PROMOTING STRONG AND INCLUSIVE GROWTH IN INDIA

Better Policies Series

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OECD

BETTER POLICIES FOR BETTER LIVES

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Foreword

India has made unprecedented economic and social progress since the start of the post-liberalisation reforms in the early 1990s. GDP per capita increased by an average annual rate of 5.2% between 1990 and 2015, and it is expected to increase by 6.2% in 2016 and by 6.3% in both 2017 and 2018, making India the fastest growing of all G20 economies. This strong economic growth has lifted more than 160 million people out of extreme poverty: the share of the population living in extreme poverty has declined from almost 50% in the early 1990s to around 20% today. With improved sanitation and health services, life expectancy increased from 58 years in 1990 to 68 years in 2014, while child mortality dropped by more than 50%.

India's strong performance has been supported by major policy reforms. The change in the monetary policy framework aimed at anchoring inflation expectations helped bring down inflation and stabilise the currency. Together with the current government's efforts to liberalise and simplify investment regulations, this helped spur capital inflows. Recent efforts to create better jobs and raise the quality and relevance of the education and training system are crucial for more inclusive growth. Health outcomes have benefited from improved cleanliness and sanitation, as well as reduced water risks.

Underlying these achievements, there must be a continued focus on putting India's economic success to the service of the well-being of its citizens. With a working age population that expands by around 14 million people every year, ensuring that everyone has access to a high-quality job is an important opportunity to boost productivity and growth in the coming years. More than nine in ten workers in India are in the informal sector, outside the reach of social protection schemes and labour market regulations. Despite an astonishing decline, child mortality is still twice as frequent as in other major emerging markets, linked to continuing poor sanitation and hygiene. Even though the share of the population with access to improved sanitation has more than doubled since the early 1990s, 40% of the population still remain without such access. Upgrades to infrastructure undertaken today will pay off in many ways in the coming years. As the economy benefits from the increased opportunities of trade and investment, additional measures will also be needed to further ease restrictions and lower trade and non-trade barriers.

This Better Policies Series report has been prepared to provide inspiration to the Government of India in its endeavours to actively bring forward reforms to ensure that development is sustainable, inclusive and environmentally responsible. It applies the OECD's most innovative research and draws on the experience of OECD member and partner countries to explore new ideas and reform paths for India. The report highlights how India can sustain its fast economic growth by deepening integration into global value chains, fostering investment (including in infrastructure), and reducing water risks that threaten India's big agricultural sector. It also suggests ways to ensure that no one is left behind by the country's fast-paced growth and change, by promoting good-quality jobs, equipping people with the skills needed to succeed in life and ensuring that everyone has access to good-quality healthcare.

The report also provides insights into recent achievements of the OECD-India partnership. In over 20 years of co-operation, both India and OECD members have benefited from an increasingly close relationship that has fostered mutual learning and enriched the global policy debate. India and OECD members share many goals, and this is reflected in India's extensive and valued participation in many OECD committees and bodies. This has given India the opportunity to discuss major policy issues and challenges, exchange experiences with other countries and share views on economic, social and environmental policies. OECD member countries in turn have benefited from the greater knowledge gained through their engagement with India. The OECD is looking forward to further deepening its collaboration with India and supporting the government in its efforts to promote economic and social well-being, through rigorous analysis, peer learning and best practices. Together, we can design, develop and deliver better policies for better lives for all Indian citizens.

Angel Gurría
Secretary-General, OECD

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Key recommendations

- Encourage job creation in the formal sector by reducing the administrative burden for dismissal faced by large firms, while strengthening the public employment service, training and re-employment support.

- Support a more productive agricultural sector through technology transfer.

- Strengthen accountability within the education sector, and raise the quality of teaching, including through better school infrastructure.

- Ensure that the skills of the workforce are benchmarked against international standards, to further accelerate economic growth, foster innovation and sustain global competitiveness.

- Encourage states to increase public spending on health, while introducing accountability mechanisms for healthcare outcomes, supported by a consolidated national information structure.

- Extend the *Rashtriya Swasthya Bima Yojana* (RSBY) health insurance programme and ensure cost efficiency, by placing greater emphasis on primary-care services and ensuring that the services covered by RSBY are clearly defined at all levels of care.

- Pursue further trade facilitation reforms, focussing on simplifying and harmonising trade documents, streamlining procedures and strengthening domestic and cross-border agency co-operation.

- Extend the trade and investment liberalisation efforts observed in the mobile telephone market to fixed-line telecommunications, to stimulate entry and investment in broadband Internet and support trade in goods and services.

- Foster investment by promoting responsible business conduct and further easing restrictions on foreign direct investment.

- Progressively adjust the pricing of infrastructure services to ensure their financial sustainability.

- Empower local governments to take responsibility for infrastructure projects, and ensure that higher levels of government provide incentives for cross-jurisdictional co-ordination.

- Redirect farm-support policies from water and other inputs towards supporting increased innovation, sustainability and productivity on farms and, where necessary, providing support to low-income households among resource-poor farms.

1 Introduction

India's economy continues to grow at an impressive rate, with projected annual GDP growth of 7.5% in 2017-18. India will thus remain the fastest-growing G20 economy. Unprecedented growth in exports in services since the 1990s has made India a global leader in this sector. Inflows of foreign direct investment (FDI) grew at three times the annual world average rate in the last decade, reflecting the success of efforts to attract international investment and gradually loosen restrictions to foreign investment. India's economic successes are being translated into increased well-being for its population. As GDP per capita has more than doubled in ten years, extreme poverty has declined substantially. Access to education has steadily improved, and life expectancy has risen. Multiple opportunities present themselves for India, and the right mix of policies is needed to take advantage of them. India has made advances in integrating in global value chains and developing a competitive advantage in fields such as information and communication technology. Now is the time to secure continued progress by boosting competition and further lowering barriers to trade and investment. Looking to the future, it will be vital to fully tap into the potential offered by India´s young population. This means investing in the large numbers of young people entering the labour market. Likewise, the rapid pace of development must be matched with the upgrades to infrastructure necessary to support it.

India has made great strides in improving the well-being of its population

India has been on a high growth trajectory since it undertook post-liberalisation reforms in the early 1990s. On average, GDP per capita increased by 5.2% annually between 1990 and 2015. Recent years have also seen a decline in both inflation (from 9.9% in 2012 to 5.2% in 2016) and the current account deficit (from 4.8% in 2012 to 0.8% in 2016). India's strong growth performance is continuing. GDP per capita growth is estimated at 6.3% in 2016 and the economy is expected to continue growing at that rate in 2017-18, meaning that India will remain the fastest-growing G20 economy (Figure 1.1).

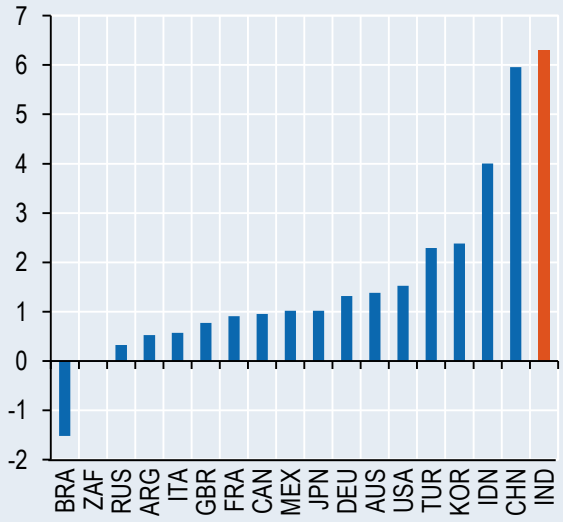
India has also made significant progress in other areas of well-being. The share of the population living in extreme poverty (defined as persons living on less than USD 1.9 per day) has declined substantially, from almost 50% in the early 1990s to around 20% today. Income inequality, as measured by the Gini coefficient (which scores 0 when everybody has identical incomes and 1 when all the income goes to one person) is similar to other emerging markets, but much higher than in OECD countries (Figure 1.2). Life expectancy in India increased from 63 years in 2000 to 68 years in 2014, just below the average of 69 years of the other BRIICS countries (Brazil, Russia, India, Indonesia, China and South Africa) (Figure 1.3, Panel A), and child mortality dropped by more than 50% over the same period.

Building on past successes, India can further improve the well-being of its citizens

This laudable development notwithstanding, the potential for further progress is still enormous. In 2015, India's GDP per capita level was 43% of the average of the other BRIICS countries. With 55% of the population below 30 years of age, creating quality jobs for its large emerging workforce will be crucial to increase well-being and reduce poverty. Around eight workers in ten are in vulnerable

FIGURE 1.1. **INDIA'S ECONOMY IS GROWING STRONGLY**

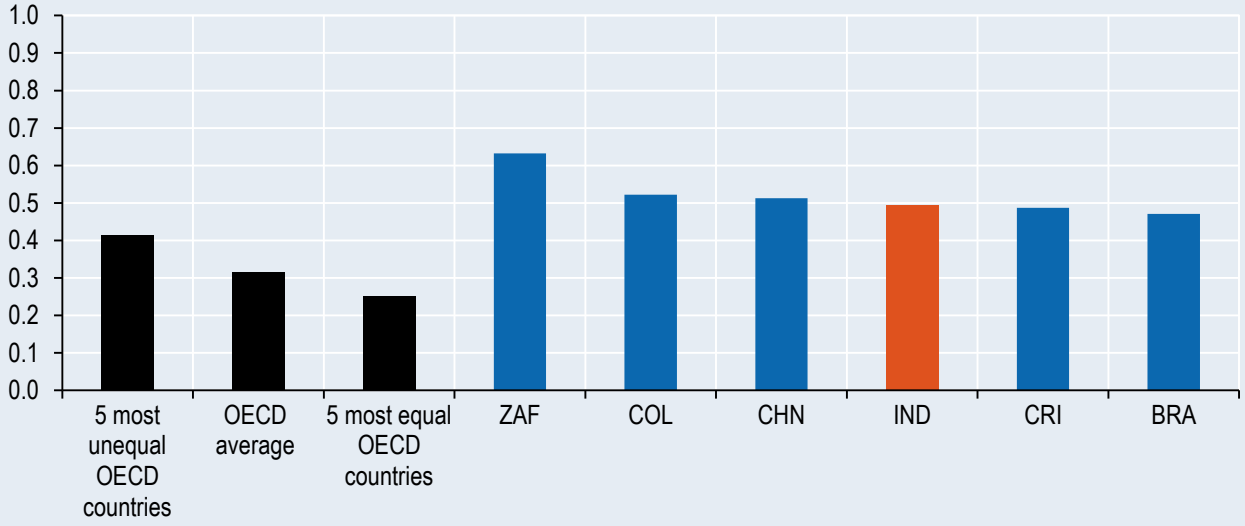
Expected annual GDP per capita growth, 2016-18



Source: OECD Economic Outlook Database.

FIGURE 1.2. **INCOME INEQUALITY IN INDIA IS SIMILAR TO THAT OF OTHER EMERGING ECONOMIES**

Gini coefficient, 2013 or latest available year



Note: Preliminary estimates for non-OECD countries.

Sources: OECD Income Distribution Database; OECD calculations using data from the LIS Data Center, the China Family Panel Study and the Encuesta Nacional de Hogares for Costa Rica.

employment, well above the figures seen in other emerging markets (Figure 1.3, Panel B). Despite an astonishing decline, child mortality is still twice as common as in the other BRIICS countries. Further improvements in health outcomes will require better sanitation and hygiene. Even though the share of the population with access to improved sanitation has increased significantly, at 40% it remains well below the 75% average of the other BRIICS countries (Figure 1.3, Panel A). Poor housing conditions as well as severe air pollution (among the BRIICS countries, air pollution in India is second only to China) also weigh on health outcomes.

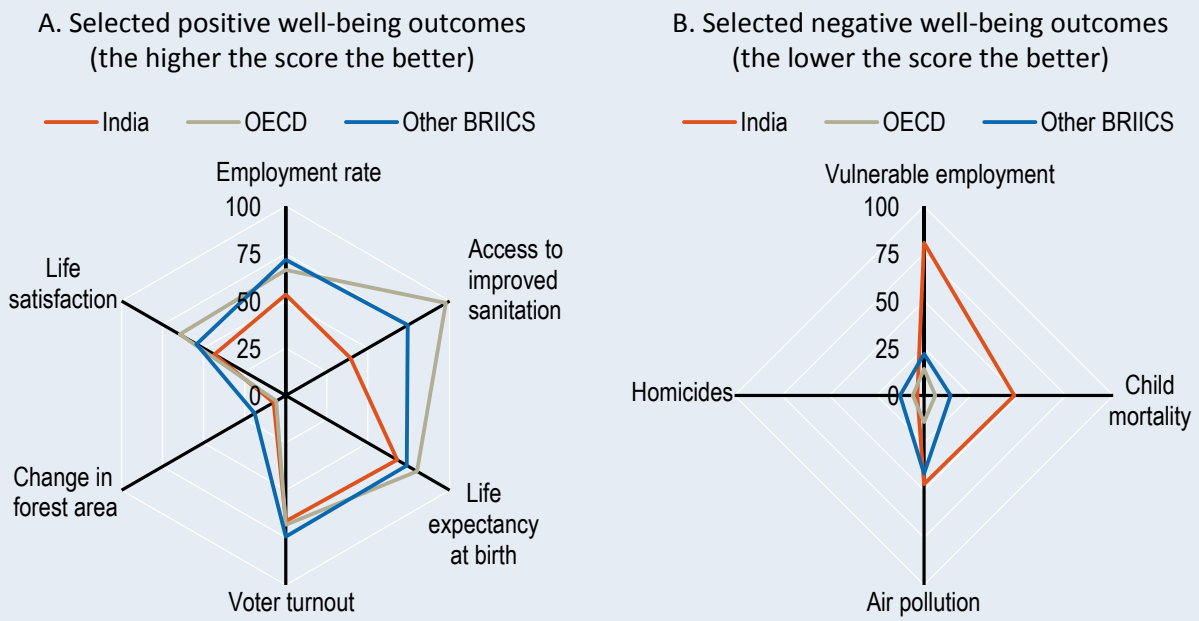
The current government has embarked on an ambitious reform agenda to make this happen

To further improve the well-being of its citizens, the Government of India is undertaking important structural reforms. The inflation targeting framework that was put in place helped push back inflation and stabilise the rupee. Together with improvements in the business environment, particularly in manufacturing activities, this helped spur trade and international investment inflows. For example, the Government of India reduced FDI restrictions and non-trade barriers, and eased business regulations in a number of sectors. In addition, the implementation of the centralised Goods and Services Tax represents a breakthrough in transforming India into an integrated market.

Public spending is being directed towards more productive investments in social services and physical infrastructure. Financial inclusion schemes and programmes to upskill the population, improve labour market conditions and foster the development of small businesses are being introduced to make growth more inclusive. In 2015, India introduced its National Policy for Skill Development and Entrepreneurship, to improve the quality of skills training, make education more responsive to employers' needs and increase access to education for disadvantaged groups.

The Government of India is also implementing policies to promote cleanliness and sanitation, as well as to reduce water risks. The draft National Health Policy tabled a commendable reform agenda and proposed increasing public spending on healthcare from 1% to 2.5% of GDP by 2020, but the 2016-17 budget has not significantly increased resources for the healthcare sector. The central government has also drafted a model groundwater bill that proposes ways for communities to reduce their groundwater usage and launched pilot programmes to decouple agriculture subsidies from inputs.

FIGURE 1.3. **HOW'S LIFE IN INDIA?**



Note: "Other BRIICS" is the weighted average of the values for Brazil, China, Indonesia, Russia and South Africa, except for "vulnerable employment", "voter turnout" and "homicides" where data for China are not available. Well-being data are provided for OECD and BRIICS countries for reference. The comparison with these countries has limitations, given the differences in GDP per capita.

Source: OECD Better Life Initiative 2016.

In order to encourage the implementation of reforms at the state level, the central government has introduced a system of co-operative federalism where states' efforts are showcased and benchmarked. State governments are also being endowed with greater fiscal means and responsibilities to encourage reforms at a subnational level.

India can partner with the OECD to design and implement better policies for better lives

Building on the experience of other countries and the OECD's tools to identify structural reform priorities (Boxes 1.1 and 1.2), this report presents a set of reform options to help the Government of India in its ambitious reform agenda.

Deepening India's integration into global value chains (GVCs) will be essential for the country to sustain its strong growth performance. To this end, the government should build on existing reform efforts and further improve the enabling environment for international trade (Chapter 5) and investment (Chapter 7). Special attention may be warranted on services sectors, as greater competition in services such as distribution and finance will not only improve the economic performance of these sectors

Box 1.1. Setting policy priorities to go for growth – the case of the **G20**

Through its Going for Growth exercise, conducted with member and partner countries, the OECD identifies a set of five structural reforms most likely to succeed in promoting growth and inclusiveness in each country. This analysis is based on a systematic and in-depth analysis of structural policies and their outcomes, relying on a set of internationally comparable and regularly updated policy indicators to measure performance. Going for Growth also feeds into the G20 Framework for Strong, Sustainable and Balanced Growth and the OECD works with G20 countries, including India, to follow up on their strategies to boost growth to achieve a 2% increase in global income level. It presents a common methodology for quantifying the impact of reforms.

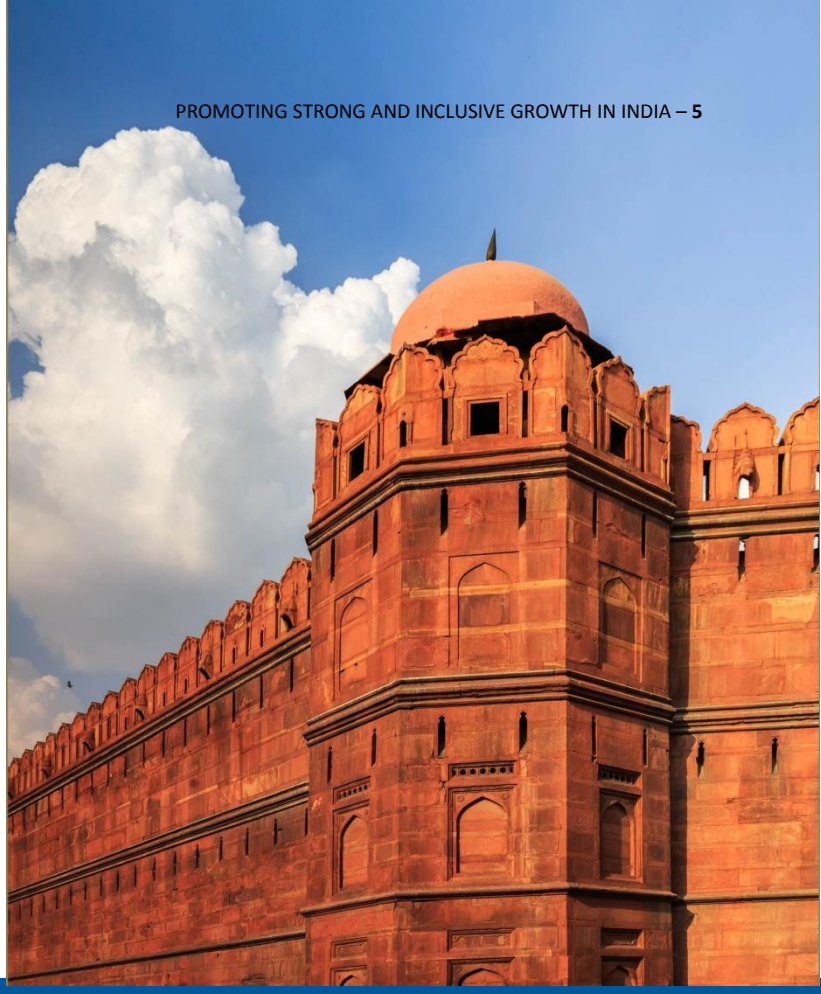
The identification of reform priorities that emerge from the Going for Growth exercise reveal a number of common patterns across G20 countries. For this purpose, G20 countries are clustered into five groups according to the common nature of their most pressing structural challenges. India is grouped with Indonesia, South Africa and Turkey. Improving infrastructure and advancing labour market reform are the two most important policy priorities for this group of countries. While countries within a group may be confronted with similar challenges, the specific policies needed in these areas differ depending on country-specific circumstance and conditions.

For India, the exercise identified the following specific reform priorities: 1) reducing state involvement in business operations and encouraging private entry by replacing price controls with market-based mechanisms and reducing regulatory barriers to firm entry while adopting regulation that creates a level playing field, ensures product safety and protects consumer interests; 2) ensuring a better match between skills available and those demanded in the labour market by improving the tertiary education curricula and making vocational education more attractive; 3) striking a better balance between liberalisation and regulation in financial markets by enhancing risk pricing in financial markets through the removal of implicit state guarantees and by ensuring access to credit for a wider range of borrowers, particularly small and medium-sized enterprises; 4) reducing barriers to labour mobility by ensuring equal access to education, regardless of registration status, and by unifying healthcare insurance at the national level so that services can be obtained country-wide; and 5) further enhancing the rule of law by identifying non-compliers in a more rigorous manner to enhance the perception of fairness and increasing transparency in business operations.

themselves, but also the performance of manufacturing sectors that use these services as inputs (Chapter 6). The government's intention to further upgrade and expand the country's infrastructure should also support India's integration into GVCs, as infrastructure bottlenecks hamper both trade and investment. Ensuring strong governance of infrastructure investments will help ensure timely and efficient project delivery (Chapter 9). Finally, continuing ongoing efforts to reduce water risks are essential to underpin India's economic performance, given its big agricultural sector, which suffers from groundwater depletion and deteriorating water quality (Chapter 10).

Creating employment opportunities, especially in the formal sector, for the large number of young people that enter India's labour force every year is crucial to ensure that the benefits

of economic growth are widely shared across the population. Making labour market regulations more flexible (Chapter 2) and equipping people with good and relevant skills (Chapter 3) can help achieve this goal. Improving the population's health outcomes is also vital, and the planned increase in public health spending is very welcome in this regard. Putting greater emphasis on primary care services and spending on preventive public health measures, particularly better sanitation, can help ensure that the government gets the most value for its money (Chapter 4). Greater inclusiveness also requires putting an end to tax evasion and avoidance. India's implementation of the G20/OECD Base Erosion and Profit Shifting package and the Common Standard for the automatic exchange of financial account information will be important steps to fight such behaviour (Chapter 8).



Box. 1.2. Implementing the 2030 Sustainable Development Agenda – the case of **Slovenia**

Successful implementation of the UN's Sustainable Development Agenda for 2016-30 will require all countries to set out priorities for action, understand the challenges ahead and identify the policy packages that can best address those challenges. The OECD supports countries in ensuring the successful implementation of the 2030 Agenda for Sustainable Development by utilising its unique tools for identifying priorities for action to achieve the Sustainable Development Goals. OECD's work on measuring well-being provides a strategic tool to governments, with statistical indicators to assess economic, social and environmental progress that go beyond the standard macroeconomic statistics.

In 2015, the Slovenian government initiated a process of preparing its National Development Strategy 2030, together with its Vision 2050, focused on the implementation of the Agenda for Sustainable Development and supported by the OECD. In preparing its long-term strategic direction, Slovenia is establishing an integrated policy framework for sustainable development that will help ensure that sectorial, domestic and foreign policies are coherent internally, as well as with its international commitments and priorities for achieving the Sustainable Development Goals.

The process has been designed in three phases. The first phase presents the strategic direction-setting. The second is focused on strategic planning, translating the new vision into strategic priorities and designing a timeline of actionable goals and measurable targets. A key element here is the accurate assessment of Slovenia's starting position in regard to the Sustainable Development Goals, in light of the country's national priorities, using various indicators available in OECD and other databases. End values for the targets to be achieved by 2030 and 2050, and hence the distance to be travelled, are set through a flexible approach. The third phase will focus on effective implementation and monitoring of the new national strategy on a government-wide basis. Close collaboration with key stakeholders to identify challenges, set priorities and align policies and actions is an essential part of the process.

2 Making India's labour market more inclusive

Creating employment opportunities, particularly in the formal sector, is important to absorb India's large numbers of new labour force entrants and reap the benefits of the demographic dividend of the country's young population. The challenge of informal employment (92% of total employment) can be addressed by allowing for more flexibility in labour market regulations. Technology transfer in the agricultural sector, which accounts for half of total employment, can help raise productivity and, together with a diversification of activities in rural areas, can improve the livelihoods of many vulnerable groups.

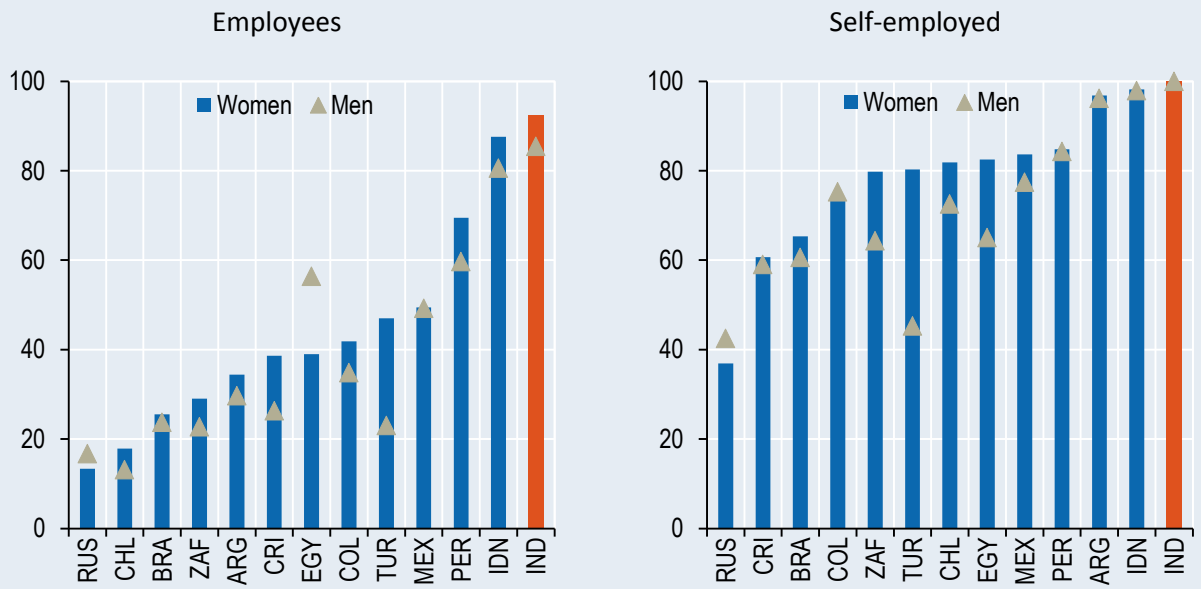
Boosting formal employment can create a new growth paradigm

Every year the Indian working-age population expands by around 14 million people. While formal employment has been expanding steadily in absolute terms, thanks to India's fast economic growth, it has fallen as a share of the adult population. Between 2004 and 2014, the employment rate declined from 58% to 52% (World Bank, 2016a), and the labour force participation rate declined from 60% to 54%, one of the lowest rates among emerging market economies. These figures partly reflect the rising school enrolment of youth, but also relatively slow job creation, especially in the manufacturing sector.

The incidence of informal employment is high in India compared with other large emerging countries (Figure 2.1). The resulting strong segmentation of the labour market, with many workers left outside the reach of social protection schemes and labour market

FIGURE 2.1. **INFORMALITY IS COMMON IN INDIA AS IN OTHER EMERGING AND DEVELOPING COUNTRIES**

Informal employment in percent of total employment, 15-64 year olds, 2014 or latest available year



Note: Informality is defined to include: 1) employees who do not pay social security contributions; and 2) self-employed who do not pay social security contributions (Chile, India, Indonesia and Turkey) or whose business is not registered (Argentina, Brazil, Colombia, Costa Rica, Egypt, Mexico, Peru, the Russian Federation and South Africa). The figure for India may overstate the actual level of informality as it is based on the assumption that all employed workers with missing information on paying social contributions work in the informal sector. The numbers for Argentina refer to selected urban areas. The years covered are 2007 for Indonesia; 2010 for Tunisia; 2011-12 for India; 2012 for Egypt; and 2013 for Chile and Turkey.

Source: OECD calculations based on national household and labour force surveys.

regulations, also represents an important source of income inequality. As major contributors to the informal sector, women, young people and low-skilled workers face the most dramatic challenges. Strengthening social security coverage and job quality in the formal sector can act as a catalyst to spur formal labour market participation, and boost productivity.

Agriculture is still the dominant employer

The agricultural sector accounted for half of total employment in 2013 (World Bank, 2016a). A major challenge, therefore, is to increase productivity and income in this sector. Productivity per worker is almost four times higher in services than in agriculture and two times higher in manufacturing. Agricultural wages have not only been persistently lower than non-agricultural wages, but the rate of increase has also lagged behind. Decreased farm size due to land fragmentation hinders efficiency and leads to very low incomes for agricultural workers. As a result, many of these workers seek alternative off-season employment in non-farm activities or temporarily migrate to other rural or urban areas. Since 2005, the National Rural Employment Guarantee Act helps to enhance livelihood security in rural households through government-sponsored employment schemes, providing unskilled manual work for at least 100 days to volunteering adults at a predefined wage rate per day. Between 2002-03 and 2012-13, the proportion of rural households whose principal source of income is agriculture declined from 63% to 58% (ILO, 2016).

Rural seasonal migrant workers face numerous disadvantages in their working conditions, such as the absence of written contracts, legally enforceable agreements regarding wages and other benefits, or commitments regarding regular provision of work. This has prompted rural labour to move away from agriculture, although the transition has progressed at a slow pace. Addressing the poor technical skills and education status of the rural workforce would help to facilitate this transition (Chapter 3). The increase in non-agricultural employment has been accompanied by a greater use of short-term contracts and other forms of casual labour, with a rising share of marginal workers (those working less than 183 days or six months per year) in both agricultural and non-agricultural sectors.

Modernising labour laws will help to reduce labour market segmentation

The OECD employment protection legislation indicator shows that labour market regulation and particularly strict employment protection play an important role in explaining labour

Box. 2.1. Supporting youth and unemployed through training – the cases of **Argentina** and **Turkey**

In Argentina, the *Programa Jóvenes con Futuro* (PJcF) consists of both classroom training and a practical internship or on-the-job training component during which participants rotate across various positions. On-the-job training accounts for 50% to 80% of the entire programme, which lasts between three and ten months. The programme is targeted mostly to disadvantaged youth. Employers who participate in PJcF are involved in designing the curricula, with the technical assistance of the Ministry of Labour, Employment and Social Security, and they directly provide the training with their own physical, financial and human resources. The PJcF is coordinated by a Joint Executive Committee, which includes representatives of the ministry and employers, Its main function is to evaluate the projects put forward by new companies intending to participate.

In Turkey, the Turkish Employment Agency co-ordinates programmes for on-the-job training and vocational training courses in co-operation with employers. The on-the-job training programme subsidises the wages and social security contributions of unemployed and recent graduates who enter a firm and receive training for up to six months. Employers can hire their interns before the end of the programme. The vocational training courses include off-the-job training and are funded from the Employment Insurance Fund.

Box 2.2. Reducing labour market segmentation by creating productive employment opportunities in non-agricultural sectors – the cases of **China**, **Mexico** and **Turkey**

The large-scale shift of workers from lower-productivity occupations in agriculture to higher-productivity jobs in non-agricultural sectors has been an important engine of China's growth. A major feature of the transfer of rural labour to off-farm jobs was the rapid development of Township and Village Enterprises (TVEs). TVEs are rural non-agricultural small and medium-size enterprises which, in addition to collective enterprises, include both single-owner and other private firms. Local government policies, such as facilitating access to credit and technology, as well as skills upgrading and managerial training programmes supported the development and growth of TVEs in rural areas.

In Mexico, the Rural Development Programme has been oriented to attaining rural development in a broader sense outside the boundaries of the agricultural sector. It has three main subcomponents: 1) support to rural investment projects, focusing on investment in physical capital; 2) development of rural capacities, focusing on skills upgrading and the provision of training for rural workers in non-farm activities; and 3) strengthening of rural enterprises and organisation, by fostering and consolidating non-farm entrepreneurial organisations in rural areas through support for starts-up of productive projects, technology transfer and specialised seminars.

Through the Active Employment Market Programmes project, the Turkish Labour Agency and the Turkish Agricultural Chamber Association are co-operating to actively create jobs. Within this framework, a Younger Agricultural Population project aims to train young farmers to be able to provide extension services in their communities and regions. A Handcrafts Project is providing support for rural youths aged 14-24 to develop employment opportunities in rural regions and to support the transition of rural employment from agriculture to other sectors.

market segmentation in India. For example, dismissal laws under the Industrial Disputes Act require manufacturing firms with more than 100 workers to request permission from the Ministry of Labour and Employment before dismissing just one worker. This restricts job creation in large manufacturing firms, especially compared with firms in the informal sector, and hinders the expansion and efficient operation of firms. As a result, manufacturing is still relatively underdeveloped in India, and employment growth has occurred in firms of less than 10 employees, which account for 87% of total employment, well above the shares of many other emerging markets.

Due to strict employment protection, growth in employment has taken the form of contract labour and fixed-term contracts. These forms of job creation allow employers to circumvent some of the rigidities and additional costs associated with labour market regulations. But they also reinforce labour market segmentation and limit potential economies of scale. Strict employment protection makes the most vulnerable workers bear most of the adjustment costs, as they are retained in precarious jobs with limited opportunity for progress.

Experience from a number of countries shows that labour market regulatory reforms can boost income and employment security and encourage the expansion of formal employment without reducing labour market dynamism. India could move away from a regulatory system that provides a minority of workers with very strong protection against dismissals, while the majority of workers have almost no protection.

Important efforts are being made to move towards a more balanced system that relaxes procedural restrictions on dismissals for protected workers in exchange for offering workers more generous entitlements to severance pay and re-employment assistance when dismissed. The central government has

recently taken steps to make labour regulations friendlier to job creation. For example, several administrative requirements for complying with existing labour laws have been eased. The central government also reformed the Apprenticeship Act in December 2014 to increase the number of industrial sectors which can enrol apprentices. Although the proposal to regroup the multitude of labour regulations into five codes has not yet been passed, several states have undertaken their own initiatives to reduce the stringency of some labour laws, including relaxing dismissal rules. For example, in the state of Rajasthan, only firms employing 300 workers or more now need to request government permission to dismiss workers (previously firms with more than 100 workers required permission). To boost job creation in the labour-intensive garment industry, particularly for women, the government approved a special package in June 2016. This special package, which has yet to be approved by parliament, includes paying 12% employers' contribution to the pension system for new employees, increasing overtime limits to eight hours a week (in line with ILO norms), refunding the state levies and instituting parity between contractual and permanent workers in terms of wages and other elements of compensation.

For labour law reforms to be successful, complementary policy changes are needed in other areas

While the above reforms could help improve the functioning of the labour market and support creation of formal employment, their impact can be higher if they are combined with measures to improve the skills level of the workforce through better primary and secondary education (Chapter 3), including vocational education and training (Box 2.1), as well as measures to promote more effective social benefits.

They also need to be complemented by reforms that address the other factors behind informality, such as simplifying product market regulations and tax rules. Experience in other countries also shows that the benefits of reforms to labour regulations are likely to be greater when they are combined with an effective public employment service and efforts to strengthen re-employment support to dismissed workers.

The reduction in labour market segmentation also has to be supported by policies to channel employment from the low-productivity agricultural sector to higher-productivity manufacturing and services sectors (Box 2.2). This can be done through "push" factors such as productivity-enhancing investments in agriculture (e.g. technology transfer and adoption by farmers which would limit labour absorption in this sector) and "pull" factors of sufficient and stable employment opportunities in productive non-agricultural activities in both rural and urban areas.

Key recommendations

- Encourage job creation in the formal sector by reducing the administrative burden for dismissal faced by large firms, while strengthening the public employment service, training and re-employment support.
- Encourage the formalisation of the economy by simplifying product market regulations and taxation rules.
- Support a more productive agricultural sector through technology transfer.
- Promote the diversification of activities in rural areas.

3 Fostering education and skills for the future

India has made considerable progress in improving access to education. The objective is now to ensure that Indian students enter the workforce well equipped to participate fully in the nation's development. The country's young workforce presents an important opportunity, but to fully benefit from it, India needs to address the skills gap through better targeted and higher quality education services. Improving methods to evaluate educational outcomes is an important way forward. While India's National Achievement Survey provides insightful data on performance among states, participation in the OECD's Programme for International Student Assessment (PISA) would be a crucial step towards the evidence-based policies needed to ensure India's educational performance is competitive in the global context.

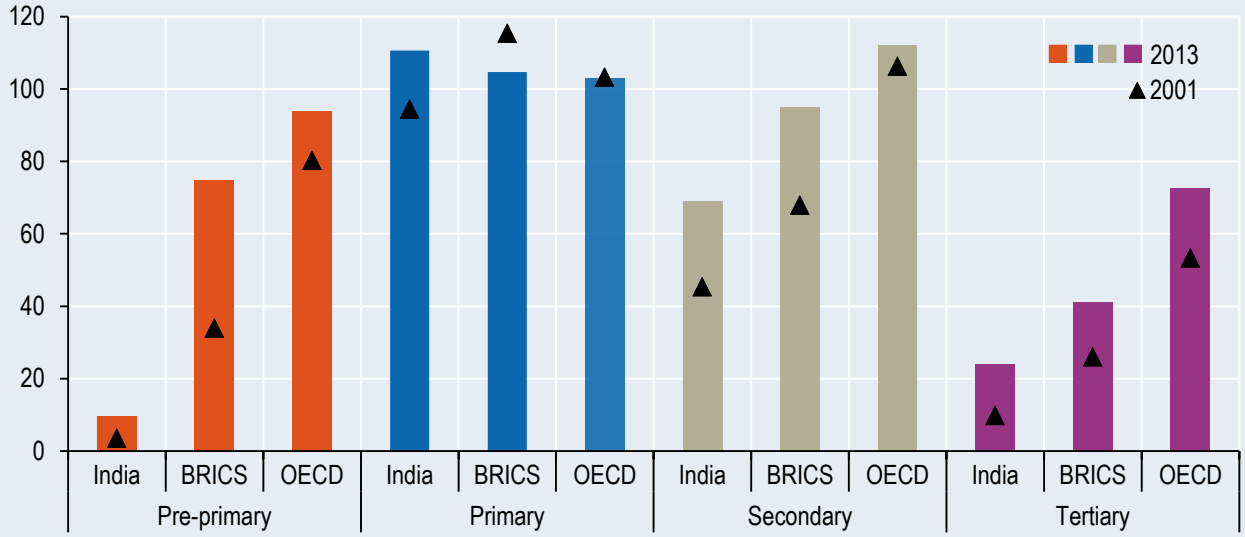
Increasing the quality of education can help narrow achievement gaps

To increase access to education for all, the Government of India has introduced initiatives such as *Sarva Shiksha Abhiyaan* (Education for All Movement), *Midday Meal Programme* and *Beti Bachao, Beti Padhao Yojana* (Save Daughter, Educate Daughter Programme). As a result of these initiatives, India's gross enrolment rate for primary education (i.e. the number of students enrolled in primary education, regardless of age, expressed as a percentage of the population in the official age group corresponding to primary education) reached 110% in 2013 (Figure 3.1). The government also aims to provide universal access to secondary education by 2017. It is, however, important that the expansion of India's education system be accompanied by qualitative improvements.

Inequity in education is pronounced across India and has implications for social cohesion and growth. OECD data indicates large performance differences in favour of boys across all subjects tested. National data also confirm the accumulation of sources of inequalities that prevent a large share of India's population from developing the skills needed to fully participate in society and contribute to the economy. Evidence from OECD research provides insights on the type of policies that can improve access and achievement for vulnerable groups, such as early identification of those at risk of falling behind and systematic support.

FIGURE 3.1. **ACCESS TO EDUCATION HAS IMPROVED IN INDIA**

Gross enrolment rate by level of education, %



Note: OECD (BRICS) refers to the average of all OECD countries for which data are available (Brazil, Russia, Indonesia, China, South Africa).

Source: UNESCO-UIS, Education database, 2016.

Fostering quality education and skills for the future requires adequate data to evaluate the present situation

To improve learning outcomes, governments need reliable data on student performance to identify weaknesses and inform education policies. Since 2001, India has carried out the National Achievement Survey to measure the learning achievement of students at different stages of their education and make comparisons between states. While such national assessments are valuable in monitoring performance, international surveys provide an important complement by showing how students perform compared to their peers in the global economy. In 2009, two Indian states, Himachal Pradesh and Tamil Nadu, participated in the OECD Programme for International Student Assessment, which measures the skills of 15-year-olds in over 70 economies. Results showed a performance gap, not only with students in OECD countries, but also other emerging countries in Asia.

Many countries have used results from PISA to jump-start reform and strengthen accountability within the education sector. Brazil is one country that has used PISA to spur improvements in both access and outcomes (Box 3.1). Developments in the PISA survey since 2009, including steps to measure the skills of 15-year-olds who are not in school, make it an even more powerful catalyst for improvement in the Indian context. PISA also provides rich information on socio-economic and other contextual factors that can impact student performance. This information may serve as a guide to countries to create targeted policies and direct resources to where they are most needed.

A better-skilled workforce will help India move up value chains

A better-educated and skilled workforce will help India build its capacity to innovate, create better-quality employment and ensure inclusive growth. Innovation and entrepreneurship are in the spotlight, as India faces the challenge of absorbing the 100 million fresh entrants who are expected to join the workforce in the next seven years.

To these ends, India needs to ensure that all students leave school with basic skills that meet international benchmarks. Currently, skills mismatch and the low quality of skills prevent India from harnessing the potential of its young population. Around 64% of India's population is expected to be in the age bracket of 15-59 years by 2030 (UN DESA, 2015). The informal sector, marked by its low productivity, employs more than 90% of the workforce (Chapter 2). Furthermore, in 2012, around 30% of youth (aged 15-29) were neither employed nor in education and training (NEET), compared with the OECD average of just under 15%. Nine in ten in this group were not seeking work, and almost half had not finished upper-secondary schooling. The gender gap in the NEET rate for young people in India is 41%, the largest among emerging economies.

To promote upskilling and entrepreneurial initiatives, the Government of India has launched the Skill India and Startup India initiatives. Skill India aims at skilling and upskilling the workforce, while Startup India focuses on boosting entrepreneurship. It is important that these policies take into account not just the demands of local industry, but also the evolving skills needs of the global economy. The OECD's World Indicators of Skills for Employment provides comparable indicators of skills for employment and productivity for over 200 countries. This international database of skills indicators provides comprehensive data and can help Indian policy makers create smart policies for skills development that are relevant to the needs of the domestic and global economy.

Key recommendations

- Narrow educational achievement gaps across regions, socio-economic groups and genders through targeted policies, based on reliable data on student performance.
- Strengthen accountability within the education sector, and raise the quality of teaching, including through better school infrastructure.
- Ensure that the skills of the workforce are benchmarked against international standards, to further accelerate economic growth, foster innovation and sustain global competitiveness.

Box 3.1. Using PISA to improve education – the case of **Brazil**

Brazil has used its participation in PISA to increase accountability and strengthen its education system. Having set a goal to perform on par with the PISA average by 2021, Brazil has taken several steps to raise student achievement. These include the introduction of a national census assessment of learning and targets for schools to improve, using PISA 2005 as the baseline level of performance.

Participation in PISA has helped Brazil to identify vulnerable points in its education system and target policies more effectively. The gains have been significant. While expanding education coverage, Brazil has also seen one of the fastest improvements in learning outcomes. Performance gains can be largely attributed to a reduction in the proportion of low-performing students. Brazil reduced its share of students performing below PISA Level 2 in mathematics (considered the base-line level of proficiency) by 8% from 2003 to 2012. The proportion of low-performing students also decreased by 6% in reading and 7% in science between 2006 and 2012.

4 Enhancing India's healthcare system

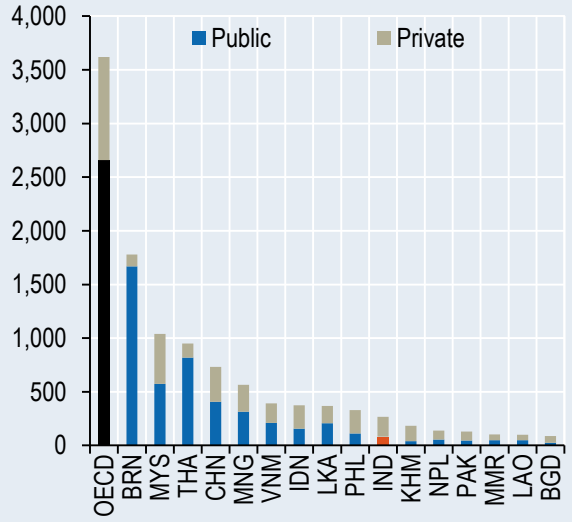
The Government of India's recent efforts to achieve universal health coverage provide the building blocks for a stronger and more equitable healthcare system. While public health spending still remains relatively low by international standards, value for money can be enhanced by placing a greater emphasis on primary care services and preventive public health measures, particularly improved sanitation.

The recent push for universal health coverage needs to be complemented with further investment in the sector

Investing in health not only saves lives, but also increases productivity, enhances job prospects, and positively affects human capital development. The Government of India has recently increased efforts to achieve universal health coverage. Yet, despite increased health expenditure in recent years, India still spends very little on health, amounting to USD 267 per person (based on purchasing power parities) and equivalent to 4.7% of GDP. Public spending is currently just over 1% of GDP and, while the government has announced that it will increase spending to 2.5% of GDP by 2020, the budget for the fiscal year 2016-17 saw only a small increase in health spending. This is lower than many countries in the Asia-Pacific region (Figure 4.1).

FIGURE 4.1. **SPENDING ON HEALTH REMAINS RELATIVELY LOW IN INDIA**

Per capita expenditure on health, international PPP USD, 2014



Source: OECD/WHO (2016), Health at a Glance: Asia/Pacific 2016: Measuring Progress towards Universal Health Coverage, OECD Publishing, Paris.

Furthermore, a majority of spending on healthcare is made directly by Indian households. Out-of-pocket spending makes up 62% of total health expenditure. Such spending can cause severe financial hardship, as well as adversely affect health-seeking behaviour. India is working to expand prepayment schemes based on ability to pay, which can mitigate these effects, through the rapid growth of government-sponsored health insurance, such as the *Rashtriya Swasthya Bima Yojana* (RSBY) programme.

Creating cost efficient healthcare provision is crucial

While government-sponsored health insurance has successfully expanded coverage, further initiatives can help maximise value for money and make the system financially sustainable in the longer run. The experiences of OECD countries show that additional health expenditure may increase the demand for health services, but it also initially places pressures on a scarce supply of doctors, nurses, other health workers and physical facilities at some points. As a result, increased spending can also entail higher wages and health care prices in the short term. Some of the most successful examples of expanding coverage among middle-income countries in recent years have addressed this challenge by a clear focus on cost-effective interventions. Examples include Mexico, which provided an explicit package of cost-effective interventions within its *Seguro Popular* programme (Box 4.1), and Chile, which identified about 70 essential services that by law are fully covered by public and private insurance. At the same time, investing more in the training of health professionals, especially in rural areas, is crucial to improve quality.

Box. 4.1. Achieving value for money in health care – the case of **Mexico**

The *Seguro Popular* in Mexico provides an important example of how to rapidly expand health coverage in a federal context. It subsidises access to a comprehensive package of essential services, covering care for the vast majority of cases treated in ambulatory units and general hospitals. Although the programme is comprehensive, it was critical to develop a specific benefit package to accurately estimate the resources required. This made it possible to avoid rising wages and prices, despite the significant expansion in coverage. It was also used as a quality assurance mechanism so that facilities could be held accountable for delivering services in line with standard protocols. The *Seguro Popular* is financed through federal and state governments. All but the poorest families are also asked to make a modest contribution. As a result of the programme, Mexico has achieved universal coverage of health care, and inequities in the distribution of funding across states have also declined substantially.

In India, the RSBY programme's focus on more expensive inpatient hospital services can protect people from the most costly care. However, it risks skewing resources away from cheaper but effective primary health care. Including cost-effective primary care services and more critically assessing which hospital services should be fully covered could help improve the efficiency of RSBY spending. Carefully designed, such reforms to the benefit package could also improve co-ordination of care between primary and hospital care services.

Health needs to remain a priority for states and territories

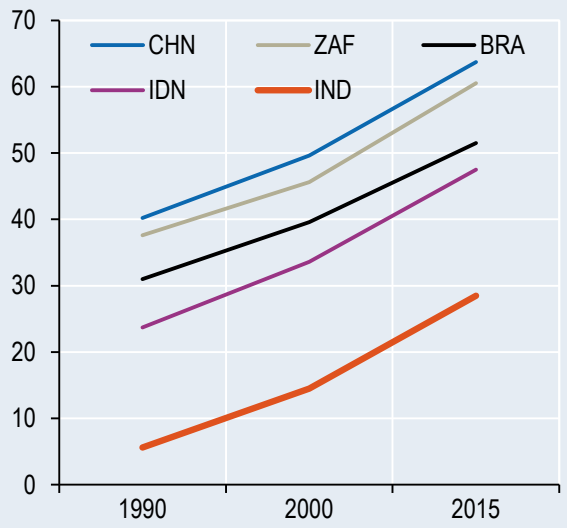
Given India's federal structure, states also need to prioritise spending on health care. The government has recently increased resources provided to the states in the Fourteen Finance Commission. In the spirit of the approach of co-operative federalism adopted by the Government of India to benchmark progress made in different fields and share good practices, states could be benchmarked on health spending, quality of care and health outcomes.

To this end, state governments should be incentivised to expand health coverage to the poor, focusing on cost-effective interventions. Such an approach can encourage states to spend more on health, and ensure that these resources are directed towards those most in need. The RSBY programme does this to some extent, since central and state governments share the cost of insurance premiums. However, there remains wide variability in premiums across the country.

The experiences of other countries show that the diversion of central government funds on the basis of local socio-economic characteristics can promote fiscal equalisation between richer and poorer states. For example, in Brazil, district governments receive a per capita component that varies according to socio-economic circumstances of particular areas (alongside a fixed per capita amount for new families enrolled in the health programme). In the United Kingdom, a weighted capitation formula that accounts for a locality's socio-economic situation is used to equitably allocate funds to Clinical Commissioning Groups, which are the units responsible for health services in specific localities. If similar transfer schemes were applied in India, interstate disparities in health spending and inequities in access to healthcare could be reduced.

FIGURE 4.2. **ACCESS TO SANITATION IS IMPROVING, BUT IS STILL RELATIVELY LOW IN RURAL INDIA**

Rural population with access to improved sanitation, %



Source: WHO Global Health Observatory database.

Quality of healthcare needs to be continuously improved

While some Indian hospitals maintain high international standards, many more health facilities need to offer better-quality care. The 2010 Clinical Establishments (Registration and Regulation) Act offers the core legislative framework for registering health facilities and developing standards in India. However, implementation of minimum standards requires co-ordinated political will at both the central and state levels.

Lessons from other countries suggest that accountability mechanisms for health care outcomes matter more than the degree of decentralisation or the type of provision. In particular, it is important to balance responsibilities across central and local authorities. The central government plays a stewardship role and has a key planning and oversight role, with a consolidated national information infrastructure necessary to adequately monitor health outcomes, while the states are responsible for the implementation of programmes. This is the case even in more decentralised countries such as Australia, Canada, Germany and the Scandinavian countries. For example, a performance measurement framework found in Canada and an open-comparison system found in Sweden allow easy comparison of quality of care across localities.

Investing in sanitation and other public health measures is one of the best ways to improve health outcomes at low cost

Investing more in preventive public health measures that focus on living conditions and lifestyle habits, could offer great potential for better health outcomes at relatively low cost. Within the domain of public health, improved sanitation facilities are paramount, since many Indian households still do not have access to a toilet or latrine (Figure 4.2). Poor sanitation causes numerous infant and child diseases. Although India has cut infant mortality in half over the last 15 years, it still remains higher than in many other emerging economies. The Modi government initiated a Clean India Mission that, among other things, aims to eliminate open defecation and effect behavioural change regarding healthy sanitation practices. The campaign also aims to generate awareness about sanitation and its linkage with public health.

Exposure to air pollution is also a major health problem. OECD estimates show that in 2010, close to 700 000 Indians died prematurely due to air pollution, with the economic costs to Indian society estimated at USD 400 billion. And while India has low rates of daily smoking, many of the poor are heavy smokers of bidis (hand-rolled cigarettes). These bidis are not taxed as highly as other forms of tobacco, but are also harmful to health.

Key recommendations

- Encourage states to increase public spending on health, while introducing accountability mechanisms for healthcare outcomes, supported by a consolidated national information structure.
- Expand the number of skilled health professionals and physical facilities, especially in rural areas.
- Extend RSBY and ensure cost efficiency, by placing greater emphasis on primary-care services and ensuring that the services covered by RSBY are clearly defined at all levels of care.

5 Fostering India's integration into global value chains

India´s integration into global value chains (GVCs) has accelerated over the last two decades, with the foreign content of its exports more than doubling. As India seeks to cultivate a business environment and productivity strategies to foster integration into GVCs, it will be essential to continue reducing the fragmentation-related costs of production. Some of these costs, such as tariffs or costs related to customs inefficiencies, accrue at international borders. But many arise long before the border is reached, including administrative burdens and regulatory constraints, as well as inefficient infrastructure and services. In the longer term, science, technology and innovation policies can take on a leading role in maximising the benefits from GVC participation, since knowledge and intangible assets are increasingly important for sustaining comparative advantage in GVCs.

India is much more integrated in GVCs today than it was 20 years ago

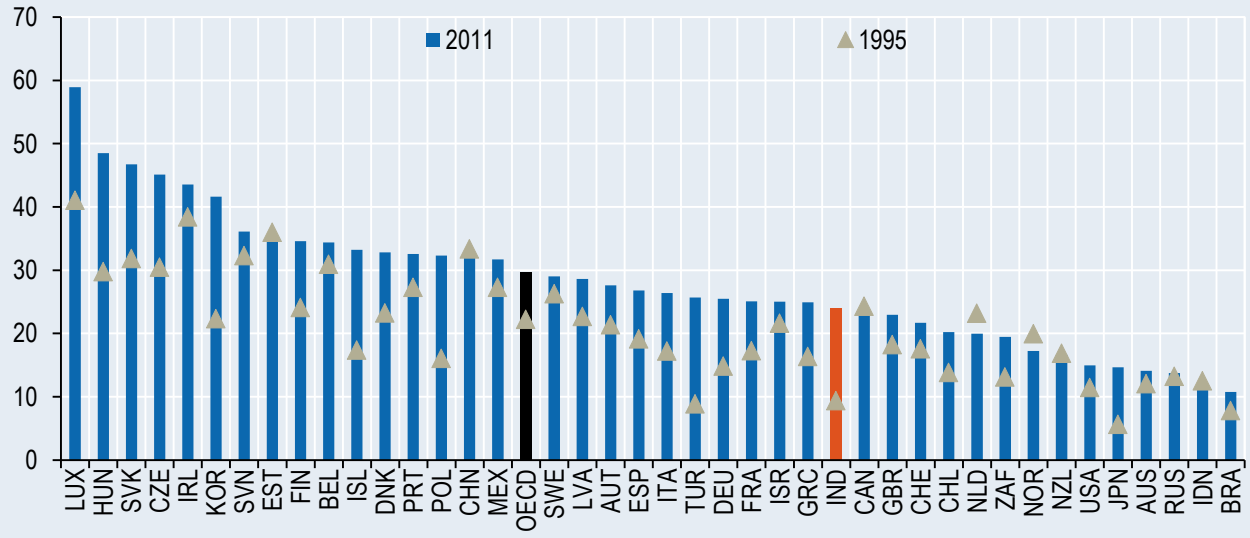
Geographical unbundling of tasks and business functions used to produce advanced products has become a leading business strategy of globally competitive firms, while opening new opportunities to smaller firms. Finer specialisation, greater economies of scale and more efficient application of technology along GVCs all result in greater productivity and higher wages.

India's firms and workers have done relatively well in terms of joining GVCs. The foreign content of India's exports — one of the key indicators of participation in GVCs capturing the extent of a country's foreign sourcing — has increased significantly in the last two decades, from under 10% in 1995 to 24% in 2011 (Figure 5.1). This is the second highest rate, after China, among the major emerging economies, and it reflects significant increases across nearly all industries. India's producers have also increased their reliance on global markets, particularly in manufacturing. Of the total domestic value added produced by the manufacturing sector in India, 27% reflected foreign final demand in 2011, higher than 2009 (23.8%) and 2008 (26.3%).

A particularly interesting feature of India's GVC participation is its specialisation in services. In 2011, services accounted for over 57% of total exports in India, which is above the OECD average (54%) and much higher than in other countries at a similar level of development. At the same time, the services content of manufacturing exports, at

FIGURE 5.1. **INDIA'S PARTICIPATION IN GVCS HAS INCREASED SINCE THE MID-1990S**

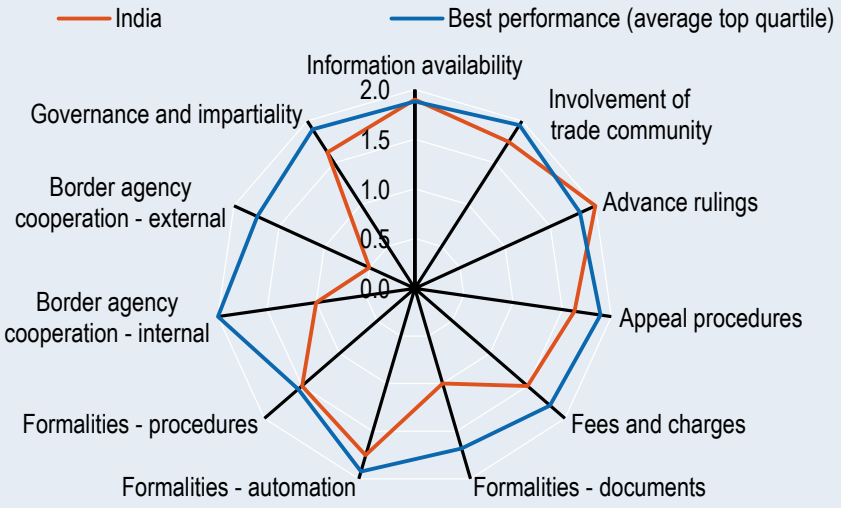
Foreign value-added content of gross exports, %



Source: OECD (2015), Trade in Value Added (TiVA) Database.

FIGURE 5.2. **INDIA PERFORMS RELATIVELY WELL IN TRADE FACILITATION WITH SCOPE FOR IMPROVEMENT**

OECD trade facilitation indicators, from 0 (most burdensome) to 2 (least burdensome)



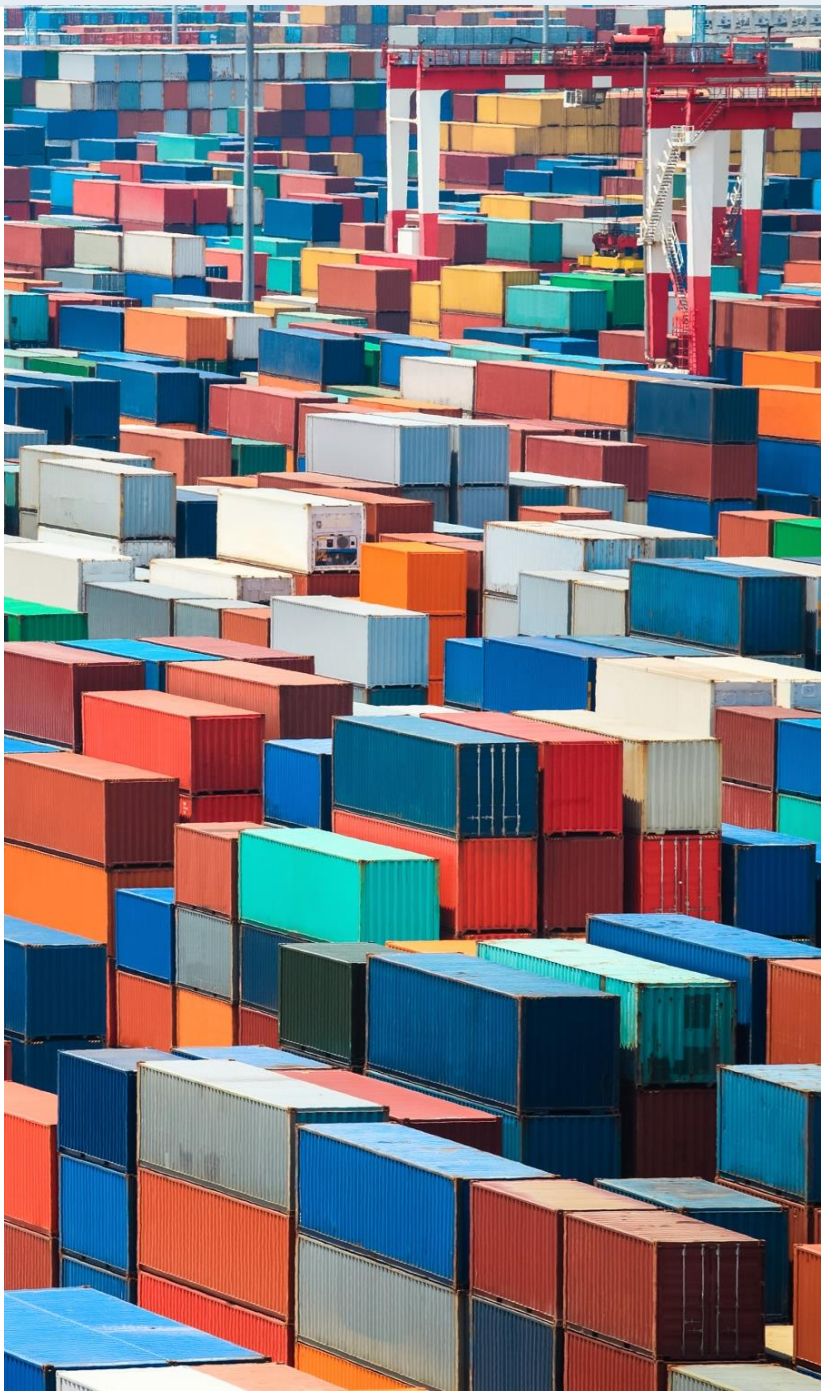
Source: OECD (2015), OECD Trade Facilitation Indicators.

just over one-third of the total value, was below the OECD average in 2011 (37%). This suggests that there may be untapped potential in the extent to which domestically produced services are being used as inputs in India's own manufacturing (Chapter 6).

India can build on recent efforts to further improve its integration into GVCs

While India's integration into GVCs in the recent past has been satisfactory overall, there is room to do even better. Recent reforms are trying to address the remaining gaps and aim to transform India into a global design and manufacturing hub. The Government of India aims to tackle the remaining statutory and administrative barriers to foreign direct investment and doing business (Chapter 7). Some of the reforms already implemented include a complete removal of foreign equity restrictions in railways infrastructure and introduction of online business licenses. This positive dynamic can provide a springboard for reforms addressing other costs of trade, investment and doing business. In the longer term, innovation policies can maximise the benefits from GVC participation, since knowledge and intangible assets are increasingly important for sustaining comparative advantages in GVCs.

Trade costs, which have cumulative effects in GVCs, continue to be high both for internal trade across Indian states and trade with firms and affiliates located in other countries in the region and beyond. For example, *ad valorem*



equivalents of trade costs between countries in South Asia are estimated at 92%, and for trade between South Asian countries and their partners in South-East Asia (SEA) at 104%. By comparison, the average cost of trade within South-East Asia is estimated at 69%. These comparisons illustrate the significant impediments India's producers face in forming regional GVC hubs and connecting to hubs in SEA and other regions. These costs reflect not only natural trade barriers related to geography, but also the remaining tariffs and, most importantly, various non-tariff barriers, low quality infrastructure and underdeveloped logistics systems.

Some of these trade costs can be tackled with appropriate national trade facilitation reforms (Box 5.1). To help governments improve their border procedures, reduce trade costs, boost trade flows and reap greater benefits from international trade, the OECD has developed a set of trade facilitation indicators that identify areas for action (Figure 5.2) and make it possible to assess the potential impact of reforms. Analysis shows that India's full implementation of the measures in the WTO Trade Facilitation Agreement could reduce trading costs by as much as 16%.

Key recommendations

- Continue efforts to lower costs of trade and doing business more generally, including remaining tariff and non-tariff barriers, as well as infrastructure and logistics bottlenecks.
- Pursue further trade facilitation reforms, focussing on simplifying and harmonising trade documents, streamlining procedures and strengthening domestic and cross-border agency co-operation.

Box 5.1. Improving border agency co-operation – the case of **ASEAN**

Redundant or sequential controls, requirements for duplicate documentation and insufficient co-ordination between concerned entities may exacerbate delays in global value chains due to the inefficiency of controls at border crossings and strain existing resources at border-post facilities. Border agency co-ordination is therefore critical in increasing operational efficiency and facilitating trade. Such aspects are closely mirrored by the OECD Trade Facilitation Indicators (TFIs) on internal and external border-agency co-operation.

India currently faces challenges in these two areas, as it lags behind worldwide best practice. Other experiences in the Asia region, notably in the Association of Southeast Asian Nations (ASEAN), could provide useful guidance for India's comprehensive approach to trade facilitation reform. The initial ASEAN Blueprint (2008-15) was adopted in 2007 as a master plan to guide the establishment of the ASEAN Economic Community (AEC) 2015. It set the basis for important commitments across the region in the area of trade facilitation, including customs integration, the development of an ASEAN Single Window and the harmonisation, simplification and modernisation of trade and customs processes . These commitments were further strengthened in the AEC Blueprint 2025, launched in November 2015.

OECD TFI data show that, while further efforts are warranted, the performance of ASEAN economies in the areas of both domestic and cross-border agency co-operation have substantially improved from 2012 to 2015. Domestic border agency co-operation reforms across Southeast Asia focused on improving co-ordinating processes and communications between agencies on the ground, including through regular meetings and training seminars. Cross-border agency co-operation has mainly focused on the alignment of working days and hours at border crossings, as well as on increasing efforts to align formalities and procedures.

6 Promoting greater trade in services

India's export-led growth in services since the early 2000s has been unprecedented. Its export-oriented services sector is dominated by information and communication technology (ICT), where India is among the world's leading exporters. While ICT is an important source of employment for skilled workers, it accounts for only 6% of total employment in India. Therefore, as India looks to develop its industrial base and attract export-oriented manufacturing investment to boost both employment and economic growth, it will benefit from further raising the competitiveness of its services sector.

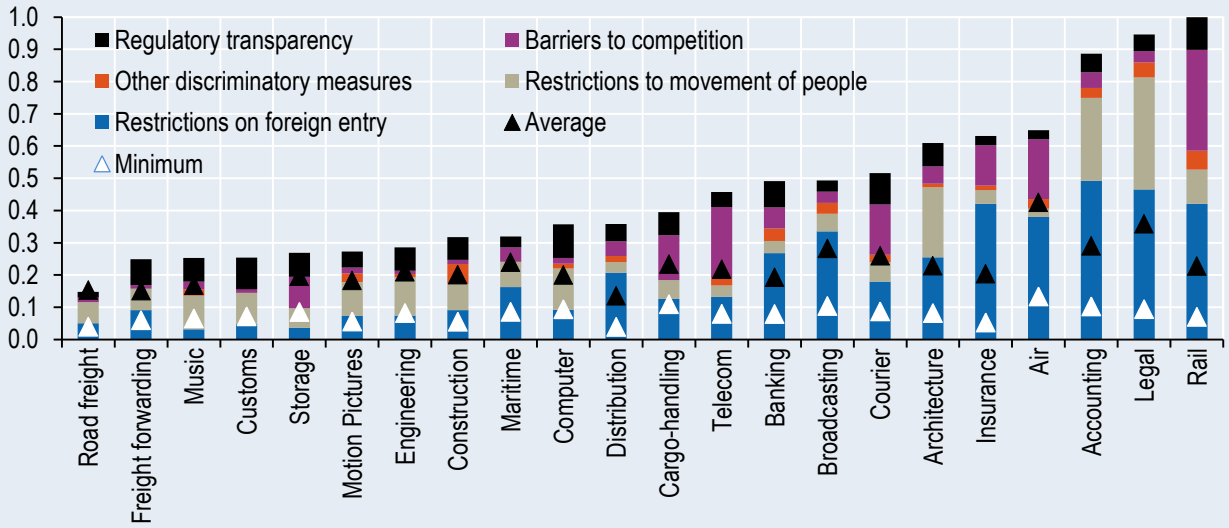
Competitive services markets are essential for meeting India's economic objectives

Manufacturing and services complement and support one another in the rapid growth and development process that India is experiencing. For example, services such as product development, supply chain management, production process support, and distribution and marketing all play key roles in enhancing the competitiveness of India's manufacturing firms. At the same time, a more developed local industrial base constitutes a source of local demand for Indian business services. However, India will need to focus on improving internal and external connectivity of transport, logistics and telecommunications, as well as access to modern distribution channels, to realise its potential.

The availability, cost and quality of services are strongly affected by the policy environment in which they operate. India's score on the OECD Services Trade Restrictiveness Indices (STRI), which measure the trade restrictiveness of the policy environment, is relatively high (i.e. more restrictive) (Figure 6.1). OECD estimates of the tax equivalent cost of regulation in India amount to about 15% for courier services, 16% for distribution, 18% for cargo handling, 20% for maritime transport, 22% for telecommunication and 30% for storage (Figure 6.2). These figures refer to the percentage added to the price that exporters pay for the service as a result of compliance with regulation. The need to absorb these costs makes it much harder for Indian manufacturers to compete internationally. Because the most price-sensitive markets are often in labour-intensive industries, the incidence of restrictions on trade, investment

FIGURE 6.1. **REDUCING RESTRICTIONS TO SERVICES TRADE CAN IMPROVE COMPETITIVENESS**

OECD Services Trade Restriction Index, from 0 (least restrictive) to 1 (most restrictive)



Note: The STRI indices are calculated from the STRI regulatory database, which records measures on a Most Favoured Nations basis. Preferential trade agreements are not taken into account.

Source: OECD (2015), Services Trade Restrictiveness Index Database.

Box 6.1. Implementing pro-competitive reforms in the telecommunication sector – the case of **Mexico**

The reform process of Mexico's telecommunications sector started in 2013 with the creation of a constitutional autonomous regulatory body, the *Instituto Federal de Telecomunicaciones* (IFT). This effort was followed by secondary legislation developed over the next two years to outline its mandate and establish the gradual introduction of a regulatory framework. In August 2014, the federal Telecommunications and Broadcasting Law entered into force, giving the IFT the mandate to implement a pro-competitive regulatory framework, including by imposing obligations for operators to interconnect, offer number portability, provide services in a non-discriminatory manner and adopt designs for open network architecture and network neutrality. The IFT also has the authority to identify suppliers with significant market power and to impose asymmetric regulation. Mexico took a further step to market openness by lifting foreign equity restrictions completely in 2014, although government approval is still required for a foreign majority stake in a Mexican telecommunications operator. While it is too early to assess the impact of these reforms, the OECD Services Trade Restrictiveness Index (STRI) for Mexico's telecom sector decreased by almost 50% from 2014 to 2015. OECD analysis suggests that openness and pro-competitive regulation in the medium-to-long run is related to more Internet connections at higher speed and at lower quality-adjusted prices.

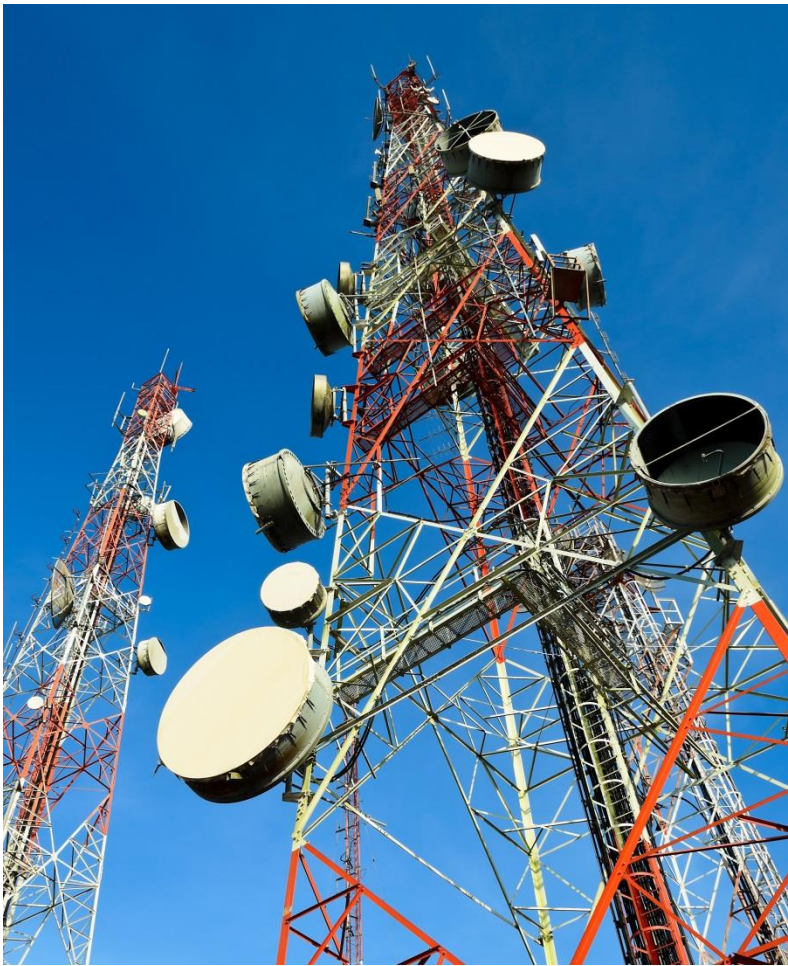
and competition in transport, courier and logistics falls disproportionally on labour-intensive manufacturing industries and stifles the employment objectives of the National Manufacturing Strategy. Market interventions, such as cargo reservation schemes, and reserving coastal shipping for Indian-flagged vessels and parts of the courier services market for India Post, are examples of regulations that contribute to these costs. In recognition of this, India has recently taken steps to open its coastal shipping to foreign participation.

Relaxing regulations would promote greater competition in the distribution sector

Modern retailers play a key role in connecting manufacturers of labour-intensive consumer goods to export markets. Moreover, they help local manufacturers tailor products to consumer tastes and comply with product standards. India still has foreign equity caps in the distribution sector, limitations on e-commerce (e-commerce is allowed only for business-to-business transactions and so-called marketplace e-commerce, where the trader does not hold inventory) and regulations that restrict retailers' choices of business model. These regulations may protect the livelihood of local family-run businesses, but come at the cost of foregoing a low-threshold route to the vast Indian market, beyond the local town or village. They also create barriers for local manufacturers, particularly SMEs, to tap into export markets.

Liberalising the telecom market can also be beneficial

India has a vibrant and competitive mobile telephone market with some of the lowest prices in the world. In contrast, however, India



ranks 162 out of 188 countries regarding the number of broadband connections per 100 inhabitants (World Bank, 2016a). While mobile services largely satisfy the need for consumers and small, locally-oriented businesses, fixed broadband is necessary for larger and export-oriented businesses and forms the backbone of the digital economy.

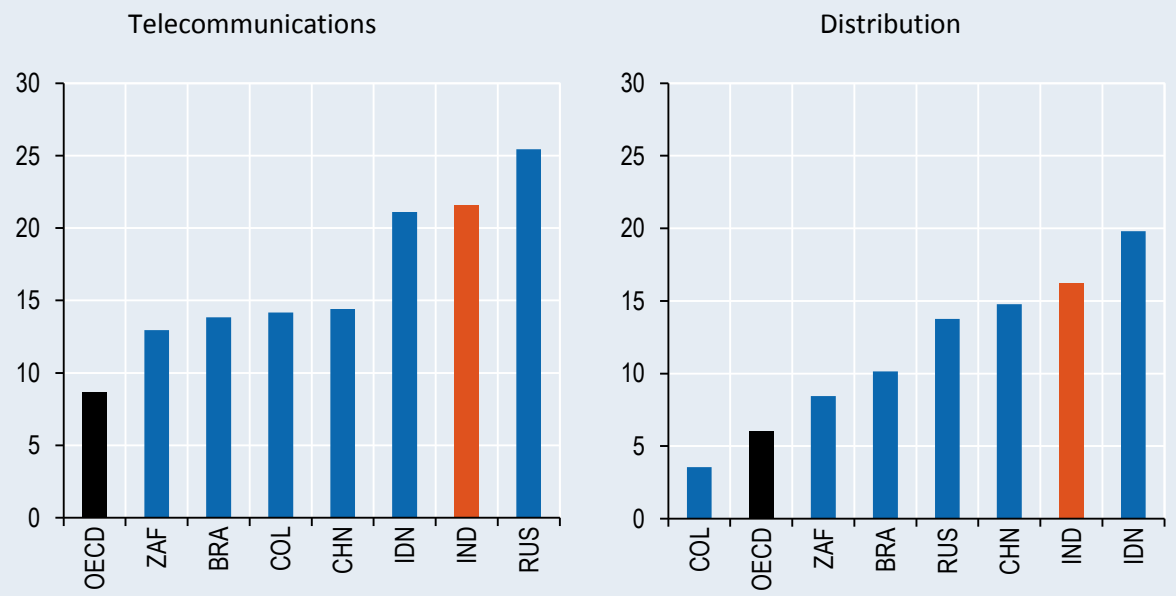
Access to broadband is an important driver of trade in both goods and services and can shift exports towards high-end products. A 10% increase in broadband connections is associated with about 4% higher manufacturing export volumes at 1% higher unit prices. Broadband connections are particularly important for exports to developed markets such as Germany, Korea and the United States, and for entering high-end market segments in the apparel, electrical machinery and pharmaceutical sectors. These are all markets where India has established pockets of excellence in well-connected industrial hubs. To scale up these activities and extend them to additional cities and regions, fundamental reforms are needed in the fixed broadband market.

While telecommunications have been subject to considerable trade and investment liberalisation over the past few years in India, including the lifting of foreign equity restrictions, significant barriers to competition remain in the fixed-line segment. OECD analysis finds a strong relationship between the score on the STRI for telecommunications and broadband density. For example, a reduction of five basis points in the STRI is associated with two additional broadband connections per hundred inhabitants. Reforms that could lower India's score on the STRI in telecommunications from its current position as the fifth highest to the sample average are associated with an increase of broadband penetration of about 50%. In the medium-to-long term, these reforms could have a large effect on India's export performance. First, export values of Internet-enabled business services as well as entertainment services could double. Second, manufacturing export value could increase by 30%, as a result of higher volumes and shifts into products that fetch higher export prices. The reform process in Mexico can provide some inspiration for what the Indian government could do (Box 6.1).

Reducing barriers in the professional services sectors can ease India's move up value chains

For India to repeat the success it has seen in ICT-enabled services exports in more advanced sectors like engineering and other professional services, further reforms to lift regulatory

FIGURE 6.2. **THE COST OF SERVICES TRADE RESTRICTIONS ARE HIGHER IN INDIA THAN IN MOST OTHER EMERGING MARKETS**
Tax equivalent of services trade restrictions, percentage added to the price that exporters pay for the service as a result of compliance with regulation, 2014



Source: Rouzet, D. and F. Spinelli (2016), "Services Trade Restrictiveness, Mark-Ups and Competition", OECD Trade Policy Papers, No. 194, OECD Publishing, Paris..

barriers are necessary. These barriers include licensing regimes that severely limit entry and reduce internal as well as external mobility of professionals. For example, India limits both national and international law to licensed Indian lawyers. A licence can only be obtained by Indian nationals or citizens, while most other countries impose restrictions only for domestic law. In the auditing profession, India requires that auditing firms must be fully owned by licensed auditors, and auditing corporations or commercial associations with other professionals are not permitted. Removing barriers in these and other professional services would allow India to seize on the opportunities that the digital economy offers. The country is well positioned to make progress in this area, following other countries in the region (Box 6.2).

Liberalising financial services can help spur the growth of India's formal economy

Financial services are essential for economic development and growth. In particular, they facilitate the transition from an economy based largely on informal economic activities to activities with access to legal enforcement of contracts and protection of workers' rights, intellectual property and other benefits – in exchange for paying taxes and being subject to the regulatory regime. India thus has much to gain from a liberalisation of its banking and insurance markets.

Currently, India is imposing a wide range of restrictions on both commercial banking and insurance, including foreign equity caps, commercial presence requirements and nationality requirements for board members (in the case of banking). While very few of the restrictions in place in India are unique to the country – indeed most of them are found in some shape or form in OECD countries as well – it is the accumulated number of trade-restricting regulations that make it difficult for foreign firms to enter and operate in India.

Key recommendations

- Extend the trade and investment liberalisation efforts observed in the mobile telephone market to fixed-line telecommunications, to stimulate entry and investment in broadband Internet and support trade in goods and services.
- Gradually liberalise professional services, including architecture, international legal services and auditing, and open them up to foreign competition to ease India's move up the value chains.
- Further open the banking and insurance sectors to international competition.

Box 6.2. Liberalising professional services – the case of **Malaysia**

In most countries, professional services are subject to licensing and regulation, which is often done by the business association serving as the regulatory body. The rationale for self-regulation is the notion that only the professionals possess the unique knowledge required to evaluate qualifications and uphold standards in that profession. Whether intentional or not, the criteria for entering these professions are often heavily biased against foreign professionals.

Since 2010, Malaysia has embarked on a unilateral liberalisation process of its professional services. Foreign law firms are now allowed to establish and provide international and home-country law, and they may associate with local lawyers, opening the possibility to offer a full range of services, particularly for business clients. OECD estimates suggest that modest reforms in legal services (which result in a reduction of the STRI index by 0.05) are associated with about 3.5% more exports and imports of legal services. Auditing, accounting, architecture and engineering have also been opened to 100% foreign ownership, and nationality or citizenship requirements for obtaining a licence have been relaxed. These professions are important parts of the knowledge economy and increasingly moving into the digital economy as well. Malaysia has ambitious plans to excel in the digital knowledge economy and sees internationalisation as an important part of this effort.

7 Boosting investment in India

India has made important progress in attracting private and foreign investment and opening up industries and services previously restricted for foreign investors, strengthening competition policy, and creating a more level playing field for non-state-owned market players. Continued efforts will create an environment even more conducive to investment and make it easier for Indian firms to also pursue their internationalisation strategies, including upgrading their participation in global value chains.

India has made impressive progress in attracting foreign investment

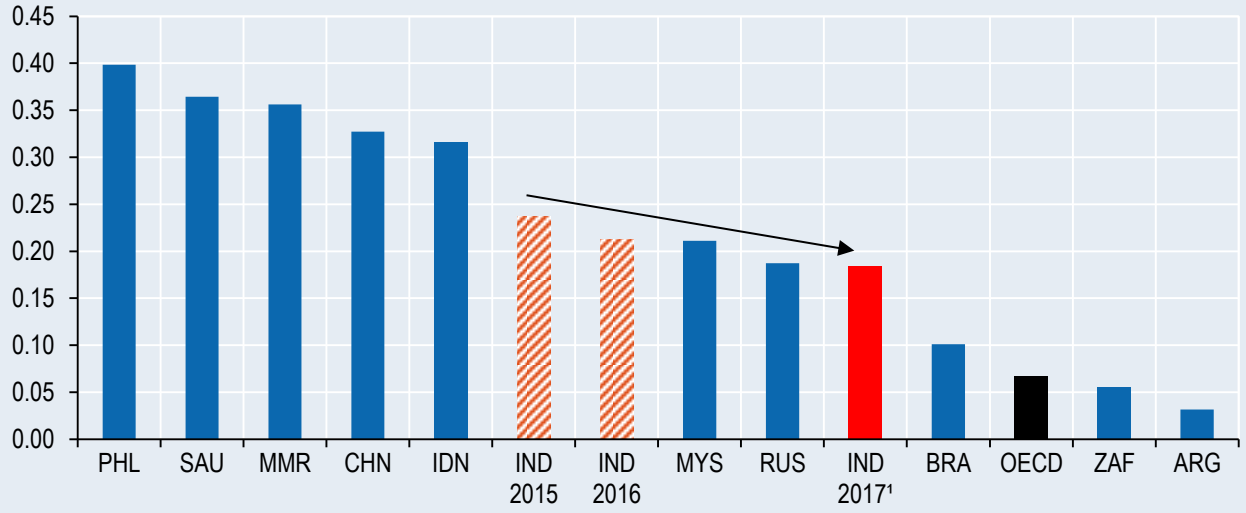
Between 2005 and 2015, foreign direct investment (FDI) inflows grew at an annual rate of 18%, compared to the world average of 6%. In the first three quarters of 2016, India received USD 31 billion of FDI flows, making it the ninth largest recipient worldwide. This reflects the government's recent efforts to further liberalise and simplify investment regulations in order to attract international investment. As part of its Make in India Initiative, aimed at promoting foreign investment in the manufacturing sector, the government has substantially deregulated FDI in several sectors over the past two years (Figure 7.1). These reforms have made India one of the top FDI reformers.

Continuing the reform agenda will further boost foreign investment flows

Inflows to India have nevertheless been volatile. Factors such as retroactive taxation, excessive permit requirements, strict labour market regulations (Chapter 2), slow land acquisition and inadequate infrastructure (Chapter 9) have hindered large-scale investment and contributed to periods of falling FDI inflows. Moreover, despite recent reforms, India has room to further ease FDI restrictions. For instance, in certain sectors, India still either prohibits foreign investment above a certain threshold or has approval mechanisms that focus specifically on foreign investors. India sometimes also imposes additional conditions, such as minimum capitalisation and local content requirements, (e.g. in the solar photovoltaic sector) (OECD, 2015b).

FIGURE 7.1. **INDIA HAS MADE IMPRESSIVE PROGRESS IN LIFTING RESTRICTIONS ON FDI**

OECD FDI Regulatory Restrictiveness Index, selected countries, from 0 (open) to 1 (closed)



Source: OECD (2016a), OECD FDI Regulatory Restrictiveness Index, http://www.oecd.org/investment/fdiindex.htm. Note: (¹) Simulation of the 2017 FDI Index if the dismantling of the Foreign Investment Promotion Board is implemented as announced by the Finance Minister during his budget speech in early late January/February 2017. Everything else kept as of End-2016.

Box 7.1. Investment Climate Reforms – the case of the **Philippines**

A good investment climate is defined as one where all firms – foreign and domestic, large and small – can prosper and where investment contributes not only to productivity, but also to sustainability and inclusiveness. OECD country Investment Policy Reviews use the OECD Policy Framework for Investment (PFI) to analyse and propose reforms for policy makers in 12 policy areas that affect the business climate for investors, from small and medium-sized firms to multinational enterprises. In 2015-16, the OECD undertook an Investment Policy Review of the Philippines using the PFI. The review showcased past reforms (including the recent passage of the Competition Act) and their effect on the investment climate and recent growth performance. At the same time, the Philippines continues to lag behind other countries in the region in attracting FDI and has one of the highest levels of statutory restrictions on FDI worldwide. The review concluded that these restrictions and the oligopolistic structure of many sectors have impeded the economy from achieving its full potential and explain in part persistent underinvestment. Together with the new Competition Act, further FDI liberalisation could provide more of an impulse to new market entry and greater competition than either could achieve alone.

India may benefit from greater efforts to improve its FDI regime in this respect in order to further boost FDI flows, industrial development and domestic job creation across segments of GVCs. In the solar photovoltaic sector for instance, several Indian manufacturers are running plants at partial capacity despite the local content requirement (under the viability gap funding) and other incentives in place for domestic photovoltaic manufacturing (e.g. a subsidy in special economic zones and exemptions to excise and custom duties). Better vertical integration of Indian firms and the creation of solar clusters and integrated infrastructure to support economies of scale (OECD, 2015b) could increase capacity and productivity in this sector. The OECD Policy Framework for Investment, could be a particularly useful instrument for India to identify the optimal enabling environment for investment (Box 7.1).

Making the general business environment more conducive to competition can help attract more FDI

Another central determinant of India's capacity to attract FDI is the extent to which the regulations and laws governing economic activity are conducive to competition. One way India could ensure its regulations are not creating barriers to competition and FDI is by conducting competition assessments, notably by using the OECD's Competition Assessment Toolkit (Box 7.2). The Competition Commission of India has started looking into regulation in a number of sectors of the Indian economy on a trial basis while it develops a methodology that is adapted to the Indian context, based on this toolkit.

In addition, several sectors of the Indian economy remain difficult to access in practice for investors, due to the prominence of state-owned enterprises (SOEs), despite an active policy of market liberalisation and partial divestment by the government over the past decades. By some measures, SOEs account for approximately 16% of India's GDP. Within the central government's total portfolio of 272 SOEs, those operating in the electricity and gas sector, in other utilities (including postal services) and in financial sectors account for the largest share of SOEs by value. SOEs in the manufacturing and primary sectors follow close behind.

Given the continuing and significant presence of SOEs in many sectors of the economy that have been opened up to market forces, it is important to ensure that they are, to the greatest possible extent, subject to the same competition disciplines as private enterprises. To this end, the Competition Act needs to be consistently applied to SOEs, providing neither special exemptions nor reverse discrimination. However, ensuring that SOEs are subject to the same disciplines will have to be balanced with

the inherent role of SOEs as providers of public and social services. This role can be a source of competitive disadvantage, thus rendering the work of the Competition Commission and the government more challenging. The Competition Commission is closely engaged with the OECD to build capacity through multi-year co-operation on technical assistance on matters such as investigating cartels, leniency programmes, competition assessment and fighting bid-rigging in public procurement.

The Government of India is moving in the direction of adhering to high standards of corporate governance, along the lines recommended by the revised OECD Guidelines on Corporate Governance of State-Owned Enterprises (OECD, 2015c). This can help to level the playing field while signalling openness to investment. This includes: clearly separating the state's ownership functions from other state functions, particularly with regard to market regulation; removing sector-specific regulations that might offer SOEs competitive advantages; and ensuring high standards of transparency and disclosure, especially where SOEs combine economic activities with public policy objectives. Over the past decade, the government has listed shares of an increasing number of SOEs on the national stock exchanges, among others, to subject them to heightened standards of corporate governance and disclosure. As of end 2015, 70 SOEs were at least partially listed on a national stock exchange.

Responsible investment can promote more sustainable development

An enabling environment for business to act responsibly and meet its duty to protect the public interest from potential negative impacts of business activities will help to retain and attract high quality and responsible investors, ensure broader value creation and promote more sustainable development.

India mandates corporate social responsibility in the Companies Act by requiring companies to spend 2% of their net profits on projects related to development. But broader measures to promote responsible business conduct would be beneficial for Indian industries operating in GVCs, in terms of export opportunities and market access, particularly in consumer markets. For instance, the Government of India can continue to enable responsible business conduct by aligning policies with international standards. The

Box 7.2. Lowering regulatory barriers to competition – the case of **Greece**

Competition assessment is a powerful tool to help identify and remove regulations that restrict competition in product markets, service and network sectors, as well as rules governing public tenders. In 2013, the OECD carried out a project in Greece in collaboration with the Hellenic Competition Commission to identify and assess anti-competitive regulation and legislation in four sectors of the Greek economy by using the OECD's Competition Assessment Toolkit. These sectors had a combined turnover of EUR 44 billion in 2011, equivalent to 21% of GDP and representing 26% of total employment in Greece. The project identified 555 regulatory restrictions and made 329 recommendations on specific legal provisions that should be amended or repealed in order to foster a more competitive environment for Greek and foreign businesses. Overall, the lifting of the restrictions identified was estimated to yield economic benefits of EUR 5.2 billion (2.5% of GDP). A second project was carried out in 2014, focusing on a different set of sectors, and a third is currently underway.

OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas could be integrated into India's new national gold policy, to strengthen market access and competitiveness of Indian bullion and jewellery firms. The OECD Due Diligence Guidance on Responsible Supply Chains in the Garment and Footwear Sector could also advantageously be implemented to promote better working conditions, among other things.

India could also demonstrate support for best practices in responsible business conduct. For example, the Gem & Jewellery Export Promotion Council of India works with the OECD to promote responsible gold supply chains and raise awareness among Indian bullion traders and jewellers of OECD standards for responsible gold imports. Such promotion on supply chain responsibility could be extended to other sectors. Working with stakeholders in the business community, worker organisations, civil society and the general public, across internal government structures as well as other governments creates synergies that help to promote responsible business conduct. For example, India may participate in the OECD's multi-stakeholder platform to promote responsible gold supply chains, which fosters peer-learning, constructive dialogue and mutual understanding of due diligence practices and associated challenges.

Key recommendations

- Foster investment by promoting responsible business conduct and further easing FDI restrictions.
- Ensure competitive neutrality with respect to SOEs by implementing the relevant provisions of the Indian Competition Act.
- Identify and appropriately compensate non-commercial obligations of SOEs.

8 Addressing tax avoidance and evasion

International tax avoidance and evasion are a key challenge for India, as for many other countries around the world, and India has made tackling these issues a priority. It has played an important role in the G20/OECD Base Erosion and Profit Shifting (BEPS) Project and the Global Forum on Transparency and Exchange of Information for Tax Purposes, helping to set global standards and ensure their effective implementation. India is now collaborating on an equal footing with almost 100 other members in the newly established G20/OECD Inclusive Framework on BEPS, monitoring the implementation of the BEPS package and finalising remaining BEPS issues. At the same time, India has committed to the latest international tax transparency standards, relating to the automatic exchange of financial account information, and is expected to begin the first exchanges in September 2017.

Treaty shopping is a major challenge for India

Treaty shopping – tax planning by multinational enterprises (MNEs) to benefit from more favourable tax treaties available in other countries and jurisdictions – is relevant for India. Aggressive tax planning arrangements by MNEs have exploited benefits granted by India's tax treaty network in inappropriate circumstances, potentially resulting in significant tax revenue losses. India and other G20 countries joined forces with OECD members in 2013 to reform the international tax rules to prevent BEPS and established 15 respective measures, including a measure on treaty shopping (Box 8.1). Countries, including India, are currently revising their treaty networks to implement the BEPS minimum standard on treaty shopping. The recent conclusion of a protocol to the bilateral tax treaty between India and Mauritius is a good example. However, a treaty network is no stronger than its weakest link, and revising treaties with all countries on a bilateral basis requires a significant amount of time. Taking this into account, India, having actively participated in the negotiation of the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS, can benefit from it to update all of its bilateral treaties.

Country-by-country reporting can help India assess MNE tax risks

Like other countries, India has made addressing corporate tax avoidance by MNEs a priority. Like many other countries, India is relatively dependent on corporate income tax from MNEs. Getting timely and comprehensive insight into MNEs' structures and tax positions is crucial to assessing their tax risks. The country-by-country reporting standard (CBCR) of the BEPS package can aid India's tax authorities by providing a comprehensive and

Box 8.1. Combating BEPS – the case of the **G20**

The comprehensive BEPS package developed jointly by OECD and G20 countries on an equal footing was adopted in November 2015. The package of 15 measures includes four minimum standards: a revitalised peer review process to address harmful tax practices; model provisions to prevent treaty abuse; standardised country-by-country reporting; and an agreement to secure progress on dispute resolution. It also includes the revision of existing standards on tax treaties and transfer pricing, common approaches to facilitate the convergence of national practices and guidance drawing on best practices.

Upon the adoption of the BEPS package, OECD and G20 countries agreed to continue to work together in the BEPS Project to ensure swift and consistent implementation around the globe. They and the other members of the Inclusive Framework on BEPS will monitor countries' compliance with the four minimum standards through peer reviews to be undertaken by technical working groups, with a view to establishing a level playing field among all countries and jurisdictions.

global picture of where the profits, tax and economic activities of an MNE are reported. It will enable the tax authorities to make effective risk assessments and channel their resources more efficiently to protect the Indian tax base against erosion and profit shifting. The effectiveness of CBCR, however, depends on the use of the information at appropriate levels of the tax administration. Also, confidentiality safeguards must be in place and adhered to. India is currently setting up the necessary legal framework and administrative practices. It is important that all relevant parts of the Indian administration take a consistent approach in making effective use of the information, in line with the CBCR standard.

Addressing tax evasion is a top priority for India

Tackling tax evasion, in both direct and indirect tax matters, is a top priority for countries around the world, including India. At the domestic level, India has recently taken a number of initiatives to curb "black money", including a voluntary disclosure programme, a demonetisation of high denomination currency notes as well as amendments to the Benami Transactions Act 1988, concerning property being held in the name of a person other than the true (beneficial) owner.

At the international level, India has been working as a key member of the OECD-hosted Global Forum on Transparency and Exchange of Information for Tax Purposes and at the G20 level to ensure that a global level playing field is established, based on the OECD's tax transparency standards on exchange of information on request and the new standard for the automatic exchange of information (AEOI) on financial accounts in tax matters.

India is now moving quickly to implement the AEOI standard, having committed as an Early Adopter to begin first exchanges of this information in September 2017. Successful implementation will ensure that India can automatically receive information about taxpayers' offshore accounts, as well as exchange the same information with other partner governments. In anticipation of the implementation of AEOI, countries have collected more than EUR 66 billion from voluntary disclosure and other similar initiatives. The Common Transmission System, one of the many tools being developed by the OECD to support countries, will provide the IT infrastructure to ensure efficient and confidential exchanges of tax information (including financial account information) between tax authorities.

Key recommendations

- Continue active participation in the G20/OECD BEPS Project to ensure timely implementation of the four BEPS minimum standards, as well as other BEPS measures, taking into account the particular circumstances of India.
- Consider adhering to the new Multilateral Convention to Implement Tax Treaty Related Measures to Prevent BEPS, at the signing to be held at the OECD in June 2017.
- Effectively use information that will become available under the transparency measures of the BEPS package, in particular CBCR.
- Ensure that AEOI implementation is on track, to benefit from access to information about offshore financial accounts held by taxpayers.

9 Making infrastructure investments more efficient and effective

The Government of India has made infrastructure upgrades a top policy priority, recognising that inadequate infrastructure slows economic activity, hinders connectivity, increases transport costs and limits access to basic education and health services. Despite considerable investments over the past 20 years, there is still work to be done to meet the demands of India's growing population. Improving access to finance, speeding up project approval and better governance could lead to substantial savings and enhance the efficiency of infrastructure projects, especially in the energy and transport sectors.

India is undertaking huge investments to upgrade and expand its infrastructure

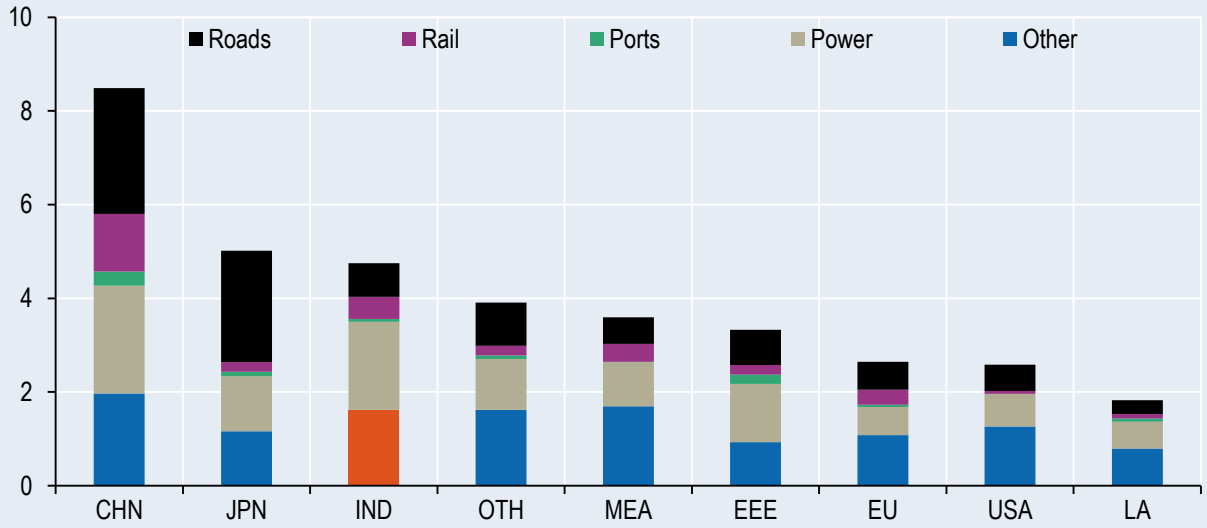
The Government of India has recognised the importance of infrastructure investment. In the last 20 years, India has invested substantially in infrastructure (Figure 9.1), and the quality of its infrastructure is now perceived as better than in many other BRIICS countries (WEF, 2016). In its 12th Five Year Plan (2012-17), necessary investment for infrastructure was estimated at USD 1 trillion.

The government focuses in particular on transport and electricity infrastructure. India's transport relies heavily on roads, which carry 60% of freight and 85% of passenger traffic, even though only half of the roads are paved (Gonzalez and Perez, 2012), while railways and waterways are underutilised. There is thus a need to step up investment, including private investment, in these sectors, particularly in railways.

Unreliable power supply has also been identified as an important economic hindrance for businesses (OECD, 2014a). While energy demand has increased rapidly, energy supply has been hampered by transmission and

FIGURE 9.1. **HIGH INFRASTRUCTURE INVESTMENT REQUIRES GOOD GOVERNANCE TO DELIVER VALUE FOR MONEY**

Amount spent on infrastructure, 1999-2011, % of GDP



Note: MEA = Middle East and Africa; EEE = Eastern Europe and Eurasia; EU = European Union; LA = Latin America; OTH = other industrialised countries (Australia, Canada, Croatia, Iceland, Lichtenstein, New Zealand, Norway, Singapore, South Korea, Switzerland, Chinese Taipei, and the United Arab Emirates). Data for the MEA exclude unusually high port and rail data for Nigeria. The category "other" includes airports, water and telecommunication infrastructure.

Source: McKinsey & Company (2013), Infrastructure productivity: How to save $1 trillion a year, McKinsey Global Institute and McKinsey Infrastructure Practice, McKinsey Global Institute.

Box. 9.1. Ensuring affordability and value for money in PPPs – the case of **Germany**

In Germany, public-private partnership (PPP) procurement is used if *ex ante* assessments reveal that it yields more value for money than traditional infrastructure investment options (OECD, 2015d). Whether such a process is initiated for a specific project will be based on whether it is suitable for PPP, especially if the project resembles other projects where PPPs were used with success. The guidelines for economic feasibility analyses for public-private partnership projects (Ministry of Finance of North Rhine-Westphalia, 2007) set out multi-stage standards to ensure compliance with the principle of efficiency in the public administration and apply to all sectors. The first stage includes requirement specification, financing and efficiency components of the project and a PPP-aptitude test. The second stage consists of establishing a reference project for the Public Sector Comparator, a preliminary economic feasibility examination and establishing the expenditure limit for the budget allocation. At the end of this stage, a decision must be taken on whether to issue a PPP tender or revert to traditional infrastructure procurement. The third stage is a final economic feasibility analysis, which gives the final ruling on awarding a contract and contracting. Project controlling constitutes the final stage.

distribution losses, failure to increase coal extraction and pricing policies resulting in underinvestment. Large power supply deficits experienced throughout the country are a key factor in electricity outages. This imposes high costs on the economy through the need for backup generators and investment in self-generation facilities. Moreover, the rise in India's energy consumption has been accompanied by a rise in its greenhouse gas (GHG) emissions. To curb the GHG emissions from this additional energy use, India's National Action Plan on Climate Change emphasises a wider use of renewable energy. To efficiently boost the necessary investments for the transition to a more low-carbon economy, Indian policy makers need to address a range of investment barriers that collectively favour investment in fossil fuel-intensive activities over investment in low-carbon and climate-resilient infrastructure (OECD, 2015e). The *Jawaharal Nehru National Solar Mission* sets ambitious targets for solar-power deployment, in addition to India's 2015 Intended Nationally Determined Contribution, which aim to at deploy wind energy. Outstanding investment barriers for renewable-power projects in India include notably high costs of financing for capital-intensive projects, electricity design issues across Indian states, and increased costs of inputs due to local content requirements (Chapter 7).

The country is successfully relying on public-private partnerships to finance infrastructure investment

Due to the limited financial resources to meet the nation's needs for infrastructure, India is aiming to attract half of the targeted investment through the private sector. This is the highest share of infrastructure investment co-financed with the private sector among the low-income and middle-income countries (PGCI, 2011). A PPP regime has already been very successfully put into operation in the road sector. There have also been efforts in ports, airports, railways and inland waterways to increase the share of private investments to varying degrees. The Indian PPP program is one of the largest in the world, with a stock of 838 projects and total private investment of more than USD 230 billion (as of December 2015). Consequently, India is one of the most mature PPP markets in the world.

Central co-ordination of PPPs is provided by the PPP Cell within the Department of Economic Affairs under the Ministry of Finance. The government has strengthened its PPP policy framework in recent years with the issuance of a series of guidance papers (formulation, appraisal and approval), standardised bidding documents, a PPP toolkit and improved bidder-selection procedures. In terms of PPP readiness, India is ranked as "developed" in the 2014 Economist Intelligence Unit study (EIU, 2014)

along with Japan, Korea and the Philippines. The country also performs relatively well in the 2017 World Bank benchmarking of PPP capability (World Bank, 2016b), with scores of 73 out of 100 on preparation and contract management and 80 out of 100 on procurement.

Good governance of infrastructure investment is key to getting value for money

However, there are many challenges, including the need to address political distortion in the selection of infrastructure projects, improve risk allocation and bid procedures, and reduce cost overruns and project delays related to slow land-acquisition processes. Infrastructure investment would also benefit from further improvements to the investment climate (Chapter 7 and EIU, 2014).

India is making efforts to address these issues. In 2012, land acquisition was the main factor in about 70% of all the delayed infrastructure projects, especially in the case of PPPs (3i Network and IDFC, 2009; Ernst &Young and FICCI, 2012). The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Law, adopted in September 2013, raised the compensation paid to those displaced or otherwise affected by land acquisition. It should help reduce disputes and litigation. In addition, administrative licensing processes for infrastructure projects were improved and e-governance was strengthened. India is also working extensively with other countries to build infrastructure funds.

Low chances of cost recovery due to very low prices for key infrastructure services are another key impediment to investment. For example, even after railway fares were linked to fuel costs in 2014, the revenues of Indian Rail remain low, constraining investment in new equipment and maintenance (OECD, 2014a). It is the responsibility of the government to ensure that public infrastructure is affordable both for the public budget and for users. This requires a stronger link between the project development phase and India's fiscal framework and clearer criteria for analysing affordability and value for money (Box 9.1).

Box 9.2. Cutting energy subsidies – the case of **Indonesia**

On 1 January 2015, the newly-elected President of Indonesia followed through on his electoral promise to cut decades-long subsidies for energy products. This was partly thanks to low oil prices and the government's ability to exploit a favourable conjuncture in both political and business cycles. Two approaches have been used so far to address demand for subsidised fuels: periodically adjusting prices to better align domestic and international energy prices and limiting access to subsidised products. These have often been accompanied by compensatory measures. The reform has helped reduce Indonesia's reliance on fossil fuels, while increasing funding available for social spending and infrastructure projects. It has drastically reduced spending for fuel subsidies (about USD 14 billion), from 14% of total public expenditures before the 2014 election to about 3% in 2015. Remaining energy subsidies (including for electricity) still represented about 7% of public spending in 2015, but are estimated to have accounted for just 1% in 2016. This sharp fall reflects the government's aim to significantly lower the number of consumers receiving subsidies, while concentrating the remaining subsidies on low-income households.

Indeed, one dominant resistance to repricing energy has been the fear that lowering incomes could be disruptive, particularly for the poorest segments of the population. Although these subsidies often do not reach the poorest households, which can neither afford electricity nor consume products such as gasoline, a sudden increase in energy prices due to the removal of subsidies could still impact them significantly. To pave the way for the phase-out of fuel subsidies in 2015, the government gradually shifted from providing time-bound compensation (linked to the timing of energy price increases) to establishing transfer programmes that better targeted poorer households. Introduction of a national-level social security system began gradually in late 2014, at the same time as the Productive Family Programme was launched. Although these programmes were not funded by reallocation of the subsidy reductions, part of the motivation for the timing of their introduction was to provide compensation for expected price increases.

Some countries have successfully managed the transition from a heavily subsidised system to one in which users pay the costs, including Indonesia among others (Box 9.2).

The OECD Framework of Infrastructure Governance stresses the importance of strategic planning for successful infrastructure governance. Recent OECD work in the Philippines has highlighted how political support, heavy investment in the use of top-level transaction advisors and a strong PPP Unit under the central planning ministry have managed to roll out a strong pipeline of PPP projects.

Overcoming the traditional policy fragmentation in infrastructure development can help to enhance the economic impact of infrastructure connectivity projects and facilitate the mobilisation of financing for infrastructure, including from the private sector. The "minimum government, maximum governance" approach put forward by the Government of India and the consolidation of several ministries into large ones (e.g. for energy and for transport) may be a first step to promote faster, more integrated and more efficient decision-making.

However, co-ordination across sectors and levels of government is lacking. There are overlapping powers between the central government and the states in many sectors. Laws and regulations are applied ad hoc without a regulatory body to oversee the development of new laws and regulations or their implementation (PCGI, 2013).

Furthermore, growing cities correspond less and less to their administrative boundaries, and metropolitan-scale co-ordination of land use and transport have become increasingly important (OECD, 2014b). The system of vertical co-ordination should be reviewed and updated to ensure coherence and incentivise subnational authorities.

Key recommendations

- Set up a stronger central government process for strategic planning, prioritisation and integration of public and private finance-delivery modalities.
- Establish a stronger system and clearer criteria for assessing affordability and value for money.
- Continue simplifying the bureaucratic process of securing regulatory approvals and environmental clearances.
- Empower local governments to take responsibility for infrastructure projects, and ensure that higher levels of government provide incentives for cross-jurisdictional co-ordination.
- Progressively adjust the pricing of infrastructure services to ensure their financial sustainability.

10 Reducing water risks

India has a large population and faces risks of water shortage, flooding and inadequate access to water supply and sanitation. Its agricultural sector faces increasingly high water risks associated with groundwater depletion and quality deterioration. The government is determined to tackle these issues through initiatives to reduce groundwater depletion and increase the provision of clean water, focusing on the Ganges river basin. Policy efforts could redirect support away from wasteful and unsustainable water usage and strengthen groundwater management in the northwest and other regions where risks are most acute. Well-designed water allocation regimes can help ensure competition among water users where the resource is scarce.

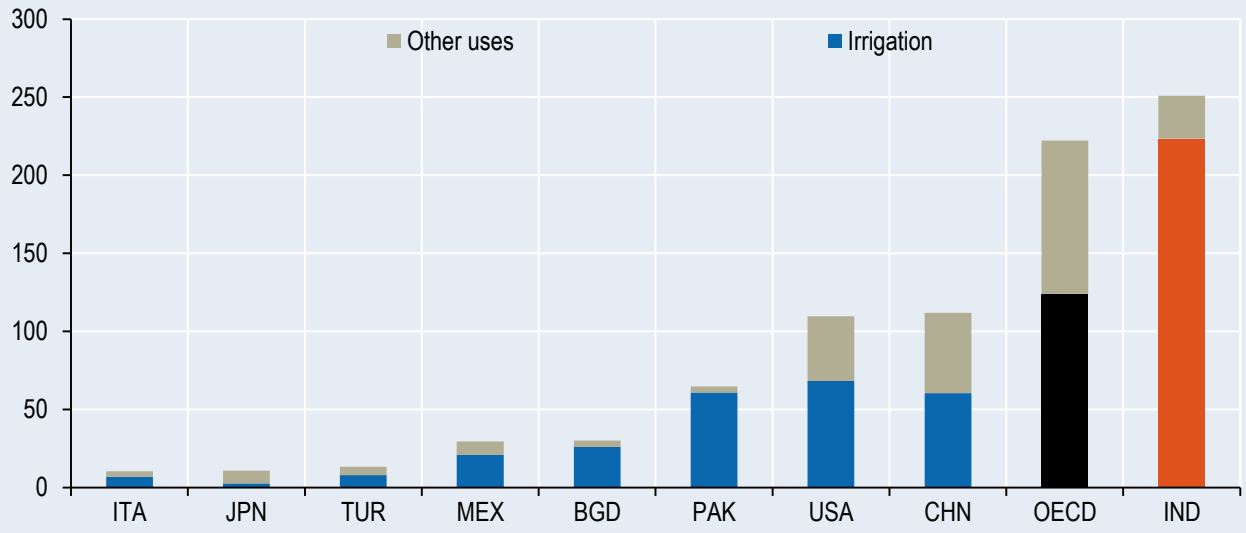
Improving water security can boost India's economic growth and agricultural productivity

Investment in water security is a development issue that cannot be separated from local and national economic planning. The variability of water run-offs (a measure of the seasonal availability of rainwater for agriculture and other uses) has repercussions on India's economic performance, making well-targeted investment in water security a vital concern. In global terms, India's economic burden due to water insecurity is the largest next to China. In parts of India, 50% of annual precipitation falls in 15 days, and 90% of river flows are concentrated in 4 months of the year. Expected annual damage due to flood risks is estimated to be above USD 10 billion. About 330 million people are affected by droughts in India, and droughts weigh heavily on the agricultural and electricity sectors, which employ 60% of the total population. There is ample evidence that water-related risks negatively affect growth, while investment in water security can drive sustainable growth (OECD, 2015f).

Fluctuating monsoons, depleting aquifers, melting glaciers, deteriorating water quality, increased temperature and rising water demands are expected to increase risks, in particular for India's agriculture sector. Recent OECD analysis ranked India as the country with the world's third-highest future water risks for agriculture production, behind China and the

FIGURE 10.1. **INDIA HAS AN INTENSEUSE OFGROUNDWATER FOR AGRICULTURAL IRRIGATION**

Estimated groundwater use for agricultural irrigation, selected countries, 2010, cubic kilometres per year



Sources: OECD (2015f), Drying wells, rising stakes: Towards Sustainable Agricultural Groundwater Use, OECD Studies on Water, OECD Publishing, Paris; Margat, J. and J. Van der Gun (2013), Groundwater around the World: A Geographic Synopsis, CRC Press, Taylor and Francis, London.

Box 10.1. Groundwater allocation – the case of **Gujarat**

The state of Gujarat, located on the western coast of India, has historically faced considerable challenges in terms of groundwater allocation. More than 77% of water for irrigation in Gujarat comes from groundwater resources, and the pressure on groundwater has increased over the last decades, due to increasing scarcity of surface water resources. Since 1988, the Gujarat Electricity Board (GEB) has been charging farmers flat electricity tariffs linked to the horsepower of pumps. As a result, the marginal cost of electricity consumption fell to zero, and owners of tube wells were not charged for the groundwater resource itself. This provided them with a strong incentive to sell groundwater to neighbours who did not possess their own wells. A dense informal groundwater market developed, with prices being pushed down by competition among the sellers. As an increased number of farmers gained access to larger quantities of groundwater, agricultural productivity expanded.

In response, GEB launched *Jyotigram* (The Light of the Village) in 2003 as a pilot programme and then rolled it out nation-wide in 2006. The programme entailed separating the power supply for agricultural use from that for commercial and residential use, which required an investment of about USD 290 million. Separating the electricity supply for two distinct user groups created enhanced predictability in terms of quantity and quality of electricity access for both farmers and non-farmers, resulting in a significant decline in the power consumed by the agricultural sector and the cost of related subsidies. For groundwater, *Jyotigram* resulted in a decreased and more predictable volume of consumption and slowed the rate of depletion. Considered a successful example of the co-management of water and electricity, the programme has been replicated in at least seven other Indian states. The main drawback of the *Jyotigram* programme is its implications for farmers who do not possess their own tube wells. They now face more restricted groundwater supply and high prices in informal markets. Additional policy measures are needed to improve their access to groundwater.

United States (OECD, forthcoming). India's groundwater use, largely driven by agriculture irrigation (Figure 10.1), is particularly worrisome in certain key agricultural regions.

Today, groundwater accounts for approximately 60% of agriculture irrigation in India and is subject to depletion and pollution in many regions. Close to 60% of Indian states face challenges in terms of groundwater quality and quantity. The northwest region, which is predominantly cereal-producing, is particularly exposed to groundwater-related agriculture risks, facing greater threats than the more agriculturally-diverse southwest region. In Punjab, there is a 38% deficit of water supply compared to demand, creating extensive depletion of available resources. Nearby Haryana and Gujarat face similar challenges (Box 10.1).

India's efforts to reduce the intensity of groundwater extraction are welcome and need to continue

Because agriculture and water are state-level responsibilities in India, it is necessary for the federal government to work with the states to

reduce water risks. The federal government has drafted a model groundwater bill (Bill for the Conservation, Protection and Regulation of Groundwater), which, among other things, proposes ways in which communities can reduce their groundwater usage. Pilot programmes that decouple agriculture subsidies from inputs, such as irrigation, also appear promising.

However, challenges remain. The emergence of Punjab and Haryana as India's bread basket was in large part the result of government policies to facilitate improved irrigation and power supply. Unfortunately, these same policies now often encourage the overuse of water. Since 1960, India has implemented a highly water-intensive rotation of wheat and rice planting to deliver two harvests each year, which now covers 80% of cropped land. This change has contributed to the increased ratio of crops planted to cropped land area in Punjab (from 126% in 1960 to 190% today). Although wheat and rice both require intensive use of water, Indian farmers are encouraged to plant them because their yields vary less than those of other crops, and the Government of India sets a price guarantee. The costs borne by farmers are further reduced by energy subsidies, which allow farmers to irrigate even when a lower water table requires more energy to pump water to surface level. Farmers thus have few incentives to use less water-intensive cropping methods or invest in water-saving technologies.

Overall water risks could be reduced if farm support policies were redirected from water usage and other inputs towards supporting increased innovation, sustainability and productivity on farms and, where necessary, supporting low-income households among resource-poor farms. In agricultural regions that face high groundwater stress, such as the northwest region, federal and state governments could prioritise strengthening water information systems for farmers and local managers. Demand-side measures that take into account surface and groundwater interactions should be the favoured way to reduce water consumption. A combination of regulatory, economic and collective-action approaches is most likely to effectively reduce unsustainable groundwater use. While facing similar water challenges in a very different agricultural context, California's recent reform shows the type of policy measures that could be considered (Box 10.2).

India must become more resilient to water-related disasters

India's monsoon climate regularly leads to episodes of heavy rainfall, which result in recurrent and often large-scale floods causing important casualties and economic damages. According to the National Institute of Disaster Management of India, 85% of the country is

Box 10.2. Controlling groundwater depletion – the case of **California**

California has recently faced several very intense periods of drought, with limited precipitation and snow-pack development, which restricted the surface water available for agriculture and other uses. Groundwater irrigation has helped California's farmers maintain their income levels. But the intensive groundwater use has accelerated depletion of the resource, threatening future water supplies, increasing salinity in some coastal aquifers and leading to further irreversible land subsidence in the Central Valley. In response to these challenges, the state recently passed its first-ever legislation on groundwater, the Sustainable Groundwater Management Act (Cooley et al., 2016). The Act provides a framework for local authorities to manage groundwater supplies. It requires local stakeholders to form local groundwater agencies and to generate local management plans by 2022. Groundwater basins in critical overdrafts must achieve groundwater sustainability goals by 2040. Where local agencies do not take effective action, the State Water Resources Control Board reserves the right to draft and implement such plans in these areas. The long-term goal of the legislation is the creation of a new long-term sustainable equilibrium for irrigated agriculture.

vulnerable to disaster risks and 50 million people are affected annually on average. Water-related disasters represent 79% of the events, 47% of the fatalities and 93% of the economic losses caused by disasters in India. In the state of Uttarkhand, 5 500 people died as a consequence of the 2013 floods, and 500 people lost their lives in the 2015 South Indian floods, with economic losses estimated at over USD 3 billion. The hard-hit city of Chennai, the third-largest metropolitan economy of the country, saw most of its public services and businesses stop operations for almost a month in the aftermath of the 2015 event. This demonstrates India's major vulnerability to water risks, which can only get worse in the context of climate change.

The recent adoption of India's first-ever National Disaster Management Plan in July 2016 provides an opportunity to significantly increase the resilience of India to water risks. This plan is well-aligned with the OECD Recommendation on the Governance of Critical Risks and makes of risk governance one of its priorities. Similarly, the government's ambitious urban development policy, which aims to build 100 smart cities nationwide, and the important investments planned in infrastructure are key to addressing the most important vulnerabilities of the country to water-related disasters.

Key recommendations

- Redirect farm-support policies from water and other inputs towards supporting increased innovation, sustainability and productivity on farms and, where necessary, providing support to low-income households among resource-poor farms.
- In agricultural regions with high groundwater stress, strengthen water information systems for farmers and local managers, curtail groundwater demand through a combination of regulatory, economic and collective-action approaches, and consider groundwater recharge mechanisms.
- To address intensifying competition for water, as well as groundwater depletion, assess water allocation regimes in a pilot basin, using the OECD Health Check for Water Resources Allocation as a reference.
- Consider incentive mechanisms, such as co-financing, through which the central government can engage with and support initiatives at state level.
- Ensure that the implementation of the National Disaster Management Plan addresses the gaps in risk governance, particularly across different levels of government.
- Integrate disaster risk into the planning of major public and private investment projects, notably within the smart city programme and the related infrastructure investment.

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