme.

Improving housing and access to residential public services

Housing improvement is the second component of the CDVD programme. It is based on the co-ordinated action of the MVCT, Ministry of Agriculture (MA) and the administrative Department for Social Prosperity (DPS). Table 4.6 presents the different responsibilities of each ministry for the housing improvement component of the programme. Their combined actions are expected to reach a total of 600 000 housing improvements and help 1 million people to move out of poverty. This component of the programme seeks to facilitate access to residential public services such as water, sanitation and electricity. The document CONPES 4023 (System of Cities) sets the different actions the government plans to conduct to deal with the effects of the COVID-19 pandemic; among them is access to adequate housing by improving rural and urban housing (DNP, 2021[26]).

Table 4.6. Responsibilities of participating ministries in housing improvement

Ministry of Housing, City and Territory	Ministry of Agriculture	Ministry of Social Prosperity
To conduct 225 000 housing improvements in the main cities of the country, supporting 650 000 people in urban and rural areas.	To conduct 13 500 housing improvement actions in rural areas, supporting farmer families.	To conduct 325 000 housing improvement actions in municipalities with less than 100 000 inhabitants, supporting families with people with disabilities, Indigenous communities and others.

Source: MVCT (n.d.[27]), *Casa Digna Vida Digna*, https://casadignavidadigna.minvivienda.gov.co/informacion.

As in other housing programmes, housing improvement is based on a family housing improvement subsidy. The subsidy may be for up to 18 MMW (approximately COP 14 million per home), for the installation of floors, bathrooms and kitchens, adaptation of spaces and structural reinforcement. The programme is targeting low-income households whose maximum monthly income is equivalent to 4 MMW and with a house value below the VIS maximum ceiling price. They have to be the legal owners of the construction to be improved or have been recognised as its inhabitants for a period of at least five years prior to the launch of the housing improvement programme. They must not have received any previous housing subsidy. About 20% of the subsidies are reserved for displaced populations and another 10% for specific vulnerable categories (female heads of households, members of Indigenous communities, population with disabilities) and members of security forces.

Each year, the national government selects the cities in which the programme will operate. For example, in 2019, the MVCT conducted housing improvement actions in 14 cities and, in 2020, in another 16. The selected cities are then invited to put forward a list of urban areas that fulfil the programme criteria. Legalisation must be in process in those areas and access to basic services is also a mandatory condition. Dwellings cannot be exposed to natural risks, nor be located in natural spaces. Once the areas have been selected, municipal governments are in charge of publishing the calls for beneficiaries and registering the eligible households interested in the programme, among which a selection is made, according to the programmes' criteria.

Municipalities are responsible for the approval of the diagnoses that are conducted regarding the housing conditions of each household selected, in order to define which improvements will be executed (the cost of these diagnoses is covered by the subsidy). They also conduct the consultation process with the beneficiary families and provide them with tailored social support. Municipalities may also bring additional funding to the programme. The National Development Bank of Colombia (*Financiera de Desarrollo Territorial,* FINDETER) provides full technical assistance to municipal governments. As for the improvement interventions, local executors conduct the improvement works following the technical terms of reference established by FINDETER. By the end of March 2021, around 107 158 households had benefitted from the Decent Home Decent Life housing improvement subsidy.

Neighbourhood improvement to reduce urban poverty

The Improvement of the Urban Environment is the third component of the CDVD programme. It is composed of three dimensions: urban legalisation, integral neighbourhood improvement and urban facilities, with integral neighbourhood its main component. As defined in the CONPES 3604 issued in 2009, integral neighbourhood improvement is a strategy to reduce urban poverty in poor informal settlements, through the implementation of physical, social, economic, legal and environmental actions and within the functional and productive structure of the city. The interventions that are being carried out within the programme relate to the following issues: accessibility and mobility, public spaces and urban facilities, social development and development of local capacities. Urban legalisation (i.e. formal recognition of the neighbourhood by the local authorities) and land regularisation, as well as risk mitigation and environmental recovery, are preliminary actions that are also carried out as part of the programme. The programme operates particularly in cities with high population growth rates and a high number of households displaced by violence. In order to be eligible, the neighbourhoods must be located within the perimeters classified in the municipal land use plan (POT) as integral improvement urban treatments.[1] Major infrastructure regarding water and sanitation must be already installed. Municipalities, in close co-operation with the MVCT, define and carry out urban improvement projects. The MVCT provides them with technical assistance and financial resources, which municipalities can complement.

The scope of the programme has been very limited so far. As of April 2021, only three projects were being implemented in the cities of Cali, Neiva and Valledupar, for a total of 13 384 beneficiary families. The programme is not new and had already been implemented in the past, especially during the 2012-15 period. At that time, it concluded 11 projects across the country, benefitting 39 700 inhabitants in 9 758 housing units. The total investment was USD 11.8 million, of which credit from the Inter-American Development Bank funded 82%. The programme of improvement of the urban environment actually endorses and continues actions that have been carried out either by previous national administrations or by municipal governments over several years. Its innovative character is that it is now part of a broader strategy led by the MVCT to provide a consistent framework of actions for reducing the qualitative deficit of housing in the country, leaning on municipal governments' experience and skills, and supporting them to multiply and systematise interventions. Two of the main implementation challenges of the programme are the correct and actualised identification in the municipal POTs, within the integral improvement polygons, of the existing urban deficiencies; and the risk exposure where the urban improvement projects are to be carried out.

Introduction of a housing subsidy for the middle-price-tier segment housing

The recent expansion of the scope of the housing policy included the introduction of a new credit subsidy for the non-VIS housing market that was introduced in 2020 by Decree 1233 as a sectoral reactivation measure to be applied until 2022 (CONPES 4002 of 2020). The new subsidy aims at the middle-price-tier segment of the housing market, i.e. housing units with sale prices under 500 MMW (USD 130 500) (Table 4.7). It consists of abatement on the monthly interests paid on housing credit, during a 7-year period

(84 months). The maximum amount of the subsidy is USD 120 per month and USD 11 000 equivalent to 42 MMW in total.

Table 4.7. Non-VIS Housing segments in Colombia: Sale prices

	MMW	USD value (April 2021)
Middle housing	135-500	39.150 to 130 500
Higher housing	> 500	> 130 500

Source: Information provided by the MVCT.

Unlike MCY subsidies, there is no limitation regarding the maximum income of its beneficiaries. However, it does not apply to households that have previously received a credit rate subsidy. It is dedicated to new housing but can be used in order to acquire a second unit. The government aims to allocate 100 000 subsidies of this kind between 2018 and 2022. About 60 000 of the subsidies are targeted at first-time buyers. With this new subsidy, the Colombian government expects to boost even further the housing industry, helping middle-class families to also become homeowners. This new subsidy should also help increase non-VIS production, which has been declining over the past four years as mentioned before.

Housing policy faces key challenges in contributing to sustainable urban development

Despite the recent quantitative success of the VIS housing unit's production and the introduction of new financing mechanisms, the national housing policy still needs to overcome important barriers to empower the government's push for more sustainable urbanisation.

Housing policy remains centred almost entirely on the acquisition of newly built social housing located in urban peripheries. In Colombia, as in other Latin American countries, social housing is based on homeownership and not on rental housing as in most OECD countries (OECD, 2020[28]). Certainly, the introduction of the SP programme has contributed to a diversification of housing options, by introducing a rent subsidy. From an urbanisation perspective, this could, in principle, help diversify housing options for low-income people regarding location, which could, in turn, lead to fostering urban densification and regeneration processes within cities.

Although the SP programme introduced a rental scheme, social housing production remains the unique pillar of the national housing policy and is even being reinforced. Indeed, in addition to the fact that the outreach of SP has been very limited until now, the programme's purpose is not to develop formal rental housing as such. On the contrary, it is explicitly aimed at enlarging the demand for the MCY programme, giving the possibility to channel more poor families – including informal tenants – towards social homeownership subsidies and, thus, social housing settlements. Tenants who enter the SP programme receive a rent subsidy for a very short period of time, which is expected to prepare them to shift to homeownership. By doing so, the programme is actually setting rental housing as an option by default for low-income households. It consolidates the focus of the national housing policy scheme not only on homeownership but also on new housing, as MCY subsidies only apply for newly built VIS.

The enlargement of the housing policy has primarily been guided by the idea of promoting the principle of a residential progression towards homeownership for low-income households. The MVCT uses the image of the "housing staircase" (*escalera de vivienda*) to present its renewed framework of housing programmes. As many poor families are not yet able to acquire a newly built VIS, in particular because of their low level of resources and savings, as well as their inability to contract a bank loan, the Colombian government launched the two new housing programmes that specifically target the bottom of the pyramid, i.e. the SP and the CDVD programme. Those programmes provide the most vulnerable households with subsidies that can help them improve their housing conditions, as a prior step to home ownership through the

acquisition of a VIS unit. As already explained, the SP programme sets out to channel low-income tenants towards the acquisition of a VIS unit. As for the CDVD programme, the intention of the Colombian government is certainly to tackle the qualitative housing deficit, which is indeed much more important than the quantitative one. But its main objective is to reach the poorest households to enable them to advance to better housing. The vision of the MVCT is that by becoming legally homeowners of an improved house and in a better neighbourhood, poor households will be able to sell their property, later on, to move to another housing solution, especially a newly built VIS unit. Formal housing property will also enable them to accede to the banking system and, thus, to the MCY programme.

An important modification made to the MCY programme consisted of authorising households that have already been granted a family housing subsidy in the past to accede to the programme benefits, which was not possible before. This modification is consistent with the principle of the residential progression of low-income households towards social housing. In fact, the recent changes introduced in the housing policy do not result in an enlargement of the subsidised housing options for low-income households but rather in an enlargement of the potential demand of poor families for social housing ownership. Moreover, the possibility for households to cumulate family housing subsidies from the MVCT and the Family Welfare Funds also contributes to increasing the demand for new VIS units.

This has several implications regarding urbanisation. First of all, as many low-income families remain uncovered by the existing housing programmes and subsidies, informal urbanisation practices will continue to be an important housing option for many of them. Second, because of its clear orientation towards home ownership in newly built social housing, the national housing policy is generating an important distortion of the housing market, which clearly favours new construction and more urbanisation. Significantly subsidising the construction of social housing strongly boosts this segment of the market to the detriment of the existing housing stock. The existence of an important offer of subsidies for buying new social housing is deterring households from the segment of existing housing, which is much less attractive than new ones since the latter are subsidised by the MCY programme. The problem could become even more pronounced if, as expected, VIS production increases in the future. Data available from La Galeria Inmobiliaria on the situation of the real estate market in 2021 highlight that the sales of existing housing deteriorated since 2019. While the rental housing stock increased, sales of existing housing fell from 35% of the real estate transactions in 2019 to 30% in 2020. Although this could be due to the pandemic context, the market has performed differently regarding new housing, whose production increased and sales rose from 22% to 29% of total housing sales in the same period. Housing subsidies will boost the sales of new units as an investment, which will probably result in an increase of the offer of existing housing (Tellez, Llanes and Hernandez, 2021[8]). The orientation of the housing market predominantly towards new social housing could cause an excessive specialisation of the housing sector, which might be a problem in the future regarding the capacity of resiliency in a crisis.

Although it boosts the national economy through the production of new social housing, the current national housing policy is feeding a model of urbanisation that is not sustainable. Since VIS housing can be built as part of urban regeneration projects, it could contribute to densification and re-densification processes that are highly needed in Colombian cities, especially large ones. However, this rarely occurs due to the high cost of the land within the existing urban fabric and the complexity of building in areas that are already urbanised and occupied (Beuf, 2016[16]). Large cities are facing difficulties in implementing urban regeneration processes. Despite great potential for land to be recycled, especially within the core areas, and the introduction of new transportation infrastructure improving urban conditions in those sectors, urban regeneration is still very scarce. Few urban projects have been carried out, even when an existing municipal company was dedicated to conducting these types of investments as in Bogotá, D.C. The fact that new VIS projects are predominantly built in expansion areas has led to increasing costs of providing public services and building infrastructure, exacerbating mobility flows and emissions, and generating socio-spatial segregation (Castiblanco Martínez and Rodriguez, 2017[29]).

As mentioned above, one of the consequences of the massive VIS production carried out in Colombian cities could well be in a near future the emergence of rapid deterioration processes in social housing neighbourhoods. This would then require high-cost urban interventions to improve them as is currently the case in Chile and Mexico (INFONAVIT, 2020[30]). Building a large number of social housing settlements could paradoxically result in deepening the qualitative deficit of housing, as the housing projects are located in urban peripheries, of poor quality and lack services and facilities.

Using housing policy instruments to support affordability and quality urbanisation

Due to the high level of urbanisation in Colombia, cities register a high demand for housing, across the whole spectrum of the housing market, from VIP and VIS to high-end housing. As in many other OECD countries, housing demand in Colombia has outpaced supply, leading to rising house and rental prices. In Colombia, the national government's strategy to provide affordable housing options for low-income households has had negative impacts on urban form as urbanisation in expansion areas is contributing to urban sprawl. The national government, therefore, has a critical social and urban challenge to address: providing adequate and affordable housing in cities while delivering compact, connected and clean urban development as established in the System of Cities, the country's NUP framework.

Colombia's national government has focused on pursuing large social housing programmes without considering their impact on urban spatial form, as housing policy is rarely co-ordinated with other sectoral policies on the field. Colombian authorities, therefore, need to consider the concrete impacts of national housing policy instruments not only on housing affordability but also on urban form. This is a complex task as there is not a direct relationship between compact urban development and house prices (Moreno Monroy et al., 2020[31]). Recent OECD research has shown that fiscal instruments, such as impact fees and split-rate taxes can ensure that new housing developments meet objectives of affordability while also fostering compact urban development. Other instruments, such as inclusionary zoning and incentives for developers, can also be used to guarantee that a certain share of housing units are sold or rented at below-market prices, both in the owner-occupied and rental markets. Providing urban public space and improved connectivity, as part of housing policies, is also essential to support a more compact urban development (Moreno Monroy et al., 2020[31]).

Table 4.8 presents a series of policy instruments used across OECD countries that can have an impact on urban compactness and housing affordability in Colombian cities. They are divided into three categories: i) policy instruments affecting the use of land for housing development, thus affecting the general housing market; ii) policy instruments mainly affecting the owner-occupied housing market; and iii) policy instruments mainly affecting the rental housing market. The table highlights whether their adoption in the Colombian context would be recommended or not. Its purpose is to contribute to the development of policy instruments that help both promote housing affordability and control urban form in Colombian cities.

Table 4.8. Housing policy instruments affecting urban form and housing affordability – Recommendations for Colombia

Policy instruments	Objectives	Impact on urban form and compactness	Impact on housing affordability and inequality	Is it recommended for Colombia?
Policy instruments affecting use of land for housing development				
Split-rate taxes/ differential tax rates on land values/ progressive property taxes for underused or vacant land	Incentivise property owners to build on (or improve) their properties while disincentivising land speculation	If well-designed and adequately targeted (e.g. taxes on land should be higher than taxes on buildings), split-rate taxes reduce the incentive for sprawl	Neutral (effect on housing prices is mixed)	Implementing progressive property taxes, combined with a development tax, for underused or vacant intra-urban land and housing would be a way to contribute to support urban regeneration projects and housing improvement and pursuing compact development.
Impact fees	Internalise cost of infrastructure provision (i.e. recover the social cost of conversion to housing) by charging developers/land owners to their developments	Denser and less fragmented development as incentives to build near existing stock increase	Typically positive as it prevents windfall gains for landowners (for developing their land without providing necessary infrastructure)	Colombia could make better use of impact fees and analyse the possibility of having higher rates in remote areas to incentivise developing closer to already developed land. Colombia already has the distribution of burdens and benefits which could serve as a basis for this analysis.
Development tax	Internalise the social and environmental loss of open space by levying tax on land that is converted from agricultural to urban use	Less sprawl, as it provides disincentives for landowners for land conversion	Improved equality through capturing and redistributing landowners' benefits to urban residents in general if the tax revenue is used for mitigating social and environmental loss	Colombia may wish to consider its introduction to incentivise more intra-urban development and urban regeneration projects. The tax must reflect the real cost of development. The aim is that the costs for all of the services that the city provides are recovered. It could also help improve the municipalities' sources of income.
Tradable/ transferable development rights	Compensate restricted development rights by allowing a right to develop a parcel to be transferred to another parcel; often used to preserve historical buildings	May not directly reduce sprawl but can produce denser development if restricted rights in urban fringes are traded to urban centres; the correct cap needs to be established	Uncertain impact on inclusiveness; this depends on the initial state of regulation and allocation of development rights	Colombia already has this instrument but has not yet implemented. If implemented correctly, this instrument could help Colombia redevelop and preserve historical centres. The government may give development rights to people to build in other zones when public interests are affected by building in conservation zones, for instance.
Urban growth boundaries/ urban service boundaries	Contain sprawling housing development by physically limiting developable fringe areas	Less sprawl and denser development, but more sprawl and more fragmented if boundaries are not drawn properly or updated periodically	Increased inequality through increased housing prices	Colombia should refrain from using this as it may give room for speculation unless proper planning takes place. Instead of a traditional growth boundary, outside of which development is prohibited, a better outcome could be

Policy instruments	Objectives	Impact on urban form and compactness	Impact on housing affordability and inequality	Is it recommended for Colombia?
				achieved by setting higher taxes/fees on development outside of the growth boundary in order to discourage development. This would have fewer negative effects than the traditional urban growth boundary.
Greenbelt	Designate areas of open space surrounding urban areas (or certain parts outside urban areas) that act as physical boundaries against city expansion	Less sprawl and denser development but fixed greenbelts are likely to lead to leapfrogging (development outside the greenbelts)	Increased inequality through increased housing prices	Colombia should avoid using this as it may foster speculation and increase land and house prices in central areas. Having better reserve land plans would be advisable.
Incentives for higher density or accessibility	Incentivise housing development with higher density/floor-to-area ratio, taller height allowances and fewer parking requirements, and with better access, using tax breaks/subsidies; used in areas where densification needs to be encouraged (e.g. near public transit infrastructure or high employment areas)	Less sprawl and denser development	Increases affordable housing stock; access requirements can increase inequality through housing cost overburden (higher grants and subsidies can capitalise into higher prices)	This may be a valuable instrument to increase affordable housing stock in central areas. It could support the implementation of the Neighbourhood Improvement Programme, and the CDVD programme in its housing renewal scheme by incentivising inland development.
Policy instruments mainly affecting the owner-occupied housing market				
Grants for buying or constructing a new home and/or rehabilitating or renovating an existing unit	Increase access to housing; alleviate housing cost burden	Less compact if preference is given to single-family home projects	In theory, it should improve inclusiveness but this is not typically observed; increased inequality through housing cost overburden (unless restrictions on mortgage uptake are in place); if targeting is weak, this mostly benefits higher-income households	They have been widely used in Colombia. These have favoured homeownership in single-family households. Colombia could consider reforming grants for homeownership and exclusive use in central areas and social housing.
Mortgage interest deduction	Allow taxpayers to own their homes and bring positive externalities to their communities	Increase in space per capita consumption/ shared single-family homes in peripheral areas (more in places with rigid housing supply)	Increased inequality when beneficiaries are high-income households that benefit from large tax deductions through higher housing prices in places with rigid housing supply	This is similar to the credit rate subsidies which could be refocused on beneficiaries of the MCY programme but for mortgages in central areas.
Preferential tax treatment on home sales	Increase positive effects of homeowners in communities by promoting homeownership and increasing the share of homeowners	No densification effect expected; higher space per capita consumption/higher share of single-family homes in suburbs	Overall increased inequality through lower-income households overburdened by housing costs; can have a positive impact on labour mobility as homeowners can sell homes more easily	This instrument may be considered for households that live in accommodation located in remote areas to incentivise them to move closer to the centre. Those housing units could be sold to the government to integrate them into housing rental programmes.

Policy instruments	Objectives	Impact on urban form and compactness	Impact on housing affordability and inequality	Is it recommended for Colombia?
			when needed	
Policy instruments mainly affecting the rental housing market				
Regulations on tenant-landlord relationships	Address asymmetric information and/or unequal bargaining power between landlords and tenants	Neutral	Uncertain – may increase the security of tenure and minimum quality standards of rental housing but decrease supply	They do not exist in Colombian legislation and could be one of the first priorities for housing policy in order to develop the rental market. Legislation could address the issue of tenants' rights over eviction, notice to vacate, etc.
Rental housing allowances/ rent subsidy vouchers/ rent control	Ease housing cost burden of renters by lowering rents	Neutral	Increased inequality if allowances are based on a share of income or rent; when targeted at specific groups; or if eligibility is not periodically reassessed; may increase access to affordable housing but decrease supply	In the context of a wider rental programme, Colombia may need to legislate on how to determine the subsidy for rent; one possibility is the use of the households' income as a base. It should be targeted to low- and- medium-income households.
Permanent use of social housing for rent in central areas	Create a pool of social housing units to be leased out to eligible vulnerable households through a below-market use contract	More compact if housing is located in more central areas	Decreased inequality through increased access to social rental housing	Colombia may wish to consider the introduction of this instrument, building on the experience of the SP programme. The challenge may be to ensure that social rental housing is available in central areas. It may be necessary to combine it with other instruments such as the subsidy for rental housing.
Inclusionary zoning	Ensure access to owner-occupied housing by reserving new housing for rental at below-market price levels (often for certain periods, e.g. 20 years)	More compact if housing is located in more central areas compared to the social housing stock	Decreased inequality through lower housing costs; housing quality may deteriorate if rents are kept low	Colombia should introduce this instrument in order to lower housing costs but should consider that housing quality may deteriorate if rental revenues cannot cover maintenance costs.

Source: Elaborated based on Moreno Monroy, A. et al. (2020[31]), "Housing policies for sustainable and inclusive cities: How national governments can deliver affordable housing and compact urban development", https://doi.org/10.1787/d63e9434-en.

Towards a comprehensive habitat policy focused on urban sustainability

Providing affordable, decent and safe housing options for all, in particular for low-income households, is a crucial challenge for Colombia from a social and economic point of view. However, it should not be pursued at the expense of urban sustainability, fostering urban expansion and building urban spaces that are not viable or resilient in environmental, economic and social terms. Otherwise, Colombian cities would have to face increasing urban dysfunction, like the disconnection between social housing developments in the outskirts and those in the core city, which would generate high costs for the entire society to address.

Urban sustainability in a comprehensive sense (not limited to environmental issues) must imperatively be at the centre of Colombia's housing policy. Although the creation of a ministry in charge of both urban and housing issues is an important step towards the articulation of housing and urban development challenges,

there is no automatic guarantee that those issues are tackled in a coherent and co-ordinated manner. The formulation of a new NUP, which should frame housing policy, should consider urban sustainability as a priority so that no national housing programmes lead to unsustainable urbanisation. Housing policy could be used as a lever for making urban development more sustainable. Family housing subsidies, which are the national housing policy's main tool, should be diversified to integrate more affordable housing options for low-income households and help curb informal urbanisation. Above all, the granting of subsidies should be conditioned to a set of criteria regarding quality, affordability and sustainability of the housing options in a broad sense, including their location and their access to urban amenities.

Overall, Colombia needs to implement a broader habitat policy rather than a siloed housing policy, to build more viable and liveable cities. The following section proposes a set of recommendations to help achieve this transition from the current housing policy to a new habitat one, focusing on urban sustainability.

Improve the social housing production for sustainable and inclusive cities

The MCY programme has proven successful when it comes to the provision of housing for low-income families in Colombia. It is now well established, with sustained levels of social housing production (even during the COVID crisis) and granted subsidies. As mentioned before, it has been recently improved and enlarged, in order to reach more Colombian households in need of an affordable housing option.

The MCY programme, however, still has to face important challenges, such as the quality of the housing production (including in terms of location and sustainability) and the lack of integration of the social housing settlements with the city. The massive VIS production has caused major urban issues, such as urban expansion and the formation of segregated urban peripheries with little access to urban amenities, as stressed by the Mission of the System of Cities (task force) (DNP, 2014[3]).

The barriers met by many poor households to access social housing, such as high prices and the need to contract a bank loan within the formal banking system, *de facto* exclude a large number of vulnerable families from formal housing. Over the past decade, the Free Housing Programme (*Programa de Vivienda Gratuita*, PVG) played an important role in covering the needs of the lowest-income households with no access to the VIS market. Although the SP programme has been created in order to address the demand of the poorest households that are not creditworthy, as of now, it does not provide an alternative because of its limited quantitative results. This issue may be exacerbated by the increase in poverty levels due to the COVID-19 pandemic, leading to an increase in the number of informal settlements.

Quality and sustainability standards should be introduced in subsidised social housing (VIS bought with subsidies) in order to improve the quality of VIS housing units. While VIS housing cannot be subject to a specific national regulation regarding its quality, size and location, as these elements need to be specified in cities' land use plans (POTs), the allocation of the MCY programme subsidies (family housing subsidies and credit rate subsidies) could still be conditioned to the compliance with quality and sustainability specifications. Private developers would have no obligation to fulfil the new guidelines in their projects but would need to do so to be able to sell their production to households eligible for housing subsidies. This kind of measure has already been implemented in other Latin American countries focused on the mass production of social housing such as Mexico (Box 4.2). Imposing such specifications did not discourage housing production, which is a common fear of the authorities. Mexico even introduced a green mortgage to require environmental standards to be met to approve the use of housing subsidies. The Mexican experience of social housing green mortgages highlights the importance of focusing beyond the environmental dimension in order to build sustainable housing, especially social housing. The introduction of mandatory guidelines in the subsidised social housing production would help avoid the development of housing settlements that are not offering minimum liveability standards. Because of the high levels of production of VIS housing in Colombia, it would also be a strong lever for building more sustainable settlements and cities, by standardising the quality of the social housing stock in the country and raising the standards of this crucial housing sector in Colombia.

Box 4.2. Sustainable social housing in Mexico: The INFONAVIT green mortgage

In 2007, the Mexican government introduced the green mortgage (*hipoteca verde*) to achieve sustainability objectives through the construction of social housing. The green mortgage is an integral strategy intended to offer housing credit holders a better quality of life by promoting sustainable housing development. The mortgage is managed by the National Workers' Housing Fund Institute (INFONAVIT), which is the country's largest housing provident fund. It provides housing credits to formal workers in the private sector for housing acquisition. Almost all mortgages awarded by the institute to buy, build, remodel or improve a house are required to use eco-technologies to save water, electricity and gas. Initially, the green mortgage was allocated as an additional amount of credit to those who asked for it but, since 2011, all credits granted by INFONAVIT have been dedicated to houses using eco-technology. Over 90% of the housing credits are part of the green mortgage scheme. Through the green mortgage, INFONAVIT finances environmental technologies for electricity, water and gas.

Due to the use of eco-technologies such as eco light bulbs, solar water heaters, thermal insulation for walls and roofs, water savings systems, etc., that can be adapted to the particularities of every region in the country, households can save money on their utility bills. These savings are expected to compensate for the increase in the cost-of-housing units and in the amounts of credits. Private developers, in charge of building social housing units, are all producing green social housing. Due to the high production of social housing in the country, the impact of the scheme has helped to reduce emissions from the housing sector.

Source: Acosta, J. and G. Aguilar (2018[32]), "El Programa Hipoteca Verde del Infonavit: ¿Hacia una política de vivienda sustentable?", http://www.revistavivienda.cuaad.udg.mx/index.php/rv/article/view/36/55.

Colombia has made significant progress over the past decade in promoting sustainability within the housing sector, especially by considering the entire lifetime of buildings through the enactment of CONPES 3919 on the National Policy on Sustainable Buildings in 2018. There is a shared will among Colombia's national leaders to move forward in the promotion of sustainability through social housing. Several social housing projects have already been awarded international or national certifications. For example, EDGE (Excellence in Design for Greater Efficiencies) is a worldwide certification for green buildings, which has already been used in the field of social housing in Colombia. In 2018, the Alegra construction project (in the city of Manizales) was the first EDGE-certified VIS development in Colombia. The 350-unit project was partly funded by Bancolombia's first green bond issuance, enabling developers to access financing at more competitive rates. Since 2018, the EDGE certification, created by the World Bank's International Finance Corporation, has become more prominent across the country with several other projects certified. The Colombian Council for Sustainable Construction (*Consejo Colombiano de Construcción Sostenible*, CCCS) also launched its own certification, called CASA Colombia. It also applies to VIS and VIP projects and enables developers to access preferential interest rates from banks. CASA Colombia is based on LEED (Leadership in Energy and Environmental Design) specifications, which are the most widely used green building rating system but is adapted to the Colombian context. Considering the potential impact of the application of sustainability requirements on housing prices, and particularly the consequences for VIP and VIS projects, the CASA Colombia certification has set a different scheme for evaluating social housing projects, with lower requirements.

These measures constitute a step in the right direction. However, the sustainability requirements of these diverse initiatives are limited as they focus solely on environmental, water and energy saving aspects. Although the CASA Colombia certification includes other elements, such as the inclusion of local communities throughout the technical training of their members to work in construction, its vision of

sustainability does not set any standards relative to housing quality or urban integration, which are crucial issues. The introduction of eco-technologies (i.e. thermal insulation and solar panels) in social housing can have a social impact on households' budget (contributing to the reduction of energy bills). But social issues are generally set aside and quality of life is not being considered in sustainability guidelines. Sustainable and green social housing may, in fact, turn out to be as problematic as traditional housing, as shown by the example of Mexico where 650 000 social housing units in Mexican cities have been abandoned. Many of them had been built over the past decade under green guidelines but were located in very remote urban peripheries and had low-quality standards.

Sustainability in social housing production should therefore be addressed in a comprehensive way and not considered through a sole green angle. Dimensions such as the level of comfort (especially minimum domestic space – a key dimension of housing that has been reinforced by the COVID-19 pandemic), as well as access to urban amenities and opportunities, ranging from basic services to public transportation, culture, education and employment, must also be fully included, along with water, recycling and energy savings. The experience of OECD countries and cities in the context of the COVID-19 crisis suggests that governments need to take measures to adjust housing quantity, quality and affordability to the variety of housing needs, while promoting social cohesion and integration with sustainable transport modes (OECD, 2020[33]).

Some interesting experiences have already been conducted in Latin America to address quality and sustainability in a comprehensive approach. For example, at the end of the 2000s, the Mexican government created a new certification for developers to help them build more sustainable social housing settlements (OECD, 2015[34]). The Sustainable and Comprehensive Urban Developments certification (*Desarrollo Urbano Integral Sustentable*, DUIS, now called *Desarrollos Certificados*) applied a comprehensive evaluation grid, which defined three scales for quality and sustainability: dwellings, neighbourhood and connection to the city. The initiative consisted of a package of public subsidies in several fields (education, health, social inclusion, etc.) that would be granted to the certified projects. It did not fully succeed, however, due to several reasons, including the 2008-09 crisis. Still, the methodology offers a useful example for Colombia and could serve as inspiration to introduce sustainability criteria comprehensively in the production of social housing, especially regarding new large-scale social housing urbanisation projects. In Chile, the sustainable construction standards for housing (Box 4.3), published in 2018 at the end of a long consultation process, are not explicitly focused on social housing but address quality and sustainability with a complete range of guidelines that are especially suited to this housing segment. Although it is not mandatory to fulfil these guidelines, the latter can still be an inspiring experience for Colombia in terms of elaborating a comprehensive framework for both quality and sustainability in social housing, which could be used at the very least for the production of social housing subsidised by the national authorities. The implementation of such a framework of quality and sustainability standards could help significantly improve the VIS production in Colombia, from the quality of the dwellings to their urban integration. As in Chile, the elaboration of such standards would need to be fully discussed with the main stakeholders of the sector, including representatives of civil society and the residents.

Box 4.3. Sustainable construction standards for housing in Chile

In 2018, Chile introduced sustainable construction standards for housing to approach sustainability in an integrated and holistic manner. The standards are not limited to the traditional items included in the guidelines for green housing, such as water, energy, domestic waste and building materials. They include quality of design, housing comfort and characteristics of the immediate urban environment as relevant components of housing. The standards also take into account the diversity of climate in the country and the specific requirements of each geographical zone. To be sustainable, houses and other constructions need to combine economic, social and environmental aspects.

The standards focus on seven areas that help minimise the impact of the construction sector on the environment and people's health: health and well-being, territorial planning, energy, water, materials and waste, environmental impact, and immediate surroundings (habitat). The expected benefits from the introduction of the construction standards are: savings from the optimisation of households' budget, improved quality of life and health through habitat improvement, reduction in housing emissions, reductions of CO_2 emissions, the possibility of using rain water, and reduction in waste generation. The inclusion of aspects of health and well-being as well as the immediate surroundings (habitat) into the standards is an innovation.

The immediate surroundings category is directly linked to critical urban issues that should be taken into account while building housing, especially social housing. The standards recognise that in Chile, most of the urban settlements present a wide range of problems such as social segregation, uncontrolled urban expansion, lack of connectivity, congestion, poor heritage, conservation and poor local identity, among others, due to poor planning. Two important matters are incorporated into the immediate surrounding category: sustainable mobility and the pedestrianisation of cities.

Source: MINVU (n.d.[35]), *Fundamentos*, https://csustentable.minvu.gob.cl/fundamentos/.

Raising the standards of quality and sustainability in social housing would inevitably increase the cost of the housing units. Financing fewer but higher quality VIS (through subsidies) would enable the national government to avoid passing cost increases onto low-income households. Subsidies could be less numerous but higher. They could also be better targeted at low-income households. According to the World Bank survey, the interest rate subsidy, in particular, represented 41% of the Colombian government's investment between 2012 and 2018. Due to its design, households that purchased the highest value housing benefitted more. This subsidy cost the equivalent of 65% of the total cost of Free Housing Programme, which allowed for the construction of more than 100 000 units since 2012 (World Bank, 2019[10]).

Considering the impact of the pandemic, subsidies recently allocated to housing for middle-income households should be redirected towards housing options for low-income families. A general reallocation of the resources mobilised by the government in the form of housing subsidies could also help compensate for the reduction of the availability of VIS subsidies, thanks to the creation of new housing programmes based on other housing options (described below). The reallocation of resources could also apply to the newly created housing subsidy for middle-income households. This kind of subsidy is difficult to sustain (and probably legitimate) within the current Colombian context, marked by high urban poverty rates and inequality (especially in light of the COVID-19 crisis), the existence of a huge housing deficit affecting very low-income groups in particular and limited public resources.

Improving the quality and sustainability of social housing units and settlements could also help avoid important costs in regeneration in a near future. The development of other housing programmes focused on both housing regeneration and assisted self-production could compensate for the impact of decreasing the VIS production on the general economy. Those could have a significant economic impact, based on medium- and small-sized firms and building craftsmen.

Develop intra-urban decent and affordable rental housing options for low-income households

As discussed earlier, Colombia's subsidy for rental housing remains oriented towards homeownership, as its objective is to help low-income households save during a two year-period to acquire a social housing unit through Colombia's main housing programme MCY. In that sense, it cannot be considered a real rental housing programme. Moreover, as the goal is to help low-income households buy newly built social

housing located in most cases in the urban periphery, the current rental subsidy tends to reinforce the unsustainable pattern of urban development that characterises most Colombian cities.

Rental subsidies should therefore be more compatible with the objectives of sustainable urban development. In order to move towards greater diversification of housing policy and offer more housing options to low-income households, rental housing should constitute an actual alternative in its own right, without necessarily being linked to a later stage of homeownership. Rental subsidies should focus in particular on households that are not in a position to become homeowners in the near future, or those that need to remain flexible regarding their housing choices and preferences to be able to move easily for work or personal reasons.

While home ownership offers many advantages, in particular for low-income families, in terms of security of tenure and the possibility of passing on a property to family descendants, rental housing has several significant benefits. Being a tenant means not having to pay for a housing credit, which can significantly reduce risks in case of life accidents (loss of one's job, divorce, etc.) or an economic or health crisis. While tenants still have to manage to pay their rent, they can at least move to another place, less expensive accommodation and reduce their expenses to adapt to the situation. Renting is a way of being more flexible, which is often important, in particular for young households. It also makes it possible to invest instead in important aspects other than housing, such as the creation of a small firm or shop, or education (IDB, 2012[36]). Finally, rental housing is an adequate solution within the context of increasing unaffordability of homeownership in cities.

As in many other emerging economies, Colombian households generally seek to become homeowners. However, renting is common in the country and has been increasing rapidly over the past few years, both in proportion and absolute terms. There were 3.9 million tenants in 2011 and 5.8 million in 2019 (DANE, 2018[37]). In fact, Colombia is the Latin American country with the highest rate of tenants. According to the 2019 Quality of Life Survey (DANE, 2019[38]), 35.7% of Colombia's households were tenants; in urban areas, the share was even 43.3%, up from the previous year (39.2%). This particularity of Colombia can be considered a favourable factor for implementing a rental housing programme in the country.

Rental housing policies are generally twofold. On the one hand, they can be based on granting a direct rental housing subsidy covering part of tenants' housing expenses, who are free to choose where to live. On the other hand, they can consist in financing the construction or the acquisition of housing to be rented. Public institutions or private actors are the owners of the housing units. They act as institutional landlords, providing rental accommodation at sub-market prices. Specific rules are used in order to target beneficiaries and allocate housing units. This kind of rental housing is generally called rental social housing, whereas the first option is identified as affordable rental housing. Both approaches can be combined, as in the case of France (Box 4.4). The few existing programmes for rental housing in Latin America generally belong to the first category, as they focus on housing lease or similar options. In the past, some countries in Latin America, in particular Chile and Mexico, implemented programmes based on social housing rental. However, the dwellings were rapidly sold to their occupants.

Box 4.4. Rental housing subsidy in France: One of the main tools of the country's housing policy

Direct rental housing subsidies (*allocation logement*) were created in France in 1948. They were largely expanded at the end of the 1970s due to the important shortcomings of the massive social housing production that was implemented at the end of the Second World War in order to tackle the huge quantitative housing deficit. Despite its quantitative success, it was rapidly tarnished by its social and spatial segregational impacts. Poor households (and in particular immigrants) were concentrated in large and homogeneous social housing neighbourhoods built in urban peripheral areas with little access

to urban amenities and opportunities. In response to these challenges, social housing production was reformed at the beginning of the 1970s. Social housing then started to be built at a smaller scale, with higher quality standards.

Direct rental allowances, which were the second element of the national housing policy, were considered a more efficient and flexible tool compared to social housing production. They also appeared better suited to helping low-income households access a decent home without concentrating them spatially in social housing settlements. Still today, they are one of the main tools of the French housing policy, accounting for around EUR 20 billion each year. Around one-fifth of the population receive this allowance in France, which represents six million low-income and middle-class households. However, evidence has shown that a large share of these housing allowances is captured by landlords, who subsequently raise rents (by 78% according to Fack (2006[39])).

Source: Bozio, A. et al. (2017[40]) (2017), "Designing housing benefits: An application with French data", https://www.cairn.info/revue-economie-et-prevision-2017-2-page-163.htm.

Directly subsidising access to rental housing in the private market can be a very efficient option in countries where the housing market is mainly or entirely formal. To be implemented, this kind of housing programme requires the existence of formal rent agreements that define rents as well as the characteristics of the property and duration of the contract. In France, rent subsidies have been one of the main tools of housing policy for more than half a century (Box 4.4).

On the contrary, directly subsidising rental housing on the private market can be problematic in countries where the rental market for low-income households (the main target of the policy) is predominantly informal, as is the case in Colombia. The SP programme has yielded limited results so far, probably because of the important mismatch between the targeted households (low-income families that are not in a position to purchase a social housing unit) and the formal offer of housing to be rented during the two years of the programme. This offer is still very limited, in spite of all of the efforts made by the MVCT to increase it. Certainly, the stated objective of SP is precisely to take low-income households from the informal to the formal housing market, including the rental one during a transitory period. However, reaching this goal seems a challenging task. By definition, low-income households tend to rent houses that are generally precarious or deteriorated, predominantly in the informal market in poor urban settlements or deprived central areas. Because of the informal status of the rent agreements (and often of the land tenure) and the low quality of housing, it is not conceivable that their tenants receive a rental subsidy. Nor is it possible to redirect those families towards the formal rental market, which does not provide a housing supply adapted to their budget. For those reasons, the idea of a national housing programme based on granting direct rental subsidies to low-income households is probably not the most adequate option. However, municipal governments could implement such an option at the local level, identifying potential landlords and tenants, playing the role of a public broker and subsidising part of the rents. As renting is a traditional activity within low-income settlements as a way of generating income, implementing a housing rental programme would be in line with the households' practices and would probably be well received.

Municipal authorities could also ensure that the rented properties are adequate housing. Housing improvement subsidies could eventually be provided to owners to upgrade the housing units to be leased. This work could be realised at the local level with the help of national financing. For example, in Mexico, the municipality of Tlajomulco de Zuñiga within the Guadalajara metropolitan area is currently implementing a pilot housing programme based on this mechanism. Many social housing homeowners have left their property due to the poor quality and location of the dwellings and neighbourhoods. In order to limit vacancy and its negative impacts on the residents who are staying and to respond to the needs of vulnerable households (in particular female heads of households and elderly people), the municipality launched the Rent Your Home (*Renta tu Casa*) initiative in 2019. Tenants receive a subsidy from the

municipal government that covers part of the rent, while landlords are sure to be paid rent in the event the tenant fails to fulfil their obligation (INFONAVIT, 2020[30]). Although it has been implemented at a very local scale so far due to the scarcity of municipal resources, this pilot programme provides a good example of the kind of initiative that could be carried out locally regarding rental housing subsidies and that could be financed with the help of the national government. Nowadays, according to the results of the OECD Survey on Urban Policy in Colombia 2021, only 4 out of 72 responding municipalities are providing rental subsidies to low-income households. However, the COVID-19 crisis forced many municipalities to help tenants who were not able to pay their rent and raised municipal awareness about the importance of rental subsidies.

Colombia should explore the possibility of formally linking a rental subsidy with housing improvement ones granted to landlords upon entering the programme. Rental housing subsidies would thus contribute to reducing the qualitative deficit. Informally developed urban areas would be targeted but also urban central areas, which currently contain concentrations of deteriorated housing. Improving them would be a contribution, albeit modest, to a highly necessary regeneration process.

Colombia could also consider the second category of rental housing policy, which consists in financing the construction or acquisition of housing to be rented to a targeted population. As explained above, it has already been implemented in the past in some Latin American countries, although rapidly abandoned due to the rise of homeownership policies. The building up of a rental housing stock accessible to targeted and eligible households at below-market prices would be particularly beneficial in order to accommodate vulnerable groups for a certain period of time, such as households displaced by violence, immigrants or population affected by natural disasters. This could also be an option for priority low-income households with very low financial capacity, such as female heads of households and the elderly (who are an increasing part of Colombia's population). Rental housing stocks could be managed either by national or local authorities or by any other public or private institutional landlord dedicated to this function. They could be newly built or based on the acquisition of existing housing. Municipalities and metropolitan areas could potentially be responsible for the management of such social housing stocks in the Colombian context because of the important responsibility and commitment of cities in urban issues.

The implementation of this kind of rental housing policy can be used both for providing affordable and decent housing to specific low-income groups and as a lever in order to impact urban development, as suggested by the example of South Africa (Box 4.5). Rental housing can be located in strategic areas to contribute to their regeneration and to a reduction of socio-spatial segregation. In South Africa, rental social housing was primarily located in urban "restructuring zones". The South African experience shows that the contribution to urban sustainable development strategies should be a guiding principle for the elaboration and further implementation of social rental housing as part of the national housing policy. In Colombia, social rental housing would be particularly needed in deprived central areas and where public transportation corridors have been implemented. This would allow tenants to access those strategic infrastructures and an urban environment providing all amenities and services. The implementation of rental social housing in such locations would foster the regeneration of public transportation corridors, which remains an important challenge in Colombian cities (Suzuki, Cervero and Iuchi, 2013[41]). As for urban development in the peripheries, the development of a social housing stock could also serve as a modest contribution to limit the proliferation and expansion of informal settlements, as a portion of the vulnerable households in those settlements would have an alternate option.

Box 4.5. The Social Housing Policy (SHP) in South Africa: Linking housing policy and urban challenges

In 2005, South Africa launched the SHP based on the provision of rental housing for low- and middle-income households. During the 1990s, the country introduced the first massive social housing policy based on homeownership called the Reconstruction and Development Programme. The intention was to tackle the huge quantitative housing deficit, estimated at 1.5 million units and growing at a rate of 200 000 new households each year. Between 1994 and 2003, more than 1.5 million housing units were constructed, with low-quality standards and in peripheral locations, reinforcing urban dysfunctions and socio-spatial segregation.

The SHP is based on an institutional rental subsidy that provides funding to non-profit organisations called Social Housing Institutions (SHIs), which were created to develop and manage rental or co-operative affordable social housing. SHIs are accredited by the Ministry of Housing and Settlements. They develop the rental social housing stock using loan funding from the National Housing Finance Corporation (NHFC), as well as donor funding and local authority grant funding. In addition to SHIs, private for-profit entities (developers and investors) can also develop and manage accredited social housing projects for low-income residents. Public-private partnerships (including SHIs and private companies) can also be involved in the provision of rental social housing in the case of large projects.

The link between housing and urban development policies is a central dimension of the South African SHP. Rental social housing projects are to be developed in so-called “restructuring zones”, which correspond to intra-urban areas that need to be regenerated and have to be declared through ministerial approval. Restructuring zones are geographic areas identified by local authorities and supported by the provincial government for targeted investment. They must be aligned with urban development strategies. In 2017, 138 additional restructuring zones (located in 6 provinces and 38 municipalities) were created, in addition to the 127 existing ones. Their coverage extended to intermediate and small towns.

Housing plays an active role in promoting more compact, efficient and equitable cities and towns, with rental social housing. It contributes to urban restructuring and supporting inner-city regeneration by helping restructure the segregated and fragmented spatial form of cities and towns. The social housing capital subsidy per dwelling unit is larger than the other housing subsidies, and municipalities and other public bodies are expected to release and accelerate the development of vacant and underused land in conducive locations.

Other objectives of the SHP include local economic development, financial contributions to local authorities through rates and services, social stabilisation, good governance, democracy and citizenship. Social housing projects need to achieve an income mix, with middle-income beneficiaries ideally coming from different racial backgrounds. The policy also encourages the inclusion of non-subsidised units to be rented to higher-income households.

In order to ensure the financial sustainability of social housing projects, the policy is based on cross-subsidisation and government grants but the payment of the rents by tenants is a central element of the model. Beneficiaries are thus limited to people who can demonstrate regular income. The programme delivered about 2 500 units between 2008 to 2014. It reached more than 12 800 units built by the end of 2018 (although still below the target of 27 000). Today there are about 35 000 social rental units within South African urban areas.

Source: Scheba, A., I. Turok and J. Visagie (n.d.[42]), “The role of social housing in reducing inequality in South African Cities”, https://issuu.com/objectif-developpement/docs/role_of_social_housing_in_reducing_inequality_sout.

Develop a wider range of housing subsidies to promote urban sustainability

In addition to social housing homeownership and rental housing subsidies, Colombia could develop alternative housing programmes to enlarge the spectrum of the housing and habitat policy. Such alternative programmes would pursue a twofold objective: covering the diversity of needs of low-income households and promoting a more sustainable urban development pattern in Colombian cities. As for homeownership and rental housing subsidies, their impact on urban development should always be fully and explicitly considered.

Housing subsidies to foster urban regeneration

While Colombian cities have major needs in terms of urban regeneration within their central areas (centres and sub-central areas), they do not have high vacancy rates in those locations, unlike many cities in Latin America (OECD, 2015[23]). Over the past two decades, the majority of Colombian capital cities have implemented public transportation corridors that go through their central areas. Such corridors have improved urban mobility and public spaces but they did not allow for an urban regeneration process even though land regulation often permitted it and even fostered it in theory (Suzuki, Cervero and Iuchi, 2013[41]; Paquette, 2020[43]). Today, the concrete co-ordination between public transportation progress and urban development appears to be one of the major challenges for Colombian cities. It is high time to build urban regeneration upon the many advancements achieved in public transportation to optimise the latter and move towards a more sustainable urban development.

Urban planning regulation is a key driver for urban regeneration. However, it is not enough to trigger it and needs to be combined with housing policy. In this respect, the repopulation process that took place in the central and sub-central areas of Santiago de Chile over the last three decades can be inspiring for Colombia (Box 4.6). This case highlights the efficiency of implementing a targeted housing subsidy for building new housing for low-middle class households in deprived urban central areas, in order to enhance regeneration.

Box 4.6. Housing incentive for the renovation of the central area of Santiago de Chile

During the second half of the 20th century, the municipality of Santiago in the metropolitan area of Santiago de Chile experienced a severe population decline, as its population halved from 440 000 in 1940 to 200 000 in 2002. At the beginning of the 1980s, the municipality had become one of the less active regarding housing sales. A large quantity of waste land and old deteriorated buildings started to appear in the territory.

To address the situation, municipal authorities launched an ambitious Repopulation Programme (*Programma de Repoblamiento*) at the beginning of the 1990s. Authorities decided that the Santiago Development Corporation (*Corporación para el Desarrollo de Santiago*), a semi-public corporation, would run the programme. The corporation worked with private developers and land owners to release land for new construction. As a result, many high-density buildings were built and the urban landscape experienced a radical change. In 2012, the municipality reached a population of 308 000 inhabitants. In 2013, it concentrated over 30% of the housing sales of the whole Santiago metropolitan area.

The success of the regeneration of the central area of Santiago was the result of a combination of elements and a coalition of wills. One of the key elements was the creation of a homeownership subsidy awarded by the Ministry of Housing and Urban Development (MINVU), targeting the central urban area defined as “renewal area”. While the Repopulation Programme worked to ease the construction of new housing in the centre of the city, a large share of those “urban renewal subsidies” were provided to low- and middle-class households to fund housing demand in the municipality. Meanwhile, several metro

lines were extended and new metro stations were opened in the centre of the city. Private developers used the new transport infrastructure as a strong selling point to convince young households to set up in the area. At the same time, the municipality incentivised the development of supermarkets and local services so that the new residents could fulfil their daily needs.

The success of the Repopulation Programme was due to its integration within a comprehensive and multi-sectoral strategy. This experience highlights the need to link housing with urban development and transportation projects to enhance regeneration processes.

Source: Amirtahmasebi, R. et al. (2016[44]), "Santiago's repopulation program: A successful strategy for regenerating a shrinking city", https://doi.org/10.1596/978-1-4648-0473-1_ch5.

Colombia could build new housing for low- and middle-income households in intra-urban deprived areas through a focused and higher VIS subsidy that would be clearly identifiable among developers and households. In order to leverage the substantial investments made in many Colombian cities to improve urban mobility, the new public transportation corridors could be used to help define the spatial coverage of the subsidy. Such a subsidy could be a decisive tool for many capital cities that have already established urban regeneration as a priority but are not making progress. At the moment, the concentration of home ownership subsidies on newly built peripheral housing settlements is going against their regeneration goals and strategies, as it turns private investment away from central and subcentral urban areas.

However, the regeneration of deprived urban areas is not only a matter of building new housing. Neighbourhood improvement is also an important component of urban regeneration. Neighbourhood improvement should be addressed to upgrade the quality of life of residents and in view of sustainable urban development. Recently, Colombia has made substantial progress in tackling improvement issues through the formulation of a national comprehensive framework focused on both housing and neighbourhoods. This effort should continue putting special emphasis on better co-ordination between the several components of the programme to make it more coherent and powerful in contributing to urban regeneration in peripheral areas. In addition, housing and urban environment improvement in the intra-urban fabric could also be integrated. Across the country, strong needs for improvement exist in the inner city and in what has been called the inner suburbs: old self-help-built districts, which used to be the suburbs of the city several decades ago and are now affected by a severe deterioration process (Ward, 2014[45]). In those neighbourhoods located in urban areas with good access to urban services and amenities, improvement, extension and densification of housing are three challenges that are closely linked and could be tackled in a comprehensive way. In this respect, in June 2020, Chile launched a new innovative programme focusing specifically on this multifaceted issue (Box 4.7), which could be an inspiration for Colombia to foster urban regeneration.

Extending the housing and neighbourhood improvement national strategy to inner-city districts and inner suburbs, without limiting it to peripheral informal settlements, would be an interesting and innovative contribution to urban regeneration in Colombian cities. The integration of urban densification processes as an explicit urban objective of the housing and improvement interventions, as Bogotá, D.C. already does, would allow to articulate housing and sustainable urbanisation issues and give greater scope to the programme.

Box 4.7. Chile's Micro Settlement Programme: An alternative housing option to foster urban regeneration

In June 2020, the government of Chile launched the micro settlement programme "I am staying here" (*Programa de Micro Radicación* "Aquí me quedo"). The aim is to find a solution to the high incidence of cohabitation between households within plots of land (*allegados* issue). The *allegados* evidence the increasing housing deficit in Chile. They concentrate in old suburbs in the subcentral areas of the capital city, in small plot settlements (9x18 metres) that were largely provided to low- and middle-low-income households several decades ago as part of the housing policy. It is estimated that 6 250 hectares can be densified in 466 of such districts that have good access to urban services. The micro-settlement programme consists in implementing a densification process on those plots, as an alternative to traditional housing policy programmes, which provide newly built social housing in peripheral locations. In that case, hosted households do not have to move to other accommodation and can remain at the heart of their family and social networks, often essential to their daily life.

The programme is based on a comprehensive approach to urban inclusive regeneration that involves resident participation. Additional housing can be built on the plots, as well as micro-condominiums (2 to 12 housing units – generally apartments in collective buildings). The programme also includes interventions in public spaces with community participation. The programme is based on subsidies for homeownership and rental housing.

Source: Interviews with Chilean officials from the Ministry of Housing and Urbanisation.

Housing subsidies for assisted self-help production

As in other Latin American countries, cities in Colombia are largely the result of an unplanned urban development process in which housing self-production has played a major role. Historically, the proliferation of informal self-help built settlements has had severe negative consequences for Colombian cities. The high qualitative housing deficit that affects the country's urban areas is primarily a result of several decades of irregular urban development. Today, informal urbanisation still has a strong presence, in particular, due to internal and external migration. In this context, many stakeholders (including national authorities and private developers) tend to see self-help production of housing and habitat as an undesirable process. Currently, housing policy does not provide any subsidy in order to support low-income households to solve their needs through self-help production. The implementation of a housing policy based on massive social housing production is justified by the need to put an end to informal urban development.

In other Latin American OECD countries, Chile and Mexico, which used to have the same position until a few years ago still, the situation has changed significantly. Due in particular to the many severe problems created by the production of large-scale social housing settlements in urban peripheries, self-help production, providing that it is technically assisted, regulated and supervised, is now seen by national authorities as a viable option, with many potential benefits both for households and urban development. On the one hand, families can build their homes at their own pace and according to their particular needs, within an incremental approach. They can get better and bigger housing units and are less vulnerable to life hazards than if they had contracted a bank loan that would take years to be repaid. Moreover, the construction process, which often involves other members of the community, contributes to creating social cohesion within the neighbourhoods. On the other hand, the self-help production of housing and the habitat is not systematically synonymous with informal and unplanned urban development. On the contrary, if it is carried out in a regulated way and technically assisted, it can contribute to the implementation of more

sustainable urban development strategies. It can be used, for instance, as a way of densifying and regenerating urban districts that have good access to services and urban amenities, as shown by Chile's Micro Settlement Programme (Box 4.7).

In particular, the Mexican experience could be inspiring for Colombia. After having based its national housing policy entirely on massive social housing production for almost two decades, Mexico made a major shift in 2020, turning its housing policy towards the promotion of self-help production of housing and habitat. Housing credits granted by the National Workers' Housing Fund Institute (INFONAVIT), which is the major source of funding for low-income housing, are now available for funding this kind of housing solution, and no longer only to buy units for immediate use. The Ministry of Agrarian, Territorial and Urban Development (SEDATU) of Mexico, in charge of housing policy, now provides a didactic online platform for interested households. A wide range of strategic information (existing funding programmes, tutorials, plans and guides, help for administrative procedures, etc.) can be found on the platform regarding the multiple stages of the self-production process. Sustainability is an important concern within the recommendations, in particular in terms of building materials and the design of dwellings according to regional specificities. The objective of this tool is to enhance households' capacity to make decisions in order to exercise their right to adequate housing. In Mexico, against all expectations, the shift in housing policy was welcome by all relevant stakeholders, even though past attempts to change the rules of massive housing production had generated strong opposition from private developers. Substantial preparatory work was accomplished with them in order to build strategic alliances around the issue. The main challenge now is to convey the message that self-help housing production does not nurture informal urbanisation.

The case of the US Self-Help Homeownership Opportunity Program (SHOP) could also be of inspiration to Colombia to formulate a programme to support assisted self-production of housing (Box 4.8). The advantage is that the US programme relies on national and regional non-profit organisations and, in Colombia, this type of organisation has been operating in the field for a long time. The housing and habitat policy could take advantage of their advanced expertise, as it is done in the US, to tackle housing needs.

Even if Colombia is currently focused on the production of social housing at the national level, reintroducing a programme for funding regulated and assisted self-help production of housing and the habitat into housing policy would help diversify low-income households' options. Colombia has extended and valuable experience in this field. Districts in which densification and regeneration are considered viable could be specifically targeted. The programme/subsidy could also be coupled with the national strategy for housing and urban environment improvement to make it even more comprehensive. Acceptability being a key issue, a large consultation process would have to be conducted, involving the many civil society organisations that are locally implementing projects of this kind.

Box 4.8. The US Self-Help Homeownership Opportunity Program (SHOP)

The US Department of Housing and Urban Development (HUD) adopted SHOP to award grant funds to eligible national and regional non-profit organisations and consortia to purchase home sites and develop or improve the infrastructure needed to set the stage for "sweat equity" (non-monetary effort given in labour and time, provided by households in order to build their homes and the homes of their neighbours) and volunteer-based homeownership programmes for low-income persons and families. SHOP funds must be used for eligible expenses to develop decent, safe and sanitary non-luxury housing for low-income households and families that otherwise would not have the opportunity to become homeowners.

Eligible applicants are national and regional non-profit organisations or consortia with experience in using homebuyer and volunteer labour to build housing. They must have completed at least 30 units of self-help homeownership housing within the last 24 months. Eligible homebuyers must apply to

participate in the programme through a current SHOP grantee or one of their affiliates. SHOP grant funds are made available through an annual competition published on HUD's e-grant portal.

SHOP grant funds can only be used for land acquisition, infrastructure improvements and administrative costs. Total land acquisition and infrastructure improvement costs cannot exceed an average of USD 15 000 in SHOP assistance per unit. Administrative costs cannot exceed 20% of the SHOP grant amount. SHOP grantees must leverage other funds for the new construction or rehabilitation of their SHOP units. In 2020, grantees amounted to USD 10 million, subsidising 4 organisations and around 540 housing units.

Source: HUD (n.d.[46]), *Self-Help Homeownership Opportunity Program (SHOP)*, www.hudexchange.info/programs/shop/.

Deepen the knowledge of the housing deficit

A comprehensive housing policy for sustainable development should be supported by in-depth and up-to-date knowledge on a wide range of topics, from the national to the local scale. Indeed, the local scale should also be taken into account when designing national housing policies due to their impact on housing and urban development. Understanding all aspects of the housing deficit is critical to identifying the needs and formulating adequate strategies.

Estimation of the housing deficit and use of the data

Housing deficit is a very important topic in Colombia, as well as in Latin American countries in general. Data about the housing deficit are mentioned very often in the media and many stakeholders refer to it frequently to measure the progress of the housing policy. In the context of the rapid and massive urbanisation process that took place during the second half of the 20th century, national authorities have been unable to provide enough housing solutions. This has led to the development of a large number of informal settlements (dwellings that need to be improved or replaced thereafter) as well as an increase in the number of cases of cohabitations between households.

Estimating the range of accumulated needs is necessary in order to define housing policy goals and the number and characteristics of housing solutions that have to be implemented. Compared with other countries, Colombia calibrates its housing policy essentially on the basis of the housing deficit to be solved but relatively little on future needs (how many housing solutions will need to be built in the future in order to cover the increase of the number of households). Thus, housing policy appears to be primarily focused on the reduction of the deficit.

Housing deficit data have a direct impact on housing policy because they are used to calibrate its quantitative targets. A large backlog of housing needs will justify and legitimise the implementation of policies based on mass production for instance. As a consequence, their estimation is a key issue. However, housing deficit data can vary a lot depending on the methodology used. Indeed, the 2020 methodology implemented in Colombia by DANE provides a higher incidence of housing deficits than the previous one (2009), in spite of the rise of housing subsidies over the last few years (Table 4.9). As mentioned before, according to the 2020 methodology, Colombia's global housing deficit was estimated to represent 36.6% of the total households in the country (5 144 445 over 14 060 645 units) in 2018. The quantitative dimension represented 9.8% of the households (1 378 829), whereas the qualitative dimension was affecting 26.8% of them (3 765 616) (see Chapter 1). However, in line with the previous 2009 DANE methodology, the housing deficit would have represented only 31.9% of the households in 2018. The quantitative part would have been 5% instead of 9.8% and the qualitative deficit would have been mostly the same. These discrepancies have raised concerns for the national authorities, which have intensified efforts over the last decade without seeing them reflected in official data.

Table 4.9. Housing deficit in Colombia based on the 2018 National Population and Housing Census, percentage of households

	2009 DANE methodology	2020 DANE methodology
Overall housing deficit	31.9	36.6
National quantitative housing deficit	5	9.8
National qualitative housing deficit	26.9	26.8
Urban areas overall deficit	17.2	24.8
Urban areas quantitative deficit	4.9	6.1
Urban areas qualitative deficit	12.3	18.7
Rural areas overall deficit	84.4	81
Rural areas quantitative deficit	5.3	23.7
Rural areas qualitative deficit	79.1	57.2

Note: Urban areas: *cabeceras*; Rural areas: *centros poblados y rural disperso*.
Source: DANE (2018[47]), *Déficit habitacional 2018. Resultados con base en el Censo Nacional de Población y Vivienda 2018*; DANE (2018[37]), *Censo Nacional de Población y Vivienda - CNPV 2018*, https://www.datos.gov.co/Estad-sticas-Nacionales/Censo-Nacional-de-Poblaci-n-y-Vivienda-CNPV-2018/qzc6-q9qw.

It is important to underline that no universal methodology exists, nor any universal definition of what should be considered as the right components to consider for estimating the housing deficit. Like other forms of social need, housing need is intrinsically a normative concept (Bramley et al., 2010[48]) . Habitability criteria might differ across countries and contexts: what can be considered as an adequate housing solution (regarding materials, thermal comfort or number of occupants) in one country can be regarded as unacceptable in another. In the European Union (EU), the housing deficit is addressed through the notion of severe housing deprivation but there is no agreed-upon definition across EU countries.

Cohabitation is a central element in the estimation of the housing deficit (DANE, 2020[49]). Indeed, it can be either the expression of a real constraint (households are compelled to cohabitate with another) or the result of a choice or preference, strategy or arbitration process. Cohabitation between households can enable them to support each other in many aspects of everyday life. It is also a very common way of life that reflects the importance of family values, especially in Latin American countries. The fact that cohabitation also happens in medium- and high-income groups indicates that it cannot always be considered as the last option. To account for this issue, Colombia revised its methodology regarding cohabitation in 2020. The new methodology combines the number of households in dwellings and the total number of people within the housing unit (more than six). Although this methodology represents an important step forward, the risk is to still include within the quantitative deficit households that currently actually do meet their housing needs. In this respect, Chile has long been developing an interesting methodology to distinguish the different kinds of cohabitation, based on the application of a social survey to identify the diversity of situations. However, despite the progress achieved, housing deficit estimation is still a matter of ongoing debate (Box 4.9).

Limiting the inclusion of households in higher-income deciles should help better estimate the quantitative component of the deficit. Regarding the qualitative deficit, an effort could be made towards the regionalisation of the criteria regarding building materials. Colombia has climate conditions that vary considerably across the country and have an impact on the building materials used and the structure of the housing units. In the same way that VIS housing standards should be adapted to local conditions and specificities (something that is now considered in the new housing law, with the concept of regional housing), housing deficit should integrate regional diversity.

Another important potential improvement refers to the use of data. Housing deficit data in Colombia can be: i) disaggregated in its quantitative and qualitative components; ii) differentiated at spatial levels from the whole country to the local scale; and iii) distinguished between urban and rural areas. DANE has

created a very useful tool that provides online access to all disaggregated housing deficit data at every territorial level, making it possible to identify the housing deficit in its finest components. However, despite the availability of this very precise information, quantitative goals and progress of the national housing programmes still contain aggregate data. The MCY programme, for instance, is linked to the quantitative deficit aggregate data and not to the kind of housing shortage it is actually targeting (quantitative deficit in urban areas). As a result, quantitative targets tend to be overestimated, as they are being calibrated to global data and very high goals. This could lead to massive production of social housing units. Conversely, referring to aggregate data may minimise the impacts of the housing programmes for reducing housing shortages. Housing progress is usually compared to the aggregated data that include urban and rural dimensions, while their evaluation should only include urban area data.

Housing deficit data should also be used to set regionally calibrated objectives for the national housing programmes. As outlined above, there are major differences across regions regarding housing needs. Nevertheless, no regional targets (number of family subsidies per region, for instance) are established for the implementation of the national housing policy in order to better meet the differentiated needs in the country's urban areas. Important efforts should be made to better use and leverage the existing housing deficit data, rather than changing again the methodology for estimating the housing deficit.

Box 4.9. Estimating housing deficit in Chile

How to estimate Chile's housing deficit has been at the centre of debates for more than two decades. For that purpose, Chile uses two main different methodologies to estimate both the quantitative and qualitative deficits. One methodology was developed by the Ministry of Social Development (*Ministerio de Desarrollo Social,* MDS) and the other by the Chilean Chamber of Construction (*Cámara Chilena de la Construccion*, CChC). Both are based on the results of the CASEN (national socio-economical characterisation) surveys, which are carried out every two years (since 1990) by the Ministry of Social Development to monitor the situation of households closely, especially those targeted by social programmes. The surveys include indicators of health, housing, education, employment and income. Their objective is to evaluate the impact of social policy.

Two types of housing cohabitation are identified in Chile: external and internal. External cohabitation (*allegamiento externo*) refers to two or more households sharing a housing unit, each with its own domestic food budget. A household is defined as a group of people, whether or not members of the same family (although they generally are), who live in the same house and share the same domestic food budget.

Internal cohabitation (*allegamiento interno*) corresponds to a single household, which includes several family *nuclei* sharing a unique domestic food budget.

In the MDS methodology, the quantitative deficit includes: housing units with external cohabitation (more than one household in the same housing unit); secondary family *nuclei* that experience overcrowding (more than 2.5 people per bedroom); and housing units that are not recoverable. Qualitative deficit corresponds to: housing units without cohabitation but which are overcrowded; households living in dwellings lacking basic services; and households living in housing units whose quality is not adequate and must be improved. By 2017, according to this methodology, the global housing deficit affected 497 615 households: 42 677 housing units were considered unrecoverable; 300 158 households were experiencing external cohabitation; and 154 780 internal cohabitation with overcrowding.

The Chilean Chamber of Construction also divides the housing deficit into two categories: quantitative and qualitative. Its methodology to define cohabitation is different. It deduces from total households and family *nuclei* an estimated number of what can be considered "voluntary cohabitation" calculated on the

basis of the share of cohabitation situations in the tenth decile of income, considered the "natural cohabitation proportion". This percentage is then applied to all deciles of income.

Regarding cohabitation, a third methodology has been proposed by a Chilean study and research centre, Libertad y Desarrollo. It only takes into account the housing situation of the poorest 60% of the population, considering that the aim of the national housing policy is to focus on this group of population.

Source: Medel, C. (2020[50]), "Medición del 'déficit habitacional' en la metodología de pobreza multidimensional", https://obtienearchivo.bcn.cl/obtienearchivo?id=repositorio/10221/28616/1/BCN_Metodologia_deficit_habitacional.pdf; Irarrázaval, G. (2019[51]), "Déficit habitacional en Chile: desafíos de política pública", https://lyd.org/wp-content/uploads/2019/09/serie-informe-social-179-agosto.pdf.

Elaboration of local housing diagnosis and programmes

While housing deficit data need to be better used at the national level in order to localise the financing of housing solutions, they should also be much more locally mobilised by cities. With the exception of a few large capital cities, Colombian urban municipalities generally suffer from an important knowledge deficit regarding housing topics. The practice of systematically realising strategic housing diagnoses should be promoted (with the support of the MVCT) so as to ensure that cities have the key elements to implement adequate housing strategies. Projected demographic change, land and housing price evolution within the city, including informal markets which have great importance (see Chapter 1) as well as housing vacancy rates are part of the elements that need to be monitored. Informal settlements are also a crucial issue. Despite their incidence in Colombia (and their consequences on urban development), quantitative and systematic knowledge of them is surprisingly scarce. Civil society organisations and professionals (including municipal staff) that intervene in land regularisation used to have in-depth qualitative knowledge of the topic but it is not being systematised institutionally.

The creation of a limited and well-focused corpus of data should be a priority, as well as its concrete use to fuel local housing strategies in co-ordination with urban development plans. The French Local Programme of Habitat (*programme local de l'habitat*, PLH) could be an inspiring experience for Colombia. The French PLH is an interesting tool regarding the "localisation" of housing policy and its connection with urban issues at the local level. Created in 1983 (and later reinforced by several other laws) to accompany the decentralisation process, especially regarding urban issues (which would be entirely assumed by municipalities), the PLH gives cities an up-to-date diagnosis of their housing situation and needs, as well as a strategy and an agenda for action over a six-year period. It is made up of three main components: diagnosis, principles of action and objective, and action programme. One of the main strengths of the PLH is that its orientations must be taken into account in the local urban plan (equivalent of the Colombian POT), which must reflect them formally. Another interesting characteristic is that the PLH has to integrate the content of the Local Urban Mobility Plan. This helps articulate transportation and housing strategic issues at the local level, avoiding the planning of development of new housing districts with no transportation infrastructure for example. Initially created as a voluntary document, the objective of the PLH was to foster local initiative and innovation in the field of housing policy and provide national authorities, in charge of defining the housing policy territorial goals, with local information. The PLH became mandatory in France as of 2009 and integrated the challenge of ensuring a minimum quota of social housing (initially 20%, now 25%) in each municipality at the beginning of the 1990s. The PLH now must be elaborated by all municipalities with over 20 000 inhabitants. They are now generally established at an inter-municipal scale. Despite the differences of context between France and Colombia, a tool inspired from the French experience could be implemented in Colombia (without being mandatory) at a municipal scale, in order to foster the creation and concrete use of strategic knowledge on housing issues, indispensable for more sustainable urban development. Incentives could be used by the national government to encourage regional and local housing planning practices. Furthermore, the implementation

of such a scheme could provide the national government with strategic information for continuous feedback on housing production, supply and programmes. As mentioned in Chapter 1, housing needs (established through housing deficit data) vary greatly between regions, departments and municipalities. In such a context, it is essential to ensure that housing production and subsidies match territorial needs.

Developing the traceability of social housing subsidies

The framework of social housing production adopted by Colombia two decades ago is based on a definition of social housing grounded on a maximum sale price and on the construction of social housing by private developers, which low-income households acquire with a subsidy granted by the state. Within this framework, there is currently no clear picture for the Colombian government of what kind of social housing units are being effectively subsidised (their size and type of housing: individual units or apartments) and where they are located, especially within urban areas. However, this kind of information is absolutely necessary in order to evaluate the impact of the housing policy, regarding both housing demand and urban development.

On the one hand, data on housing construction and sales provided by CAMACOL refer to both VIS and non-VIS units. Although of great value, they do not allow to identify social housing units that were purchased with the help of a subsidy. Actually, the use of this data in order to evaluate the impact of the housing policy might lead to conclude that, because of the high volume of VIS production and sales in the country, the housing needs of low-income households are being largely responded to. In fact, as already mentioned, as a significant portion of VIS are being bought without any subsidy, the use of this data can lead to a distorted picture of the outreach of the housing policy.

On the other hand, there is data on housing financing provided by DANE (FIVI Data). Such data refer to the housing units that were purchased via subsidies. Although they allow a clear vision of the universe of subsidised housing, they do not provide any information on where those units are located, nor their main characteristics regarding size and housing typologies.

In the same way, as housing units purchased with a subsidy should satisfy certain requirements regarding quality established at the national level, the MVCT should be able to identify them precisely (and not only beneficiary households). The implementation of a mechanism of traceability of the housing subsidies granted, regarding the size of the units, their typology, their main characteristics and their localisation within land use perimeters, could allow the ministry to monitor closely the production of subsidised social housing and identify its impact on urban development. A database could be compiled to identify, for each social housing subsidy granted, the housing unit purchased and its main characteristics. Such a tool could enable the ministry to set up an observatory of subsidised social housing based on a habitat perspective, which might be a strategic instrument in order to tackle both housing and sustainable urban development issues.

Improving the measurement of housing affordability

Colombia could step up its methodology for measuring housing affordability to contribute to evidence-informed policy making in the area. Although there is no international consensus on how to measure housing affordability (for example, the OECD has its own definition of affordable housing) and no single measure captures every aspect of what makes housing affordable, Colombia could use a combination of measures, each of them with its own merits and limitations. This could help policy makers assess how challenges differ across household types and regions, and identify the dimensions of affordability that are most relevant in the different regions and cities of the country. For example, disaggregating household expenditure on housing by tenure type, region and across the income distribution can help policy makers identify the households and places that struggle the most. This practice could also help better target housing subsidy programmes. Table 4.10 provides a comparison of affordability measures used in OECD countries that Colombia could use as a basis to improve its own methodology. It presents the most common metrics to assess housing affordability.

Table 4.10. Selection of affordability measures in OECD countries

Type of measure	Example of indicators	Advantages	Disadvantages
Price-to-income ratios	• House-price-to-income ratio • Rent-price-to-income ratio	• Relatively straightforward, intuitive. Relies on data that are generally readily available in most countries. • Shows, at the aggregate level, how the association between prices and income varies over time and/or across markets, such as across countries.	• Does not provide any indication of the distribution of housing costs and housing affordability (e.g. who has/does not have access to affordable housing). • Does not provide any indication of housing quality. • Does not take into account borrowing costs.
Housing expenditure-to-income ratios	• Housing cost burden • Housing cost overburden rate (e.g. share of households spending over 40% of disposable income on housing costs)	• Relatively straightforward, intuitive. • Relies on data that are generally readily available in most countries. • Can be disaggregated to measure actual housing spending at the household level.	• "Overburden" threshold is set at an arbitrary level that remains fixed, regardless of household characteristics or their position in the income distribution. • Does not provide any indication of housing quality.
Residual income measures	• Shelter poverty • Housing-induced poverty	• Captures the level of income a household has left after paying for housing costs, to assess the extent to which households have sufficient income left for non-housing expenses after paying for housing. • Can be useful to measure affordability gaps among vulnerable low- and middle-income households.	• Can require extensive additional data collection on the cost of the minimum basket of non-housing expenses. • Arbitrariness with respect to what constitutes the minimum income a household needs for non-housing expenses. • Does not provide any indication of housing quality (e.g. what households are paying for). • Can misdiagnose general cost-of-living problems as cost-of-housing problems.
Housing quality measures	• Persons per room • Overcrowding rate • Housing deprivation rate	• Overcrowding can be assessed based on a very simple (or more complex) definition. • Provides insights into a key dimension of housing affordability, e.g. what households are paying for.	• Potential trade-offs between social and environmental objectives when interpreting indicators relating to dwelling size. • Cross-country/cultural differences in what characteristics are most relevant to assess housing quality. • Some quality metrics require up-to-date data on the technical characteristics of dwellings, which may not be readily available.
Subjective indicators of housing affordability	• Satisfaction with the availability of good, affordable housing • Housing as a key short-term concern	• Can complement other measures of housing outcomes and can help better understand the determinants of housing satisfaction.	• Perceptions and expectations about what constitutes good quality affordable housing differ across individuals, countries and cultures and may also depend on socio-demographic characteristics. • Satisfaction levels may depend on country-specific factors, including the overall economic environment, and/or the level of social protection policies.

Source: Based on OECD (2021[2]), "Building for a better tomorrow: Policies to make housing more affordable", http://oe.cd/affordable-housing-2021.

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Note

[1] Urban treatments are zoning categories used in Colombia's urban planning document (POTs) to define what kind of urban interventions can be carried out. There are five urban treatments categories: conservation, consolidation, integral improvement, renovation and development.

5 Strengthening Colombia's urban governance framework

This chapter examines urban governance in Colombia. It assesses the main challenges presented by the current system of multi-level governance in the framework of the decentralisation process. It argues that although municipalities have been given extensive competencies in urban development, they have not been given the means to perform their new tasks. The chapter begins with a discussion of the Colombian urban governance framework, focusing on vertical co-ordination across levels of government and metropolitan governance. This is followed by an examination of the financing of municipalities and proposals to improve their financial capacity to complement the fiscal decentralisation process. The chapter ends with a discussion of the need to improve the capacity for managing the public workforce, fostering evidence-informed policy making and engaging with stakeholders for urban development.

Introduction

Improving Colombia's ability to design and implement its urban development agenda depends on having a solid, flexible, co-ordinated and dynamic governance framework that allows for an integrated and strategically driven approach to urban development. The governance framework needs to bring together national, departmental and municipal public and private actors as well as civil society and social organisations around a common vision and shared objectives. It should encourage and facilitate cross-sectoral policy making based on the broader strategic objectives of the National Development Plan (*Plan Nacional de Desarrollo*, PND). It is also essential to enhance the financial capacity of municipalities to finance local investment projects and join forces with neighbouring municipalities for investment and public service delivery if Colombia wants to improve its subnational governance arrangements that underpin its efforts for an increase in productivity and competitiveness in urban areas. Nurturing a talented public workforce with the right competencies and skills is critical to strengthening the capacity of municipalities to generate urban development plans and programmes tailored to their specific needs.

Colombia is in the process of revamping its national urban policy (NUP) to strengthen current policy actions aimed at building cities that are compact, connected, productive, inclusive, sustainable and innovative. Discussions on the new urban policy, called Cities 4.0, have covered these issues, which are very diverse and interconnected. They demand a multi-level, multi-sectoral and integrated policy approach. Building cities with those characteristics may be difficult in the absence of suitable governance arrangements, government capacities and sound planning.

This chapter discusses Colombia's governance structure, with a particular emphasis on multi-level governance and the schemes available to municipalities to join forces for urban development. It also discusses ways to improve the institutional and financial capacity of municipalities to decide on how to invest their resources. A brief discussion on the need to improve municipal governments' capacity for urban development will conclude the chapter.

Colombia's urban governance framework

The national government faces implementation and co-ordination challenges

The Colombian national government establishes the general NUP framework that guides the urbanisation process. According to the Land Management Law (Gobierno de Colombia, 1997[1]), the central government is responsible for designing and implementing the general policy for land use planning in matters of national interest, setting the criteria to guarantee an equal distribution of public and social services across regions, locating large infrastructure projects, setting the guidelines of the urbanisation process and the National Policy for the Consolidation of the System of Cities in Colombia, know as the System of Cities, designing guidelines for the equitable distribution of public services and social infrastructure, and the measures for the conservation and protection of natural and cultural heritage.

There are three main urban policy actors at the national level

Three main national-level actors have responsibility in urban policy: i) the National Council for Economic and Social Policy (*Consejo Nacional de Política Económica y Social,* CONPES); ii) the Department of National Planning (*Departamento Nacional de Planeación*, DNP); and iii) the Ministry of Housing, City and Territory (*Ministerio de Vivienda, Ciudad y Territorio,* MVCT). Other institutions also have a specific sectoral responsibility in policies that have a direct impact on urban development, such as the Ministries of Environment and Sustainable Development, and Transport (Box 5.1). This is not unusual across OECD countries. In Finland, for example, the Ministry of Economic Affairs and Employment is co-leading the NUP with the Ministry of the Environment (OECD/UN-Habitat/UNOPS, 2021[2]).

CONPES, created in 1958, is the most important policy co-ordination institution in the government and the highest national planning authority. It serves as an advisory body to the national government on all aspects related to the economic and social development of Colombia. It co-ordinates and guides the agencies responsible for economic and social policy. It conducts studies and approves documents on general economic and social policy known as CONPES documents (Gobierno de Colombia, 1958[3]). It endorses for possible consideration and approval by congress the four-year PND, which presents the policy agenda of the administration. CONPES is composed of the President of the Republic and four councillors: two appointed by the president, one by the senate and one by the Chamber of Representatives for a four-year period open to re-election.

Box 5.1. Primary actors in urban development at the national level in Colombia

The **National Planning Department** (*Departamento Nacional de Planeación*, DNP), created through Law 19 of 1958, is a technical entity, with the rank of a ministry, which promotes the implementation of the country's strategic vision in the social, economic and environmental sectors through the design, orientation and evaluation of public policies. Its main responsibility is to support line ministries, administrative departments and territorial entities in designing, monitoring and evaluating the implementation of policies, plans, programmes and projects that advance the PND. It co-ordinates the formulation of the PND across ministries, territorial authorities and administrative planning regions. Once the plan has been approved by congress, the DNP co-ordinates the implementation, monitoring, evaluation and management of results of the plan's content. To this end, it approves procedures and guidelines for the design, monitoring and evaluation of all of the different programmes and projects contained in the plan. The DNP is also responsible for structuring the methodology for the design, monitoring and evaluation of the policies, programmes and projects contained in the PND and the methodologies for the identification, formulation and evaluation of projects financed using national resources. Its Urban Development Department (DDU) guides and promotes policies, plans, programmes, studies and investment projects in urban development, housing, public services, water, sanitation and social services. The DNP is also responsible for the follow-up and monitoring of the 2030 Agenda dealing with 16 major goals expected to fulfil the United Nations (UN) Sustainable Development Goals (SDGs).

The **Ministry of Housing, City and Territory** (MVCT) was created through Law 1444 of 2011. It formulates, guides and co-ordinates policies, plans and programmes on housing, urban development, land use, urban renewal, water and sanitation. The MVCT is responsible for the formulation of policies on urban renewal, comprehensive neighbourhood improvement, housing quality, urban planning and construction of sustainable housing, public space and equipment. It co-ordinates and monitors public and private entities in charge of housing production. It prepares, in co-ordination with the DNP, sectoral policy proposals for consideration, discussion and approval by CONPES. The ministry also articulates housing and housing finance policies with those of drinking water and basic sanitation and, in turn, harmonises them with policies on the environment, infrastructure, mobility, health and rural development. The MVCT has to co-ordinate its policies with the departmental (regional) and municipal governments to harmonise and strengthen the planning and execution of housing and urban development projects.

The **Ministry of Environment and Sustainable Development** (MADS) is in charge of the design and implementation of national policies related to the environment and renewable natural resources. It also establishes rules and criteria of environmental planning to ensure the conservation and sustainable use of land and oceans. Together with the DNP, it prepares plans, programmes and projects on environmental matters that must be incorporated into the projects of the PND and the National

Investment Plan. In co-ordination with other ministries and state entities, MADS also establishes the environmental criteria that must be incorporated into sectoral policies.

The **Ministry of Transport** (MT) is in charge of formulating and adopting the policies, plans, programmes, projects and economic regulation of transport, transit and infrastructure, in the country's road, maritime, fluvial, railway and air modes of transport. It participates in the formulation of the country's economic and social policy, plans and programmes. The MT is also responsible for the preparation of the sectoral plan for transport and infrastructure, in co-ordination with the DNP and sectoral entities. The MT establishes the provisions for the integration and strengthening of transport services.

The **Ministry of Agriculture and Rural Development** (MADR) is responsible for the design and implementation of policies of the agricultural, fisheries and rural development sectors. It guides and oversees the activities of the Unit for Agricultural Planning.

The **Unit for Agricultural Planning** (UPRA) defines the criteria and designs instruments for the management of rural land suitable for agricultural development, which serve as a basis for the definition of policies to be considered by the territorial entities in the land use plans (*planes de ordenamiento territorial,* POTs).

Source: Observatorio Regional de Planificación para el Desarrollo de América Latina y el Caribe (n.d.[4]), *Departamento Nacional de Planeación (DNP) de Colombia*, https://observatorioplanificacion.cepal.org/es/instituciones/departamento-nacional-de-planeacion-dnp-de-colombia; Minvivienda (n.d.[5]), *Ministerio*, https://minvivienda.gov.co/ministerio; Ministerio de Medio Ambiente y Desarrollo Sostenible (n.d.[6]), *Noticias*, https://www.minambiente.gov.co/#; Unidad de Planificación Rural Agropecuaria (n.d.[7]), *Homepage*, https://www.upra.gov.co/ (accessed in August 2021); Ministerio de Transporte (n.d.[8]), *Homepage*, www.mintransporte.gov.co/ (accessed 15 July 2021); Ministerio de Agricultura y Desarrollo Rural (n.d.[9]), *Homepage*, https://www.minagricultura.gov.co/paginas/default.aspx (accessed 15 October 2021).

The DNP is one of the most important entities of the executive power in Colombia as it co-ordinates national policies among ministries at the national level and conducts consultation of policy across levels of government. It acts as the technical secretariat for the Territorial Management Commission (*Comisión de Ordenamiento Territorial*, COT). The DNP is responsible for the allocation and management of the investment budget in the regions, which was COP 223 billion (approximately USD 60 million) in 2019. It also plans the execution of the country's resources in co-ordination with the different regions. It serves as the executive secretariat of the CONPES. The DNP led the elaboration of document CONPES 3819 for the consolidation of the System of Cities (Gobierno de Colombia, 2014[10]).

The MVCT has overall responsibility for urban policy and planning at the national level, in co-ordination with the DNP. One of its main challenges is to reduce the qualitative and quantitative housing deficit in the country through social programmes for medium- and low-income households. The MVCT and DNP are responsible for developing an integrated approach for sustainable urban development that links urban renovation with economic development, social inclusion and environmental protection practices.

To foster co-ordination across policy sectors on territorial organisation, the government established the COT, which is a technical advisory body created by the Organic Law for Territorial Organisation (*Ley Orgánica de Ordenamiento Territorial*, LOOT) (Gobierno de Colombia, 2011[11]). The COT's function is to evaluate, review and suggest to the central government and national congress policies and regulations for a more effective organisation of the territory. The Ministry of the Interior (MI), MVCT, MADS as well as the Agustín Codazzi Geographical Institute (IGAC), the Regional Autonomous Corporation (CAR) and experts in the field representing public and private universities are all part of the COT. The DNP acts as the secretariat of the commission. The COT reviews and evaluates sectoral policies related to territorial planning. It also advises territorial departments and municipalities on their integration. The COT is in charge

of the formulation of the General Policy of Territorial Management (*Polítical General de Ordenamiento Territorial*, PGOT) and promotes the articulation of different sectoral policies with the NUP.

Several other institutions play a role in urban policy. For example, the National Administrative Department of Statistics (*Departamento Administrativo Nacional de Estadística*, DANE) designs, plans, guides and implements statistics for evidence-based policy making. The Ministry of Mines and Energy deals with the quality of fuels and zero-carbon emissions. The Ministry of Culture leads projects to boost the cultural and creative potential of territories (orange economy). The National Unit for Risks and Disasters Management (UNGRD) supports national, departmental and municipal governments in the inclusion of a risk management component in their land use and development plans. The IGAC produces official maps and basic cartography to elaborate the national cadastre, builds the inventory of land characteristics and leads and co-ordinates the national spatial data infrastructure ICDE. The Institute of Hydrology, Meteorology and Environmental Studies (IDEAM) establishes the technical bases to classify and define land use for territorial planning at the national and regional levels.

The challenge of implementing policies and plans in Colombia

Colombia has solid experience in plan and policy making but implementation remains weak and is Colombia's main difficulty in improving urban outcomes. This begs the question of whether possible implementation problems were considered and anticipated during the stage of policy design or plan-making. Land use plans (*planes de ordenamiento territorial*, POTs) are an example of limited implementation as municipalities generally lack the financial resources to carry out the activities contemplated in those plans (see Chapter 3).

Urban policy is relevant to and impacts on a number of different stakeholders from different levels of government and sectors, but their views on their roles and goals and the strategies to achieve them may likely diverge. Thus, the task for Colombian policy makers is to find a balance between all different views, build consensus and ensure that no single actor or group jeopardises implementation. A challenge is the "one-size-fits-all" approach taken in the NUP, which fails to recognise the heterogeneous nature of Colombian cities. For example, the coastal cities of Barranquilla and Cartagena face climate-change-related challenges such as floods and erosion of constructions (Milanés Batista, Meza Estrada and Cochero Cermeño, 2018[12]), while cities closer to the Venezuelan border (e.g. Arauza, Cúcuta, Puerto Carreño) are dealing with immigration flows that push to the limit their capacity for service delivery.

Moreover, the implementation of urban policy does not depend on a single ministry or agency alone but on the co-ordinated and collaborative involvement of different ministries, agencies and administrative departments at different levels of government. As will be discussed below, Colombia has a highly fragmented and siloed approach to policy making, which could be affecting implementation.

Two other factors that limit the implementation of urban-related policies are the weak institutional landscape and the crowded legal framework with a complex hierarchy of dispositions. Regarding the institutional landscape, the lack of multi-sectoral co-ordination at the national level stands out. The COT, which could be a co-ordinating agent of urban policy and territorial management, lacks the power to enforce its decisions and enact an agreed co-ordinated agenda for land management and urban development. Colombia may need to consider alternatives to strengthen the COT and make its decisions binding. There is a lack of co-ordination across levels of government, largely due to the overlapping responsibilities across the different levels of government and the large number of policies that are not always articulated with each other. Colombia lacks an effective forum where national and subnational urban authorities meet regularly to discuss and agree on a vision on urban issues.

The challenge of co-ordinating a large number of NUP actors

Given the large number of actors that take part in the urban development process, Colombia needs to develop an institutional framework that provides the incentives and mechanisms that enable policy co-ordination. At present, collaboration and co-ordination for policy programming are dependent on the DNP's ability to engage with sectoral agencies. Although the elaboration of the CONPES 3819 document for the consolidation of the System of Cities involved participation from a wide range of actors from different sectors and levels of government, policy implementation, approaches to urban development and management remain siloed, with limited cross-sectoral dialogue. Once the PND has been approved by congress, individual policy decisions affecting the plan's implementation, such as urban policy, are made by the president and implemented by line ministries under the co-ordination of the DNP (OECD, 2013[13]) This creates a context where urban issues such as transport, housing, spatial planning and other policies are usually planned by different authorities, at different levels of government and in different institutional settings. It is currently difficult to assess to what extent line ministries can contribute their knowledge, expertise and know-how to urban policy making and implementation. For example, it is not clear whether ministries such as those in charge of the economy, finance or health are engaged in urban policy discussions. A lack of inter-ministerial dialogue may reinforce a narrow and sectoral perspective on urban policy matters. An example is the *Biodiverciudades* programme, which is managed by MADS but with little involvement from other national ministries and agencies, in particular the MVCT. It is also difficult to determine to what extent line ministries and other agencies feel they have ownership on the System of Cities despite several institutions taking part in its implementation according to the action plan. Their actions are therefore not guided by this policy and do not aim to contribute to the programme. This type of issue should be the focus of the COT and the DNP, which should review and provide options to ensure all related actors contribute to common objectives.

For Colombia, breaking silos is essential to maximise synergies and complementarities across the different government institutions and existing human and financial resources. For example, the System of Cities, the country's NUP, promotes a more compact urban development. If Colombian authorities want to continue with the compact city approach in their next NUP, they need to foster sectoral policy complementarities. Compact city policies can be more effective if they are combined with policies on the environment, renewable energies and energy efficiency in buildings. While most of these policies are already in place in Colombia, they need to be managed with a holistic view to build synergies among them. The experience of OECD countries shows that, for example, when congestion charges and high parking fees are combined with mass-transit expansion, these actions can be mutually reinforcing (OECD, 2012[14]). To build complementarities, Colombia may draw inspiration from the US Partnership for Sustainable Communities to co-ordinate housing, transport and other infrastructure investments and, in doing so, to promote reinvestment in existing communities (Box 5.2). This is an option that Colombia could explore, in which the DNP and MVCT co-lead the partnership. For example, *Biodiverciudades* could be managed through a cross-sectoral partnership to be more effective.

The elaboration of the new NUP should pay particular attention to breaking silos by combining compact city policies with other urban economic initiatives that the government wants to promote, such as labour policy and innovation. This is not new in Colombia as the National Development Plan 2014-2018 called for an interagency commission to co-ordinate housing, urban development and transport efforts, bringing together the then Ministry of Housing and Urban Development, the Ministry of Transport, the Ministry of Culture and the Ministry of Finance. Colombia should continue fostering that co-ordination but make it more systematic.

Box 5.2. The US Partnership for Sustainable Development – An example of cross-sectoral co-ordination

In 2006, the US government created the US Partnership for Sustainable Communities, which is a collaboration among the Department of Housing and Urban Development (HUD), the Department of Transportation (DOT) and the Environmental Protection Agency (EPA). The collaboration marked a change in how the US government structures its transport, environmental and housing policies, programmes and spending. The three agencies support the efforts of urban, suburban and rural communities to expand housing and transport choices, protect air and water, boost economic growth and promote well-being. The Partnership for Sustainable Communities is guided by liveability principles:

- Provide more transportation choices.
- Promote equitable, affordable housing.
- Enhance economic competitiveness.
- Support existing communities.
- Co-ordinate and leverage federal policies and investment.
- Value communities and neighbourhoods.

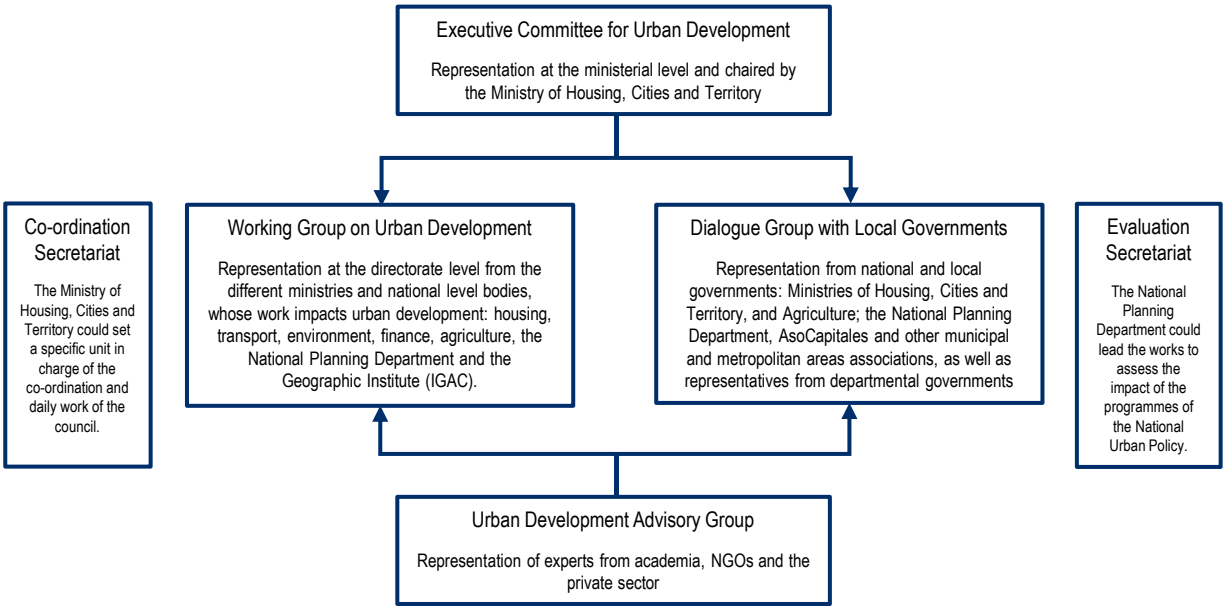
The joint work of the three agencies led to the distribution of nearly USD 2 billion in grants to support vital transport infrastructure, equitable comprehensive planning and brownfield redevelopment. Some of the resources were targeted to areas where disinvestment and industrial pollution have led to a legacy of contaminated sites. The partnership also assists organisations in building capacity for environmental justice and equitable development.

Source: EPA (2010[15]), *Partnership for Sustainable Communities: Supporting Environmental Justice and Equitable Development*, https://archive.epa.gov/epa/sites/production/files/2014-08/documents/2010_1230_psc_ejflyer.pdf.

Another option for Colombia to ensure cross-sectoral co-ordination could be to set up a National Council for the Co-ordination and Evaluation of the National Urban Policy (Figure 5.1). Its main responsibility would be to ensure that all national-level actors are aligned towards the achievement of NUP objectives. It would not replace CONPES as it would not be in charge of defining policy but its mandate would be to ensure its implementation through the co-ordination of all line ministries and national-level agencies that have responsibility for plans and programmes related to urban development. The council could have an Executive Committee for Urban Development, whose role would be to agree on, co-ordinate and communicate top-level strategies on urban development among ministries and other bodies. It could meet two to three times a year with representation at the ministerial level and be chaired by the MVCT. The council could have a Working Group on Urban Development that would be the hub for cross-sectoral co-ordination. It could oversee the implementation of the NUP and the different sectoral plans and programmes (e.g. housing, transport, land use, environment, urban regeneration, water, etc), conduct reviews and identify priorities and policy gaps. It would meet every two months with representation at the directorate level and be chaired by the MVCT. Moreover, the council could have a Dialogue Group with Local Governments where national-level representatives responsible for the NUP could meet on a regular basis with representatives of local governments (e.g. Association of Capital Cities [AsoCapitales], municipal and metropolitan associations, and representatives from the departmental governments) to co-ordinate and assess progress on urban development. An Urban Development Advisory Group with representatives from academia, non-governmental organisations (NGOs) and the private sector could support the working group and the dialogue group. The MVCT could also set up a unit to function as the

co-ordination secretariat in charge of the day-to-day business of the council. The DNP would be in charge of overseeing the evaluation of the different programmes that form the NUP and assessing their impact.

Figure 5.1. Proposal for a National Council for the Co-ordination and Evaluation of the National Urban Policy



The subnational level is composed of legally autonomous territorial units and territorial associative schemes

Colombia is a unitary state. Its territorial governance structure, as established in the constitution, is based on 32 departments, 1 102 municipalities and 11 districts. The roles and responsibilities of the national and subnational governments are defined by the 1991 Constitution, the Organic Law on Territorial Organisation (LOOT) (Gobierno de Colombia, 1997[1]), the Law of Regions (Gobierno de Colombia, 2019[16]) and other regulations Figure 5.2 presents the different responsibilities of each level of government regarding the territorial organisation.

The competencies and responsibilities of each level of government are set in the 1991 Constitution and other regulations (Laws 388 of 1997, 715 of 2001, 1176 of 2007, 1454 of 2011, 1551 of 2012 and 1617 of 2013), in particular the Land Management Law that guides urban development at the local level (Gobierno de Colombia, 1997[1]). Departments and municipalities share a majority of competencies in education, health, water, sanitation and housing (Table 5.1) (OECD, 2016[17]). The departments have a responsibility for planning and promoting economic and social development. They exercise administrative functions of co-ordination and intermediation with municipalities. Municipalities are in charge of public service provision such as electricity, urban transport, cadastre (when the municipality has been certified as cadastral manager or *gestor catastral*, otherwise the cadastre is managed by the IGAC), land use planning and police. The central government classifies municipalities as being “certified” or “non-certified” for the provision of services such as education, health, water and sanitation. It determines universal coverage and sets quality standards. Once a municipality reaches the targets and standards, it is entitled to use resources in other areas of its own competency (OECD/UCLG, 2019[18]). The DNP certifies that this universal coverage has been achieved at the request of the territorial authority. Only a few municipalities have reached the highest rating.

Table 5.1. Subnational governments' main responsibilities by sector in Colombia

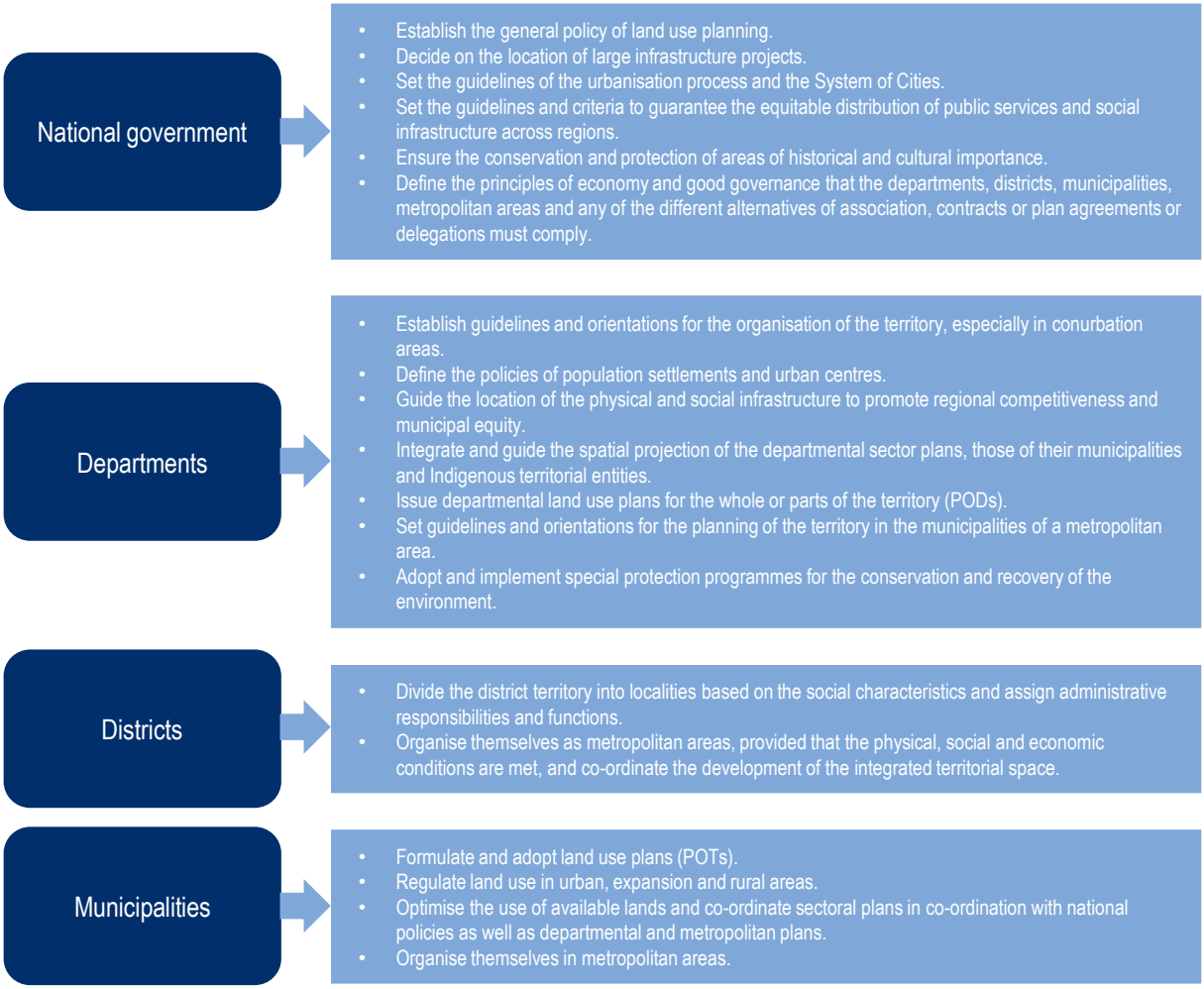
Sector	Departments	Municipalities
General public services	Passport issuance	Civil registers, building permits, management of municipal property and enterprises
Public order and safety	Risk and disaster management	
Economic affairs/transports	Rural development, regional policies, regional territorial planning, traffic management	Promotion of social, economic and environmental development
Environmental protection	Environmental protection	Solid waste management, sanitation
Housing and community amenities	Co-ordination and co-financing of water schemes	Territorial planning, local infrastructure, water supply, housing
Health	Public health, services for the uninsured population, operation of the hospital network	Public health, administration of the subsidised scheme, services for the uninsured population
Recreation, culture and religion		Sport, culture leisure
Education	Management of teacher and administrative personnel in basic and primary education	Early, primary and secondary education, construction and upkeep of buildings, canteen and extracurricular activities, payment of salaries
Planning	Guide territorial land use, define policies for human settlements and urban centres, guide the location of physical and social infrastructure, guide and integrate the spatial projection into sectoral plans of the department and municipalities, adopt total or partial land use plans	Adopt land use plans (POTs), guide the use of urban, conservation and rural land, co-ordinate sectoral plans based on national, departmental and metropolitan plans

Source: OECD/UCLG (2019[18]), *2019 Report World Observatory on Subnational Government Finance and Investment - Key Findings*, http://www.sng-wofi.org/publications/2019_SNG-WOFI_REPORT_Key_Findings.pdf (accessed on 28 August 2019); Gobierno de Colombia (1997[1]), *Ley 388 de 1997 - Ley de Ordenamiento Territorial*, https://www.minenergia.gov.co/documents/10180//23517//22687-Ley_388_de_1997.pdf (accessed on 21 April 2021).

Departments are led by governors who are directly elected every four years. They have autonomy in the management of their resources. The departments are responsible for establishing guidelines for planning the totality or specific parts of their territory, determining land use scenarios, defining policies for urban areas in line with the national framework, orientating the localisation of infrastructure and implementing programmes for the conservation of the environment (Gobierno de Colombia, 2011[11]). They act as intermediaries between the central government and municipalities, which according to the LOOT should be done through the Departmental Territorial Management Plan.

Districts are territorial entities that have specific regimes as they have special powers different from those of municipalities with the aim of promoting their socio-economic development. Some of the districts are: the Capital District of Bogotá (hereafter Bogotá, D.C.); the Special, Industrial and Port District of Barranquilla; the Special, Industrial, Port, Biodiverse and Ecotourism District of Buenaventura; the Special, Tourist, Cultural and Historical District of Santa Cruz de Mompox; the Medellín Science, Technology and Innovation District, the Touristic and Cultural Districts of Cartagena, Riohacha and Santa Marta; the Special, Sports, Cultural, Tourist and Entrepreneurial District of Santiago de Cali; and the Special, Industrial, Port, Biodiverse and Ecotourism District of Tumaco. Special districts are granted administration and financing schemes that allow greater efficiency in the fulfilment of goals and programmes. The 1991 Constitution authorises some metropolitan areas to become districts. To become a district, the territory must have at least 500 000 inhabitants or be located in coastal areas, be the capital city of a department and have the potential for the development of ports or tourism and culture (Gobierno de Colombia, 2019[19]). One of the characteristics of the districts is administrative decentralisation, which may contribute to optimising decision-making and service delivery for urban development.

Figure 5.2. Distribution of responsibilities across levels of government on the territorial organisation in Colombia



Source: Own elaboration based on Gobierno de Colombia (2011[11]), *Ley 1454 de 2011 - Ley Orgánica de Ordenaminto Territorial*, https://www.alcaldiabogota.gov.co/sisjur/normas/Norma1.jsp?i=43210 (accessed on 22 April 2021).

Like districts, municipalities have political, fiscal and administrative autonomy within the framework established by the 1991 Constitution. Their purpose is to ensure the general well-being and the improvement of the quality of life of their residents. Each municipality is led by a mayor (*alcalde*) and a municipal council, both directly elected every four years. Municipalities are responsible for providing public services and managing issues related to: public space, vehicular traffic, the provision of drinking water and basic sanitation services, the construction, maintenance and provision of official educational and sports facilities, primary healthcare centres, agricultural technical assistance, the implementation of integrated rural development programmes, the adaptation of road infrastructure, land, and public and communal services, the co-financing of social housing, the construction and conservation of road and municipal networks, the regulation of urban transport, the provision of home public services, urban safety, the promotion of peaceful co-existence and the care of vulnerable groups (OECD/UCLG, 2019[18]). Most of these competencies are shared with departments, which, within the national framework, co-ordinate, supervise and provide financial, administrative and technical assistance to municipalities and, in some cases, substituting them. Municipalities formulate and implement land use plans (POTs), regulate land use in urban and rural areas, and co-ordinate sectoral actions to ensure they are in line with national policies

and regional and metropolitan development plans. Although the authorities in departments and municipalities are elected by local residents and are independent from the president, governors and mayors, they have the mandate to link the goals of their local development plans with those of the PND to have access to national resources.

Decentralisation sets the ground for territorial co-operation

When compared to other Latin American countries, Colombia is one of the most administratively, politically and fiscally decentralised countries in the region (OECD, 2013[13]; 2016[17]). However, when compared with OECD countries, Colombia ranks among countries with an intermediate level of decentralisation (OECD, 2014[20]). The country has a strong centralist presidential system, which means that urban development policies tend to be centrally established by the national government with little subnational government consultation. Over the past four decades, Colombia has gone through different waves of decentralisation and re-centralisation, aiming to strike a balance between fiscal sustainability and more shared governance. The centralist tradition has been the national government's tool to offset the country's natural geographic fragmentation, contain interest groups, deal with extra-democratic insurgencies and manage regionally-based ethnocultural minorities (OECD, 2013[13]). The 1991 Constitution paved the way for the enactment and implementation of several laws that enforced political, fiscal and administrative decentralisation. The PND, the LOOT, the districts and municipal governments' legal regime, and the Public-Private Agreements Law provide subnational governments with the tools to enhance their institutional ability to face emerging challenges. For example, local authorities have the possibility to perform their tasks through associative mechanisms such as regions, metropolitan areas and public associations. These mechanisms also provide them with the option to reduce fiscal costs through the involvement of the private sector in investing in local public infrastructure and services, and thereby enhancing the quality of public service delivery.

The enactment of the LOOT in 2011, 20 years after the adoption of the 1991 Constitution, regulates the devolution of powers to territorial entities (Gobierno de Colombia, 2011[11]).[1] The LOOT specifies a devolution framework by which subnational governments implement decisions and strategies designed at the central level of government while working to promote their own development. Initially, this arrangement was devoid of any transfer of policy-making or strategy-setting authority and capacity to subnational authorities. However, the national government is not always in a position to make informed decisions about the specific needs of every community. Municipalities' administrative capacity was not always sufficient to meet their economic and social demands either. Local public actors have therefore had to fend for themselves to find alternative policy responses to the needs of their municipalities and inhabitants (OECD, 2013[13]). This has led to the creation of informal networks of political and economic actors that have shaped multi-level governance in Colombia for the last three decades. Although the LOOT clearly defines the hierarchical inter-governmental order, a complex power grid occurs in practice, in which information brokers, contracts, relations and social capital have created their own procedures without a clear multi-level framework for effective decision-making processes (OECD, 2013[13]). This has had important effects on the urbanisation process, as municipalities' technical and financial capacity and political leadership remain rather limited to conduct, for example, comprehensive planning of their territory.

The LOOT provides for legal arrangements and forms of territorial co-operation through which different levels of government and territorial entities can choose to form strategic alliances to boost the sustainable development of the communities. These associative territorial arrangements include associations of departments, special constituency associations, associations between municipalities, associations of metropolitan areas, management and planning regions, and administrative and planning provinces (Gobierno de Colombia, 2011[11]). The Territorial Associative Schemes (*esquemas asociativos territoriales*, EATs) constitute another form of co-operation among departments, districts and municipalities. EATs can provide public services (e.g. transport), conduct administrative activities (e.g. cadastre management) delegated by the territorial entities or even the national government, and conduct planning activities and development projects (Gobierno de Colombia, 2019[19]).

The LOOT defines the rules for decentralisation derived from the 1991 Constitution. It provides a stable legal and policy framework that strengthens the central government's ability to co-ordinate the implementation of decentralisation across the country. The central government may contract or agree with the territorial entities, with the associations of territorial entities and with the metropolitan areas the joint execution of strategic projects of territorial development through the formulation of a *Contratos Plan* (contracts plan) which specifies the contributions of each party to the project and the respective sources of funding.

Inter-municipal co-operation needs to be reinforced

One of the main challenges for the territorial organisation in Colombia is to strengthen inter-municipal co-operation mechanisms. Like in most OECD countries, inter-municipal co-operation is based on local authorities' wishes to join an associative scheme on terms which they themselves set in statutes governing inter-municipal co-operation. Such voluntary action reflects municipal autonomy accepted by all and stated in the constitutions and other high-level laws. Colombia has several mechanisms that aim to make territorial organisation more effective and efficient: associations of departments, associations of metropolitan areas, municipal associations, administrative and planning regions (RAPs), planning and management regions (RPGs), special planning and administrative regions (RAPEs), provinces, associations of departments and metropolitan areas, and, more, recently the metropolitan region. Currently, 86 associative schemes are in place, including 56 municipal associations. About 70% of these associative schemes have been formed around environmental policy goals.

Municipal associations are the easiest way for municipalities to join forces for common objectives and some have been operating for more than 25 years. They obey a genuine motivation to co-operate as 90% of municipalities in the country are too small (less than 10 000 inhabitants) and, alone, they cannot afford meaningful investments (OECD, 2016[17]). Municipal associations can be formed without public consultation and municipalities from different departments can join the same association. This is a more flexible association scheme than metropolitan areas for example, which are more complex and rigid. There are also territorial integration committees aimed at promoting dialogue among municipalities. However, they are not having the expected result as municipalities do not communicate systematically due to political differences or they focus on their own priorities.

One way of reinforcing the mechanisms for territorial co-operation in Colombia is to carry out checks on co-operation entities. These checks could be of an administrative, legal and financial nature as is the case in countries such as Austria, the Czech Republic, Finland, France, Germany, the Netherlands and Sweden. This should not be regarded as a violation of municipal autonomy but only as a method to ensure that the use of resources transferred from national government are being used properly. However, Colombia may wish to conduct checks that look into the effectiveness of action. In Germany, for example, the national government conducts legal and technical supervision to verify that bodies are carrying out their assigned duties lawfully and appropriately. In Austria and Norway, checks are conducted to verify the effectiveness in each type of inter-municipal co-operation covered by legislation. Alternatively, Colombia may explore adapting the Welsh corporate joint committees as a formal inter-municipal co-operative mechanism to support municipalities in urban planning and policy implementation (OECD, 2020[21]).

Metropolitan governance is key to invest at the right scale

Metropolitan governance is gaining significance

Metropolitan governance is of fundamental importance for Colombia due to the relevant role cities play in the economy and existence, according to the System of Cities, of 18 functional areas that account for 81% of the population of the System of Cities (Gobierno de Colombia, 2014[10]). Moreover, there is a growing number of urban residents in cities (i.e. Bogotá, D.C., Cali and Medellín) and their suburban areas,

emigrated from rural areas largely due to armed conflict (see Chapter 1). This demographic phenomenon creates additional pressure on cities and their neighbouring municipalities to provide sufficient and high-quality public services to a growing population. Metropolitan governance arrangements allow municipalities to join forces and resources for a more efficient response to urban challenges and demands.

In Colombia, metropolitan governance arrangements are not unknown as, in 1968, authorities created the first metropolitan area in the Valle de Aburrá with Medellín as its core city (Box 5.3). The LOOT created the Territorial Organisation Commission (COT) responsible for the definition of territorial organisation policy, but its basic work instrument, the General Policy for Territorial Management (*Political General de Ordenamiento Territorial*, PGOT), is yet to be approved.

Promoting metropolitan governance is gaining importance in Colombia. Municipalities classified as functional according to CONPES 3819 on the System of Cities, used different mechanisms to strengthen metropolitan governance to achieve better urbanisation and increase competitiveness. According to the OECD Survey on Urban Policy in Colombia 2021, 23 of the 72 municipalities that answer the governance section of the survey are located in a metropolitan area. Figure 5.3 shows that joint elaboration of development and investment projects between urban and rural areas, co-ordinating public service delivery and having regular meetings among municipal leaders are the mechanisms that they used the most to promote urban development at the metropolitan level. The use of these mechanisms could be part of the activities undertaken within the framework of a municipal associative scheme. Metropolitan land use planning (*Plan Estratégico Metropolitano de Ordenamiento Territorial*, PEMOT) also appears to be an important mechanism for metropolitan governance driven by the need for spatial and land use planning to keep pace with changing functional territorial boundaries. This is particularly important for Colombia as it has a polycentric urban structure where the borders of local jurisdictions do not correspond to urban form and the patterns of residents' daily activities.

Box 5.3. The Metropolitan Area of the Valle de Aburrá and the Metropolitan Region of Bogotá-Bucaramanga

The **Metropolitan Area of the Valle de Aburrá** (AMVA) was created in 1980. It is the most consolidated metropolitan entity in the country and second-largest agglomeration in Colombia with a population of 3.9 million inhabitants. It is formed by ten municipalities (Barbosa, Bello, Caldas, Copacabana, Envigado, Girardota, Itaguí, La Estrella, Sabaneta and Medellín as its core city). According to the statutes of AMVA, the metropolitan area has three main planning instruments: the Integral Metropolitan Development Plan, the Metropolitan Strategic Plan for Land Use Planning and the Metropolitan Management Plan. AMVA has developed the first Metropolitan Strategic Plan of Territorial Organisation in Colombia. It is the environmental and transport authority in the area and co-ordinates land use planning in the metropolitan territory through an integrated development plan. AMVA has a public transport network that links all municipalities in the area. The Integrated Transport System of the Valle de Aburrá (SITVA) includes a metro, trams, metrocable as well as an extensive bus and bicycle network.

The metropolitan board, composed of the ten mayors of the Valle de Aburrá, approved the Management Plan 2020-2023 "Sustainable Future". Its objective is to move towards a smart metropolis, with actions for a sustainable development focus on innovation and the use of information and communication technology (ICT) to increase people's quality of life. The plan is structured around three axes – environmental sustainability, territorial synergies and physical and virtual connectivity – and six main components – information, innovation, knowledge, communications, technology and mobility. During the four-year period, authorities plan to invest COP 1.75 billion in 27 investment programmes such as mitigation and adaptation to climate variability, intelligent disaster risk management, intelligent

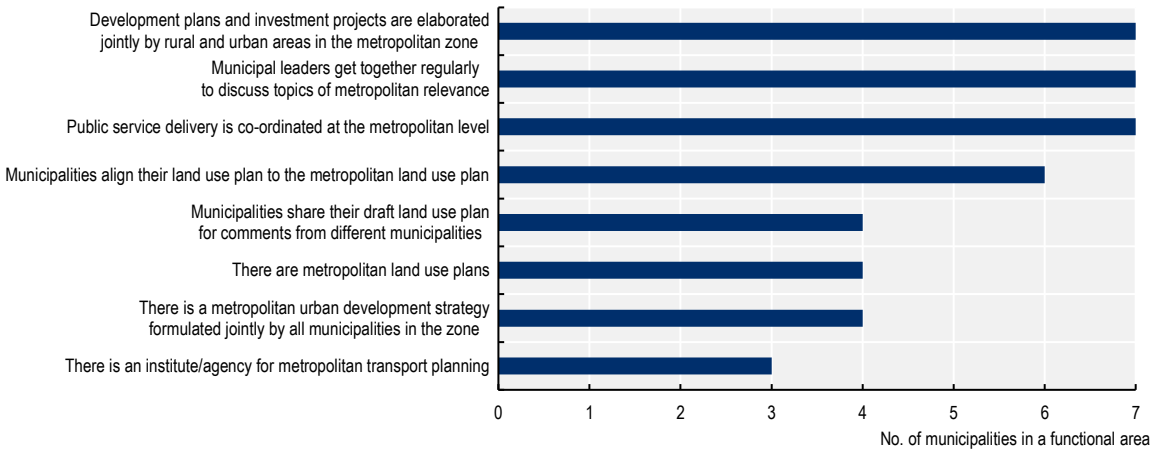
management of surface and underground water resources, sustainable economic development, strengthening of open and digital institutions, inclusive social management, etc.

The **Metropolitan Region of Bogotá-Cundinamarca** (RMBC) is an associative model created through a constitutional reform in 2020. It encompasses the Capital District (Bogotá, D.C.), the Governorate of Cundinamarca and its municipalities. It is a co-ordination and complementarity mechanism to facilitate efficient use of public resources between public and private actors in the environmental, territorial and economic sectors, as well as public transport and mobility and public service delivery. The creation of the RMBC allows Bogota, D.C. and the Governorate of Cundinamarca to conduct joint planning of public policies on mobility, safety, public service delivery, budget management and sustainable development.

The RMBC concentrates 20% of the national population (11 million inhabitants) and contributes 32% to the country's gross domestic product (GDP). It has a high level of GDP per capita (USD 9 274, compared to the national average of USD 2 600). There are 2.6 million daily trips between Bogotá, D.C. and Cundinamarca, and commuting may take up to 3.5 hours both ways per day. The Cundinamarca region has 190 protected areas. Bogotá, D.C. and 46 municipalities of Cundinamarca share the Bogotá River basin but there is a lack of an efficient waste water treatment system. About 87% of the food production in Cundinamarca is sold in Bogotá, D.C. It is expected that the creation of the RMBC will facilitate the planning and implementation of public transport infrastructure while reducing the public transport costs for passengers. The RMBC will create the co-ordination tools to facilitate the adaptation and mitigation of climate change while promoting a circular economy, with an emphasis on reducing food waste. The RMBC seeks to improve the planning of water supply and make more efficient use of the Bogota River basin. The region seeks to increase its capacity through a model of communication, co-ordination and co-operation that facilitates decision-making among the different levels of government.

Source: For AMVA: AMVA (n.d.[22]), *Homepage*, www.metropol.gov.co/ (accessed in August 2021); Junta Metropolitana del Valle de Aburrá (2013[23]), "Acuerdo Metropolitanao No. 10 Por medio del cual se modifican y adoptan los estatutos del Area Metropolitana del Valle de Aburrá", https://www.metropol.gov.co/acuerdosmetropolitanos/2013/ACUERDO%2010.pdf; for the RMBC: RMBC (n.d.[24]), *Cartilla de la Región Metropolitana Bogotá-Cundinamarca*, www.regionmetropolitana.com/cartilla-region-metropolitana; Portafolio (2019[25]), "Producto interno bruto de Bogotá supera al de tres países de la region", www.portafolio.co/economia/producto-interno-bruto-de-bogota-supera-al-de-tres-paises-de-la-region-532324.

Figure 5.3. Mechanisms to promote metropolitan governance in Colombia, n=23



Note: Answers to question "Q.6.2. If your municipality is in a metropolitan area, how do you promote metropolitan governance to improve the quality of urbanisation and competitiveness?". Municipalities were invited to select all possible options.
Source: OECD Survey on Urban Policy in Colombia 2021, conducted with the support of the MVCT and AsoCapitales.

The most recent effort to enhance the intermediate level and contribute to the decentralisation process has been the enactment of the Metropolitan Areas Law (*Ley de Áreas Metropolitanas*) in 2013. The law provides metropolitan areas with a political, fiscal and administrative regime (Gobierno de Colombia, 2013[26]). It lays the ground for addressing challenges of large cities such as solid waste management, inter-municipal transport and harmonisation of the POTs across municipalities in the metropolitan area. The law empowers metropolitan areas to set and implement:

- An action plan for their metropolitan development, called Comprehensive Metropolitan Development Plan (*Plan Integral de Desarrollo Metropolitano*), which provides a long-term vision for metropolitan development and common objectives for sustainable development among the different municipalities.
- A Strategic Plan for Metropolitan Territorial Organisation (*Plan Estratégico Metropolitano de Ordenamiento Territorial*), which sets the strategy for managing the metropolitan territory on issues such as water management, public transport, metropolitan infrastructure, land use management, social housing and rural and suburban organisation.

An enhanced decentralisation process, the legislation that defines co-ordination and collaboration mechanisms among municipalities, and a definition of responsibilities for urban development across levels of government provide Colombia with a solid ground for a metropolitan governance framework. Municipalities have access to mechanisms and tools for dialogue among peers, co-ordinating policy and planning and building economies of scale while respecting the autonomy of each other. Moreover, since metropolitan areas focus on transport and the environment, they can also strengthen their co-operation around concrete and tangible projects.

Although the mission for the elaboration of the System of Cities identified 18 agglomerations of supramunicipal nature, there are only six metropolitan areas (Barranquilla, Bucaramanga, Centro Occidente, Cúcuta, Valle de Aburrá and Valledupar) and three agglomerations[2] (Cali, Cartagena and Manizales). The reason there are not more metropolitan areas as an associative scheme, even if not formalised, is that it is compulsory to hold a public consultation with strong citizen engagement in order to create a metropolitan area. Even though some mayors are interested in setting up a metropolitan area, they have not been able to organise the public consultation due to low levels of participation.

Metropolitan areas have authority over issues related to transport and the environment, which gives them a higher hierarchical level in comparison to other forms of association, such as municipal associations. They have the obligation to issue a metropolitan development plan and a metropolitan land use plan (PEMOT), both for a period of 12 years, which are approved by the metropolitan board (*junta metropolitana*), which is the governing body of a metropolitan area composed of the mayors of the member municipalities and chaired by the mayor of the core municipality. Those plans provide guidance to the municipalities that are part of a metropolitan area regarding service delivery and infrastructure. In some cases, the core municipality (*municipio núcleo*) conducts investments in smaller municipalities as they tend to have more resources. These investments are generally in public works (i.e. parks, gardens) and infrastructure (i.e. schools) as this in return contributes to well-being in the municipality where investment was generated and also helps to limit immigration to the core municipality.

Although metropolitan areas in Colombia may seem to have a solid governance arrangement, in reality, four main weaknesses hamper their consolidation:

- A first critical problem is the predominance of one municipality over another, in particular that of the core municipality (*municipio núcleo*). In the Metropolitan Area of the Valle de Aburrá, for example, 80% of the resources come from the municipality of Medellín (IEU, 2020[27]). According to the Statute of the Metropolitan Area of the Valle de Aburrá, each member municipality has to decide the sources and number of resources that will be transferred to the metropolitan area (Junta Metropolitana del Valle de Aburrá, 2013[23]). This arrangement, although fair regarding the possibilities of each municipality, could potentially give the most affluent municipalities more

influence than others over the Strategic Plan of Metropolitan Development, the budget and other decisions. To avoid this, regulation on the distribution of contributions and decision-making should be enacted by the national government in consultation with metropolitan and departmental authorities.

- A second problem is the financing of metropolitan areas. The Metropolitan Areas Law establishes the sources of funding that would allow metropolitan areas to fulfil their duties. Two main sources of funding are the surcharge on the appraisal cadastral property and a percentage of central government transfers for the activities that have a metropolitan character. However, the municipal cadastre is outdated in most municipalities and the share of transfers is decided by the municipalities that largely rely on transfers for their financing, then the resources transferred to the metropolitan area are variable and insufficient to cover their functions. Other sources of funding include: contributions and fees for the use of renewable natural resources, land value capture mechanisms, transport fees, charges, fines or permits; and the resources allocated in national, departmental, district or municipal budgets for metropolitan areas (Gobierno de Colombia, 2013[28]). However, none of these sources can provide budget certainty or secure substantial financing to carry out metropolitan infrastructure projects. Metropolitan areas seem to have more responsibilities than resources to meet them. For metropolitan areas to meet their responsibilities, their resources should cover daily administration, operational costs of the execution of plans and projects, and capital investment (construction of infrastructure). Moreover, no taxes are used to finance metropolitan areas to meet their responsibilities such as the elaboration of metropolitan development plan and the metropolitan land use plan, the development of metropolitan housing programmes, the creation of real estate banks for land management, the exercise of the function of public transport authority, participation in public service delivery, etc. (Gobierno de Colombia, 2013[28]). Although metropolitan areas have a large economic base, they have a strong dependence on central transfers. This is because of the highly constrained fiscal autonomy of municipalities (see below). This reliance on central transfers undermines local autonomy and local accountability. The central government's grants and transfers are earmarked and do not consider the specific needs of metropolitan areas in terms of infrastructure for transport, water, sanitation and welfare.
- A third problem is a lack of co-ordination of different land use plans at different scales for the same territory: the departmental land use plan ((*planes de ordenamiento departamental*, POD), the metropolitan land use plan and the municipal land use plan (POT), which have different functions, scales and scope. The metropolitan and municipal plans tend to overlap and most of the municipalities within metropolitan areas struggle with technical and financial limitations to update their POTs. Moreover, even if municipal associations or metropolitan areas try to promote land use objectives that could benefit all, if they are not included in the municipal POTs, then they cannot be realised. The reason is that, despite the existence of territorial management guidelines, municipalities are the ultimate authority that decides on land use.
- A fourth problem has to do with the real power of metropolitan areas. Even though the metropolitan areas are entities for strategic planning, they have no binding power and many municipalities are not even aware of their existence. This leads to situations in which the strategic planning of a metropolitan area and the management of individual municipalities go in different directions. It may be argued that the origin of this problem is that there is an exacerbated *municipalism* in Colombia, in which municipal mayors take little interest in the situation of the surrounding area of their municipality and do not fully understand the importance of associative schemes such as metropolitan areas (IEU, 2020[27]). Municipalities are expected to solve problems such as mobility environment, infrastructure, education, housing, among others; but those are issues that exceed municipal capacities and require a larger view.

The metropolitan region scheme as a horizontal co-ordination mechanism for the capital city

In 2020, the constitution was amended to create the Metropolitan Region of Bogotá-Cundinamarca (RMBC), the Colombian authorities' latest attempt to empower the socio-economic development of the country's economic engine where the largest share of the national population lives (Box 5.3). For more than 40 years, the capital city Bogotá, D.C., had looked for a multi-level governance scheme but political differences among regional leaders prevented the design of such a scheme. Since the Metropolitan Areas Law does not envisage the creation of a metropolitan area in the Bogotá-Region, the Colombian congress created the new entity of "metropolitan region". There are four main differences between the metropolitan region and the metropolitan area:

- First, while a metropolitan area promotes the integration of municipalities into a core municipality (*municipio núcleo*), the metropolitan region does not favour one municipality over another and does not authorise the annexation of municipalities.
- Second, while a metropolitan area has a metropolitan board (*junta metropolitana*) as the highest governing body, in which the core municipality has veto power, the highest authority in the metropolitan region is the regional council (*consejo regional*), where all municipalities participate on an equal footing, regardless of their economic power or population size.
- Third, while the metropolitan area focuses on predominantly urban and conurbation issues, the metropolitan region embraces a wider scope of territorial, environmental, social and economic issues related to Bogotá, D.C., and the municipalities of the department of Cundinamarca.
- Fourth, while the metropolitan area includes only the core municipality and neighbouring municipalities, the metropolitan region includes the Capital District (Bogotá), the Governorate of Cundinamarca and the municipalities of the department of Cundinamarca.[3]

The RMBC scheme brings the mayor of Bogotá, D.C., and the governor of the department of Cundinamarca at the same level while eliminating the entity of "core municipality" (*municipio núcleo*) that prevails in metropolitan areas. Unlike in municipal associations or metropolitan areas, there is no risk of the annexation of municipalities by the core municipality, which is why there was no need for public consultation to create the RMBC. The metropolitan region does not have a fixed geographic area, which leaves the door open to other municipalities to join the RMBC. There are currently 66 municipalities from the department of Cundinamarca that could potentially join the metropolitan region. The RMBC aspires at least to be a transport authority to generate infrastructure projects but it will not be an environmental authority. The proponents of the metropolitan region expect the national government to include the RMBC in the national budget to ensure it has a secure source of funding as it contributes to 35% of the national GDP and accommodates 20% of the national population.

The success of the RMBC could inspire similar governance arrangements in other urban agglomerations in Colombia. However, the consolidation of the RMBC faces a number of challenges. Since the discussion of the constitutional reform that gave birth to the RMBC largely took place in congress without citizen engagement, it will need to provide evidence that the metropolitan region is responding effectively to citizens' concerns regarding land use, public services, mobility and environment (Galvis Gómez, 2020[29]). Moreover, the RMBC needs to ensure that its creation is not just for the benefit of the Capital District (Bogotá) to the detriment of the municipalities of Cundinamarca. To this end, national and subnational authorities need to find mechanisms to integrate the poorest and marginalised municipalities into the administrative structure and bridge the gap between rich and poor municipalities in the region. The RMBC will need to facilitate citizens' participation in planning and decision-making processes to ensure that there is no primacy of one municipality over another and that decisions respond to real local needs. Moreover, the RMBC needs to protect the land used for food production and leverage land use to achieve the SDGs. Finally, another challenge is to endow the RMBC with the financial resources to implement programmes and projects that have an impact on the territory. This is of critical importance as metropolitan areas in Colombia lack reliable sources of funding and financing to cover their needs.

Improving metropolitan governance to underpin urban policy

The experience of OECD countries suggests that building compact, connected, clean and inclusive cities, as is the spirit of Colombia's System of Cities, requires strong horizontal co-ordination at the subnational level. Colombia has a sound basis to improve and strengthen its horizontal co-ordination mechanisms. It has accumulated enough experience on how mechanisms for municipal co-operation work. Its practices and structures are largely aligned with the OECD Principles on Urban Policy. In particular, Principle 2 suggests:

> *"[a]dapt[ing] policy action to the place where people live and work by: promoting flexible and collaborative territorial governance and policy beyond administrative perimeters where appropriate, by supporting a functional urban area approach (cities and their commuting zones); adapting development strategies and public service delivery to the diversity of urban scales, ranging from neighbourhoods and intermediary cities all the way to metropolitan areas, large cities and megaregions…" (OECD, 2019, p. 14[30]).*

Despite this progress, Colombia still needs to adjust some aspects of its governance arrangements to make them fit to support the implementation of local plans and strategies derived from the NUP. The supramunicipal level is crowded but weak. While some municipalities invest and deliver services jointly, several municipalities still prioritise their local objectives rather than those of the functional area. Financing remains uncertain and insufficient for joint investment ventures. Therefore, the following recommendations aim at supporting Colombia to revamp its existing structures for municipal co-operation:

- **Acknowledge the interdependence of policy sectors (e.g. housing, transport, land use, infrastructure, leisure, etc.) in inter-municipal or metropolitan planning and adopt an integrated policy approach**. In line with the OECD Principles on Urban Policy, Colombia could strive to set the incentives to align and integrate sectoral policies to promote development. Clear messages must be sent from the central government on the importance of adopting integrated approaches to pursue the System of Cities aim of building compact, connected, clean and inclusive cities. Metropolitan areas in Colombia assume leadership on environment and transport but these two policy sectors have a considerable impact on and depend on others such as housing, land use, labour markets. For example, the experience of Greater Vancouver, Canada, suggests that to plan public transport, it is essential to plan for land use and housing and that providing affordable housing requires considering transport and land use policies (Huerta Melchor and Lembcke, 2020[31]). Even if Colombian metropolitan areas have authority for transport planning and environment, they should ensure that the design and implementation of land use, transport and housing policies are highly co-ordinated and mutually reinforcing. Moreover, in metropolitan areas (and regions) as well in the large agglomerations, the management of land requires a co-ordinated approach to contentious issues: regional transport investments, the location of industrial areas and the amount of housing that needs to be developed to satisfy demand. Metropolitan areas will have to ensure that spatial and land use planning keep pace with changing territorial boundaries.
- **Define an organising vision around multi-sectoral, cross-cutting strategies to guide municipal co-operation**. There is little evidence that municipal associations in Colombia have a long-term strategic vision, as they generally seem to work around short-term investments and electoral cycles. A long-term vision should be devised and implemented by all municipalities in the association or metropolitan area (or region) to achieve more effective and coherent policy outcomes. Municipalities in Colombia will need to establish linkages between urban development policy and other cross-cutting objectives such as adaptation to climate change and economic growth. Departments and municipal associations should have a role in ensuring an open, clear and transparent process of policy making and that cities create a strategic vision of future urban development rather than focusing on separate sectoral programmes. The NUP should foster an understanding of cross-cutting policy issues and their importance in municipal urban development to try to obtain political support from municipal authorities.

- **Build on existing institutions of governance**. As already mentioned, Colombia has a diversity of institutional arrangements among which municipalities can choose the model that best fits their needs, as well as those set in the LOOT (Gobierno de Colombia, 2011[11]). This variety of possible schemes is important as one single model may not be fit for all purposes. However, it is important to give time to the existing mechanisms of co-operation to mature and evolve rather than continue creating more. Experience suggests that building on existing governance mechanisms of co-operation and co-ordination facilitates the development of a more holistic, multi-sectoral approach as key actors have already worked together (OECD, 2012[14]).
- **Revamp the role of departments as promoters of regional integration**. The OECD had already recommended that departments should be given a clearer role in the promotion of regional integration through investment projects, strengthening their mandate to incentivise regional co-operation for investment projects as technical support or political facilitator (OECD, 2016[17]). The role of departments could be enhanced by having a more active role in projects with cross-jurisdictional co-operation.
- **Address the specific needs of the RMBC in the NUP**. As the economic engine of the country, the RMBC has a primary role in driving the competitiveness of the country but it has a fragile legal situation and weak capacity. The city of Bogotá, D.C., has recently published a proposal for a new POT (*Plan de Ordenamiento Territorial: Bogotá Reverdece 2022-2035*),[4] which highlights the need to promote associative mechanisms for the joint development of investment projects in the framework of the RMBC; it does not, however, provide further details on such associations. As people flee to the suburbs, congestion increases and related costs rise for the city, commuters and companies. Plans to expand and improve the quality and integration of public transport in the RMBC offer an important solution but public transport is not addressed in the new Bogotá POT under the regional metropolitan framework. The new NUP could provide the basis for strengthening the RMBC by promoting strategic and land use planning and investment at the metropolitan level in the region. Transport could be given priority to expand and improve the integration of the RMBC. The RMBC could benefit from a two-track strategy based on bringing not only jobs to people but also people to jobs.
- **Adopt strong and reliable instruments for monitoring and evaluation of continuous improvement of metropolitan issues**. OECD country experience suggests that it is important to implement a long-term process of monitoring and evaluation to create and sustain credibility for reform based on tangible evidence (OECD, 2015[32]). The reason is that metropolitan areas continue to evolve and even governance structures that used to function well may eventually need to be adapted. Metropolitan areas (and regions) in Colombia could adopt a set of tools to ensure obtaining continuous feedback from citizens, academic experts and the private sector. For example, the metropolitan area of Toronto, Canada, has accumulated experience in collecting feedback from different actors. The Toronto City Summit Alliance is a multi-sector coalition working to meet regional challenges such as affordable housing, transport, infrastructure and immigrant integration. The city summit acts as a source of information, ideas, initiatives and as a neutral convener. While the main feedback tool is the summit that takes place every four years to drive collective action on key metropolitan issues, citizens can also contact the city summit with proposals at any time.[5]

Vertical co-ordination across levels of government to align policies to the NUP

Vertical co-ordination across levels of government in Colombia remains fragile despite efforts to strengthen it. A key limitation is the overlapping competencies across levels of government and the multiple plans territorial authorities must produce. For example, municipalities, districts, metropolitan areas and departments elaborate POTs that need to be co-ordinated but, since municipalities make the final decision on how land is used within its territory, it may not always be compatible with higher-level plans. There are

no mechanisms for follow-up and evaluation of the different urban development plans and it is therefore difficult to analyse their impact on higher national urban development objectives.

The National Planning Department (DNP) is in charge of articulating national and territorial planning, co-ordinating policy among sectors and across government levels as well as supporting the capacity enhancement of subnational governments. Since it acts as the technical secretariat of the COT, it has a prominent role in discussions on territorial organisation with governments of different levels. A key issue to consider is whether its decisions are binding and compulsory for all actors in urban and territorial development.

The role of departments in vertical co-ordination could be enhanced

According to the 1991 Constitution and LOOT, departments – the intermediate governmental level in Colombia's territorial structure – are supposed to assume the role of intermediaries between the national government and the municipalities. They are also supposed to be key players for regional development as they have more technical and administrative capacity than the vast majority of municipalities. They share competencies with municipalities in several policy issues and provide financial, administrative and technical assistance to municipalities. However, departments have limited resources to meet their responsibilities and properly support municipalities. For example, while municipal tax revenues as a share of GDP grew from 0.9% in 1990 to 2.4% in 2017, those of departments fell from 1% to 0.8% in the same period (Pérez, Espinosa and Londoño, 2019[33]). Although they receive a considerable share of the royalties (see below), they do not decide on the execution of all projects funded through those resources.

The OECD had already recommended strengthening the role of departments as integrators and links between municipalities and the national government (OECD, 2016[17]). The reason is that departments are key partners for municipalities in terms of technical, administrative and financial support and they often substitute weak municipalities and co-ordinate regional projects. Departments have a key role in setting orientations for regional development, they are key players in the royalties system and co-ordinate *Contratos Plan (contract plans)*. Thus, they could take on a more proactive role to support critical projects with cross-jurisdictional co-operation and in the management of royalties. Their mandate to incentivise regional co-operation for investment projects should be strengthened. The departmental land use plans (PODs) should help to orient municipal land use plans on regional issues. Co-ordination between PODs and municipal POTs remains a challenge as it is not mandatory. The MVCT could issue regulations to strengthen the role of PODs as a reference point for POTs.

Municipal associations as platforms for dialogue across levels of government

Municipalities are the beneficiaries of decentralisation but they cannot catalyse its benefits partly because of the lack of order in the intermediate level of government (IEU, 2020[27]). Colombia has been creating different territorial figures at the intermediate level with the purpose of facilitating co-ordination among governments at the same level and across levels of government. The intermediate level is composed of departments, metropolitan areas, municipal associations, administrative planning regions, associations of departments and associations of metropolitan areas. The problem is that they lack clear competencies and, in many cases, funding. These figures should be the link between national and municipal governments but the crowded landscape at the intermediate level is hindering that co-ordination. The co-existence of these various associative schemes highlights a landscape where the intermediate level is crowded with relatively weak administrative and territorial organisational figures without clear competencies and the (financial) resources to exercise them. Colombia has been experimenting with the adoption of these associative schemes since the enactment of the LOOT in 2011 but they have not matured and need strengthening, preventing the accumulation of experience to refine the schemes, and do not allow for consolidating the decentralisation process. The lack of (financial) incentives and competency for designing

and implementing regionally co-ordinated investment and the possibility on incurring potentially costly co-ordination processes have contributed to the limited use of the associative schemes (OECD, 2016[17]).

Four main associations seek to represent the interests of subnational governments and foster co-ordination with the national government and among their members: i) the National Federation of Departments (*Federación Nacional de Departamentos,* FND); ii) the Colombian Municipalities Federation (*Federación Colombiana de Municipios*, FCM); iii) the Colombian Association of Capital Cities (AsoCapitales); and iv) the Colombian Association of Metropolitan Areas (*Asociación Colombiana de Áreas Metropolinatas*). The FCM brings together almost all municipalities in Colombia and the central government consults it on all matters impacting municipalities. It constitutes a platform for the exchange of information and experiences among municipalities.[6] All these associations and their interactions with the national government contribute to aligning municipal policies with the NUP framework. During the preparation of the current NUP and the groundwork for the formulation of the new urban policy, there has been close dialogue between the associations and the MVCT. For example, the creation of AsoCapitales in 2012 opened a platform for feedback and received proposals for the strengthening of the conclusions of the task force that elaborated the System of Cities. Similarly, other OECD countries have a co-ordinating ministry or agency or platforms for dialogue between national and subnational governments for NUP (Box 5.4). Some OECD countries such as Australia and the Czech Republic have developed a multi-sector, multi-level co-ordination mechanism to engage national sectoral ministries and subnational governments.

Box 5.4. Building adequate co-ordination across levels of government in OECD countries – Selected examples

- In **Australia**, the Council of Australian Governments (COAG) is the main forum for the development and implementation of inter-jurisdictional policy. Its role is to promote policy reforms that are of national significance, or which need co-ordinated action by all Australian governments. The prime minister, state premiers and chief territory ministers and the president of the Australian Local Government Association are members of the COAG.
- The **Czech Republic** created the National Permanent Conference to serve as a high-level communication platform where different ministries, managing authorities, regions, cities and territorial partners participate. Its main goal is to address the territorial dimension of EU funds and regional, urban and rural development aspects.
- In **Italy**, political dialogue and vertical co-ordination between the regional and national governments is ensured through the State-Region Conference, a permanent negotiating arena between central and regional authorities.
- In **Israel**, in 2019, the Planning Administration called for proposals to local authorities and regional planning bureaus to identify and submit proposals for areas suitable for urban regeneration. Seventy local authorities submitted over 100 proposals which are assessed based on a set of quality-driven criteria, such as the project's location, potential to impact on its surrounding area and improve the public sphere, and the engagement of the local community and local authority. The selected areas will be re-planned through policy documents, outline plans and strategic regeneration plans. Israel's Planning Administration seeks to align subnational planning with national planning goals through technical support to subnational governments.
- In **New Zealand**, the Local Government Commission is an independent, permanent body for inquiry into local reform created by the Local Government Act in 2002, specifically with the aim of building a relationship across party lines in the context of multi-level governance needs.

- In 2015, **Portugal** established the Council for Territorial Dialogue chaired by the prime minister and with the representation of central and local governments, to facilitate continuing dialogue on important policy and programme issues. Beyond permanent fora of inter-governmental consultation, ad hoc committees and commissions also serve to facilitate inter-governmental and civil society dialogue on some intractable issues.

Source: For the Czech Republic and Israel: OECD/UN-Habitat/UNOPS (2021[2]), *Global State of National Urban Policy 2021: Achieving Sustainable Development Goals and Delivering Climate Action*, https://dx.doi.org/10.1787/96eee083-en; for Australia and Italy: OECD (2016[17]), *Making the Most of Public Investment in Colombia: Working Effectively across Levels of Government*, https://dx.doi.org/10.1787/9789264265288-en; OECD (2019[34]), *Making Decentralisation Work: A Handbook for Policy-Makers*, https://dx.doi.org/10.1787/g2g9faa7-en.

Co-ordination among national and subnational governments has given a new impetus during the COVID-19 crisis across OECD countries to ensure an effective response. The crisis showed that "…where subnational governments operated with high degrees of autonomy, policy responses are more likely to be fragmented" (OECD, 2021, p. 89[35]). This means that when autonomy is not accompanied by co-ordination, subsidiarity and concurrence may weaken its effects and the decentralisation process itself. Weak co-ordination and communication across levels of government created the risk of operating with one-size-fits-all measures that may not address local needs, particularly in large and diverse countries like Colombia. Associations of regional and local governments are playing a critical role in supporting vertical co-ordination to manage the COVID-19 crisis. They are interlocutors between national and subnational governments, and they identify solutions and support the implementation of emergency measures. The OECD has recommended that co-ordination bodies established during the crisis should continue to be mobilised to co-ordinate and communicate responses and support recovery strategies (OECD, 2021[35]). Moreover, Colombia, like other OECD countries, could adapt existing multi-level governance frameworks and processes to direct public investment at subnational governments and support a prompter adoption of recovery plans (OECD, 2021[35]). Colombia's national government could continue using the vertical co-ordination displayed during the crisis to support the planning and execution of the recovery strategy and NUPs. Box 5.5 provides some examples of the mechanisms for vertical co-ordination introduced by some OECD countries to enhance their response capacity to the COVID-19 crisis and that may support recovery strategies.

Box 5.5. Responding to the COVID-19 crisis through vertical co-ordination in selected OECD countries

- To underpin its health response to the COVID-19 crisis, **Canada** developed a "whole-of-government action" based on seven guiding principles including collaboration. These principles call on all levels of government and stakeholders to work in partnership to generate an effective and coherent response. They build on lessons learned from past events such as the 2003 SARS outbreak.
- In **France**, the Cazeneuve report promoted the creation of an observatory for the follow-up of the crisis and its impact on local finances based on a real-time sharing (updated every two months) of financial statements and a common methodology for calculating the costs of the crisis.
- In **Sweden**, to deal with the COVID-19 outbreak, the Public Health Agency of Sweden relies on County Administrative Boards for information on the specific challenges and conditions prevailing in each area. The boards are responsible for co-ordinating the state, regions and municipalities in terms of infection control aspects and for ensuring that important societal

functions are maintained in the country. On 1 July 2020, the Swedish government established a Corona Commission, responsible for evaluating COVID-19 actions by the government, government agencies, regions and municipalities and for comparing the Swedish strategy to that of other countries.

- In the **United Kingdom** (UK), the Scottish government created a City Centre Recovery task force, led by the Economy Secretary and carried out through the Scottish Cities Alliance, a partnership between the Scottish government and Scotland's seven cities, to improve multi-level and multi-stakeholder co-ordination throughout the recovery.

Source: OECD (2021[35]), "The territorial impact of COVID-19. Managing the crisis and recovery across levels of government", https://read.oecd-ilibrary.org/view/?ref=1095_1095253-immbk05xb7&title=The-territorial-impact-of-COVID-19-Managing-the-crisis-and-recovery-across-levels-of-government&_ga=2.103610951.677348836.1629894019-1211761618.1618842879.

Co-financing instruments as a tool for vertical co-ordination

Since the 2010s, Colombia introduced the contract plan (*Contratos Plan*) to co-ordinate investment more effectively across levels of government in a cross-sectoral manner. These contract plans, called Territorial Pacts (*Pactos Territoriales*) since 2018, are investment programmes that focus on improving connectivity and service delivery in lagging areas in key policy areas such as education, healthcare and sanitation. Territorial Pacts can be elaborated at the regional level (based on the nine regions featured in the National Development Plan), departmental level (for the departments of Chocó and La Guajira considered as a priority in the PND) and functional level (for the municipalities within functional urban areas). They were inspired by the French *contrats de projets État-région*. The French contracts provide for simultaneous preparation of all of the contracts across France and each contract lasts for seven years. The Colombian system has different timings (from three to eight years) and different territorial coverage. The new generation of *Contratos Plan* that started in 2014 has a specific focus on peace and post-conflict, which is why they are also called *Contratos Paz* as they were developed within the framework of Colombia's post-peace development agenda. Like the first generation, they focused on road connectivity and service delivery but they also include long-term infrastructure projects.

The implementation of Territorial Pacts requires strong horizontal co-ordination among subnational governments and vertical co-ordination with the national government. Although these pacts have contributed to capacity building, infrastructure construction and strengthening trust across levels of government, some challenges remain. Projects managed through this instrument tend to be highly fragmented and lack sound technical analysis. The heavy bureaucracy that tends to slow down implementation, the fragmented nature of the projects, as well as deficiencies in project design affect their effectiveness. The timespan of each Territorial *Pact* varies and the fact that they do not necessarily match with the local development plan timeframe may be an advantage as this could ensure a certain continuity across mandates which last only four years. Box 5.6 provides an example of how the contract plan in the department of Cauca is financed and of its flagship projects.

Box 5.6. Contract Plan Cauca

The *Contrato Plan Cauca* is an example of a contract plan at the departmental level. Its objective is to articulate and co-ordinate the planning, management and financing capacities of the 42 participating municipalities to contribute to integral rural development with a territorial focus, the well-being of the communities, and conservation and sustainable use of the ecosystems of the department of Cauca. It was subscribed in 2013 for a ten-year period. It has an indicative budget of COP 1 333 million of which

the national government will contribute 50% and the department and municipalities the other 50%. These resources are used for the development of 14 sectors grouped in 4 strategic priorities: i) integral rural development with a territorial approach; ii) social development; iii) productive development and tourism; and iv) infrastructure and environmental management.

By the end of June 2021, the contract plan had managed to secure COP 951 774 million which represents 71.4% of the total expected budget. The *Contract Plan Cauca* contemplates 135 investment projects of which 85 are concluded while 50 are still in progress. Some of the projects include the construction of hospitals, a university city, improvement of the infrastructure for water supply in the municipality of Puerto Tejada and the strengthening of education quality through the use of ICT across the department's schools.

Source: DNP (2021[36]), *Ficha Trimestral Contrato Plan Cauca (30/06/2021)*, https://colaboracion.dnp.gov.co/CDT/Contratos%20Plan/Contratos%20Plan/Fichas%20Trimestrales%20a%2030-06-2021/Ficha%20trimestral%20Contrato%20Plan%20Cauca%20corte%20junio%202021.pdf.

Colombia should continue to implement this instrument due to its value in co-ordinating investments. However, the instrument may need to undergo some adjustments to improve its efficiency and effectiveness. For example, it needs to focus on concrete investment projects with clear financing sources identified and stated in the contractual document. The OECD has already recommended that the elaboration process could be simplified, and the features of the contract could be harmonised and standardised, particularly regarding timing; the aim is to facilitate monitoring (OECD, 2016[17]). The managing authorities should be better identified, and departments should have a clearer role to co-ordinate the process. A Territorial Pact, as Box 5.6 shows, has a large number of projects of different nature and sometimes it is not clear who the managing authority is. Finally, to improve implementation, penalties could be introduced when the objectives of the contracts are not achieved. The DNP issues quarterly reports on the progress made on every contract plan, stating the progress made in every single project and which could be used as a basis for accountability. The DNP could enhance its role as co-ordinator across national ministries to ensure that all key relevant bodies work together to implement the Territorial Pacts (OECD, 2016[17]).

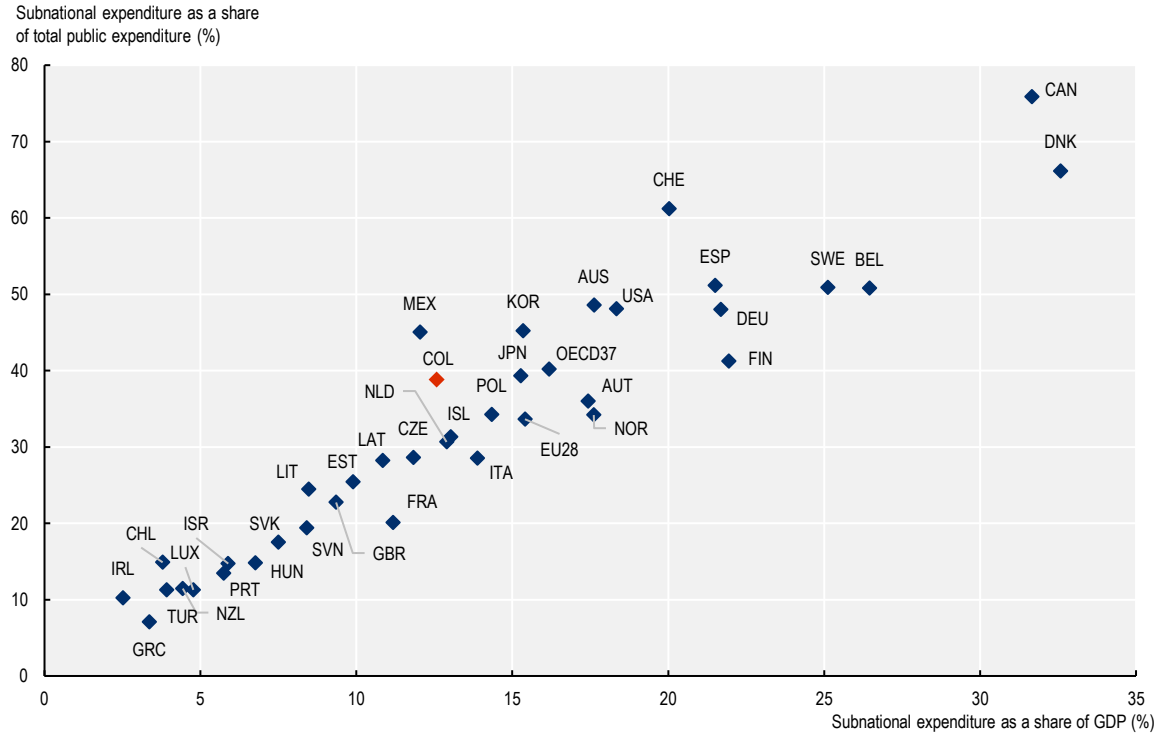
Financing municipalities

A steady process of fiscal decentralisation

The enactment of the 1991 Constitution led to a radical change in fiscal relations across levels of government in Colombia. Subnational levels of government (departments and municipalities) received more responsibilities, particularly in areas of education, healthcare, housing, transport, water and sanitation. The decentralisation of responsibilities was accompanied by measures to increase local income through an increase in the amount of national tax revenue that is shared with subnational governments and the creation of some subnational taxes to provide local governments with their own sources of income. These reforms and measures have made Colombia the most decentralised unitary country in Latin America (Bousquet, Daude and de la Maisonneuve, 2015[37]; OECD, 2016[17]). As discussed above, the Organic Law of Territorial Organisation (LOOT) assigns different responsibilities to each level of government (Figure 5.2). However, the OECD has found that the responsibilities held by each level of government, specifically between departments and municipalities, are still somewhat unclear (Table 5.1) (OECD, 2014[20]). The reason is that Colombia appears to have a dual system of decentralised and delegated responsibilities, and most of the competencies are shared across all levels of government. This configuration requires efficient and effective co-ordination mechanisms to deliver such responsibilities.

When compared to OECD countries, Colombia has a slightly lower level of fiscal decentralisation, considering spending, than the OECD averages, which were 40.2% of public expenditure and 16.2% of GDP in 2019 (Figure 5.4). When considering OECD unitary countries only, Colombia's level of subnational government expenditure as a percentage of GDP (12.6%) is equivalent to countries such as the Czech Republic (11.8%), France (11.2%), Iceland (13%) and the Netherlands (12.9%) but well below countries such as Denmark (32.6%), Finland (21.9%), and Sweden 25.1%) (OECD, 2021[38]). Colombia is significantly ahead of other OECD unitary countries such as Chile, Greece, Hungary, Ireland, Israel, New Zealand, Portugal and Turkey, where local governments have limited competencies (Figure 5.4).

Figure 5.4. Subnational government expenditure as a percentage of GDP and public expenditure across OECD countries, 2019



Source: Elaborated based on OECD (2021[38]), *Subnational Governments in OECD Countries: Key Data 2021 Edition*, https://www.oecd.org/regional/multi-level-governance/OECD_SNG_Nuancier_2021.pdf (accessed on 26 August 2021).

Colombian subnational governments have limited spending autonomy

The spending autonomy of Colombian subnational governments is largely limited by the revenue sources (earmarked transfers). The revenue of Colombian subnational governments comes from three different sources: direct transfers from the central government (*Sistema General de Participaciones,* SGP), income from assets (royalties) (*Sistema General de Regalías,* SGR) and subnational taxes. The bulk of subnational revenues comes from direct transfers from the general budget, which are earmarked. They amounted to almost 60% of subnational governments' revenue above the OECD average of 37.6% in 2019 (OECD, 2021[38]). They are earmarked and, in 2020, almost 60% of transfers went to education expenditure, 23% to health, 5% to water and 10% to general-purpose items such as culture, sports and investment.[7] About 35% of transfers go to departments while 65% go to municipalities (OECD/UCLG, 2019[18]). The purpose of this system is to ensure that every Colombian citizen has access to basic services of comparable quality.

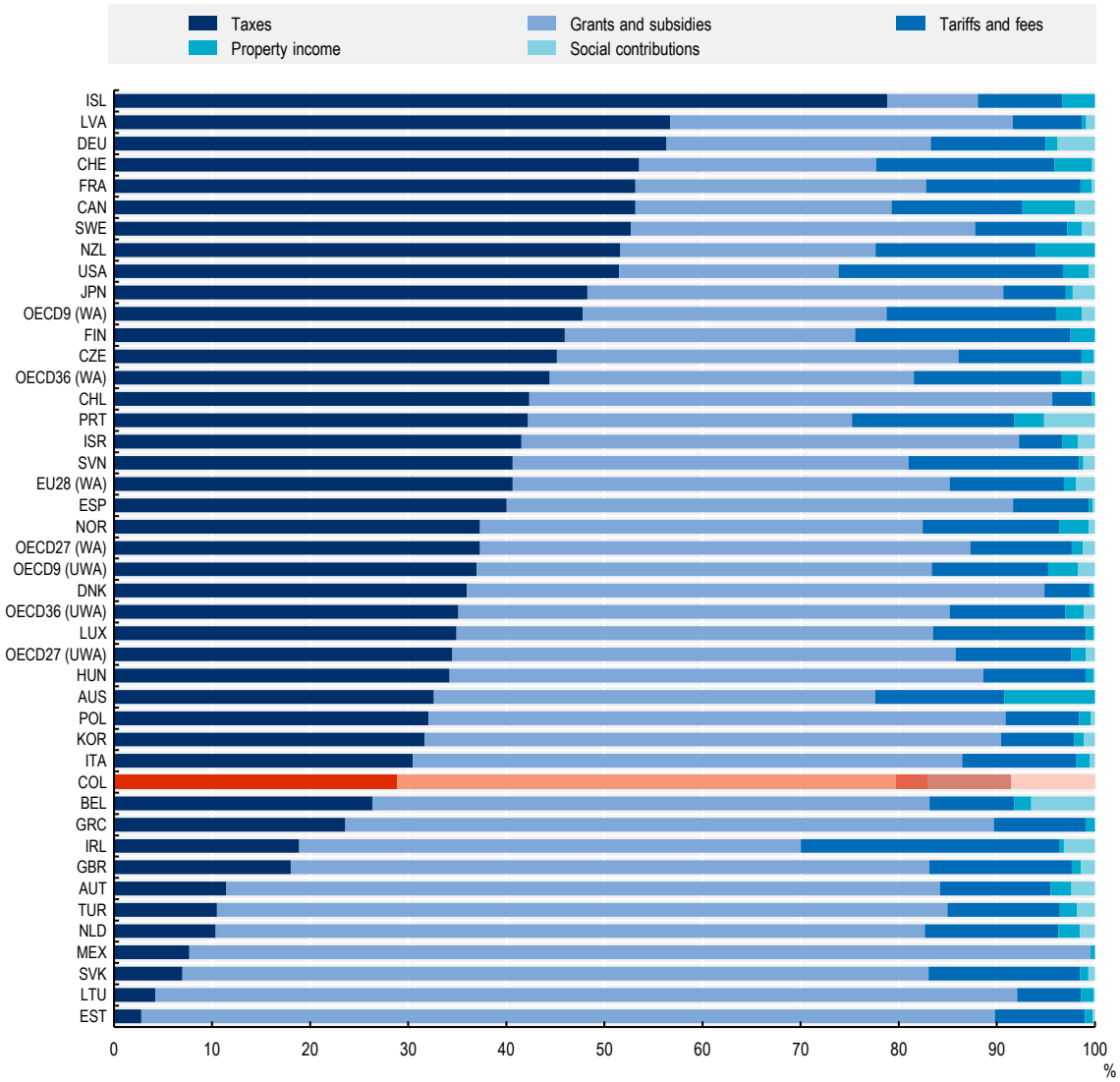
Regarding royalties, departments and municipalities affected by extractive activities (oil, gas, other natural resources), either as producers or providers of logistics, receive part of the royalty payments generated by business and the amount fluctuates year by year. These resources are administrated through different regional funds such as the Regional Development Fund and the Regional Compensation Fund. These resources can only be used for capital investment projects such as infrastructure (i.e. a hospital) but they cannot be used to pay for operation costs (i.e. the operation of the hospital). This rule seems logical as royalties are transitory one-off revenues that should be used to foster investment projects, these investments require higher maintenance expenditure from the national transfers putting additional pressure on subnational governments' own limited resources. The central transfers and the royalties are two instruments that are making fiscal decentralisation imbalanced as subnational governments have wide-ranging competencies but limited spending autonomy as most expenses are earmarked (OECD, 2016[17]).

Colombian subnational governments also have revenues from local taxes and fees. In 2019, they represented 29.8%, well below the OECD average of 44.3% (OECD, 2021[38]). Subnational governments have limited taxation autonomy and several constraints over tax rates and bases. They have what is called "residual autonomy", which means that subnational governments can set tariffs only within the parameters defined by law but are free to manage them according to their own needs and procedures. Municipalities obtain resources from around 20 different municipal taxes but 80% of tax receipts come from 3 of them: industry and commerce tax (ICA, 38% of municipal tax revenues), property tax (*predial*, 34%) and a gasoline surtax (around 7%) (OECD/UCLG, 2019[18]). Departments charge consumption taxes and vehicle tax. Property tax and industry and commerce tax are the main municipal taxes (34.4% and 36% of municipal taxes in 2019 respectively).[8] In addition, municipalities receive a gasoline surcharge, which together with the 2 main taxes represents 32% of municipal income. For departments, taxes for consumption (i.e. wine, beer, tobacco) represent 27% of their total income.[9] Figure 5.5 provides a comparative overview of the structure of Colombia's subnational revenue with other OECD countries. It shows how much dependence subnational governments have on grants and subsidies from the central government, with almost 60% of subnational income coming from central government, well beyond the OECD average of 37.6% in 2019.

Borrowing is strictly regulated by prudential rules. Subnational governments debt in Colombia (20.7% of GDP) is below the OECD average (24.5% of GDP) (OECD/UCLG, 2019[18]). Since the 1991 decentralisation reform, subnational governments' debt had increased, as responsibilities on education and health were decentralised without corresponding funding and subnational governments borrowed steadily to cover deficits. Therefore, the central government introduced fiscal discipline laws such as the Traffic Light Law (i.e. *Ley de Semáforo*) to correct imbalances. Local governments that were highly indebted were not allowed to borrow (red light), those with a green light were allowed and those with a yellow light had to request approval from the central government before borrowing.

The financing system of subnational governments has been called into question regarding its lack of flexibility and for not distinguishing between urban and rural areas. Since most of the resources are earmarked (transfers) or can only be spent in capital investments (royalties), subnational governments have a limited ability to define their expenditure based on their own specific priorities. Moreover, subnational governments are not entitled to create new taxes; they can only collect taxes specified by the central government. Only a few tax receipts can be freely disposed of (OECD, 2014[20]). Although revenues generated by royalties can be allocated freely, subnational governments must do so according to the rules set by the national government. However, they are generally used to provide basic services rather than to stimulate economic development. Therefore, subnational governments, in particular municipalities, have insufficient resources to improve broader urban development, for example, to improve mobility. Moreover, the current financial system does not prioritise or incentivise the ability of subnational governments to raise their own revenues.

Figure 5.5. Comparing Colombia's structure of subnational revenue and OECD countries, 2019

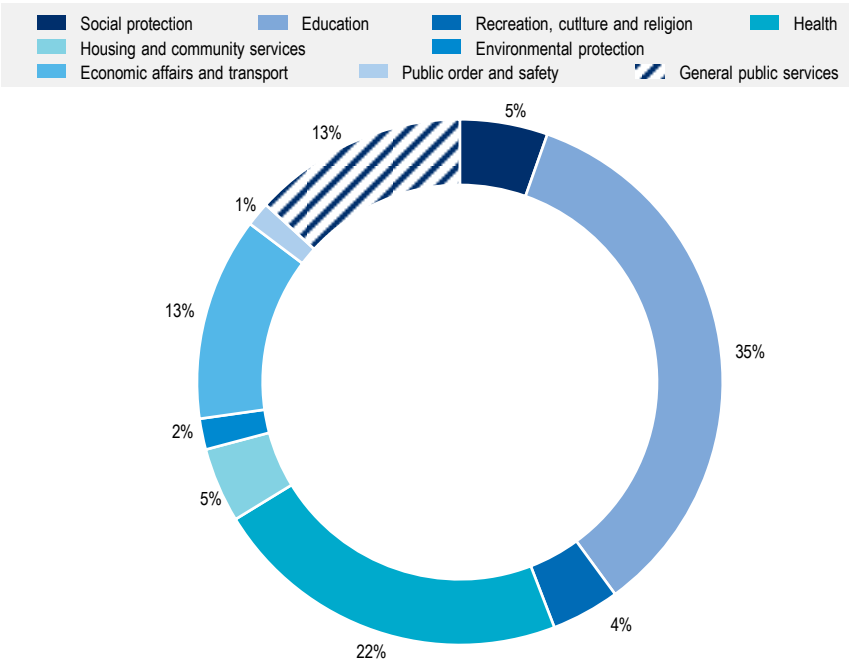


Source: OECD (2021[38]), *Subnational Governments in OECD Countries: Key Data 2021 Edition*, https://www.oecd.org/regional/multi-level-governance/OECD_SNG_Nuancier_2021.pdf (accessed on 26 August 2021).

Subnational spending mostly goes to sectors for which expenditure is earmarked

In Colombia, subnational public expenditure represents one-third of total public expenditure in the country (OECD, 2014[20]). Municipalities represent approximately two-thirds of expenditure while departments represent one-third (OECD/UCLG, 2019[18]). Figure 5.6 shows the distribution of expenditure by sector in Colombia where education (35%), health (22%), general public services (13%) and economic affairs and transport (13%) have the highest share of investment. Given the central government's high dependence on earmarked grants, it is no surprise that subnational spending goes predominantly to sectors for which expenditure is earmarked in the SGP. Funds cannot be used to cover any debt. Moreover, subnational governments have rather limited authority on where and how to spend since those resources are earmarked (OECD, 2016[17]).

Figure 5.6. Subnational expenditure in Colombia by sector, 2016



Source: OECD/UCLG (2019[18]) (2019), *2019 Report World Observatory on Subnational Government Finance and Investment - Key Findings*, http://www.sng-wofi.org/publications/2019_SNG-WOFI_REPORT_Key_Findings.pdf (accessed on 28 August 2019).

An incomplete fiscal decentralisation process that affects the capacity for managing urbanisation

Urbanisation in Colombia has placed a huge burden on local administrations to finance and build urban infrastructure including roads, public transport systems and utilities such as water, sanitation, electricity and Internet provision. Building and maintaining a city's infrastructure such as the public transport network requires considerable amounts of financial resources that no level of government alone can fully fund on its own. Even the newly created Bogotá-Cundinamarca Metropolitan Region lacks the necessary resources to invest in key infrastructure and requires support from the central government as its sources of funding are still being negotiated with the national government.

While the fiscal decentralisation process was intended to strengthen subnational governments' capacity for meeting the needs of their residents, it remains unfinished. So far, local governments mostly serve as a vehicle for the central government to deliver services, which makes the "decentralisation" process rather a "deconcentration" reform that has limited the autonomy of departments and municipalities, both in terms of revenue and expenditure (OECD, 2014[20]).

The subnational fiscal framework does not allow for considering significant differences in development across territories and the specific needs of each local government as the rules are the same for all municipalities regardless of their own capacity.

Moreover, the system does not appear to encourage the effective use of local public finance. Local governments have the possibility of using a wide range of taxes and other instruments (i.e. land value capture instruments) to raise their revenues but these are not fully used due to the lack of technical capacity and technical complexities. It may also be the case that local authorities are reluctant to pay the political cost of increasing taxes, even if the latter is currently underused.

Central government transfers absorb operational expenditure since local governments have a limited capacity to raise their own revenues to cover them. Operation costs are often disregarded in the investment cycle; most SGR projects do not include operational costs compromising their long-term sustainability. Table 5.2 shows that while current expenditure amounts to 87.5%, direct investment is only 12.5%. This means that transfers are less and less used to fund basic public services. Some local authorities even use royalties to pay for projects that should have been financed by transfers (OECD, 2016[17]). The insufficient tax-raising power of subnational governments and the absence of significant efforts on the part of departments and municipalities to increase tax collection hinder the possibility to increase their own income that they can dispose of more freely. This is particularly problematic in small- and medium-sized cities with lower levels of population, resources and room for manoeuvre to increase tax collection. The more limited capacity of medium and small cities to use different sources of income provided by law and their limitations to update the cadastre for property tax hinders their income.

Table 5.2. Subnational government expenditure in Colombia, 2016

	USD PPP/INH	Percentage of GDP	Percentage of subnational government expenditure
Total expenditure	**1 815**	**12.9**	**100**
Including current expenditure	1 589	11.3	87.5
Staff expenditure	560	4.0	30.9
Intermediate consumption	308	2.2	17.0
Social expenditure	471	3.4	26.0
Subsidies and current transfers	161	1.2	8.9
Financial charges	71	0.5	3.9
Other	16	0.1	0.9
Including capital expenditure	226	1.6	12.5
Capital transfers	0	0.0	0.0
Direct investment	226	1.6	12.5

Source: OECD/UCLG (2019[18]) (2019), *2019 Report World Observatory on Subnational Government Finance and Investment - Key Findings*, http://www.sng-wofi.org/publications/2019_SNG-WOFI_REPORT_Key_Findings.pdf (accessed on 28 August 2019).

The challenge for Colombia is to create the conditions and incentives for subnational governments to increase their own revenues to finance capital investments and participate in co-financing projects or arrangements for major infrastructure investments. In its earlier reviews on territorial development (OECD, 2014[20]) and public investment (OECD, 2016[17]) in Colombia, the OECD formulated a set of policy recommendations to improve and modernise the subnational public finance framework as part of the fiscal decentralisation process. Those recommendations still stand valid today as subnational governments continue to face serious constraints to raise revenue (Box 5.7). It may be noted that according to Box 5.87, the OECD recommends conducting a reform of the General Transfer System to make it more flexible and reduce earmarked transfers. This could generate concerns regarding those municipalities that still have low coverages of essential services as this could strip them from necessary resources. This is not the case. The recommendation calls for more flexibility so that municipalities have more freedom to decide on where to invest the transfers they receive; if they still need to continue investing in areas previously earmarked, they could still do so. However, more freedom could also require an overseeing body (department or national government) on how those resources are being used.

The national government may consider using the decentralisation process to enhance urban development objectives. For that purpose, the process of decentralisation must be reinforced to be effective and conducive to regional development. To this end, the national government may wish to use the OECD

guidelines for effective decentralisation as a framework to design a new national urban development policy. These guidelines could support Colombia to enhance territorial co-operation and strengthen the fiscal capacity of municipal governments (Box 5.8). Moreover, Colombia may wish to develop a financing framework that allows joint investment between the national and subnational levels of government.[10] This implies facilitating co-ordination across jurisdictions (municipalities) to design joint investment strategies and co-ordinate that investment with the national government, particularly in sectors such as infrastructure that require substantial investment. In addition, Colombia may wish to mutualise capital funding across subnational governments to facilitate access to finance and foster multi-sectoral investment strategies at the local level to benefit from complementarities across sectors.

Box 5.7. OECD recommendations to Colombia to reform the subnational financial framework

The following recommendations were formulated by the OECD to support Colombia in strengthening its fiscal decentralisation process and increase subnational governments' capacity to finance investments according to their own needs.

- **Implement a reform of the General Transfer System**. Reforms should focus on making the transfer system more flexible and reducing earmarked transfers. It should include an in-depth review of the criteria to allocate central government transfers in view of simplifying them and introducing new equalisation mechanisms. Connecting central government transfers with the royalty system and the general budget could help to anticipate the impact of capital expenditures on future current expenditures.
- **Implement a subnational tax reform**. To increase subnational tax revenues, a review of the portfolio of taxes levied by subnational governments could be conducted as many small taxes do not bring considerable revenue but represent high operational costs. Options to increase the room for manoeuvre of subnational governments to manage taxes should be explored such as: offering leeway with respect to rates and bases; allowing subnational governments to decide on the allocation of their own taxation; reducing the number of earmarked taxes; and increasing user charges and fees by giving more freedom and flexibility to subnational governments, including metropolitan areas, in managing them. An inventory of financial and physical assets of subnational governments could be prepared to assess their potential in increasing local revenue. Updating the cadastral and land registries is paramount to improving tax bases, especially municipal property tax. Incentives to enhance tax collection should be considered.
- **Review the reallocation of responsibilities across levels of government**. The aim should be to reduce ambiguity in responsibilities and inefficiencies in the provision of public services. The role of every level of government should be defined.
- **Promote a fiscal framework conducive to public investment**. Since Colombia already has set rules for fiscal discipline at the subnational level, then it can use the OECD *Principles* for Effective Public Investment across Levels of Government to improve multi-level governance for public investment. For that, co-ordination across levels of government needs to be reinforced, the use of a medium-term fiscal framework for developing public investment needs to be strengthened, and new fiscal spaces to finance public investments must be created.
- **Improve the use of borrowing for investment**. Colombia could consider loosening borrowing constraints. The central government could support local authorities in preparing borrowing plans, co-ordinated with investment strategies and financial plans.

- ***Connect* the different sources of funding to finance integrated investment strategies**. The subnational government could prepare integrated investment strategies which include financial plans, financed by different funding sources.
- **Associate subnational government with the governance framework**. To improve co-ordination between central and subnational governments in managing public finance, subnational governments should be seen as partners in the discussion, definition and adoption of budgetary rules and targets as well as common objectives.
- **Ensure more integrity and transparency**. This is essential to create relations based on trust and tackle corruption.

Source: OECD (2014[20]), *OECD Territorial Reviews: Colombia 2014*, https://dx.doi.org/10.1787/9789264224551-en; OECD (2016[17]), *Making the Most of Public Investment in Colombia: Working Effectively across Levels of Government*, https://dx.doi.org/10.1787/9789264265288-en.

Box 5.8. OECD guidelines for effective decentralisation

- **Guideline 1. Clarify the responsibilities assigned to different government levels**. The way responsibilities are shared should be explicit, mutually understood and clear for all actors.
- **Guideline 2. Ensure that all responsibilities are sufficiently funded**. Access to finance should be consistent with functional responsibilities.
- **Guideline 3. Strengthen subnational fiscal autonomy to enhance accountability**. Subnational governments should have a certain degree of autonomy in the design and delivery of their public service responsibilities within the limits set by law.
- **Guideline 4. Support subnational capacity building**. The central government should assess capacity challenges in the different regions on a regular basis and adapt policies to strengthen capacities to the various needs of territories.
- **Guideline 5. Build adequate co-ordination mechanisms across levels of government**. Governance mechanisms should be established to manage joint responsibilities and create a culture of co-operation and regular communication.
- **Guideline 6. Support cross-jurisdictional co-operation**. The use of specific matching grants should be encouraged and inter-municipal and interregional co-operation, as well as metropolitan governance promoted.
- **Guideline 7. Strengthen innovative and experimental governance, and promote citizens' engagement**. Citizens should be empowered through access to information, participatory budgeting could be used.
- **Guideline 8. Allow and make the most of asymmetric decentralisation arrangements**. This could be supported by effective vertical and horizontal co-ordination mechanisms and needs to go hand in hand with an effective equalisation system.
- **Guideline 9. Consistently improve transparency, enhance data collection and strengthen performance monitoring**. Develop performance-monitoring systems to monitor decentralisation and regional development policies, which need to remain simple with a reasonable number of requirements/indicators.

- **Guideline 10. Strengthen national regional development policies and equalisation systems and reduce territorial disparities**. Fiscal equalisation policies need to be accompanied by proactive regional development policies to offset the potential negative incentives of such systems.

Source: OECD (2019[34]), *Making Decentralisation Work: A Handbook for Policy-Makers*, https://dx.doi.org/10.1787/g2g9faa7-en.

Improving the use of land-based financing instruments

Colombia has two important land-based financing instruments to raise revenue to finance urban development by capturing the capital gains from property and land generated by public infrastructure projects: the *contribución de valorización*[11] (betterment levy) and the *participación en plusvalías (*participation in capital gains*)*.[12] The former is a compulsory charge imposed on owners of a selected group of properties to defray, in whole or in part, the costs of improvements deemed to be of general benefit to the public and particularly the owners of such properties. Its value is fixed by each territorial entity as there is no predefined tariff. Betterment levies are used for financing infrastructure projects. The latter is a mechanism that seeks to recover part of the increased land values resulting from the changes in land use regulations, such as changes in zones, changes in the designation of the type of land, etc. The creation of these two instruments was inspired by the constitution, which stipulates that one of the state duties is to capture the added value generated by public actions. These two instruments are mostly used in large cities (i.e. Barranquilla, Bogotá, D.C., Bucaramanga and Cali) as they are too complex for the limited capacity of smaller- and medium-sized cities.

According to Law 388 of 1997 (Gobierno de Colombia, 1997[1]), all municipalities have the possibility to include the *participación en plusvalías* as one of the main sources of income for the land use plan (POT) and finance infrastructure, social housing, land acquisition for social housing, payments for urban renewal projects, general interest public works (e.g. maintenance of cultural heritage buildings). This mechanism is not a tax, a tariff or a contribution but a community's right to participate in the benefits of the government's action to improve urban development. However, several inaccuracies and gaps in the law prevent the wider use of this instrument. Accuracy of land appraisals, strict deadlines for calculating commercial prices before the adoption of the POT and new reference prices after the adoption of the plan, the definition of soil categories (i.e. suburban land), exemptions and special cases (i.e. social housing) and political and operational barriers complicate the use of *participación en plusvalías* (Barco de Botero and Smolka, n.d.[39]).

To expand the use of these two instruments, the central government could provide technical assistance to small- and medium-sized cities on how to deploy them and build on their feedback to make the mechanisms more user-friendly. Colombia could also use *participación en plusvalías* in situations where there are clear and substantial gains in obtaining citizen support and simplifying administrative procedures. One example is when changing the use of land from rural to urban use leads to increases in land prices, as is currently the case in Colombia. *Participación en plusvalías* could also be applied in the most dynamic areas of the city such as the city centre, where there is a higher potential for profit. Other land value capture tools that Colombia could consider using, based on the experience of OECD countries and cities to finance infrastructure, are, for example: development charges (Canada and the United States); tax increment financing districts (UK); and development rights or development contributions (New Zealand) (OECD, 2016[17]). Box 5.9 illustrate how the city of Amsterdam shares a similar situation to Colombian municipalities in terms of low fiscal autonomy and high dependence on transfers is trying to be more self-reliant on its own income.

Apart from those two land-based instruments, Colombia needs to reinforce property tax and update the cadastre. The property tax is already the second most important source of revenue of Colombian municipalities, so variations in its collection have repercussions on municipal income. The cadastre, as mentioned in Chapter 3, needs to be updated in most municipalities. Moreover, in the context of the Peace Agreement, Colombia requires a multipurpose land registration system that covers the entire territory (Escobar and Cárdenas, 2018[40]). This is because part of the origin of the Colombian conflict is in land issues and the development gaps between rural and urban areas. The multipurpose cadastre has to be more than a mere instrument to calculate and collect the property tax. The cadastre should be designed as an instrument of planning and information and to respond to issues related to land property, land use, environmental and territorial management. The MVCT already works on the development of a cadastre with a multipurpose approach to facilitate the management and urban development, contribute to evidence-based policy making and support municipalities in managing land use.[13] To strengthen the multipurpose cadastre, the MVCT could delegate cadastral functions to territorial entities to increase the efficiency of the system (Escobar and Cárdenas, 2018[40]). Moreover, the MVCT could issue a new cadastral statute based on local (Bogotá, D.C., and Medellín) and international experience. The new NUP and the National Development Plan could emphasise the need to approve a new cadastre statute to speed up the work of the MVCT on the subject.

Box 5.9. Land-based instruments to manage urban growth in Amsterdam

Spatial planning is intimately related to Amsterdam's strategy for urban growth and development financed by local (own-source) revenues and state transfers. Compared to other OECD cities, Amsterdam has some unique instruments with which to shape land use, namely high levels of public land ownership and the ground-lease system. The city (like all Dutch municipalities) has low fiscal autonomy; it relies to a high degree on transfers from other levels of government compared to own-source revenues. Local tax revenue in the Netherlands is 3.6% out of total revenue, while the average for the OECD was 10.6% in 2011. The national government remains heavily involved in funding key infrastructure projects.

The main merit of having such a high proportion of income from state transfers in combination with local autonomy and responsibility for executing these tasks is that it causes equality in service levels and social rights throughout the country. However, from a long-run perspective, this leaves the city in a vulnerable position. Following the 2008 economic crisis, there were large reductions in funding from the central government during the economic crisis and infrastructure investments, especially in new housing, were stalled. One way for the city of Amsterdam to reduce cyclical swings in revenue, and hence spending, is to increase its reliance on land-based sources of local revenue. Revenues from market value-based property taxes are considerably more stable over the business cycle than revenues from taxes on income or consumption.

Source: OECD (2017[41]), *The Governance of Land Use in OECD Countries: Policy Analysis and Recommendations*, https://dx.doi.org/10.1787/9789264268609-en.

Harnessing financial instruments to strengthen the system of cities

Leveraging taxes and fees to control sprawl

Colombia could design property taxes and development fees to encourage higher densities and compact development. Policy makers will have to analyse carefully what is included in and excluded from the tax base, as well as how the property is valued and what percentage of that value is taxable. Deskins and Fox

(2008[42]) argue that by altering the relative price of property, property taxes can influence decisions about property improvement, size and location which in turn determines the level of density. For property taxes to decrease sprawl, it is necessary to eliminate policies that favour single-family homes over apartments and tax land value not property (OECD, 2013[43]). Taxing land value rather than buildings provides an incentive to develop land to its most profitable use and could encourage development in the urban core. Development fees or charges can also incentivise compact development and less sprawl as well as help fund infrastructure. These are one-off levies on developers to finance the growth-related capital costs associated with new development, where Colombian municipalities are having problems financing. When development fees reflect the true cost of providing services, they can buttress planning tools by guiding development to more efficient locations (Merk et al., 2012[44]; OECD, 2017[45]). It is necessary to consider that the costs of services can vary by location. There are three reasons for this: the distance to travel from each development to major facilities; infrastructure cost savings could be incurred for nodal developments as infrastructure is already there; and service standards may vary in different locations. Whatever the reason, efficient land use requires that development which imposes higher infrastructure costs on cities pays higher charges.

Densification is a complex task, as illustrated by the case of the metropolitan area of Nantes Saint-Nazaire in France. The process requires planning and a wide-ranging package of fiscal tools and incentives to promote higher-density housing (Box 5.10). It needs to provide incentives both to developers to work on brownfield sites and to residents who may be reluctant to reside in the city centre, including because the quality of existing housing is poor. The example of Nantes Saint-Nazaire shows that using infill mechanisms might, in some cases, lead to neighbourhood conflicts and legal challenges. It is less expensive for developers to work on greenfield sites than on brownfield; projects on the latter are therefore unattractive without subsidies.

Colombia should strive to use property taxes to limit urban sprawl. The impact of property taxes on land use, density and urban sprawl depends on several issues such as: what is included and excluded from the tax base, how property value is defined for different classes of property (i.e. residential, multi-residential, farm, commercial and industrial properties) and what percentage of the value is taxable (OECD, 2013[43]). When the relative price of property is changed, these taxes can influence the decision on property improvement, size and location and therefore an increase or decrease of urban sprawl. Colombia could explore using area-specific charges as they "…allow municipalities to vary the charge according to the different infrastructure costs imposed by each area on the city. A uniform charge subsidises inefficient uses of land; developments that impose higher costs are subsidised by developments that incur lower costs" (OECD, 2013, p. 83[43]).

Colombia's payments for environmental services (*pagos por servicios ambientales*, PSA) (Gobierno de Colombia, 2018[46]), a system that provides an economic incentive to people who provide environmental services such as conserving a water basin or a forest, could be instrumental in controlling sprawl and fostering density. These payments change the logic of paying for polluting to one in which citizens are paid for protecting the environment. The instrument should continue but authorities must ensure that it is monitored and assessed on its impact on environmental protection and contribution to urban development objectives. In the Metropolitan Area of the Valle de Aburrá for example, the ten metropolitan municipalities created the BANCO2 Metropolitano del Valle de Aburrá, a strategy that seeks the voluntary compensation of the ecological or environmental footprint by citizens, companies and institutions settled in the area. The aim is to incentivise property owners in areas of environmental importance and strategic ecosystems (urban and rural) to continue conserving and restoring Andean forests, their biodiversity and the provision of environmental services that guarantee regional sustainability.[14] Another possibility for Colombia would be to explore selling additional building rights. For example, in Brazil, the city of São Paulo introduced building rights for additional floor space on the top of existing buildings that exceeded normal maximum density. The building rights were sold in areas authorised for higher-density development. There are

already some cases in Colombia where local authorities are selling additional building rights, such as the city of Cali.

An additional option could be to tax low-density development. For example, in 2010, France introduced a tax on development that does not meet minimum density requirements. Local governments have been given discretionary powers to impose a tax on the under-development of land. This means that local authorities are entitled to stipulate in their local plans a minimal level of density for development and when this threshold is not achieved by developers and builders, then the planning authority can impose a low-density tax called *taxe d'aménagement*.[15] In the US, the city of Austin adopted a special transportation levy on all municipal utility bills based on the estimated average number of daily motor vehicle trips per household, in effect penalising less-dense development.

Colombia has recently regulated the use of tax increment financing (TIF) to influence land development and finance improvement in distressed or underdeveloped neighbourhoods (Gobierno de Colombia, 2019[19]; 2020[47]). TIF allows for using future gains in taxes to finance current improvements (Briffault, 2010[48]). For example, when the government builds roads, schools or parks, the value of the surrounding real estate often increases, which can, in turn, generate increased tax revenues. TIF uses the additional tax revenue to pay back the cost of investment in periods of 20 years. To improve the use of the TIF, Colombia needs to consider that it requires robust real estate conditions (i.e. a real estate market with diversity of investments, low interest rates for mortgages) and a favourable economic context. Its use is recommended when land uses are up-zoned (changing the zoning to allow for higher value, for example from industrial to residential, or denser use) and there is strong market demand. It can also be used in cases when the absence of prior development interest in a site is related to a site-specific impediment, with otherwise excellent conditions, for example land contamination of former industrial sites. In this case, it would be necessary to reduce upfront costs of development to make the site more attractive to private developers.[16] Colombia should ensure that cities negotiate realistic time frames with developers for construction and determine cost-effective timing for bond issuance. It is recommended to use the TIF at the last possible moment when the private sector has committed to a development programme or construction project. National and departmental governments may act as guarantors to support cities' ability to meet their contractual duties. In this respect, the case of the city of Atlanta (US) to redevelop a former steel mill site through TIFs is often considered a success story (Box 5.11).

Box 5.10. Encouraging densification and protecting environmental amenities – The case of Nantes Saint-Nazaire, France

Nantes and Saint-Nazaire are two linked cities in the northwest of France in the Pays de la Loire region. Together with their neighbouring *communes*, they form the sixth-largest urban conurbation in France, with a population of close to 1 million inhabitants. The functional area is experiencing a sustained period of population growth and economic activity, which has created anxiety over the implications for sustainable development. Most of the new developments are concentrated in the *communes* of Nantes and Saint-Nazaire in terms of housing and job opportunities. While this peri-urban development is common in France, development is taking place in an area close to a river and land with important ecological functions.

Spatial and land use planning in the region seeks to protect local land and water resources. Integrated land use planning rests upon a series of joint agreements among local *communes* led by the two urban cores of Nantes and Saint-Nazaire. This joint action is incentivised by the dominant role of water in the area, as managing the Loire estuary cannot be done on a *commune*-by-*commune* basis. Moreover, Nantes and Saint-Nazaire had to join forces to build a more efficient port complex that could compete with others in Europe. The agglomeration's plan for territorial coherence (*schéma de cohérence*

territorial, SCoT) ensures consistency across sectoral policies (i.e. housing, mobility, commercial development, environment and landscape) and explicitly seeks to reduce suburbanisation and peri-urbanisation. It was developed jointly by the 61 *communes* and *intercommunalités*[17] and guides local development plans. The SCoT includes a target figure of 25 housing units per hectare in its perimeter, an increase from the previous 20 houses per hectare. The land use plan of the *Nantes Métropole* also pursues a densification agenda.

Land use planning tools alone will not be enough to allow Nantes Saint-Nazaire to achieve its densification objectives. Infill mechanisms are not easy to manage, brownfield remediation can add cost and time, infill sites may not suit the needs of builders and costs are typically higher than on greenfield sites. Thus, the metropolitan area needs to adopt a broader array of fiscal tools and incentives to promote higher-density housing that occupies a smaller surface area per person. This is important given the trend of increasing fiscal autonomy and demands on local taxation that incentivise sprawl. Local revenues in France have more than doubled since the early 1990s. In France, local governments are under increasing pressure to reduce their operating expenses, cut back on investment and pool services. Increasing revenue from local taxes is limited by thresholds set by the state and can be very unpopular among local residents. That is why local taxes have only experienced a very marginal increase over the past several years. Both Nantes and Saint-Nazaire are increasingly relying on own-source revenues to fund operating expenditures. The tightening fiscal environment mainly due to the lower government grants led to declining revenue; thus, Nantes Métropole reduced its operating expenses and increased local tax rates by 5.9% on average in 2016. The *Pôle Métropolitain* Nantes Saint-Nazaire also has its own budget, which consists of contributions from *intercommunalités* which is calculated by taking into account the weight of population in the cluster and its tax wealth.

Source: OECD (2017[45]), *The Governance of Land Use in France: Case studies of Clermont-Ferrand and Nantes Saint-Nazaire*, https://dx.doi.org/10.1787/9789264268791-en.

Box 5.11. Redevelopment of Atlantic Station through TIF in Atlanta, US

In the US, the city of Atlanta (Georgia) has had as a policy goal to address population growth in a sustainable manner through the promotion of high-density, mixed-use, transit-oriented communities and remediating environmental contamination. Urban regeneration has been at the core of its strategies. One project, in particular, was a former steel mill site called Atlantic Station. The site was centrally located along major thoroughfares; however, it required significant environmental remediation discouraging the private sector from investing. Thus, the city government decided to finance the upfront costs of the required environmental remediation to incentivise the private sector to invest and unlock a positive fiscal economic impact.

The city government and developers agreed to a redevelopment vision of smart growth, a mixed-use district. The city established a “tax allocation district” and set a 25-year term for the project from 2001 to 2026. The city and developers agreed that the funds would be used to pay for the cost of new roads, utilities and environmental remediation (reimbursement). A multi-storey parking structure was planned. Bond offerings were successfully issued, whose proceeds were used to cover the costs of issuance and capitalised interest, with the balance utilised to fund infrastructure costs incurred by the developers. In the Atlantic Station case, one of the developers purchased the bonds to finance the improvements, avoiding the need for additional guaranties and credit enhancements.

Before the redevelopment project, the site generated USD 300 000 annually in property taxes and more than USD 30 million by 2013. The redevelopment of this disused site allowed the city government to achieve positive fiscal, economic and policy impacts.

Source: World Bank (n.d.[49]), *Tax Increment Financing (TIF)*, https://urban-regeneration.worldbank.org/node/17.

Using transport fees and tariffs to incentivise compact development

Colombia can also use transport fees to encourage public transit and active mobility, and therefore promote urban green growth. Municipalities set transport fees and charges. To improve local revenues and more sustainable urban development, Colombian cities could explore using transport fees more widely. For example, large cities could use congestion charges where higher polluting vehicles are charged more than less polluting ones and use the revenue to finance public transport infrastructure and provision. Introducing congestion charges may be politically, economically and socially challenging. Arguments about their fairness, lack of respect for citizens' privacy, damage to the economy, the models used for forecasting and zoning, the level of charges and technology used may reflect people's concerns and opposition to the introduction of a congestion charge. However, these concerns can be considered and addressed in the policy design process. There are two key lessons from the experience of cities already using congestion charges such as London, Oslo and Stockholm. First, cities need to avoid focusing on a specific geographical zone from the outset, which restricts an objective design. And second, the driving force has been to raise revenue instead of prioritising transport efficiency and environmental gains (GIZ/ADB, 2015[50]). Another option for Colombia is to use variable parking fees and taxes can discourage car use by charging higher rates in congested areas. Another option is high occupancy toll lanes, as they encourage car-pooling by charging a toll on vehicles with less than a minimum number of occupants, as is done in Los Angeles, US (OECD, 2013[43]).

It must be mentioned that the use of these instruments will largely depend on the autonomy of the municipalities to set fees, tariffs and adjust tax rates. Thus, it is important to make the subnational financing system more flexible to give departments and municipalities more room for manoeuvre and seek alternatives to increase their revenues and provide public services and financial investment. In addition, these recommendations aim to complement the financial package that Colombia already has, such as green bonuses, zero-emission certifications and sustainable construction incentives that have an impact on urban green development.

Provide reliable funding for metropolitan areas

Colombia needs to match metropolitan responsibilities with corresponding financial resources. The challenge for Colombia, as for any other country, is to select the available taxes that could support metropolitan areas' work. Property tax could be a source of revenue for metropolitan areas but, in the case of Colombia, it is municipalities' main own source of financing and does not even cover municipal needs. The income tax is another option for Colombia as it is related to the benefits received from services. The experience of OECD countries recommends "piggybacking" onto higher-level income taxes by levying a tax as a supplement to the national income tax rather than operating a local income tax (OECD, 2015[32]). Table 5.3 provides some examples of the taxes used to finance metropolitan areas in high- and middle-income countries. Colombia should make as extensive as possible the use of charges and fees mostly when the metropolitan area provides services susceptible of being financed with user charges. Adopting a sales tax for metropolitan areas would allow them to benefit directly from economic activity and address the externalities of municipal public services when users from outside the metropolitan area (visitors and commuters) benefit from the services in the metropolitan area. Another option might be to leverage a share of the VAT as has been suggested by officials interviewed for this review as a source of funding for

metropolitan areas as a way to give a confidence vote to fiscal decentralisation. There is limited experience across OECD countries on using a share of value added tax (VAT) to finance metropolitan areas. Table 5.3 shows that the metropolitan areas of Seoul (Korea), Moscow (Russian Federation) and Bangkok (Thailand) are some of the rare examples where a surtax on top of the national VAT is charged (Martinez-Vázquez and Muñoz, 2018[51]) but Colombia could certainly explore this possibility and pilot a scheme before using it more widely. User fees, mostly for transport services, are already included as part of the sources of financing for metropolitan areas. User fees could be designed in such a way as to charge for marginal costs, in other words those who commute longer distances should pay more. Moreover, since metropolitan areas are also responsible for the environment, user fees could be used to signal the scarcity and signal the need to preserve resources such as water and energy (OECD, 2015[32]).

Table 5.3. Example of taxes used to finance large metropolitan areas in OECD countries

Type of taxes	High-income metropolitan areas	Middle-income metropolitan areas
Business tax	Berlin, Chicago, Frankfurt, Los Angeles, Lyon, New York, Seoul	Bangkok, Beijing, Budapest, Shanghai
Individual income and payroll taxes	Copenhagen, Milan, New York, Paris, Rome, Stockholm	Beijing, Bucharest, Mexico City, Moscow
Corporate income tax	Geneva, Lisbon, New York, Saint Louis, Tokyo	Moscow
VAT	Seoul	Bangkok, Moscow
Sales tax	Barcelona, Chicago, Los Angeles, Madrid, New York	Bogotá, D.C., Buenos Aires, Rio de Janeiro, São Paulo
Financial tax	New York	
Vehicle tax	Barcelona, Chicago, Los Angeles, Madrid, New York, Seoul, Tokyo, Toronto	Bangkok, Beijing, Bogotá, D.C., Budapest, Buenos Aires, Guangzhou, Lima, Mexico City, Santiago, Shanghai
Transportation tax	Chicago, New York, Paris, Rome, Seoul	
Electricity tax	Chicago, Los Angeles, Milan, Rome	Cape Town, Istanbul, Johannesburg
Gasoline	Chicago, Lyon, Montreal, New York, Tokyo	Lima, Rio de Janeiro, São Paulo
Green tax	New York, Paris	
Amusement tax	Chicago, New York, Seoul, Tokyo	Istanbul, Lima
Construction tax	Barcelona, Madrid, Milan, Montreal	Beijing, Bogotá, D.C., Buenos Aires
Inheritance and wealth tax	Paris	Beijing, Guangzhou, Shanghai

Source: Based on Martinez-Vázquez, J. and A. Muñoz (2018[51]), "Metropolitan financing in Brazil: Current trends and lessons from the international experience", https://publications.iadb.org/publications/english/document/Metropolitan-Financing-in-Brazil.pdf (accessed on 2 September 2021); Bahl, R., J. Linn and D. Wetzel (2013[52]), *Financing Metropolitan Governments in Developing Countries*.

Expanding collaboration with the private sector

Since funding infrastructure and investing in other construction projects is costly for most cities and metropolitan areas in Colombia, authorities at all levels of government need to use innovative fiscal arrangements to fund those investments. Colombia needs to enhance co-ordination across the different levels of government (national, departments, metropolitan areas [or region] and municipalities). However, in many instances, Colombia's public sector alone will not be able to finance investment in critical infrastructure projects, thus collaboration with the private sector is essential. Colombian authorities at all levels need to design innovative tools to encourage private sector actors to invest in projects that are conducive to compact, connected, clean and inclusive development and that result in less public expenditure. For example, Colombia could use tariff regulations or subsidy schemes to increase the affordability of infrastructure. Tariff levels could be set by agreement in private sector concessions and

other contracts, such as in water offtake agreements or power purchase agreements. From a private sector perspective, the agreements and the pricing will need to be financially viable, and additional government intervention may be required in order to achieve urban and inclusivity objectives.

Public-private partnerships (PPPs) to finance public investment have been used in Colombia, particularly to finance economic infrastructure (e.g. airports, roads and other transport infrastructure). Colombia could also make use of PPPs for social infrastructure facilities (e.g. schools, healthcare facilities and affordable housing) and use them for promoting local or regional urban development projects to help smaller service providers be competitive, for example in the water sector. PPPs could provide more opportunities for local business people, including small- and medium-sized enterprises (SMEs), to be involved in infrastructure development. The experience of OECD countries suggests that in countries where the PPP model is still underdeveloped, or at a very early stage of use such as Colombia, the public sector has an important role in subsidising and/or incentivising private participation in financing infrastructure. The COVID-19 pandemic and the economic crisis that it caused have resulted in a reduction of public and private resources to revamp long-term investments across the country. Colombia's infrastructure gap is considerable, for example in motorways and railways infrastructure, and the capital available to fill those gaps do not seem to be enough. For example, the investment gap in infrastructure in Colombia corresponds to 8% of GDP. Almost 98% of foreign trade cargo is done by maritime mode, followed by roads with 2% and air with less than 0.5% which reflects a considerable lag in investment in transport infrastructure.[18] These investment needs arise even more with population ageing, as residents require more specific infrastructure (i.e. better sidewalks and adapted public transport vehicles), and climate change.

Governing a PPP comes with caveats. Colombian authorities will need to ensure they represent value for money for the public sector. Colombia may wish to follow the OECD *Principles* for Public Governance of Public-Private Partnerships. Their objective is to assist governments in establishing a clear, predictable and legitimate institutional framework for PPPs supported by competent and well-resourced authorities, grounding the selection of PPPs in value for money and using the budgetary process transparently to minimise fiscal risks and ensure the integrity of the procurement process (OECD, 2012[53]). Several cities across OECD countries have built infrastructure using a PPP model. For example, local authorities in Vancouver, Canada, built the Canada Line, a rapid transit line in Metro Vancouver, using a PPP model where the three levels of government and the private sector took part considering the complexity and cost of the project. In Paris, France, the local government awarded a private company JC Decaux the concession to build, maintain and operate the public bicycle rental scheme called Velib. The investment and the operational cost of the system were borne by the private company, which received in exchange 50% of the total surface of city billboards. The model proved profitable for the government but not for the private company, which underestimated costs of repairing and replacing damaged bicycles. The agreement had to be renegotiated with more favourable terms for the company (OECD, 2012[14]).

Enhancing capacity for urban development

Urban development requires improving all levels of government capacity for managing their workforce, promoting evidence-informed policy making and engaging with stakeholders for participatory decision-making.

Enhancing the capacity and capability of the public workforce at all levels

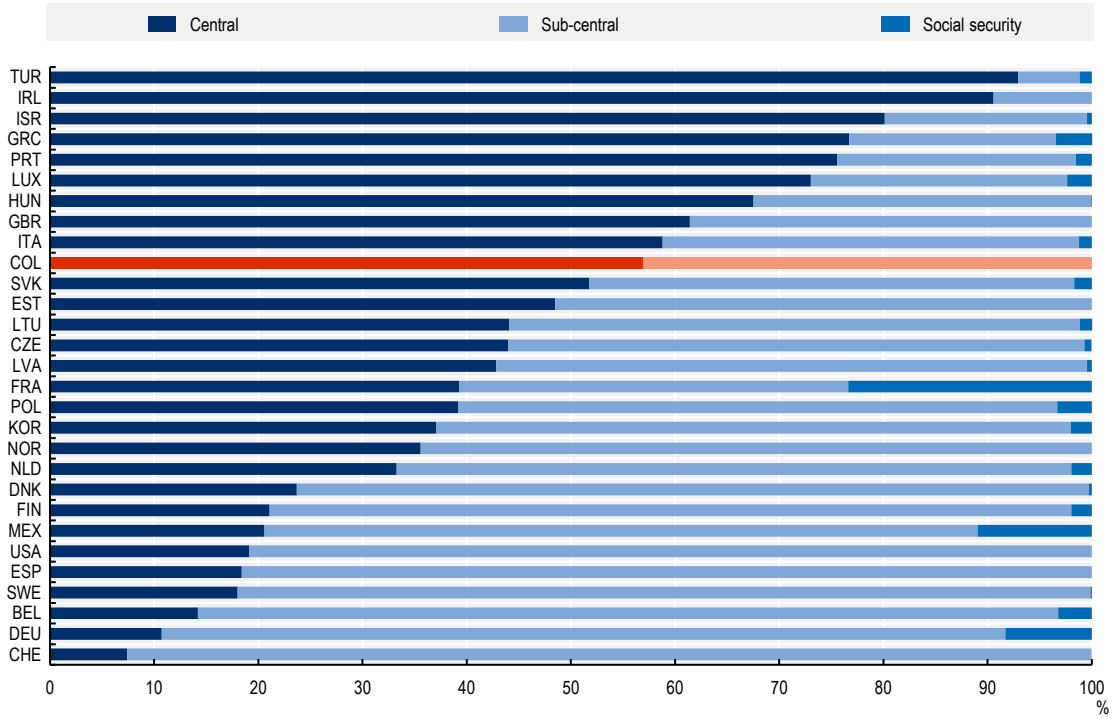
Colombia has a small and unstable public service workforce (OECD, 2013[13]). To be able to design, implement and evaluate urban policies, governments at all levels need a professional and stable public workforce that has been selected by merit and is independent of political cycles (OECD, 2019[30]). A key lesson from OECD work on urban policy is that public employment and management is an essential part of urban policy. It is an instrument not only for the better functioning of government but also for the

implementation of urban policy. A high performing local public employment system could also boost the capacity of cities to innovate and implement investment programmes and projects more efficiently and effectively.

Colombia has made valuable efforts to establish a culture of public service integrity and performance while cutting down on bureaucracy. The national government, in particular the bodies in charge of NUP, is staffed with a competent public workforce that allows the government to produce high-level policy documents, regulations and advice. The National Civil Service Commission (*Comisión Nacional del Servicio Civil*, CNSC) is in charge of managing the recruitment process and ensuring impartiality in the process. Vacancies are open to public competition and efforts are being made to create a culture of equity and equal opportunities.

Compared to other OECD countries and Latin American countries, Colombia has a very small public workforce, which in 2008 accounted for only 4.7% of total employment compared to about 22% for OECD countries on average (OECD, 2013[13]).[19] That share reaches 10% in countries like Brazil, Chile and Mexico (Gobierno de Colombia, 2018[54]). The share of the cost of public employment in the general budget decreased from 17.2% in 2011 to 14% in 2015 (Gobierno de Colombia, 2018[54]). However, it is likely that there will be pressure to expand and restructure the national and subnational public workforce to meet new priorities as Colombia continues to develop its economy. It is thus crucial for Colombia to ensure that any growth of the government workforce be well planned and closely monitored to keep costs under control and improve capacity and results. In 2013, 43% of the Colombian public workforce was located in subnational governments (Figure 5.7), with the bulk of employees working in the education sector (OECD, 2016[17]).

Figure 5.7. Distribution of general employment across levels of government, 2019



Note: Data for Colombia refers to 2013.
Source: OECD (2021[55]), *Government at a Glance 2021*, https://dx.doi.org/10.1787/1c258f55-en. For Colombia: OECD (2016[17]), *Making the Most of Public Investment in Colombia: Working Effectively across Levels of Government*, https://dx.doi.org/10.1787/9789264265288-en.

Although Colombia has made strong efforts to ensure that the public service is staffed by career civil servants who are recruited on merit (OECD, 2013[13]), there is still a shortage of skilled workforce which constitutes a bottleneck for the design and implementation of investment projects at the local level (OECD, 2016[17]). Workforce planning needs to be developed as vacancies are filled to meet changing needs and new priorities but there is no analysis of the workforce numbers, structures and competencies required to deliver strategic objectives in a more efficient and effective manner or discussion about choices and trade-offs. Much of the delivery of public services, especially health and welfare, is decentralised to the departments and municipal governments. It will therefore be important to develop workforce planning capabilities in services that are delivered at the subnational level.

Although controlling public employment levels to avoid increasing the public service's operating expenditure and ensure financial sustainability has its merits, this must be done in a strategic manner to prevent damaging capacity. Current legislation limits the increase in operating costs of municipalities but does not consider their needs for new skills to perform their duties. The public service is understaffed, which weakens the implementation capacity of national and subnational governments. In Colombia, subnational staff expenditure represented almost 47% of total public staff expenditure, while the OECD average was 63.3% in 2012 (OECD, 2016[17]). Therefore, some subnational governments do not have the necessary human resources to implement urban-related policies. Table 5.4 shows that municipal public workforces represent a small share of the national public employment. Differences among municipalities are due to the size of the municipalities. For example, Medellín has approximately 2.2 million inhabitants, whereas Inírida and Tunja have 172 000 and 31 500 respectively, hance the differences in public employment size. This small local public workforce may be weakening the capacity of municipalities to implement investment projects. However, the real challenge is not how large the subnational public workforce is but how well trained and qualified it is to perform its duties. Highly trained staff tend to prefer to move to larger cities where they can aspire to better payment.

Table 5.4. Public employment levels in selected Colombian municipalities, October 2020

Municipality	Total number of public servants	Share of public employment in relation to total national public employment (%)
Leticia	207	0.02
Medellín	34 071	2.67
Tunja	691	0.03
Manizales	2 528	0.20
Quidbo	527	0.04
Inírida	81	0.006
Neiva	1 820	0.14
Pasto	2 087	0.16
Armenia	2 214	0.17
Cali	5 627	0.44

Note: The total number of public servants includes permanent and temporary staff and officials.
Source: Information provided to the OECD by the MVCT.

Moreover, in addition to the small size of the subnational public workforce, high staff turnover, low wages and the political rather than technical profiles of executives in municipalities further weaken the institutional capacity (OECD, 2016[17]). The rapid turnover of mayors and governors, resulting from their four-year term without re-election, does not facilitate the emergence of experienced senior executives over the long term, nor does it create incentives for long-term investment (OECD, 2016[17]). Municipal staff, including councillors of local mayors, often lack specific qualifications and receive little training. Colombia could reconsider proposals for either extending mayors' mandates or allowing immediate re-election to provide

more incentives to invest in longer-term projects. The experience of other countries in Latin America could serve as a source of inspiration. For example, mayors in Mexico also used to be limited to a single three-year term but, in 2014, the federal government approved a reform to allow mayors to be re-elected. In addition, low wages limit the ability of municipalities to attract and retain a talented workforce. In general, due to weak capacities to design and implement investment projects, more than half of municipalities are unable to execute 20% of their budget (OECD, 2014[20]).

The challenge of understaffed subnational governments becomes even more relevant when considering that municipal associations and metropolitan areas and regions will require a number of qualified personnel to perform their duties. For example, if core municipalities in urban areas are to lead work related to transport and the environment, they will need to strengthen their capacity and capability in those areas. Colombian authorities will have to decide on the most practical way to staff intermediate-level authorities and how personnel will be remunerated. Metropolitan areas will likely need personnel with the skills and experience to manage PPPs and authorities will have to choose between retraining existing staff or hiring new staff. Using current staff for meeting the objectives of municipal associations, regardless of the specific scheme, runs the risk of overstretching the already limited capacity of municipalities and workloads of officials may increase, contributing to undermining motivation.

To strengthen the capabilities of the subnational public workforce, Colombia may wish to consider the following recommendations, including some that were already formulated in previous OECD reviews of Colombia but still hold true:

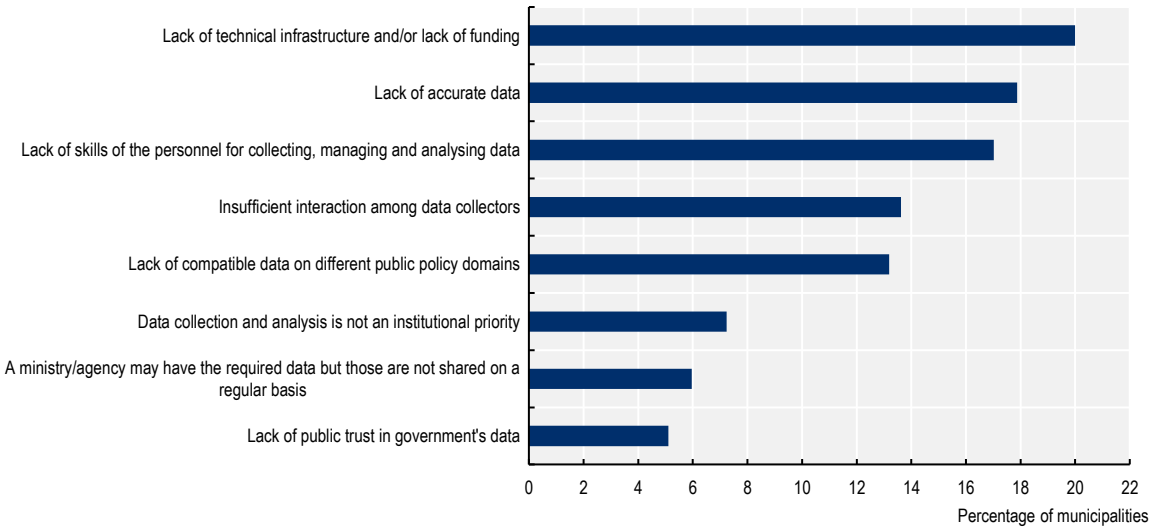
- Ensure that the different technical assistance programmes to improve the capabilities of local public workforces give priority to weaker municipalities (OECD, 2016[17]).
- Consider developing a comprehensive quantification of subnational public employees to get a clearer picture of the needs and gaps of territorial entities (OECD, 2016[17]). It is important for the government to continue to improve its own information on workforce numbers and to develop information on the costs of producing public goods and services relative to the GDP to manage production costs of goods and services, which is currently unavailable. This would allow for identifying the most problematic capacity gaps and listing a required set of skills for the recruitment of civil servants.
- Develop a list of minimum adequate skills for the (subnational) public service to limit inadequate clientelist hiring and contribute to reducing the high turnover as much as possible (OECD, 2016[17]).
- Invest in strategic government-wide workforce planning at all levels of government. The National Civil Service Commission (CNSC) should have the leading role in supporting subnational governments in this respect.
- Strengthen the capacity of departments and municipalities to manage their public workforce to support urban policy development and implementation by: professionalising the subnational public workforce; investing in strategic workforce planning (at least in the largest cities); facilitating the movement of staff across levels of government to support skills development; developing managerial skills of municipal officials; and setting a programme for the certification of competencies acquired through professional experience to facilitate career development.
- The national government, with the leadership of the CNCS, could consider the establishment of a senior civil service (SCS) system, which could be constituted by the top ranks in the broader civil service system for central government employees. The reasons are that an SCS system could: help overcome fragmentation into silos in the central government by creating a corporate culture and facilitating better mobility across ministries and administrative departments; enable flexibility in recruitment; and clarify boundaries between politics and administration.
- Invest in continuous training of municipal public officials with the support of the national government and departments. This could be done by setting co-operation agreements with universities and technical institutions.

Improving the capacity for evidence-informed policy making, in particular at the municipal level

In Colombian as in other OECD countries, building and improving the capacity of government for evidence-informed policy making is paramount as connecting evidence and policy making remains a challenge. The OECD defines evidence-informed policy making as "…a process whereby multiple sources of information, including statistics, data and the best available research evidence and evaluations, are consulted before making a decision to plan, implement, and (where relevant) alter public policies and programmes." (OECD, 2020, p. 9[56]). At the national level, Colombia has a strong capacity for evidence-informed policy making. The Administrative Department for National Statistics (DANE) and the National Planning Department (DNP) are the institutions that provide sound data and research that supports decision-making and policy making in different policy areas. The *Misión de Ciudades* (task force) for the development of the System of Cities (CONPES 3819) based its conclusions on academic research, development of surveys and discussions among experts in the field.

At the subnational level, particularly at the municipal level, access to timely and accurate data and information for decision-making and policy making in urban planning is not always possible. For almost 60% of municipalities that took part in the OECD Survey on Urban Policy in Colombia in 2021, there is information and data to support their decision-making on urban policy development, which is not always updated; for 20%, there is a consistent lack of updated and timely data. Figure 5.8 shows that the lack of technical infrastructure and funding, and of accurate data are the main barriers municipalities face for evidence-informed policy making. This suggests that municipalities need to invest in building the necessary infrastructure to generate effective connections between the supply and demand for evidence in the policy-making process. This may require scaling up a full range of skills for generating data and using it, as well as engaging with different stakeholders and evaluating urban policy progress.

Figure 5.8. Factors that prevent accessing data and information for policy making at the municipal level in Colombia, n=72



Note: Answers to question "Q.6.4. What are the most important factors that prevent your municipality from using data and information for urban development and land use planning?". Municipalities were asked to select all possible options.
Source: OECD Survey on Urban Development in Colombia 2021, conducted with the support of the MVCT and AsoCapitales

Municipalities' access to timely and accurate data and information varies depending on the policy sector. Table 5.5 shows that, in general, municipalities in Colombia have access to data and information although not always updated or timely. Education is the policy area in which there is more data to support policy

making but this may be due to the fact that municipalities get transfers from the government to pay for teachers and information is mostly up to date. Transport and mobility, a critical area that has an impact on land use and housing, is where municipalities seem to have more problems accessing data and information for decision-making and planning. The general conclusion from Table 5.5 is that Colombian municipalities need to strengthen their ability to use and build evidence for policy making. This could start by evaluating systematically programmes and investment projects to build knowledge to better inform future decisions. According to the OECD Survey on Urban Development in Colombia 2021, only 16 out of 66 municipalities systematically evaluate the results of the different programmes and investment projects; 13 do not conduct any evaluation and the rest only evaluate certain parts of the programmes but not systematically.

Table 5.5. Access to data and information per policy sector in Colombian municipalities

Area	There is enough information and timely and accurate data (%)	There is information and data but not always up to date or accurate (%)	There is a lack of updated and timely data and information (%)	Number of municipalities
Transport and mobility	10	59	31	70
Economic development	14	61	24	70
Land use and zoning	21	68	12	68
Housing	13	65	22	69
Households without housing	21	56	23	71
Welfare and social services	18	60	22	68
Vigilance and law enforcement	21	50	29	66
Waste management	29	52	19	69
Digital government	24	61	15	71
Access to healthcare services	39	48	13	69
Access to water	39	51	10	69
Local labour market	17	51	31	70
Access to education	43	51	6	70
Environment and climate change	18	59	24	68
Inclusion and social equity	17	67	16	69

Note: Answers to question "Q.6.3. Urban planning requires access to information and data on different policy issues. Does your municipality have access to timely and accurate data and information to support its work on the development and urban planning in the following areas?". Municipalities were requested to provide an answer per item but had the possibility of not providing answers in every single item.
Source: OECD Survey on Urban Development in Colombia 2021, conducted with the support of MVCT and AsoCapitales.

Principle 11 of the OECD Principles on Urban Policy suggests that it is essential to foster monitoring, evaluation and accountability of urban governance and policy outcomes (OECD, 2019[30]). To this end, countries should promote dedicated monitoring and evaluation tools and/or institutions across levels of government endowed with sufficient capacity, independence and resources throughout the policy-making cycle with the participation of local and regional governments. Moreover, Principle 11 suggests that leveraging the potential of data to ground urban policy decisions in up-to-date, quality information and evidence and developing a sound system of indicators to track progress at the subnational level against national and global commitments are conducive to improving the capacity for evidence-informed policy making at all levels of government.

To enable change, Colombian municipalities, with the support of DANE and the DNP, need to gather information on current capacities and the existing barriers and facilitators of evidence use. This would allow them to identify capacity gaps and the skills that are needed to support evidence-informed policy making. DANE and the DNP should support municipalities in strengthening organisational tools, resources and

processes, investing in basic infrastructure, including data management systems and knowledge brokers, and establishing strategic units in municipal administrations to champion an evidence-based approach.

Improving Colombian municipalities' capacity for evidence-informed urban policy making also requires leadership. Municipalities need strategic and committed leadership from politically elected officials and units with a mandate for delivering urban policies. This would require training and developing the skills of municipal (senior) officials for being champions in the use of evidence for decision and policy making. The experiences of Canada and Finland could provide Colombia with some ideas on how these training programmes could be structured (Box 5.12). Although they have been developed for officials at the national level, they could be adapted to support the training of municipal political and administrative leadership. Colombia's Superior School of Public Administration could have a lead role in promoting the development of skills of municipal officials in the use of evidence for policy making.

Box 5.12. Training of senior officials to build an understanding of evidence-informed policy making in Canada, Finland and Portugal

In **Canada**, the Executive Training in Research Application (EXTRA) programme, targeted at leaders in the healthcare field, provides support and development for leaders in using research. EXTRA builds leadership and organisational capacity to achieve evidence-informed improvement that enhances patient and family experience of care, the health of populations and value for money, through integrated hands-on coaching and customised curriculum that focuses on building the needs of a specific organisation. On completing the training, participants are expected to use evidence in their policy making and will be able to train their co-workers and bring about organisational change.

In the 1960s, **Finland**'s parliament launched the Finnish Innovation Fund called SITRA, as an independent foundation. Since 2017, it has organised Public Sector Leadership training, to strengthen the ability of public sector leaders to handle challenges and support the public sector in pursuing its social objectives. To this end, it developed a training programme for senior managers from ministries and agencies to improve their skills to put new practices and lessons learned from experiments into practice.

Source: For Canada: EXTRA, www.healthcareexcellence.ca/en/what-we-do/what-we-do-together/extra-executive-training-program-ready-to-make-a-connection/ (accessed on 14 March 2022); For Finland: SITRA (n.d.[57]), *Homepage*, https://www.sitra.fi/en/ (accessed on 12 November 2021).

The national government (DANE and DNP) should take the necessary steps to strengthen evidence-informed policy making through regulatory and legislative anchors. This could help prevent initiatives that favour building capacity for evidence-informed policy making from being "washed out" after an initial period of enthusiasm (OECD, 2020[56]).

It is essential that all levels of government engage in monitoring programme delivery, use impact evaluation to measure programme effectiveness and make the information public to enhance accountability. This is important for building knowledge on what works and acting on that knowledge to guide future decision-making. Monitoring programme delivery will ensure that programmes operate as intended and identify problems or opportunities for improvement. The rigorous impact evaluation will provide municipal policy makers and programme managers with hard evidence about what a programme actually achieves. The national government could set the conditions for monitoring and evaluation of programmes funded through transfers and royalties. Monitoring and evaluation should be included in the investment project proposals to ensure there is a budget for them.

Strengthening stakeholders' involvement in urban policy development

Colombia has engaged stakeholders actively in the planning stage of urban public policies at the national and subnational levels. The elaboration of the System of Cities, for example, counted with the participation of a large number of stakeholders from the public, private and academic sectors as well as citizens. Different workshops and regional fora were organised in 16 cities to obtain feedback and suggestions for the elaboration of the NUP. The task force (*Misión*) in charge of the elaboration of the policy document presented its findings in different fora organised by AsoCapitales, the National Urban Forum and even the World Urban Forum. The conclusions of these events helped improve the strategies that were incorporated in the final policy document known as CONPES 3819 or System of Cities.

Similarly, cities like Medellín have a long experience of engaging with citizens and other stakeholders for the design of investment projects. However, not all local governments have the same level of experience in stakeholder engagement. In general, stakeholders' involvement appears to be limited by low skills and scarce financial resources for participatory and networking processes in many municipalities across Colombia (OECD, 2016[17]). Moreover, local authorities may show resistance to stakeholders' involvement, seeing it as a constraint for their administration, leading to an absence of commitment in providing adequate information to residents. Currently, high levels of mistrust also hamper participation, as stakeholders are sceptical about the actual impact of participatory processes. These are generally regarded as ways to legitimise decisions already made unilaterally. Poor communication channels may also make citizens suspicious of the government's decisions and likely to oppose their implementation.

To promote stakeholders' engagement in urban planning, municipalities invite stakeholders to manifest their priorities for the elaboration of urban development plans and land use plans and provide comments on the draft plans proposals (Figure 5.9). Draft plans are published on the Internet and municipalities expect stakeholders to consult them to provide comments. Although this approach reflects transparency, it requires stakeholders to be aware of the publication of these documents and understand them. It is assumed that stakeholders will actively look for these documents and have the knowledge and background information to provide meaningful comments and proposals. Some municipalities organise fora and discussion groups to explain the different project proposals, interacting more with stakeholders. This is a more active approach to engage with residents, build trust and eventually obtain support for development and investment plans.

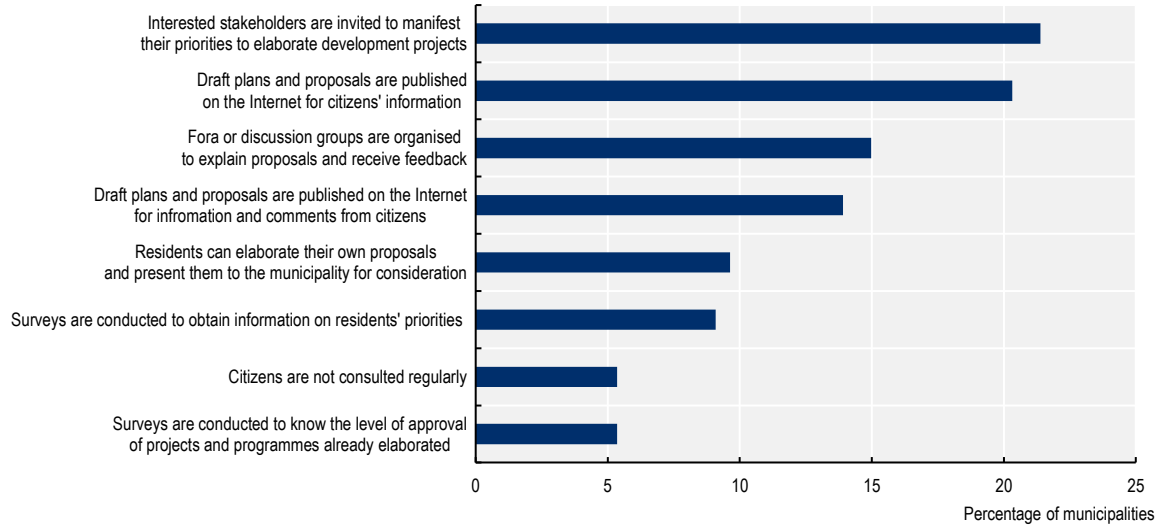
Maintaining effective citizen engagement is critical to improving municipal objectives. For example, in the city of Toyama, Japan, transport investment projects such as a new tram line have been realised in very short periods of time (i.e. three years for a new tramcar line), notably due to extensive dialogue between the mayor and residents (OECD, 2012[14]). The mayor of Toyama held more than 200 meetings in 3 years, not only in the districts near the new tram line but throughout the city, explaining the significance and purpose of the project in order to gain citizens' consent.

In Colombia, the lack of political will to encourage and motivate people to engage in city governance in some cases is a key obstacle for larger participation. In several instances, citizen engagement might be regarded as resource-intensive and time-consuming, and as a factor that can undermine the government's plans. Another limitation is that, too often, citizens do not know or understand their rights and responsibilities and they are not able to express their concerns through adequate channels. If sustainable urban development is to be achieved in Colombia, there needs to be an overall shift in attitudes and approaches on the part of local policy makers, urban planners and citizens. Municipal authorities need to recognise the value of citizens' engagement and believe in an inclusive approach for it to be effective.

Despite commendable efforts, Colombian municipal governments still operate mostly in a top-down, hierarchical manner, which complicates integrating and facilitating citizens' proposals. The complexity of local governance structures and excessive bureaucracy, as well as the lack of time, awareness and confidence, may also hamper broader community engagement. The low number of metropolitan areas that

have been formalised in Colombia is an illustration of the challenge of encouraging citizen participation. To constitute a metropolitan area, local authorities need to conduct a public consultation, with at least three-quarters of the electoral registry taking part in the exercise. This requirement has deterred many municipalities from working towards the creation of a metropolitan area, even when other conditions were met.

Figure 5.9. Promoting stakeholders' engagement in urban planning, n=72



Note: Answers to question "Q.6.6. How does your municipality promote the participation of citizens, the private sector, academic and others in municipal urban planning?". Municipalities were asked to select all options that applied.
Source: OECD Survey on Urban Development in Colombia 2021, conducted with the support of MVCT and AsoCapitales.

To improve the engagement and representativeness of the different social groups in urban policy making, Colombia needs to promote inclusive participatory processes and ensure that those affected by urban planning decisions have a say in the process of policy making. In line with the OECD Principles on Urban Policy (OECD, 2019[30]), municipalities should strive to engage different social groups such as women, elderly, minorities, etc. that are more difficult to reach or those with traditionally low involvement profiles in strategic planning discussions. For that purpose, municipalities should:

- Acknowledge that stakeholders' participation in local decision-making is a process and not a single event. Municipal planning documents should make reference to the importance of engaging with stakeholders and grant them the opportunity to influence decisions that affect their lives. Municipalities should also be aware that seeking external input does not necessarily mean they have to do what the public wants. When conducting meaningful public participation, municipalities will gather input from a wide spectrum of stakeholder interests, resulting in a wide range of views and concerns and providing fair treatment, meaningful involvement and social inclusion for all people. Municipal authorities will have to balance all those different views and concerns and inform the public how their input was considered.
- Invest in training staff on civic engagement to improve the capacity and capability of the municipalities to make the most of stakeholders' participation. Municipal public employees specialising in civic engagement would have better competencies to seek, analyse and evaluate different points of view about municipal issues.
- Secure the necessary budgetary and trained human resources to conduct public engagement processes. There should be dedicated officers to provide support and information about the

process of strategic planning to ensure that people know how their views have been taken into account.

- Manage the expectations of participants to maintain trust and commitment, by making it clear to all stakeholders what outcomes are possible and what restrictions are in place upon decision-making.
- Promote participation of the private sector in strategic planning. Municipalities should ensure that participation is focused, well defined and practical in nature (i.e. financing or implementation of plans), as part of steering groups looking at specific relevant issues (i.e. business development, cluster work, etc.).
- Emphasise the participation of the most vulnerable residents, such as women, the elderly, youth and children, the disabled, migrants and minorities.
- Improve communication channels to socialise the concrete impact of consultation processes and how residents' feedback has been integrated into investment decisions.

The experience of OECD countries suggests that public participation in city planning may be formal or informal. In some cities, there is a legal basis for formal participation, when community participation is required by law. For instance, in British Columbia, Canada, the Community Charter provides the statutory framework for all municipalities (except for the city of Vancouver) and sets the provisions for public participation.[20] In the European Union, the European Citizens' Initiative enables citizens to ask the commission to bring forward a legislative proposal if enough support is guaranteed.[21] In Rotterdam, the Netherlands, the Citizen Initiative Regulation set the participatory arrangements for "citizens initiatives" and "interactive decision-making".[22] When engaging with the community, the experience of Greater Vancouver, Canada, provides some useful practical lessons that Colombian authorities may wish to consider (Box 5.13). A key takeaway from this example is that Colombian authorities need to have clarity on what they want to achieve on urban development before embarking on a consultation process.

Box 5.13. Lessons from Greater Vancouver, Canada, on community engagement

Greater Vancouver has a long history of civic engagement. The experience of local authorities suggests that to make the most of public engagement, it is essential to:

- Have a clear understanding of what the local or regional authority wants to achieve in issues such as land use, transport and housing.
- Be clear about whether they want to inform or gather input from the public.
- Ensure citizens are informed, from the outset, of the objectives of the exercise to manage expectations.
- Have a good plan that determines who can take part and for what reason.
- Share with the community the feedback received from people and other stakeholders. Reporting back on what was heard and how it was heard is of the utmost importance to maintain credibility as normally people want to know their feedback was used.
- Take the initiative to contact people as they would never or very seldom approach the government with their ideas or feedback.
- Ensure messages are simple as people should not feel overwhelmed.
- Use ICT to facilitate the interaction between citizens and government, but online consultations should be quick (2-3 minutes) and short (4 questions maximum).

Source: Huerta Melchor, O. and A. Lembcke (2020[31]), "Developing transit-oriented communities for better accessibility and affordability: The case of the Metro Vancouver Region", https://doi.org/10.1787/f2bb60fc-en.

Finally, Colombian authorities could promote stakeholders' engagement in urban planning through NUPs. The new urban policy framework could make the case on the relevance of engaging stakeholders from the early stages of the process. This could send a powerful message to subnational authorities on investing in public consultation. However, as the OECD has already noted, stakeholders' engagement creates certain risks for Colombia due to the potential risk of the consultation process being captured by interest groups that wish to drive investment strategy (OECD, 2016[17]). This is particularly important in conflict areas where local governments must take steps to prevent capture by special interest groups.

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Notes

[1] Different pieces of legislation were passed between 1991 and 2011 and regulated inter-governmental relations, including fiscal relations across levels of government.

[2] Agglomerations here refers to urban areas not formally constituted as metropolitan areas.

[3] For reference, see Cartilla de la Región Metropolitana Bogotá-Cundinamarca www.regionmetropolitana.com/cartilla-region-metropolitana.

[4] For further information, see https://bogota.gov.co/mi-ciudad/pot-bogota-reverdece-2022-2035/articulado-del-pot-bogota-reverdece-2022-2035.

[5] For further information, see Toronto City Summit, http://www.torontocitysummit.ca/.accessed on 15 October 2021.

[6] For further information, see https://www.fcm.org.co/ accessed on 19 October 2021

[7] Based on the information provided by the Colombian government to the OECD in the background questionnaire.

[8] Ibid.

[9] Ibid.

[10] Recommendation to Colombia from the Ministry of Housing and Urban Development of Chile as part of the review process.

[11] For further information, see https://www.gerencie.com/contribucion-por-valorizacion.html.

[12] For further information, see http://www.sdp.gov.co/gestion-socioeconomica/economia-urbana/plusvalia.

[13] For further information, see https://www.minvivienda.gov.co/viceministerio-de-vivienda/espacio-urbano-y-territorial/aula-de-financiamiento/informacion-territorial/catastro-con-enfoque-multiproposito.

[14] For further information, see https://www.metropol.gov.co/ambiental/Paginas/consumo-sostenible/pagos-por-servicios-ambientales.aspx.

[15] For further information, see: https://www.economie.gouv.fr/particuliers/taxe-amenagement .

[16] For further information, see World Bank, Tax Increment Financing, https://urban-regeneration.worldbank.org/node/17.

[17] *Intercommunalités* (intercommunality) in France refers to all actors and co-operation bodies bringing together all or a number of municipalities for the exercise of some of their competencies. Intercommunality allows municipalities to come together as a public entity, either to provide certain services (household waste collection, sanitation, urban transport, etc.) or to develop real economic development, or planning. Since the law of 1999, municipalities cannot join more than one inter-municipal co-operation entity.

Intercomunality could be public institutions for inter-municipal co-operation, mixed unions, metropolitan poles and other forms of municipal co-operation such as inter-municipal agreements.

For further information, see https://www.adcf.org/files/TIC/QU_EST_CE_QUE_L_INTERCO_16P_19_11.pdf and https://www.insee.fr/fr/metadonnees/definition/c1346.

[18] For further information, see: www.legiscomex.com/documentos/desarrollo-infraestructura-colombia-rci285.

[19] This is the latest information available and is also used by Colombian authorities in their latest reports (Gobierno de Colombia, 2018[54]).

[20] For further information, see https://www2.gov.bc.ca/gov/content/governments/local-governments/facts-framework/legislative-framework.

[21] For further information, see https://www.consilium.europa.eu/en/press/press-releases/2019/04/09/updated-rules-on-the-european-citizens-initiative-adopted/.

[22] For further information, see https://books.google.fr/books?id=QMEtDwAAQBAJ&pg=PT81&lpg=PT81&dq=what+is+the+legal++framework+for+public+participation+in+rotterdam.

OECD Urban Studies

National Urban Policy Review of Colombia

This OECD *National Urban Policy Review of Colombia* provides a comprehensive assessment of the country's national urban policy 'the System of Cities' and of different sectoral policies that affect urban life: transport, housing, land use, and digitalisation. Colombia has entered the 2020s facing five intertwined crises: the COVID-19 pandemic, rising levels of poverty and inequality, a wave of mass international migration, the peace process consolidation, and the climate emergency. As the country seeks an answer to all those challenges, Colombia's social and economic prosperity and environmental sustainability will be more tightly linked to the functioning of its cities and its urban governance system. This OECD review makes the case for an integrated, placed-based and inclusive urban development model and urban agenda that seize immediate opportunities that arise in fiscal, economic and sectorial policies, and protect hard-won gains from years of experience of urban policy implementation in the country. Designing a new national urban policy for Colombia – *Ciudades 4.0* – demands a critical rethinking of whether urban areas are meeting the needs of all Colombians, and how different urban-related policies could help transform them for the better.

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