The Development Dimension

The Only Way Forward

ALIGNING DEVELOPMENT CO-OPERATION AND CLIMATE ACTION

OECD

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BETTER POLICIES FOR BETTER LIVES

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Preface

Four years since the world came together to agree the 2030 Agenda for Sustainable Development and the Paris Agreement, development co-operation remains at risk of supporting development trajectories that are unsustainable, undermine effective action to address the climate crisis, and thus push urgent development goals out of reach.

The severe impacts of climate change are being felt today across the globe. Yet our collective efforts so far do not measure up to the necessary ambitions of these interlinked and mutually reinforcing agendas. It is becoming ever more evident that climate-resilient development is not only a necessity for humankind but also presents fresh opportunities to achieve both climate and sustainable development goals.

This report *"Aligning Development Co-operation and Climate Action: The Only Way Forward"* focuses on how development co-operation providers can align their strategies, programmes and operations' climate objectives to build a truly sustainable development pathway. It identifies what "Paris alignment" means for development co-operation, and underscores the importance of ceasing decisions that tie countries to outdated, risky high-emissions activities and to insufficiently adaptive development. The report also argues that while official development assistance is important as a financial resource to address critical resource gaps, its fundamental purpose is to support developing countries. To help in the critical task of overcoming key financial, capacity and policy constraints, development co-operation needs to focus on contributing positively to developing countries' transition to low-emissions, climate-resilient societies.

The changing climate is an emergency that affects everyone and demands a concerted approach by all development co-operation providers. I commend the governments and organisations that are already working to align their development and climate action; and I urge all development co-operation providers to act on this report's recommendations to better deliver on their mandates and support sustainable development that confronts the climate crisis.

This is a moment of immense opportunity for development co-operation to respond to the evidence that sound climate policy is sound development policy and that ambitious climate action reinforces countries' economic growth and development. The transition to 100% sustainable development is not an option. It is the only way forward. It is time for governments and for institutions working on development co-operation to urgently make the necessary pivot to support the transformation that societies need.

Angel Gurría

OECD Secretary-General

Foreword

At the 2018 United Nations Climate Change Conference in Katowice, Poland, the Secretary-General of the Organisation for Economic Co-operation and Development (OECD) launched a new OECD initiative focused on the alignment of development co-operation with the objectives of the Paris Agreement on climate change.

As countries prepare their next round of commitments under the Paris Agreement, it is timely to assess the progress that providers of development co-operation have made to date in accounting for climate change and aligning their activities with the objectives of the Agreement. As institutions that partner with developing countries to enable and safeguard sustainable development, development co-operation providers are pivotal to the transition that countries need to make to follow development pathways consistent with the Paris Agreement. With just a decade left until 2030, we are at a crucial moment in history – it is vital to identify, analyse and creatively overcome the major barriers that currently undercut coherent and effective climate action in developing countries and that thereby jeopardise sustainable development.

This report seeks to contribute to this effort by examining the imperatives, challenges and priority actions for development co-operation to align with the objectives of the Paris Agreement. It builds on the findings of key publications from recent years – including *Investing in Climate, Investing in Growth* (2017) and *Financing Climate Futures: Rethinking Infrastructure* (2018) – to illustrate how providers of development co-operation can use this opportunity to help developing countries to shift to low greenhouse gas emissions, climate-resilient pathways and ensure that the transition leaves no one behind.

The evidence is clear that development co-operation needs to actively support ambitious climate action to protect past development gains and help developing countries to become resilient and to prosper in the face of the climate crisis. Development decisions and interventions that are not consistent with the aims of the Paris Agreement risk locking countries into development pathways that exacerbate climate change, increase vulnerability to its impacts and miss the goals of the 2030 Agenda for Sustainable Development.

This report also offers instructive analysis and highlights priority action areas to inform the efforts of the increasing number of development co-operation providers that are already re-orienting to align their activities with the objectives of the Paris Agreement. The findings and recommendations of this report are intended as a guide for more ambitious climate action by providers and for their reflections on how to seize the co-benefits of combined development and climate action to support sustainable development.

The OECD expresses sincere appreciation to the members of the High-Level Advisory Group who supported this work for their leadership and advice. The OECD is also deeply grateful to the specialists from more than 30 organisations in the Informal Expert Group who have informed the growing body of literature on the topic of Paris alignment and contributed valuable comments and input to the report.

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Editorial

The fight against climate change today is urgent, accessible and generates social and economic benefits we cannot ignore. This report signals the opportunity that stands before us for a more sustainable and prosperous future, by using existing resources better.

But for these dividends to take hold we need a wave of green reforms, including increasing support for decarbonisation in the poorest countries – where more than one billion people lack access to electricity – and eliminating concessional development finance that supports and promotes development based on traditional approaches that we know today conflict with sustainability.

These policy reforms, no matter how exigent, will only work if we can make the case that they will stimulate better economic and social conditions. Policymakers and citizens alike must recognise the importance of linking the international development, climate and biodiversity agendas in a way that provides practical, economical alternatives. This report builds on previous work by the OECD demonstrating that a climate-compatible policy package can increase long-run GDP by up to 3% on average across the G20 in 2050. Limiting global warming to well below two degrees could yield a direct economic gain of USD 26 trillion by 2030. And renewable energy is already less expensive than fossil fuel sources in most parts of the world.

Development co-operation has a central role to play in helping developing countries mitigate climate change, become more resilient, and protect the people and places most at risk. Development co-operation also has a unique role to play, as the risks from climate change are greatest for those who have contributed to it least: the poorest and most vulnerable communities. Least developed countries are the ones already feeling the worst effects of the climate crisis and will need sustained support over the coming decades. Small island developing states are just one example of those already experiencing the effects of a changing climate. Those with low-lying terrain fear vanishing completely as sea levels rise, while adaptation for all small islands will be more and more necessary and difficult as temperatures continue to increase.

Many development co-operation providers are already moving to align their development co-operation efforts with ambitious climate action. However, as a whole, donors lack adequate mandates, resources, incentives and strategies to re-orient aid to address the climate emergency, in support of positive national and regional efforts. This work is a first step to help accelerate this transition to pro-climate sustainable development co-operation, the only way forward for healthier people and planet by 2030.

Jorge Moreira da Silva

Director, OECD Development Co-operation Directorate

Abbreviations and acronyms

AAAA	Addis Ababa Action Agenda
ADB	Asian Development Bank
AFD	French Development Agency (Agence Française de Développement)
AfDB	African Development Bank
AFOLU	Agriculture, forestry and other land use
CEDRIG	Climate, Environment and Disaster Risk Reduction Integration Guidance
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
CRS	Creditor Reporting System
DAC	Development Assistance Committee (OECD)
DFI	Development finance institution
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
ESG	Environmental, social and governance
EU	European Union
EUR	Euro
FAO	Food and Agriculture Organization
FMO	Netherlands Development Finance Company
FSB	Financial Stability Board
G20	Group of Twenty (major economies)
GCF	Green Climate Fund
GDP	Gross domestic product
GEF	Global Environment Facility
GHG	Greenhouse gas
GIZ	German Agency for International Cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit)
HLAG	High-Level Advisory Group
IDB	Inter-American Development Bank
IDDRI	Institute for Sustainable Development and International Relations (Institut du Développement Durable et des Relations Internationales, France)

IDFC	International Development Finance Club
IEA	International Energy Agency
IEG	Informal Expert Group
IFC	International Finance Corporation
IMF	International Monetary Fund
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
IRENA	International Renewable Energy Agency
IsDB	Islamic Development Bank
KPI	Key performance indicator
LDC	Least developed country
LIC	Low-income country
LMIC	Lower middle-income country
LTS	Long-term low greenhouse gas emissions strategy
MDB	Multilateral development bank
NAMA	Nationally appropriate mitigation action
NAP	National adaptation plan
NAPA	National adaptation programme of action
NDB	National development bank
NDC	Nationally determined contribution
ODA	Official development assistance
ODF	Official development finance
OECD	Organisation for Economic Co-operation and Development
OOF	Other official flows
SDG	Sustainable Development Goal
SIDA	Swedish International Development Cooperation Agency
SIDS	Small island developing states
UMIC	Upper middle-income country
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNEP	UN Environment (United Nations Environment Programme)
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States dollar
WBG	World Bank Group
WRI	World Resources Institute

Executive summary

The climate crisis is the defining challenge of the century, compounding existing threats to development while creating new obstacles. In 2015, three months after the creation of the 2030 Agenda for Sustainable Development, countries established a clear global vision for addressing it. The Paris Agreement combines science-based goals with country-led processes to bring about the shift to low greenhouse gas (GHG) emissions, climate-resilient development pathways. Such pathways are the only option for countries to achieve economic, social and environmental development that is inclusive and sustainable. Sound climate policy is sound development policy. They are indivisible.

However, slow progress towards meeting the objectives of the Paris Agreement puts at risk the ability of both developed and developing countries to fulfil the 2030 Agenda and their pledge to leave no one behind. Global GHG emissions are continuing to rise, while people worldwide suffer severe impacts ranging from increasingly intense hurricanes and floods to prolonged droughts. The climate crisis is thereby impeding the fight against poverty, especially in least developed countries and in a number of particularly exposed communities.

Investing in activities that mitigate and adapt to climate change in those environments is the only way bilateral and multilateral providers of development co-operation can carry out their mandates to support just, inclusive development and protect the natural systems that underpin life on Earth. This means supporting ambitious, country-driven climate action and reinforcing good development principles. The Paris Agreement complements the 2030 Agenda and Sustainable Development Goal 13 on climate change with three main objectives: limit the rise in global average temperature, adapt to the adverse impacts of climate change and make all finance flows consistent with these efforts. The Agreement also establishes short- and long-term bottom-up processes for countries to achieve these collective goals. Among these processes are nationally determined contributions – to be updated every five years – and long-term strategies to lower GHG emissions by the middle of this century.

This report outlines a conceptual framework for development co-operation providers to design, implement and continually assess their efforts to align with the Paris Agreement. It proposes that Paris-aligned development co-operation:

1. does not undermine the Paris Agreement but rather contributes to the required transformation
2. catalyses countries' transitions to low-emissions, climate-resilient pathways
3. supports the short- and long-term processes under the Paris Agreement
4. proactively responds to evidence and opportunities to address needs in developing countries.

These four characteristics may be implemented in various ways by development co-operation providers, depending on their mandates, priorities, operating models and circumstances.

Though some providers are already working towards embedding stronger climate action in their mandates, strategies and operations, evidence shows that, overall, they have yet to fully accomplish this. Those with financial operating models, like development banks and development finance institutions, have largely led alignment efforts to date, which is why this report pays particular attention to their direct financing of and

on-lending for infrastructure promotion in developing countries. A broader scope is needed if development co-operation providers are to align all of their activities, including policy support and capacity development, with the objectives of the Paris Agreement. Developing countries need this support to lead their own transitions. At the same time, development finance should be deployed more strategically to direct resources where they are needed most.

Key findings and proposed priority actions

To align with the objectives of the Paris Agreement, development co-operation providers should take priority actions at home (including in donor countries' broader international activities), in developing countries (in their work with developing country governments), and at the system level (in the global development architecture). Specifically, this report finds:

- *Development co-operation providers are not yet adequately set up to address the climate emergency.* Donor countries and providers should **integrate the climate imperative into providers' mandates and performance systems** and **establish the right capacities and tools** to deliver.
- *Lack of coherence in donor countries' broader international activities counteracts climate action through development co-operation*. Donor countries should **eliminate policy conflicts between their international activities and their commitments** under the Paris Agreement.
- *Process and capacity limitations in many developing countries constrain the integration of climate action into critical plans and decision-making processes*. Providers should **support the leadership and capacity of central actors and systems** in developing countries to drive the integration of climate change into policy and planning.
- *Central systems in public administrations and private finance in many developing countries continue to perpetuate high-emitting and climate-vulnerable pathways*. Providers should assist countries to **incorporate ambitious climate objectives throughout their financial and budgetary systems**.
- *The basic rules of the game of the international development system do not consider climate as an integral dimension of sustainable development*. All countries and institutions providing development co-operation should **adopt core definitions and mechanisms to ensure Paris alignment at the system level**.
- *Fragmented approaches in development co-operation limit the scale of effective climate action*. Providers should **drive effective, scaled-up climate action through common standards** in finance, data and infrastructure.
- *Large volumes of finance are available globally, but systemic barriers impede investment in low-emissions, climate-resilient infrastructure in developing countries*. Providers should **focus on effective partnering to promote finance for investments in low-emissions, climate-resilient infrastructure** at scale.

If they pick and choose the easiest and most visible interventions, development co-operation providers will fail to deliver on their mandates. It is vital that they acknowledge and assume their role of supporting developing countries to adopt more sustainable growth models. The transition to low emissions, climate-resilient development pathways is the only way forward, and it is within reach. The financial resources and technology, for the most part, are already available. What is needed is concerted and relentlessly ambitious support from development co-operation providers, through both individual action and partnerships.

Accelerating the transition to low-emissions, climate-resilient development pathways

How the climate crisis is handled today and in the coming years will determine the rise of average global temperatures and our ability to adapt to increasingly frequent and severe climate impacts. In each scenario, the impacts on development will be huge. Climate change threatens every sector and community, but especially those in developing countries and particularly the poorest and most vulnerable. However, in spite of the relationship between development and climate change, there is no systematic global effort to align development co-operation with the objectives of the Paris Agreement. This chapter outlines the key challenges as well as a way forward for providers of development co-operation.

In brief

ALIGNING AT HOME

Challenge 1: Development co-operation providers are not yet adequately set up to address the climate emergency.
The way forward: Integrate the climate imperative into providers' mandates and performance systems and establish the right capacities and tools.

Challenge 2: Lack of coherence in donor countries' broader international activities counteracts climate action through development co-operation.
The way forward: Donor countries should eliminate policy conflicts between their international activities and their commitments under the Paris Agreement.

ALIGNING IN DEVELOPING COUNTRIES

Challenge 3: Process and capacity limitations in many developing countries constrain the integration of climate action into critical plans and decision making.
The way forward: Support the leadership and capacity of central actors and systems to drive the integration of climate change into policy and planning.

Challenge 4: Central systems in public administrations and private finance in many developing countries continue to perpetuate high-emitting and climate-vulnerable pathways.
The way forward: Assist developing countries to incorporate ambitious climate objectives throughout their financial and budgetary systems.

ALIGNING AT THE SYSTEM LEVEL

Challenge 5: The basic rules of the game of the international development system do not consider climate as an integral dimension of sustainable development.
The way forward: Adopt core definitions and mechanisms to ensure Paris alignment at the system level.

Challenge 6: Fragmented approaches in development co-operation limit the scale of effective climate action.
The way forward: Drive effective, scaled-up climate action through common standards in finance, data and infrastructure.

Challenge 7: Large volumes of finance are available globally, but systemic barriers impede investment in low-emissions, climate-resilient infrastructure in developing countries.
The way forward: Focus on effective partnering to promote finance for investments in low-emissions, climate-resilient infrastructure at scale.

Development co-operation as a key player in global sustainable development

This report examines how development co-operation can support ambitious climate action in developing countries to deliver on its sustainable development mandate.

It examines why and how development co-operation providers should align their strategies, policies and operations with the objectives of the Paris Agreement, recognising that development co-operation is a partnership wherein providers support developing countries to achieve development gains. Countries define their development pathways, and own and control their own development successes. Development co-operation providers, as partners, can support but not deliver developing countries' needed transition to low-emissions, climate-resilient pathways.

Likewise, every country that is party to the Paris Agreement holds primary responsibility for ensuring that its policies and activities are consistent with its commitments under the Agreement and the objectives of the Agreement. In fulfilling its mandate to work with developing countries to enable and safeguard sustainable development, development co-operation can support them in the shift to pathways that are consistent with the objectives of the Paris Agreement. Ultimately, the alignment of development co-operation should serve developing countries and better enable them to achieve sustainable development through low-emissions, climate-resilient pathways. These agendas – climate and sustainable development – are inseparable. Many developing countries recognise the imperatives and benefits of shifting to low-emissions, climate-resilient development pathways. The role of development co-operation is to help them to make the shift.

This report focuses on development co-operation. As a consequence, it does not aim to assess or formulate recommendations for developing countries' current or future actions to align with the objectives of the Paris Agreement. Rather, it is concerned with the alignment of development co-operation and how development co-operation can best support developing countries on their development pathways.

Why is it a priority to align with the Paris Agreement?

Sustainable development and climate change are inseparable. Climate change is an emergency that threatens the growth and sustainable development prospects of every sector and community. The threat is especially acute in and to developing countries. The changing climate is already altering the ecological and social systems that underpin human well-being and economic activity, and will continue to shape how countries develop beyond 2100 (IPCC, 2018[1]). The risks are greatest for the world's poorest and most vulnerable people, who are the central focus of sustainable development efforts and are already being forced to confront and adapt to the adverse impacts of climate change.

Climate change jeopardises society's ability to protect people from poverty, satisfy basic human needs, and achieve sustainable, equitable growth and development (OECD, 2018[2]; Hoegh-Guldberg et al., 2018[3]; Rüttinger et al., 2015[4]). The impacts of climate change that are felt and seen today are geographically varied, unpredictable and exponential, and they are projected to worsen depending on the efficacy of climate action (IPCC, 2018[1]). The way in which communities, cities and countries develop ultimately determines both their vulnerability to climate change and their exposure to its impacts, which multiply and compound upon one another – particularly in places where poverty and disadvantage are widespread and existing development is limited (Hallegatte et al., 2016[5]; Zscheischler et al., 2018[6]).

The escalating climate crisis is a huge obstacle to reducing poverty (Hallegatte et al., 2018[7]; IPCC, 2018[1]). Natural disasters alone are pushing 26 million people a year into poverty and climate change is

expected to increase the frequency and severity of such events (Hallegatte et al., 2018[7]; IPCC, 2018[1]). Without sound, climate-informed development, climate change could force more than 100 million people into extreme poverty by 2030 (Hallegatte et al., 2015[8]). Climate change also adds to the challenges arising from rapid population growth and urbanisation in many developing countries, placing further pressure on already scarce resources and systems and especially on land, water and food.

In 2015, countries came together to address these interrelated challenges, mobilising to protect global development prospects as well as past development gains by creating the 2030 Agenda for Sustainable Development and the Paris Agreement on climate change (UN, 2015[9]; UNFCCC, 2015[10]). The Paris Agreement is a framework for country-led action to shift to low-greenhouse gas (GHG) emissions (low emissions), climate-resilient development pathways. To address the climate emergency, the Agreement sets three clear objectives: limiting the rise in global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the rise to 1.5°C; adapting to the adverse impacts of climate change; and making all finance flows consistent with both these efforts. It is well established that if developed and developing countries do not urgently increase their ambition to meet these objectives, the 2030 Agenda and its Sustainable Development Goals (SDGs) will not be met and the world will fail in its overarching pledge to leave no one behind (IPCC, 2018[1]).

Countries' decisions on development and climate in the coming decade will determine the world's future.

Countries' collective commitments and efforts to date do not put them on track to achieve the 2030 Agenda or the Paris Agreement, and time is running out. Countries have roughly a decade left to make massive cuts to collective global emissions – approximately halving them from 2010 levels – if they are to successfully limit global warming to 1.5°C this century (IPCC, 2018[1]). Failure to dramatically abate global emissions over the next ten years, until 2030, will result in a much warmer world and will have dire consequences for sustainable development. If global warming continues at the current rate and countries do not strengthen their existing commitments under the Paris Agreement, set out in the unconditional pledges in their nationally determined contributions (NDCs), the world is projected to undergo a global average temperature increase of between 2.9°C and 3.4°C of warming by 2100 relative to pre-industrial levels, with warming continuing afterwards (IPCC, 2018[1]; World Meteorological Organization, 2019[11]). Limiting global warming to 1.5°C compared with 2°C could reduce the number of people exposed to climate-related risk and poverty by up to several hundred million by 2050 (IPCC, 2018[1]).

Countries' policy and investment decisions today also will determine whether the interlinked global challenges can be overcome effectively (New Climate Economy, 2018[12]). Nearly all countries have committed to implementing the Paris Agreement. Yet, further commitments and action are needed to plan, finance, deliver and maintain the transformative changes that the Agreement calls for. All pathways to limit global warming to 1.5°C or well below 2°C require improving energy efficiency, rapidly decarbonising energy supply and electrifying energy end use, and increasing the use of negative emissions technologies (IPCC, 2018[1]). To achieve the 1.5°C goal, coal use needs to be essentially phased out by 2030, the electricity sector needs to be fully decarbonised by 2050, and 70-85% of all power should come from renewable energy (IPCC, 2018[1]). To move beyond commitments, a range of actors need to step up to mobilise and provide increased finance, support policy reforms, and build capacity.

The objectives of the Paris Agreement are central to the mandate of development co-operation. The fundamental purpose of development co-operation is to facilitate developing countries' economic, social and environmental transformation in the face of complex challenges. Climate change threatens the aims of the many institutions that facilitate and provide development co-operation; they cannot deliver on their mandates without anticipating and accounting for climate change.

Development co-operation providers that fail to step up and actively help developing countries to take ambitious climate action risk supporting unsustainable development.

The economic and social case for taking ambitious, accelerated climate action in both developed and developing countries is well established. The global economic consequences of failing to take ambitious climate action are equally stark. Global economic damages in 2100 are projected to be smaller under global warming of 1.5°C than under 2°C. The Intergovernmental Panel on Climate Change (IPCC) estimates that the damages from warming in 2100 could cost USD 54 trillion with 1.5°C of global warming and USD 69 trillion with 2°C of global warming relative to the period 1961-90[1] (Hoegh-Guldberg et al., 2018[3]). Emissions-intensive development also overlooks the potential for technological and social innovation to reduce emissions and build communities' resilience to climate change and other interlinked social challenges (New Climate Economy, 2018[12]).

Aligning with the Paris Agreement brings opportunities for development. Development co-operation decision makers should recognise and take up the vast evidence that sound climate change policy is also sound development policy.

Fundamentally, alignment means ensuring that development pathways are low-emissions and climate-resilient and as a result, sustainable in the face of the multi-layered challenges that developing countries now face.

By factoring the objectives of the Paris Agreement into their activities, development co-operation providers can accelerate the necessary transformation to low-emissions pathways while also supporting adaptation to adverse climate impacts and building resilience. In their traditional form, many development co-operation activities have contributed to the current unsustainable trajectories, in particular through financing major infrastructure and economic activities that are the main sources of emissions (IPCC, 2018[1]). Yet the knowledge, technical solutions and financial resources for alternative development models and better development outcomes already largely exist. Development co-operation should also deliberately support what Hallegatte et al. (2015[8]) call "rapid, inclusive and climate-informed" development that supports communities to adapt to the adverse impacts of climate change. Building the resilience and capacity of poor and vulnerable countries and communities to respond to climate change alongside other stressors, delivers many development co-benefits (Hallegatte et al., 2018[7]). Development that supports adaptation to climate impacts also helps to alter existing modes of development that lead to maladaptation and put at risk past development gains.

Development co-operation has an equally vital opportunity to support developing countries in making transitions that are just, inclusive, and supportive of communities' long-term social and ecological health. A fundamental part of development co-operation's mandate is to support countries to develop in a way that is equitable, inclusive and leaves no one behind (OECD, 2018[2]). The changes that are needed to meet the 2030 Agenda and the Paris Agreement will be complex and disruptive to many sectors' traditional activities. Development co-operation can help countries to plan and implement these shifts in a way that lays the groundwork for better societies. Just, inclusive climate action can also help to foster greater public acceptance for climate policies and enable more rapid progress.

In response to climate change, developing countries and their development co-operation partners can support investments in infrastructure and deliver social and livelihood protection policies that build resilience to climate change while protecting the poor (Hallegatte et al., 2016[5]). At the same time, they

can strengthen the health of ecosystems that support life on Earth and deliver broader environmental co-benefits. Measures such as nature-based solutions can provide adaptation and mitigation benefits while also helping to slow or reverse the risk of ecosystem degradation, biodiversity loss and mass species extinction that currently threaten development prospects (Griscom et al., 2017[13]; IPBES, 2019[14]). Across the board, there are clear co-benefits for development co-operation providers that seek to address both development and climate imperatives.

> Low-emissions, climate-resilient development pathways now represent the only sound option for achieving the ambitions of development co-operation under the 2030 Agenda.

Development co-operation is critical to unlocking ambitious climate action and should support countries to seize the current window of opportunity. The coming year, 2020, will be especially decisive, as countries update their NDCs; communicate vital, long-term strategies; commit to the required levels of transparency and accountability; and through these processes, set the levels of their practical and political ambitions on climate change and sustainable development for the coming years (New Climate Economy, 2018[12]).

Development co-operation should also work to apply development finance resources more strategically, given that the financing needs for achieving the 2030 Agenda and for shifting to low-emissions, climate-resilient pathways are much higher than the levels of historical development finance flows. Because official development finance (ODF) is deployed with an explicit development mandate, it can provide, especially through its concessional resources, core resources for the more difficult and ambitious changes that need to occur in developing countries to shift to achieve low-emissions, climate-resilient development pathways. Climate-related development finance[2] has stagnated in recent years, though bilateral and multilateral actors have announced ambitious increases of climate-related development financing. There is also a concerning declining trend in official development assistance (ODA) provided to the least developed countries, which are most reliant on international development finance and need the most support to confront the climate emergency (OECD, 2019[15]).

Recognising that sound climate policy is sound development policy is the vital first step. The transformations that accompany the development process invariably include challenging transitions. Providers of development co-operation need to assume their role as key actors for supporting developing countries to successfully address climate change and undertake the vast transformation that is needed as part of the sustainable development journey.

What does Paris alignment mean for development co-operation?

At a fundamental level, Paris alignment means supporting ambitious climate action and reinforcing the principles of sound development. Development co-operation that is Paris-aligned supports the three core objectives of the Paris Agreement on climate change mitigation, adaptation and finance flow consistency (outlined in Article 2.1). It also demands concerted attention to implementing and improving countries' key mechanisms for delivering their commitments under the Paris Agreement, i.e. NDCs and long-term low greenhouse gas emissions strategies (LTSs). Countries have committed to prepare, communicate and maintain NDCs over time, revising them every five years with the aim of reaching the levels of collective ambition needed (UNFCCC, 2015[16]). The Paris Agreement also proposes LTSs to guide countries' efforts towards the collective target to reach global peaking of emissions as soon as possible, while also noting that this will take longer for developing countries, and towards global net zero emissions in the second half of this century (UNFCCC, 2015[10]). This longer term goal of the Agreement

sets a clear target for global emissions abatement over the coming decades, supported by progressive NDCs.

> Countries' determination and ownership of their development pathways – a core principle of sound development practice – are also practical necessities for effective, long-term development progress.

Both the 2030 Agenda and the Paris Agreement were created with the critical basis of country ownership in mind, in recognition that countries hold primary responsibility for their economic and social development (UN, 2015[9]). The ownership principle applies to development efforts and global climate objectives that are delivered at both national and subnational levels. Developed and developing countries are implementing the Paris Agreement through national and subnational strategies, policies and programmes – that is, not only through NDCs and LTSs but also through many other modalities and processes that are cross-sectoral and sector- and climate-specific.

Development co-operation that is aligned with the Paris Agreement has four main characteristics. In view of the central objectives and mechanisms of the Paris Agreement and the fundamental development principles that complement them, this report proposes four main characteristics of development co-operation that is effectively aligned with the Paris Agreement. These characteristics offer a conceptual framework for development co-operation providers to design, implement and continually assess their efforts to align with the Paris Agreement.

1. ***Paris-aligned development co-operation does not undermine the Paris Agreement but rather contributes to the required transformation.*** Development co-operation activities should not merely do no harm to effective action on climate change. The activities should make a positive contribution to the system-wide transformation that is needed to achieve low-emissions, climate-resilient pathways. This is the extent of action necessary to ensure development co-operation delivers on its mandate and supports the achievement of the SDGs. It is insufficient for development co-operation providers to focus on meeting no more than the minimum standard of doing no harm by avoiding actions that actively undermine the Paris Agreement. Not all development co-operation activities need to include active climate objectives, but it is nonetheless critical that providers' underlying assumptions, conditions and objectives support a systemic, holistic approach to achieving low-emissions, climate-resilient development.
2. ***Paris-aligned development co-operation catalyses countries' transitions to low-emissions, climate-resilient pathways.*** For developing countries to successfully shift to low-emissions, climate-resilient pathways, development co-operation should act as a catalyst for the transformation. This means deploying finance strategically and engaging in policy support and capacity development (see Section 2.3) to trigger broader change in developing countries – in particular, change led by partners and other actors – while ensuring that activities support the groups and communities in developing countries that most need the support. It is especially critical for development finance to be catalytic given its significant potential to influence other sources and applications of financing.
3. ***Paris-aligned development co-operation supports the short- and long-term processes under the Paris Agreement***. Collectively, the NDCs and LTSs under the Paris Agreement are core mechanisms that will determine the direction and effectiveness of global climate action over the coming decades. Development co-operation that is Paris-aligned supports the development, financing and implementation of the NDCs and LTSs, helping countries to make these coherent and to increase their ambition over time in line with the objectives in Article 2.1. In particular, development co-operation should support countries to connect climate-centric processes with

other development and sectoral plans. Action on climate change cannot be effective if it is disconnected from countries' broader decision making on development (World Resources Institute/UNDP, 2018[17]).

4. ***Paris-aligned development co-operation proactively responds to evidence and opportunities to address needs in developing countries.*** This means responding to a range of developments: continually emerging and evolving evidence on the pace and scale of climate change and its impacts; identified needs within specific communities and sectors; and opportunities and solutions (including technologies and good practices) for addressing these challenges. Given the indivisibility of climate change and sustainable development, providers can be pioneers for Paris-aligned development interventions, supporting developing countries to identify opportunities and respond flexibly as new evidence and information emerge and to work towards Paris alignment in their development and sector strategies.

Paris alignment demands action from a variety of development co-operation actors through the levers of finance, policy support and capacity development. To support developing countries' transitions to low-emissions, climate-resilient pathways, development co-operation providers should use the main levers at their disposal of financing, policy support and capacity development. In practice, development co-operation interventions almost always involve more than one of these levers and are delivered by a range of established actors with different historical roles and different potential contributions to make to the transition. Paris alignment demands action from donor governments, development banks and bank-like institutions, non-bank providers of development co-operation, and specialised agencies and funds. They have varied roles to play in devising strategies that support Paris alignment, raising and delivering resources, and supporting action in-country through the three levers (Figure 0.1)

Figure 0.1. Complementary levers of development co-operation

Source: Authors

Paris alignment requires that climate action be included in development co-operation strategies, programmes and operations. Some development co-operation providers have made important progress towards Paris alignment in recent years by devising and employing different tools to achieve specific climate and other environmental goals. Their aim is to institutionalise their approaches to addressing climate change and to supporting developing countries to implement commitments made under the Agreement. There is clear scope for building on these existing efforts to ensure that climate action that is

incorporated into their interventions is at the necessary pace and scale to achieve the Agreement's ambitious objectives.

Providers' efforts to date reflect a growing recognition that it is necessary to consider climate action at the very heart of sustainable development, fully integrated into strategies, theories of change and programming. This places the Paris Agreement within the broader strategic context of sustainable development. At the same time, many approaches show a dual focus on both increasing climate finance and ensuring that all activities consider and incorporate the objectives of the Paris Agreement. Providers and key research institutions increasingly refer to this as a shift towards a Paris alignment paradigm that supports the emphasis in Article 2.1c on all financial flows (Larsen et al., 2018[18]).

The call to make all financial flows consistent with a pathway towards low-emissions, climate-resilient development encompasses development finance. Accordingly, providers are increasingly focusing on the need to align all their resources – across portfolios, pipelines and activities – with the objectives of the Paris Agreement, in addition to continued efforts to increase volumes of development finance for climate objectives.

Many of the emerging approaches to Paris alignment also involve the combination of bottom-up, country-driven approaches and global or top-down targets that is embraced by the Paris Agreement. The use of financing targets, investment criteria and climate mainstreaming are among the top-down tools and approaches being deployed by providers to guide their own institutions' activities and their activities in developing countries. Many providers are also working with countries from the bottom up to support NDCs, LTSs, and other nationally and subnationally driven processes that articulate countries' commitments under the Paris Agreement and strengthen these commitments according to country context over time.

Paris alignment requires the integration of climate action across development finance. The integration of climate objectives across project portfolios, as shown by data analysis on both concessional and non-concessional ODF (Section 2.5 and Annex C), provides an indication of the extent to which development co-operation (and the activities it facilitates) is supporting alignment with the objectives of the Paris Agreement.

In developing countries, development finance – financial instruments and resources with an explicit development mandate – needs to play a role in achieving ambitious climate goals by directly addressing resource gaps, by leveraging additional resources and by triggering broader change from other actors. Development finance is increasingly seen as an important part of a broader context of financing for sustainable development that includes additional resources mobilised through, for example, domestic taxation, private investment and remittances. In a similar vein to Article 2.1c of the Paris Agreement, the Addis Ababa Action Agenda of the Third International Conference on Financing for Development calls on public and private actors to work together in mobilising the means to finance sustainable development, including through concerted efforts related to domestic public resources, domestic and international private finance, and development co-operation (UN, 2015[19]). In development co-operation, this collaboration varies by provider type and the nature of finance being used.

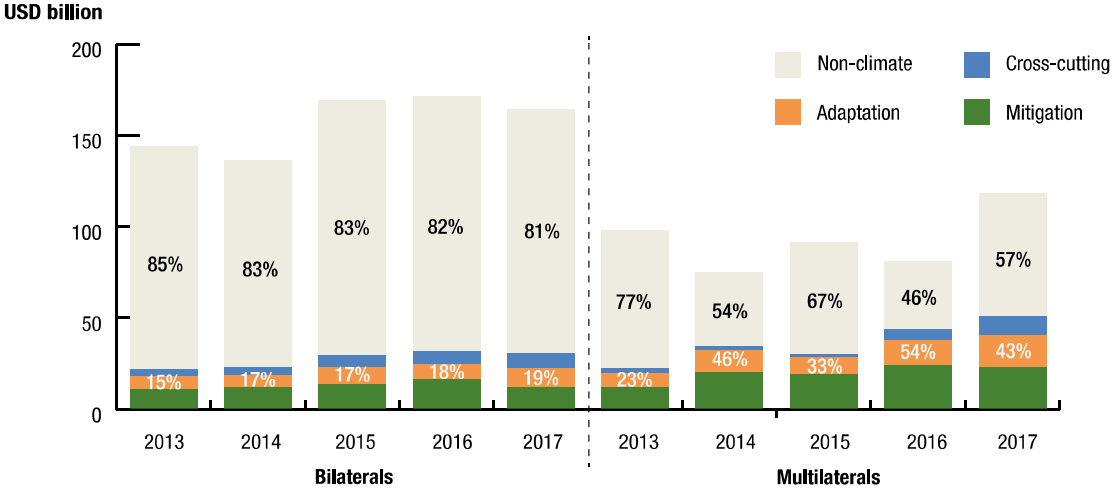
On the whole, providers are not yet sufficiently integrating climate considerations across portfolios.

The impacts of climate change and their risks to developing countries are increasingly well evidenced, but development co-operation's response to the resultant needs remains, so far, unclear. Climate-related development finance accounted for 18% of bilateral and 32% of multilateral development finance from 2013 through 2017. While the Paris Agreement, with its clear policy imperatives, was established roughly in the middle of this five-year period, the evidence of how climate change threatens development across all sectors has been long established, and it is clear that development co-operation still needs to respond to these challenges much more comprehensively across portfolios.

Climate-related development finance does not show an indication of the strong upward trend required by both growing evidence of climate risks to sustainable development and the clear global consensus signalled by the adoption of the Paris Agreement in 2015 (Figure 0.2).This lack of a clear response suggests insufficient action throughout development co-operation, though its extent varies by provider. Bilateral support to climate-related development finance has stagnated, ranging from 15-19% as a share of its overall development finance in 2013-17. Multilaterals have been on an upward trend since 2015 in terms of volumes of climate-related development finance. They also increased the share of climate-related development finance as a proportion of their overall development finance over this five-year period, from 33% to 43%; the share of climate-related finance by multilaterals was highest, at 54%, in 2016. These differences may reflect the different focuses of different types of providers in pursuing Paris alignment and climate action more broadly.

The central concern of many providers to date has been to align financial flows with the objectives set out in Article 2.1c of the Paris Agreement. This is especially the focus among multilaterals, which are primarily bank-like institutions that are more likely than non-bank providers of development co-operation to use debt financing to fund big-ticket projects such as infrastructure. While finance for low-emissions, climate-resilient infrastructure is critical to achieve the objectives of the Agreement, it is equally important to expand the scope of Paris alignment to include other social and economic sectors as well as policy support and capacity development activities across all of providers' portfolios and activities.

Figure 0.2. Shares of climate-related development finance, 2013-17



Note: Percentages shown in white text represent shares of climate-related development finance as a proportion of overall development finance committed within each year by provider type. Percentages shown in black text represent shares of development finance reported without any climate objective as a proportion of overall development finance committed within each year by provider type.
Source: Authors based on (OECD, 2019[20]), *Creditor Reporting System* (database), https://stats.oecd.org/; (OECD, 2019[21]), *Climate Change: OECD DAC External Development Finance Statistics* (database), http://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/climate-change.htm

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To date, climate-related development finance has been concentrated in sectors that are clear priority areas for the low-emissions, climate-resilient transition. As shares of all development finance, it represented 24% in the energy sector; 20% in transport and storage; 12% in agriculture, forestry and fishing; 9% in water supply and sanitation; 7% in general environment protection; and 6% in "other multisector". Together, these sectors accounted for nearly 80% of the total climate-related development finance committed in 2016-17. Nevertheless, to safeguard and advance developing countries' progress towards sustainable development, there is an overarching need to shift from the current climate finance paradigm to a Paris alignment paradigm, as they are termed by Larsen et al. (2018[18]). This means that climate considerations should be integrated across other sectors and activities that have not traditionally been recognised as central to the transition. This shift should go hand in hand with efforts to put an end to the persistent use of development finance in support of activities that undermine the transition and by extension are unsustainable, such as the production and consumption of fossil fuels in developing countries. The data also indicate improvement is needed even in sectors that are recognised as priorities. For example, fully 40% of development finance in the agriculture, forestry and fishing sector in 2016-17 was not climate-related. Other areas with increasingly recognised relevance to the transition, among them the banking and financial services and the health sectors, show especially low levels of climate-related development finance.

Achieving a balance between adaptation and mitigation objectives requires a focus on country needs.

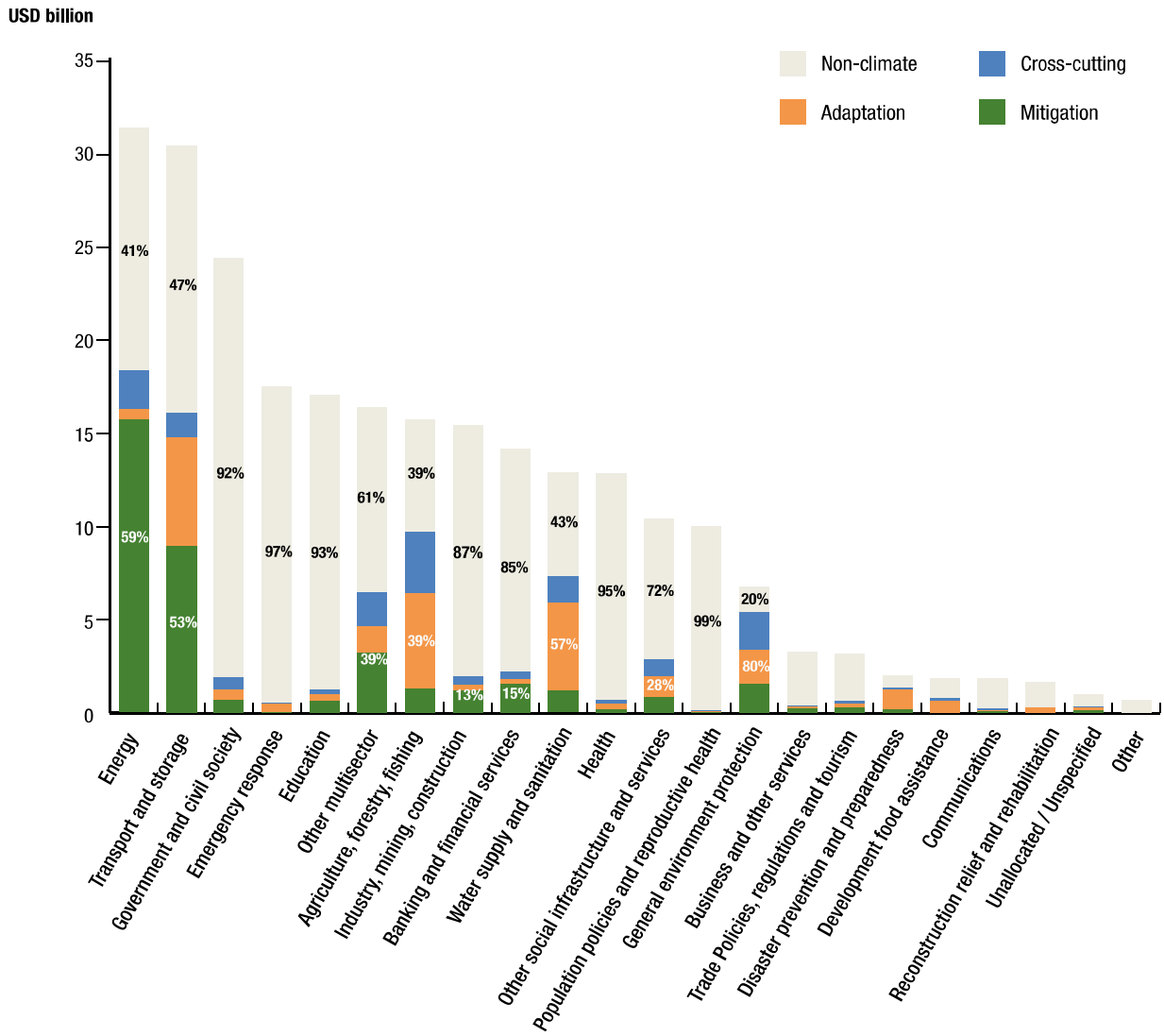
Developing countries will be better placed to participate in and benefit from a low-emissions, climate-resilient global economy if mitigation and adaptation needs are supported without delay. While the Paris Agreement recognises that developing countries' fossil fuel use is projected to peak later than that of high-income countries, this should not prevent developing countries from taking up opportunities to transition (OECD, 2017[22]; UNFCCC, 2015[10]; New Climate Economy, 2018[12]). As noted, mitigation, adaptation and development imperatives are deeply intertwined. Meeting adaptation needs is a prerequisite to sustainable development, for instance, and countries' ability to address climate risks also depends on mitigation progress. Development finance needs to achieve a balance between mitigation and adaptation objectives by focusing on varying country needs for each. A significant part of this task is increasing financing to meet adaptation needs (UNEP, 2018[23]).

Climate-related development finance remained fairly constant over 2013-17 in terms of shares for each objective,3 with the majority of the finance (52%) going towards mitigation efforts. Multilateral providers emphasised mitigation objectives more than bilateral providers (54% versus 48%) within their respective portfolios. Multilateral providers also emphasised adaptation slightly more (33% versus 30%), although bilaterals financed significantly more cross-cutting objectives (22% versus 13%). It is difficult to directly compare financing for climate objectives, and particularly to determine the balance for the climate-related country needs. Progress on adaptation is inherently incremental and context-specific, and quality metrics for climate resilience are limited (UNFCCC, 2018[24]). Climate change adaptation also needs to be included within other interventions and is often not an intervention's sole objective.

The energy sector has received the largest shares of mitigation-related development finance to date, followed by the transport and storage sector. Most adaptation, however, has been concentrated in the agriculture, forestry and fishing sector and the water supply and sanitation sector. This concentration reflects that adaptation is especially needed in these sectors in developing countries. Effective action could be improved with a more holistic approach. The World Bank (2010[25]) has estimated that the costs of adapting to global warming of 2°C amount to between USD 70 and USD 100 billion every year from 2010 to 2050. Inclusive development in the countries that most require it can dramatically offset these costs in terms of share of gross domestic product (GDP). Inclusive development, however, needs to proactively incorporate adaptation goals and activities.

The concentration of climate-related development finance in six priority sectors points to the need to pursue alignment across all development portfolios and into other areas (Figure 0.3). It is also significant that much higher volumes of climate-related development finance (70%) are committed through debt instruments, compared to development finance without climate objectives (46%). This is due in part to higher allocations for climate change mitigation than for adaptation. Financing for mitigation is concentrated in infrastructure-related sectors that typically receive less grant-based development finance. The distinction also holds true across income levels. Climate-related development finance is less grant-based than development finance without climate objectives within both low-income and middle-income country groupings.

Figure 0.3. Shares and volumes of climate-related development finance by sector, 2016-17 average



Note: Volumes of finance calculated using the two-year average in each sector by climate objective for 2016-17. Percentages shown in white text represent shares of climate-related development finance as a proportion of overall development finance committed within each sector, calculated using the two-year average volume of finance in each sector for 2016-17. Percentages shown in black text represent shares of development finance reported without any climate objective as a proportion of overall development finance committed within each sector, calculated using the two-year average volume of finance in each sector for 2016-17.

Source: Authors based on (OECD, 2019[20]), *Creditor Reporting System* (database), https://stats.oecd.org/; (OECD, 2019[21]), *Climate Change: OECD DAC External Development Finance Statistics* (database), http://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/climate-change.htm

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Overall, development finance data can provide only a limited indication of Paris alignment by showing the extent to which different climate objectives have been included across relevant areas such as sectors and instruments. Even with this caveat, however, it is evident that a holistic approach is lacking throughout sectors, income levels, regions and countries.

How can development co-operation align with the objectives of the Paris Agreement?

Development co-operation should support developing countries to eliminate inconsistencies between the objectives of the Paris Agreement and countries' insufficient NDCs and LTSs. In recognition of the urgency of the climate crisis and its importance to sustainable development, momentum among development co-operation providers is growing to align their strategies, policies and operations with the Paris Agreement objectives. At the same time, three factors combine to pose a core challenge to Paris alignment. One is the insufficient ambition of current NDCs. A second factor is the small number of LTSs that countries have communicated to the United Nations Framework Convention on Climate Change (UNFCCC) to date. The third is the disconnect between these two key mechanisms and broader development strategies, associated sector policies and resource plans.

Collectively, current NDCs are insufficient to achieve the objectives of the Paris Agreement. Trajectories implied by initial NDCs are set to lead to global warming of between 2.9°C and 3.4°C by 2100, with devastating consequences for development (World Meteorological Organization, 2019[11]; IPCC, 2018[1]). The initial NDCs were hastily compiled; disconnected from relevant planning and implementation mechanisms, available capacities and sectoral contexts; and often based on inadequate scientific data and information. Countries need to take bolder action and are required to prepare and submit new or updated NDCs that go beyond current efforts and demonstrate a higher level of ambition.

A long-term perspective is needed to progressively increase ambition for climate change, but very few countries have developed long-term strategies. With LTSs, countries can define climate action and commitments according to their development priorities and capacities, balancing and accounting for the objective of a global emissions goal of net zero emissions in the second half of the century. LTSs should provide clear, long-term political signals to frame policy and regulatory measures and to shape market expectations. Progress on LTSs is very limited; only 13 countries have communicated LTSs to the UNFCCC, among them 4 ODA-eligible countries (UNFCCC, 2019[26]).

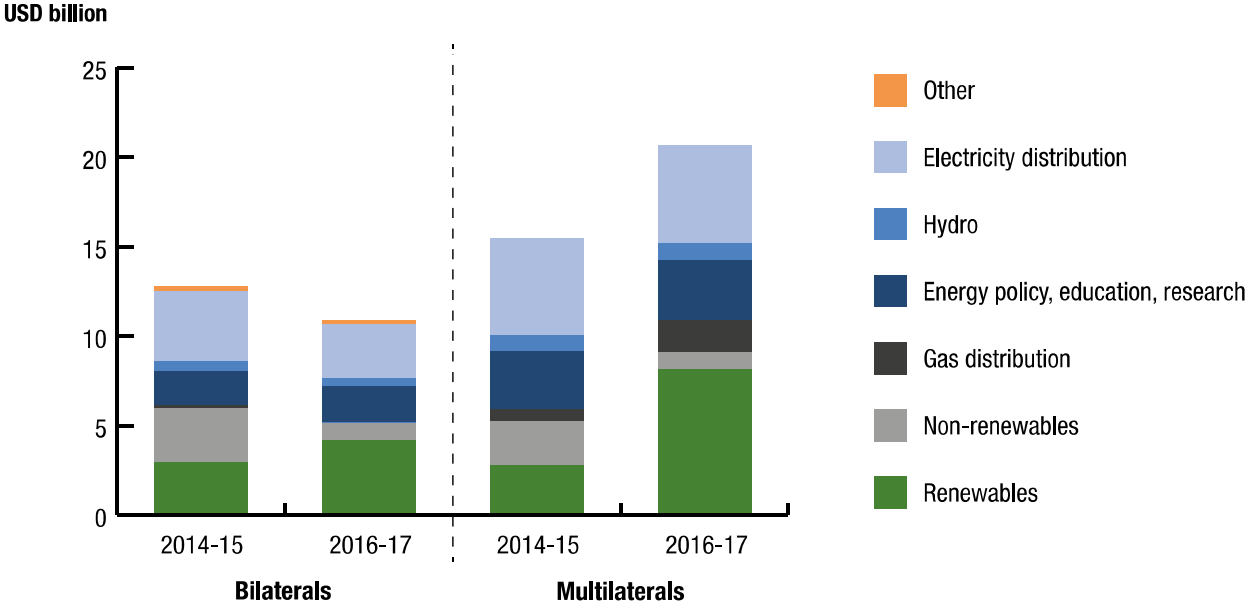
Planning for climate action is often siloed from broader development and sector plans. The insufficiently ambitious NDCs, lack of LTSs and siloed planning for climate action are linked. As long as NDCs and LTSs do not reflect countries' central planning tools, mechanisms and sector policies, implementing policies to bring about required structural change will be impossible. In the absence of a comprehensive approach, it also will not be possible to effectively address the need for a just transition and fulfil the collective pledge to leave no one behind. Evidence shows that the disconnect from country strategies, sector planning and resourcing was the main challenge to countries in formulating their NDCs.

Paris-aligned development co-operation calls for an effective response to these core challenges. Siloed climate action represents missed opportunities, as development strategies, planning and resourcing processes that do not consider the needed transition will fail to deliver sustainable development. Thanks to their support for development and sector planning processes, the provision of capacity building, and support they provide to undertake policy and regulatory measures, development co-operation providers have a unique role to help developing countries to overcome the challenges that stem from the absence of a comprehensive approach for climate action. Providers should not interpret low climate awareness and insufficient ambition in developing countries as sanctioning support to activities that are inconsistent with the objectives of the Paris Agreement and that compromise countries' ability to achieve sustainable development.

Development finance should not be used for activities that undermine sustainable development. Development finance should be designed and delivered for financial, policy support and capacity development interventions in developing countries in a way that is consistent with the objectives of the Paris Agreement. Activities that counter or impede the transition to low-emissions, climate-resilient pathways are an ineffective use of resources. Ensuring that development finance is consistent with the Paris Agreement means embedding climate action as a prerequisite of sustainable development, placing development needs at the heart of providers' objectives, and appropriately factoring for both short- and long-term climate risk projections.

Development finance continues to support the production and consumption of fossil fuels in developing countries. A conservative estimate indicates that average commitments of ODF for upstream and downstream fossil fuel activities amounted to USD 3.9 billion annually from 2016 through 2017, for which non-concessional finance from multilateral providers comprised 70% (OECD, 2019[20]). Approximately one-quarter of this amount is attributed to bilateral support for fossil fuel energy. In addition, upstream fossil fuel operations from multilateral providers account for nearly half, or USD 1.9 billion, of the ODF supporting fossil fuel activities. Sustainable alternatives are now widely available and affordable, and developing countries have broader choices available beyond fossil fuels to ensure quality access to energy.

Figure 0.4. Development finance to the energy sector, by provider type and subsector, 2014-17



Note: Volumes of finance calculated using the two-year average in each subsector by provider type for 2014-15 versus 2016-17.
Source: (OECD, 2019[20]), *Creditor Reporting System* (database), https://stats.oecd.org/

StatLink https://doi.org/10.1787/888934036880

Providers underemphasise climate considerations in sectors where developing countries have expressed adaptation needs. Several areas identified as crucial to adaptation in developing countries continue to receive significant volumes of development finance that does not consider any climate objectives. Health and agriculture are identified as priority sectors for adaptation action in 75% of developing country NDCs. Yet very little of the development finance allocated to health (5%) was climate-related in 2016 and 2017, and a significant proportion (40%) of development finance to agriculture, forestry and fishing was reported to have no climate objectives. This inconsistent provision of development finance does not support the fundamental development principle of country ownership, and clearly

indicates that climate considerations are lacking in areas where they are necessary to achieve effective development.

Development co-operation can tackle these core issues by addressing key challenges at home, within developing countries and at the system level. Paris-aligned development co-operation constitutes holistic and broad-based support to developing countries to formulate, finance and implement NDCs and LTSs that will meet the objectives of the Paris Agreement. This support includes a shift in development finance flows, including with a view to ceasing support to fossil fuel-related activities and increasing support to identified adaptation priority sectors. The shift requires that key challenges to Paris alignment be addressed at three levels:

- at home – i.e. in donor countries' and development co-operation providers' overarching strategies and policies – to help ensure that providers and donor countries are coherently supporting the transition of developing countries towards low-emissions, climate-resilient pathways
- within developing countries – to support developing country governments to plan for, finance and implement the transition to low-emissions, climate-resilient pathways
- at the system level – to establish consistent standards and pursue ambitious action across the international development co-operation architecture.

Aligning with the objectives of the Paris Agreement at home

Challenge 1: Development co-operation providers are not yet adequately set up to address the climate emergency. While development co-operation providers increasingly recognise the importance of the objectives of the Paris Agreement for achieving sustainable development, they face persistent challenges in integrating climate considerations across their portfolios. This is a result of their fundamental parameters – e.g. mandates, performance indicators and capacities – currently not being set up to address the climate emergency. Few providers have integrated climate considerations into their mandates, and only slightly more than two in five include climate-related targets in their institution's performance framework.

- ***The way forward: Integrate the climate imperative into providers' mandates and performance systems and establish the right capacities and tools.*** In particular, donor country governments and development co-operation providers should:
  - establish mandates for providers that are commensurate with the ambition of the Paris Agreement
  - change providers' institutional practice through internal performance and incentive systems that drive staff behaviour to engage in transformative climate action
  - establish adequate capacity for providers to execute the mandate
  - deploy a set of tools that enable staff to drive climate action at the pace and scale needed.

Challenge 2: Lack of coherence in donor countries' broader international activities counteracts climate action through development co-operation. The Paris Agreement highlights the role of developed countries in supporting developing countries' mitigation, adaptation and resilience efforts, including through financial support and co-operation for technology development, dissemination and deployment (UNFCCC, 2015[10]). This support is typically provided through a range of international activities overseen by different ministries and government agencies. In their current form, these activities sometimes include interventions that undermine the transition to low-emissions, climate-resilient pathways. For example, export credits are a major public instrument for trade promotion that undermine global climate and sustainable development goals.

While development co-operation providers are undertaking efforts to align with the objectives of the Paris Agreement, there is less evidence of donor countries working to ensure consistency their international

activities beyond ODA are individually and collectively consistent with the objectives of the Paris Agreement.

- ***The way forward: Donor countries should eliminate policy conflicts between their international activities and their commitments under the Paris Agreement.*** In particular, donor country governments should:
  - ensure that strategies and action plans in relation to the Paris Agreement cover the entire range of international activities
  - establish cross-government mechanisms to translate whole-of-government strategies and action plans into implementation.

Aligning with the objectives of the Paris Agreement in developing countries

Challenge 3: Process and capacity limitations in many developing countries constrain the integration of climate action into critical plans and decision making. Among the core challenges to achieving the objectives of the Paris Agreement is the insufficient integration of climate action into development plans, sector policies and budgetary processes. Staggering policy making and budget cycles, low awareness of the climate emergency and its imperatives among decision makers, and inadequate information on technological progress hinder an effective climate response in many policy areas.

Centres of government are pivotal in whole-of-government, economy-wide climate action through their responsibility and oversight of apex inter-governmental co-ordination mechanisms and their role in initiating transformative policy reforms and pursuing integration opportunities within and across different sectors. Crucially, such enabling frameworks at the national level can support critical action to combat climate change by subnational, local and private actors. As climate change will affect every sector, there is a need for development co-operation providers to support developing countries to rethink the traditional approaches of ministries of environment or their equivalents as the primary institutions responsible for co-ordinating climate action, and provide financial resources to build climate capacity in central institutions of developing countries.

- ***The way forward: Support the leadership and capacity of central actors and systems to drive the integration of climate change into policy and planning***. In particular, development co-operation providers should:
  - work with developing countries to incorporate ambitious climate objectives in their development plans and sector policies
  - support and facilitate leadership for transformative climate action at centres of government
  - provide targeted resources to enhance climate capacities in central institutions.

Challenge 4: Central systems in public administrations and private finance in many developing countries continue to perpetuate high-emitting and climate-vulnerable pathways. Public and private actors in developing and developed countries alike continue to finance high-emitting, climate-vulnerable activities, as highlighted by the fact that in 2017, investment in fossil fuels still represented 57% of global investments in energy supply. Tax and budgetary systems as well as financial systems enable these financial flows as they fail to integrate climate considerations in their frameworks. For example, many fiscal and financial systems contain provisions that continue to provide positive incentives for fossil fuel consumption and production and create or exacerbate vulnerability to climate change impacts.

- ***The way forward: Assist developing countries to incorporate ambitious climate objectives throughout their financial and budgetary systems***. In particular, development co-operation providers should:
  - support the integration of climate action into financing strategies that leverage public and private, domestic and international sources

- support the integration of climate objectives into national budgeting frameworks and tax systems, as a core component of robust public financial management
- support the development of green financial systems in developing countries.

Aligning with the objectives of the Paris Agreement at the system level

Challenge 5: The basic rules of the game of the international development system do not consider climate as an integral dimension of sustainable development. Development co-operation providers are increasingly eliminating support for fossil fuel-related activities. However, the eligibility standards of the international development co-operation architecture continue to overlook the climate emergency.

Moreover, no mechanism or process provides a common understanding, across development actors, of activities that are consistent with low-emissions, climate-resilient development in a given context. In the context of financial sustainability, the debt sustainability framework of the International Monetary Fund provides such a common understanding. Similar mechanisms are needed for climate action, including to ensure that support provided through development co-operation is consistent with the needed transition to low-emissions, climate-resilient pathways.

- ***The way forward: Adopt core definitions and mechanisms to ensure Paris alignment at the system level.*** In particular, all countries and institutions providing development co-operation should:
  - update key standards to rule out the promotion and subsidisation through concessional resources of activities that undermine or delay the transition, such as new fossil fuel-based energy supply and power generation
  - support measures that provide systemic guidance to all development co-operation providers to identify activities that are incompatible with the objectives of the Paris Agreement, and by extension sustainable development.

Challenge 6: Fragmented approaches in development co-operation limit the scale of effective climate action. Given the multitude of diverse actors in the international development co-operation system, harmonised approaches or standards are essential to avoid fragmentation and inefficiencies. Such standards are of particular importance for funding and financing instruments, data and information, and infrastructure. A more concerted effort is needed to overcome bottlenecks across these three areas to make progress on Paris alignment at the system level and promote the needed transition to low-emissions, climate-resilient pathways.

Access to climate-related development finance is often perceived as inefficient, ineffective and burdensome to developing countries. This perception stems from the complexity of the international climate finance architecture, and greater harmonisation and standardisation is needed if developing countries are to access available resources and effectively implement adaptation, resilience and mitigation measures. To engage in the right measures, a better data, information and evidence base is needed that overcomes the currently fragmented data architecture. Such stronger data, information and evidence base is also required to make progress in establishing low-emissions, climate-resilient infrastructure as a broad-based asset class, adjacent to needed progress on contractual, financial and deal standardisation.

- ***The way forward: Drive effective, scaled-up climate action through common standards in finance, data and infrastructure.*** In particular, development co-operation providers should:
  - increase harmonisation and transparency of climate-related development finance and improve access to such finance
  - promote harmonised standards and approaches regarding the generation and use of climate data
  - reinforce efforts to standardise procedures and specifications for infrastructure investments.

Challenge 7: Large volumes of finance are available globally, but systemic barriers impede investment in low-emissions, climate-resilient infrastructure in developing countries. The investment decisions for infrastructure will determine whether the interlocking agendas for sustainable development and climate action can be achieved. Establishing infrastructure as a broad-based asset class can open unprecedented opportunities, but developing countries face additional systemic barriers in promoting low-emissions, climate-resilient infrastructure. These barriers – including shallow capital markets, limited scope for local currency financing and trade, and foreign exchange risks – imply fundamental constraints to generate and effectively intermediate financial resources to bridge the infrastructure investment gap.

A collective and concerted approach is needed to address these systemic barriers to enable developing countries' transition to low-emissions, climate-resilient pathways and make progress on Paris alignment at the system level. Such efforts should build on initial success stories, including initiatives supported by different donor and non-donor country governments to address foreign exchange risks. Strong and broad political support are essential, given the considerable resource, engagement and co-ordination needs. Building on the momentum created from the United Nations Climate Action Summit in September 2019, strategic partnerships of governments, development co-operation providers as well as the private sector are central in bringing these efforts to fruition.

- ***The way forward: Focus on effective partnering to promote finance for investments in low-emissions, climate-resilient infrastructure at scale.*** In particular, donor country governments and development co-operation providers should:
  - focus on multi-stakeholder partnerships to trigger the needed transformation, building on the momentum generated by the UN Climate Action Summit 2019
  - establish a strong, mission-driven partnership to address foreign exchange risk that signals political commitment and will to deliver a systemic solution.

Alignment with the Paris Agreement is vital to accelerating the transition to low-emissions, climate-resilient development pathways

For development co-operation providers, aligning with the objectives of the Paris Agreement means taking individual responsibility while also committing to be part of a global partnership – just as the Paris Agreement and the 2030 Agenda constitute a joint agenda for people and planet. Development co-operation providers should clearly and unreservedly commit to aligning with the objectives of the Paris Agreement by setting concrete objectives, creating shared commitments, and taking ambitious and consistent action.

Leadership is needed to unlock both financial capital and political will, including to take on the risks that come with shifting to new approaches. The imperative to align is based on solid evidence that sound climate policy is sound development policy. The solutions for achieving the objectives of the Paris Agreement exist. It is vital that development co-operation providers mobilise now to apply these climate solutions to advance sustainable development.

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Notes

[1] This estimate refers to the mean net present value of the costs of damages from global warming, and what Hoegh-Guldberg et al. (2018[3]) describe as "costs associated with climate change-induced market and non-market impacts, impacts due to sea level rise, and impacts associated with large-scale discontinuities". See https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_Chapter3_Low_Res.pdf

[2] Climate-related development finance is different from climate finance, and the two concepts cannot be equated. Box 2.7 in Chapter 2 elaborates the differences.

[3] The reporting of multilateral development banks (MDBs) to the DAC using their joint approach for measuring climate components begins on 2013 flows; climate-related development finance reported prior to this year does not include MDBs. For more detail on the methodology, see Annex C.

1. Why is it a priority to align development co-operation with the objectives of the Paris Agreement?

Climate change and development are fundamentally interconnected. Hard won development gains will be lost without rapid, coherent action to address the climate crisis and transition to low-emissions, climate-resilient pathways.

This chapter first explores how and why the climate crisis is closely interconnected with development, and looks at potential scenarios for development as the world heats up. It then looks at how aligning development co-operation with the objectives of the Paris Agreement will bring opportunities to advance development while supporting the transition to low-emissions, climate-resilient pathways.

In brief

- The climate crisis touches every sector and community. It multiplies threats, creating new obstacles for development and poverty reduction.
- To limit the devastating impacts of climate change, countries should act within the decade to massively cut global greenhouse gas emissions and place climate at the centre of their policies and investments across sectors.
- The climate crisis threatens to derail the agendas of the many institutions that facilitate and provide development co-operation. They cannot deliver on their mandate to support developing countries' economic, social and environmental transformation without anticipating and accounting for climate change.
- The window of opportunity is closing, and development co-operation providers have two urgent tasks. First, they need to support developing countries to accelerate the shift to low-emissions pathways and strengthen adaptation and resilience to climate change. Second, they need to help to protect the people and places most at risk – both from the direct impacts of climate change and from the social and economic disruptions that the transition to new development pathways entails.
- Aligning with the objectives of the Paris Agreement constitutes an opportunity for development. Sound climate policy is sound development policy, and ambitious climate action reinforces developing countries' economic growth and development.

1.1. Sustainable development and climate change are inseparable

All development is occurring in the context of the world's changing climate. Climate change is rapidly altering the ecological and social systems that underpin human well-being and economic activity, and will continue to influence how countries develop beyond the end of this century (IPCC, 2018[1]). Moreover, climate change is a threat multiplier that directly challenges societies' ability to satisfy basic human needs; promote justice, peace and security; and pursue sustainable and equitable economic growth and development (OECD, 2018[2]; Hoegh-Guldberg et al., 2018[3]; Rüttinger et al., 2015[4]).

The impacts of climate change are occurring now. In the absence of more effective climate action, they are projected to dramatically worsen. Impacts include not only increasingly frequent and severe extreme weather events such as floods and hurricanes, but also slower-onset changes such as sea level rise, warming and acidifying seas, and long-term droughts. These impacts are geographically varied, unpredictable and exponential rather than linear or gradual (IPCC, 2018[1]). Their implications for development are far-reaching. The way in which communities, cities and countries develop – spatially, economically and socially – is a key determinant of their vulnerability to climate change and their exposure to impacts that compound on one another, especially in places where poverty and disadvantage are widespread (Hallegatte et al., 2016[5]; Zscheischler et al., 2018[6]).

The world's most vulnerable people face the greatest risks from climate change (IPCC, 2018[1]; Roy et al., 2018[7]). These include people who live in poverty, face entrenched disadvantage, or lack access to fundamental human needs such as water, energy or health services. They are people who live in the most climate-sensitive locations and environments around the world, among them communities dependent on coastal and agricultural livelihoods, particularly in the least developed countries (LDCs) and small island

developing states (SIDS) (IPCC, 2018[1]). Dimensions of disadvantage exacerbate people's vulnerability to climate change impacts in many ways. The combination of low socio-economic status and geographic location can increase certain groups' exposure to climate hazards – for instance, if they depend on agriculture, live on islands or coastlines prone to extreme weather, or live in informal settlements in flood-prone areas. The 2030 Agenda will not be achieved if societies' most vulnerable people continue to face exclusion and disadvantage. It is vital that they are supported to reduce their exposure to the impacts of climate change.

Sustainable development is possible only when countries own and lead their development and local populations are active agents in decision making (UN, 2015[8]), and when there is a strong link between the development and climate priorities expressed by developing countries and communities. Leaders in low-income countries prioritise zero hunger and affordable and clean energy, Sustainable Development Goals (SDGs) 2 and 7, respectively; these two goals are also among the top three SDGs mentioned in the nationally determined contributions (NDCs) of low-income countries (Brandi et al., 2017[9]; Custer et al., 2018[10]). This reflects developing countries' growing recognition of the imperatives and benefits of shifting to low-emissions, climate-resilient development pathways. By fostering such synergies, development actors can help to ensure that development interventions are oriented to countries' own development priorities and support the integration of strong climate action into efforts to achieve the SDGs.

The climate crisis is a major obstacle to reducing poverty, and immediate action is needed to ensure these two challenges are also addressed together (Hallegatte et al., 2018[11]; IPCC, 2018[1]). The combination of climate change and socio-economic vulnerability can increase the risk of food and water shortages, conflict, and natural disaster exposure and at the same time, induce the forced migration of populations in some of the world's least developed regions (OECD, 2018[2]). Natural disasters alone are already pushing 26 million people a year into poverty, and climate change is expected to increase the frequency and severity of such events (Hallegatte et al., 2018[11]; IPCC, 2018[1]). Without sound, climate-informed development, climate change could force more than 100 million additional people into extreme poverty by as soon as 2030 (Hallegatte et al., 2015[12]). Climate change also adds to the development challenges of rapid population growth and urbanisation in many developing countries. These place further pressure on already scarce resources, especially land, food and water. For example, as much as two-thirds of the world's population already experience severe water scarcity today; that number is projected to rise as a result of climate change and population growth (Hallegatte et al., 2018[11]; Mekonnen and Hoekstra, 2016[13]).

Global accords recognise that climate and development objectives are interconnected

In adopting the 2030 Agenda for Sustainable Development in 2015, countries acknowledged that the adverse impacts of climate change threaten the prospects of achieving sustainable development by limiting future progress and potentially reversing the hard-earned development gains of previous decades (UN, 2015[8]). That same year, world leaders signed the Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC), The Agreement is a basis for urgent, measurable and country-led action to mitigate and adapt to climate change, and it sets out a vision for a global shift to low greenhouse gas (GHG) emissions and climate-resilient development. Failure to drastically reduce GHG emissions over the coming decade until 2030 will result in a much warmer world – with dire consequences for sustainable development (Box 1.1). Indeed, if countries do not urgently increase their ambition and meet the objectives of the Paris Agreement, the 2030 Agenda and its SDGs will not be met and the world will not fulfil its overarching pledge to leave no one behind (IPCC, 2018[1]). Additional global agreements – in particular the Addis Ababa Action Agenda on financing for development, the Sendai Framework for Disaster Risk Reduction, and the other two United Nations (UN) Rio conventions on biodiversity and desertification – are also vital to the achievement of the objectives set out in the 2030 Agenda and the Paris Agreement.

While nearly all countries have formally committed to implementing the Paris Agreement, many government and non-government actors remain uncertain or face major barriers to planning, financing, delivering and sustaining the transformative changes that are needed. Tackling these interconnected challenges demands the involvement of a range of actors to mobilise increased finance, support policy reforms and build capacity. The 2030 Agenda and the Paris Agreement call for ambitious action by both developed and developing countries to deliver transformative change. They note as well that developing countries will continue to need dedicated support (see Chapter 2). Such support is the essence of development co-operation. Development co-operation providers' support to developing countries to mitigate and adapt to climate change should thus rise to the ambitions of the Paris Agreement, as a prerequisite for sustainable development.

Meeting the objectives of the Paris Agreement is essential to bring the Sustainable Development Goals within reach

Countries' policy and investment decisions over the next ten years will shape development pathways far into the future and determine the effectiveness of efforts to meet these interlinked and mutually reinforcing global goals (New Climate Economy, 2018[14]). For instance, the Intergovernmental Panel on Climate Change (IPCC) warns in a 2018 report that countries need to make massive cuts to collective global emissions by 2030 – approximately halving them from 2010 levels – if they are to successfully limit global warming to 1.5°C this century (IPCC, 2018[1]). Box 1.1 presents the report's findings on what is needed to mitigate and adapt to climate change.

Box 1.1. The potential implications of global warming of 1.5°C

The IPCC report, *Global Warming of 1.5°C* (IPCC, 2018[1]; Rogelj et al., 2018[15]), starkly sets out what is needed to effectively mitigate and adapt to climate change over the coming years and decades. It analyses pathways to the two temperature goals outlined in the Paris Agreement – limiting global warming to well below 2°C or to 1.5°C above pre-industrial levels. The report finds that:

- limiting global warming to 1.5°C (with limited or no overshoot of this temperature goal) requires global net anthropogenic carbon dioxide (CO_2) emissions to fall by about 45% compared to 2010 levels by 2030, and to reach net zero emissions around 2050
- pathways that target greater global warming of well below 2°C involve a decline in CO_2 emissions by 2030 of around 25% compared to 2010 levels and net zero emissions by about 2070.

While the necessary pace of change varies, all pathways to 1.5°C or well below 2°C rely on both of the following:

- improving energy efficiency, rapidly decarbonising energy supply and rapidly electrifying energy end use
- increasing the use of negative emissions technologies including land and soil restoration and carbon dioxide capture and storage with bioenergy or natural gas technologies.

Measures for removing carbon dioxide from the atmosphere differ widely in their maturity, potential, costs, risks, co-benefits and trade-offs, and the deployment of current and potential carbon dioxide removal measures could have major impacts on land, energy, water or nutrients at a large scale. The pathways to 1.5°C reflect the need for especially urgent action in the energy sector, notably that:

- investments in unabated coal are essentially phased out by 2030 (with the early retirement of some fossil investments before their capital investment is fully recovered or before the end of their operational lifetimes)
- by 2050, the electricity sector is fully decarbonised and 70-85% of all power is supplied by renewable energy.

Achieving either of the temperature goals also demands transformative adaptation strategies to manage the inevitable risks from climate change. Importantly, there will be limits to adaptation and adaptive capacity with warming of 1.5°C, and these will become more acute at 2°C and above. For example, the risks to SIDS and many LDCs remain high even at low levels of climate change. Even if global warming is limited to 1.5°C, the populations of some SIDS will be displaced due to rising sea levels and other climate change impacts. In natural systems, coral reefs are already severely degraded, and many species are facing extinction.

Ambitious and early mitigation efforts will not only limit further global warming but will also help both human and natural systems to adapt to adverse climate change impacts. Such efforts could also help to reduce the chance that the world will experience disastrous large-scale, singular events[1] from climate change, such as the disintegration of the Greenland and Antarctic ice sheets.

Source: (IPCC, 2018[1]), *Global Warming of 1.5°C: Summary for Policymakers*, http://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf; (Rogelj et al., 2018[15]), "Mitigation pathways compatible with 1.5°C in the context of sustainable development", http://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf; https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_Chapter2_Low_Res.pdf.

The IPCC report examines the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways. It compares the potential pathways to and implications of global average temperature rise of 1.5°C and 2°C (IPCC, 2018[1]). The global average temperature is already 1.1°C above pre-industrial levels and, strikingly, it is 0.2°C warmer than in 2011-2015 (World Meteorological Organization, 2019[16]). If warming continues at the current rate and countries do not strengthen their existing commitments under the Paris Agreement (i.e. the unconditional pledges outlined in their NDCs), the world will likely reach the threshold of a 1.5°C temperature rise sometime between 2030 and 2052; by 2100, the global average temperature increase will likely reach between 2.9°C and 3.4°C relative to pre-industrial levels and warming will likely continue beyond that point (IPCC, 2018[1]; World Meteorological Organization, 2019[16]). Significantly, in the absence of major changes to reverse these temperature rise trends, by 2030, the world will also pass the point at which global warming can be kept to well below 2°C (UNEP, 2017[17]).

Both 2°C and 1.5°C of global warming would have major consequences. However, there are differences in terms of bringing the SDGs into reach. For example, limiting global warming to the lower target of 1.5°C rather than 2°C could reduce the number of people exposed to climate-related risk and poverty by up to several hundred million by 2050 (IPCC, 2018[1]), although further analysis is still needed of how different mitigation approaches might affect poverty levels. Limiting warming to 1.5°C also would help to reach the SDGs on water and energy access, food security, health and well-being, and safe cities, and would contribute as well to inclusive economic growth, poverty eradication, and the protection of terrestrial ecosystems and biodiversity (Roy et al., 2018[7]). In particular, efforts to adapt to climate change that are ecosystem-based and community-based, and that incorporate indigenous and local knowledge, advance synergies with SDGs 5 (gender equality), 10 (reducing inequalities) and 16 (inclusive societies) (Roy et al., 2018[7]).

On the other hand, the anticipated trajectory of global warming of between 2.9°C and 3.4°C will result in abrupt, catastrophic or irreversible changes that signal disaster for development, among them runaway climate change, major losses of habitat and large-scale species extinction (IPCC, 2018[1]; World Meteorological Organization, 2019[16]). Overshoot on the 2°C temperature goal would result in potentially

severe impacts ranging from declining food and water supplies to the catastrophic loss of lives and livelihoods from extreme weather events. These would in turn threaten the human development of current and future generations across SDGs 2 (zero hunger), 3 (health and well-being), 6 (water and sanitation), 8 (work and economic growth), 9 (industry, innovation and infrastructure), 11 (sustainable cities and communities), and 15 (life on land) (UNDP, 2018[18]). Climate impacts are increasing the risk of surpassing critical tipping points, and are now recognised to be occurring earlier and with graver consequences than assessments suggested in 2009 (World Meteorological Organization, 2019[16]). Box 1.2 describes the transformative visions of the interlinked climate and sustainable development agendas.

Box 1.2. Transformation in the context of the Paris Agreement and sustainable development

Both the 2030 Agenda and the Paris Agreement establish a vision for fundamentally transforming countries' development pathways to create inclusive, low-emissions and climate-resilient pathways. Various actors have explored what this transformation might entail in practice (Few et al., 2017[19]; OECD/World Bank/UNEP, 2018[20]; New Climate Economy, 2018[14]). While there is no universally agreed definition, transformation can be understood as a process of systemic change that encompasses all sectors and actors and constitutes a decisive shift away from the status quo.

The very title of the 2030 Agenda – *Transforming Our World* – signals the importance of this vision. The Agenda explicitly notes that "bold and transformative steps … are urgently needed to shift the world on to a sustainable and resilient path" (UN, 2015[8]). As this statement suggests, sustainable development is itself a process of transformation. For instance, a country with low economic and human development indicators undergoes a fundamental transformation in its economic, social and environmental systems, practices and norms over the course of its development. Some of this transformation takes the form of progressive shifts. Other changes are more sudden and disruptive. Development co-operation has a long-standing role in supporting countries through the change process, including and in particular when it is necessary to disrupt systems and past approaches to ensure continued progress towards development objectives.

In the context of climate change, the IPCC refers to "transformation pathways" that describe possible emissions futures, defining them as trajectories that are "associated with a set of broad and irreversible economic, technological, societal and behavioural changes [which] can encompass .changes in the way energy and infrastructure are used and produced, natural resources are managed and institutions are set up and in the pace and direction of technological change" (Matthews, 2018[21]). This reflects an understanding of transformation as far-ranging and permanent. The IPCC also defines adaptation as either incremental (adaptation that "maintains the essence and integrity of a system or process at a given scale") or transformational (adaptation that "changes the fundamental attributes of a socio-ecological system in anticipation of climate change and its impacts"), while noting that incremental adaptation can accrue to achieve transformational adaptation. In noting this, the IPCC makes an important distinction between actions that preserve existing approaches and those that anticipate future changes and bring about fundamental shifts as a result. This distinction supports the view that individual development interventions can be designed and delivered in a way that supports wider systemic goals (OECD/World Bank/UNEP, 2018[20]).

Climate and development actors also describe the type of change envisioned in the Paris Agreement as a paradigm shift. For example, the Green Climate Fund (GCF) uses investment criteria to identify the "paradigm shift potential" of programmes and projects (UNFCCC, 2012[22]; Green Climate Fund, 2014[23]). The GCF defines this potential in two parts: the "degree to which the Fund can achieve sustainable development impact *beyond a one-off project or programme investment* through replicability and scalability" and "*systemic change* towards low-carbon and climate-resilient development pathways" (emphasis added) (Green Climate Fund, 2014[23]). The framework therefore

encourages activities that are not isolated or one-off actions, but are instead designed to be replicated and scaled to contribute to system-level change.

These concepts are instructive for development actors grappling with how they might design their interventions to go beyond doing no harm and focusing on singular or confined objectives to instead contribute positively to the broader transformation envisioned in the Paris Agreement.

1.2. The objectives of the Paris Agreement are central to the mandate of development co-operation

The mandate of development co-operation is to facilitate developing countries' economic, social and environmental transformation in the face of varied and often complex challenges. The climate crisis directly threatens to undermine the agendas of institutions that facilitate and provide development co-operation. They will fail to deliver on their sustainable development mandates if they fail to adequately anticipate and account for climate change. Unless development co-operation providers step up and actively help developing countries to take ambitious climate action, they risk supporting unsustainable development.

The Paris Agreement explicitly places climate action in the context of sustainable development and poverty reduction by recognising the development needs and pathways of developing countries, especially those that are most vulnerable to adverse climate impacts (UNFCCC, 2015[24]). The Agreement is a framework that is fundamentally concerned with how countries can reduce devastating global climate impacts and thereby continue to develop and prosper now and into the future. It provides a clear direction for climate action that builds on SDG 13, which calls for countries to take urgent action to combat climate change and its impacts, and supports the broader 2030 Agenda (UN, 2015[8]).

The economic and social case for taking ambitious, accelerated climate action in both developed and developing countries is well established. The low-emissions, climate-resilient development pathways described in the Paris Agreement will be cost-efficient and will deliver better development results than traditional development trajectories. With the right policies and signals, developing countries can address climate change while increasing growth and productivity and reducing inequality (OECD, 2017[25]; IRENA, 2019[26]). The global economic consequences of failing to take ambitious climate action are stark. Global economic damages in 2100 are projected to be smaller under global warming of 1.5°C than of 2°C. The IPCC estimates that the damages from warming in 2100 could cost USD 54 trillion with 1.5°C of global warming and USD 69 trillion with 2°C of global warming relative to the period 1961-90[2] (Hoegh-Guldberg et al., 2018[3]).

Emissions-intensive development is not only economically inefficient, but also overlooks the potential for technological and social innovation to reduce emissions and build resilience. Recent modelling demonstrates that limiting global warming to well below 2°C would result in direct, cumulative economic benefits of USD 26 trillion for the period 2018 through 2030, compared with business-as-usual scenarios (New Climate Economy, 2018[14]). A shift to a low-emissions economy would increase global gross domestic product through increased labour participation and female employment, avoid 700 000 premature deaths from air pollution, and generate over 65 million new low-carbon jobs (New Climate Economy, 2018[14]). Current estimates of these future scenarios are often conservative, and they tend to underestimate or fail to factor in the existing economic, social and environmental co-benefits of climate action taken to date, especially in adapting and building resilience to climate impacts (New Climate Economy, 2018[14]).

Urgent climate action that supports countries' shift to low-emissions, climate-resilient development pathways thus is an opportunity to enable inclusive economic growth that can provide a just transition while ensuring higher wealth and well-being globally (New Climate Economy, 2018[14]).

1.3. Aligning with the Paris Agreement creates opportunities for development

Ambitious climate action constitutes an opportunity for development. It is essential that decision makers recognise the corollary – that sound climate change policy is also sound development policy. Development decisions and interventions that do not reflect the aims of the Paris Agreement are at risk of locking countries into development pathways that exacerbate climate change, increase vulnerability to its impacts and fail to meet Agenda 2030.

Fundamentally, alignment means ensuring that development pathways are low-emissions and climate-resilient and, as a result, sustainable in the face of the multi-layered challenges that countries now face. Aligning development co-operation approaches with the Paris Agreement involves accounting for the shifting climate reality that is the new normal and clearly aiming to support the core objectives of the Agreement on mitigation, adaptation and the consistency of finance flows (as outlined in Article 2.1; see Chapter 2). Alignment also means supporting a just and inclusive transition in developing countries and shoring up the health of critical ecosystems to realise combined economic, social and environmental benefits.

Alignment will accelerate the shift to low-emissions pathways

In their traditional form, some development co-operation activities have contributed to the current unsustainable pathways, in particular through financing major infrastructure and economic activities that are the main sources of emissions. Economic growth and development have historically been closely associated with the ability to generate energy, predominantly from fossil fuel sources, for various end uses ranging from increased productivity in industrial and agricultural production to transportation, construction, and operation of social and economic infrastructure. In the absence of alternative models, development co-operation played a strong role in promoting development approaches over the past decades that are today known to be unsustainable.

While such historical activities may have reflected a lack of climate change awareness and the absence of affordable alternatives for emitting technologies, these factors are no longer valid impediments to climate action. While the Paris Agreement includes provisions for emissions to peak later in developing countries, recent analysis points to superior development outcomes from a rapid and ambitious shift. Moreover, the knowledge, technological solutions, capacities and financial resources exist globally to pursue alternative development models and use them to achieve better development outcomes. It is clear that development co-operation activities that support low-emissions, climate-resilient development help countries to take advantage of these newer solutions, processes and technologies to shift them onto new growth trajectories (New Climate Economy, 2018[14]). Continued investment in emissions-intensive activities such as fossil fuels, on the other hand, has the potential to not only raise emissions but also to increase the risk that countries will have to manage stranded assets, communities and workers as the impacts of climate change grow (OECD, 2017[25]) (New Climate Economy, 2018[14]).

The Paris Agreement encompasses a far greater range of actors and embodies much higher ambition for climate change mitigation than past global climate agreements. It demands major changes to achieve necessary emission reductions across all emitting sectors – among them energy, transport, industry and land use systems – and across regions and urban and rural economic systems. As Box 1.1 illustrates, meeting the Paris Agreement objectives to limit global warming to 1.5°C or well below 2°C requires rapid changes to current global development practices and investments to support major emission reductions between now and 2030 (IPCC, 2018[1]). To meet either of these global warming objectives, it is essential to strengthen countries' current mitigation ambitions as they are outlined in NDCs, which contain near-term and mid-term national policies, measures and targets for climate action. All pathways for limiting warming to 1.5°C and well below 2°C involve a shift in key sectors. As described by de Coninck et al. (2018[27]), examples of such shifts by area include the following:

- in energy systems, faster uptake of energy-efficient technologies and practices (e.g. in industrial processes and buildings), electrification, raising the share of renewables to decarbonise energy supply with greater reliance on smart grids, new energy storage, and information communications technologies to manage and match supply and demand.
- in land use, extensive afforestation and reforestation as well as agricultural practices that retain and raise soil carbon; these will require careful efforts to address trade-offs with food production and security, bio-energy land requirements, and livelihoods for people dependent on agriculture as many of them are poor.
- in heavy industry, technological innovations such as greater electrification and increased use of hydrogen, bio-based feed stocks, and carbon capture and storage (noting that these options are limited by institutional, economic and technical constraints that increase financial risks to many incumbent firms).
- in urban areas, de-motorisation; electrification of transport; and compact, connected development to manage the carbon footprint and generate human health co-benefits (New Climate Economy, 2018[14]).

In view of the cross-sectoral changes that are needed to achieve the temperature goals of the Paris Agreement, development co-operation should help developing countries to extricate themselves from dependence on fossil fuels by focusing on overcoming financing, policy and capacity gaps that constrain developing countries from making use of existing solutions to achieve better development. For example, SIDS are typically net importers of fossil fuels. Development co-operation also needs to facilitate climate change mitigation within sectors such as health and other social services sectors where climate change considerations have generally been less integrated (OECD/World Bank/UNEP, 2018[20]; OECD, 2017[25]). This can help to build capacity in these sectors and set in motion necessary policy reforms to manage transition costs, while at the same time creating and exploiting economic opportunities in low-emissions, climate-resilient economies.

To guide the right types of investments and long-term policy reforms, development co-operation should support developing countries to progressively raise the ambition of their NDCs (see Chapters 2 and 3). As noted, vital objectives for such co-operation will be decarbonisation and electrification of the energy system, increased sustainable land use including climate-smart agriculture, greater innovation and process changes in heavy industry, and more sustainable urban systems. Supporting developing countries to start making these changes today will help them to avoid becoming locked into dangerous structural dependencies that lead to high emissions and higher vulnerability to climate change in the future.

Alignment will support adaptation to adverse climate impacts and build resilience

The purpose of development interventions is to support communities to adapt to changing contexts and build greater capacity and resilience to emerging risks. Action to adapt to climate change – defined by the IPCC as a “process of adjustment to actual or expected climate and its effects” – shares many characteristics with sound development in that it focuses on reducing the vulnerability and exposure to climate hazards of people and natural and built assets (Hallegatte et al., 2018[11]; Matthews, 2018[21]). Indeed, adaptation to climate change is now being more broadly interpreted and approached as a process of “rapid, inclusive and climate-informed” development (Hallegatte et al., 2018[11]; Hallegatte et al., 2015[12]).

To ensure that the risks of climate change to development are well understood and that developing countries and communities can respond appropriately, development co-operation providers should recognise the risks of climate change and address these in their interventions (Hammill and Tanner, 2011[28]; OECD, 2009[29]). Development co-operation activities can help to enable transformative adaptation by building resilience and adaptive capacity and by promoting livelihood security for poor and vulnerable people. Development co-operation can also help to identify and alter current modes of

development that do not assess or address the impacts of climate change and that lead to maladaptation and jeopardise past development gains.

Development co-operation providers should also recognise and help to address the numerous, existing barriers to adaptation (Hallegatte et al., 2018[11]). Many developing countries still have inadequate access to information, knowledge and capacity to inform and undertake adaptation. Other barriers affect all sectors. One example is out-of-date land zoning or land use planning that allows high-risk investments and development to proceed. Another is poor enforcement of zoning or building regulations that are needed to protect people and assets from climate-related risks. Reducing non-financial barriers such as these increases resilience and reduces climate change impacts without necessarily increasing investment costs. Financial barriers may occur in the form of environmentally perverse subsidies for water, extensive agriculture and built infrastructure, among other things. Reforming such subsidies can yield direct financial gains while delivering resilience benefits (Hallegatte et al., 2018[11]; Global Commission on Adaptation, 2019[30]). Development co-operation can be pivotal in supporting developing countries to identify and exploit these policy reform opportunities to help forge low-emissions, climate-resilient pathways.

Alignment will help to ensure that no one is left behind in the transition

A fundamental part of the mandate of development co-operation is supporting developing countries to develop in a way that is equitable and inclusive – that is, ensuring that no one is left behind – and consistent with the 2030 Agenda (OECD, 2018[2]). As set out in both the Paris Agreement and the 2030 Agenda, this means taking pro-poor, gender-responsive, transparent and participatory approaches to development (OECD, 2018[2]). The changes needed to fulfil the objectives and ambitions of these two global frameworks will be complex and invariably entail disruptions to traditional activities in many sectors. Development co-operation has a clear opportunity to help countries to plan and implement these major transitions in a way that lays the groundwork for sound climate action and better societies in the long term, underscoring that sustainable development and climate change are inseparable. Just, inclusive climate action can also help to foster greater public acceptance for climate policies and enable more rapid progress.

One such opportunity is to support to investments in infrastructure and deliver social protection policies that build resilience to climate and other large-scale change while also protecting the poor (Hallegatte et al., 2016[5]). The need to support a just transition for workers is a recognised critical element of mitigation strategies, and yet development co-operation actors also have a clear, broader imperative to support just and equitable transitions across all sectors touched by climate change (OECD, 2017[25]). It would be inconceivable to achieve the “just transition” called for in the Paris Agreement without taking account of the interconnected impacts on vulnerable populations and the development challenges already confronting them. The just transition imperative requires an approach that recognises the effects of both mitigation and adaptation action on different groups – workers; other populations, notably the poor, facing intersecting challenges; and among these, particularly exposed and vulnerable groups such as girls and women and indigenous populations (Smith, 2017[31]; OECD, 2018[2]).

Some climate change mitigation policies, implemented on their own, may impose relatively greater costs in the immediate term on the poorest or most vulnerable people, for example by raising the cost of fossil fuel-based energy, transport services or food. As a large share of poor people’s budgets is dedicated to food and essential services, the relative cost of these price changes can be disproportionately high for them (Hallegatte et al., 2018[11]). However, such cost increases can usually be more than offset by accompanying policy or regulatory measures. Evidence to date suggests that the introduction of tailored tax and benefits schemes in parallel with climate change mitigation measures can shield poorer households and communities from the potential adverse impacts of reforms, and also ensure that these groups experience net benefits (OECD, 2015[32]). Development co-operation that is aligned with the objectives of the Paris Agreement can help countries to develop and deliver these types of transitional measures and seize the opportunity that comes with the shift to low-emissions, climate-resilient pathways.

Ensuring a just transition is essential for a future with green and decent jobs (New Climate Economy, 2018[14]; ILO, 2015[33]). Transitioning to low-emissions, climate-resilient development pathways at the global, regional, national and local levels requires structural changes to economies, with implications for the numbers and types of jobs and skills required across economies and societies. Some of these changes are linked to larger technological and structural trends. Others are necessarily disruptive for certain parts of economies or communities of workers, for example in cases where countries are shifting from an agricultural to an industrial-manufacturing economy and/or increasing automation. Development co-operation can support a just transition of the workforce by ensuring fundamental labour and employment rights, developing dedicated regional strategies addressing specific local circumstances or challenges, and fostering social dialogue and protection (ILO, 2015[33]).

The introduction of mitigation and adaptation policies also requires accompanying measures that target industrial development, employment, migration, and protection and adaptation of livelihoods, and thereby help affected workers and populations to adjust while shielding them from undue disadvantage or increased vulnerability (OECD/World Bank/UNEP, 2018[20]). Transitional measures that are directly led and influenced by the parties most affected are central to meeting the Paris Agreement's call for "a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities" (UNFCCC, 2015[24]). Institutional reforms are needed to ensure that the people most affected by these transitions are able to participate in the creation of policy decisions that affect their jobs and livelihoods. Investment in training and education as well as social protection measures are also vital to supporting workers and their families during interim periods of training or unemployment (Smith, 2017[31]).

It should also be noted that experience to date suggests that the transition towards green growth will not necessarily result in rates of labour reallocation or changes in demands for skills that are outside of historical experience (OECD, 2015[32]). Moreover, technology changes beyond those immediately related to climate change mitigation, such as the advent of artificial intelligence and self-driving cars in the transportation sector, are likely to have a greater impact on the number and nature of jobs in a given industry (OECD, 2018[2]).

Alignment will strengthen the health of ecosystems that support life on Earth

In addition to opportunities to support transitions that leave no one behind, Paris alignment offers development co-operation opportunities to facilitate climate action that supports the health of ecosystems, addresses overlapping crises and delivers broader environmental co-benefits.

Some major global environmental challenges that interact directly with climate change include land degradation and desertification (including from land use change such as deforestation), ocean warming and acidification, and the broader declining health of ecosystems and biodiversity. For example, climate change has been found to be triggering feedback loops in the ocean and cryosphere (i.e. the frozen components of the Earth's system) wherein emissions released from melting permafrost combine with additional heating from the loss of sea ice (IPCC, 2019[34]). Another example is the way in which deforestation and land clearing release GHG emissions and remove natural carbon sinks while driving biodiversity loss and ecosystem degradation. These impacts hit people directly, as communities need natural resources such as oceans and forests to survive and develop. The Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services has found that the current trajectory of biodiversity loss and ecosystem destruction will undermine progress towards 80% of the assessed SDG targets related to poverty, hunger, health, water, cities, climate, oceans and land (IPBES, 2019[35]). A lack of available data on the status of the environmental dimensions of the 2030 Agenda is also a major barrier to progress. The UN Environment Programme, which has identified 93 SDG indicators as being environment-related, found that for 77% of these indicators, there is either insufficient data to assess progress so far or it is unlikely that the target would be met without upscaling action (UNEP, 2019[36]).

An effective response to these crises in the world's natural systems requires cross-sectoral, integrated approaches (IPBES, 2019[35]). Such solutions explicitly account for the interactions between the natural systems that support biodiversity and ecosystem health on the one hand, and human-built systems on the other. Nature-based solutions are one example of such integrated approaches, as they "protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits" (International Union for Conservation of Nature, 2019[37]). While the Paris Agreement recognises the role of nature-based solutions to climate change, the urgent imperative to protect and restore vital ecosystems presents both synergies and trade-offs with other SDGs, particularly in the near term. For example, watershed and soil conservation may constrain land for agriculture and push up food prices in the short term, as a result of increased demand through population growth or the unsustainability of existing uses of agricultural lands. This is one reason why sustainable development and pro-poor climate action require the use of social safety nets and specific transitional measures to protect vulnerable populations and that are underpinned by an understanding of natural systems.

Nature-based solutions for climate change can provide adaptation and mitigation benefits while also helping to lower or reverse the risk of ecosystem degradation, biodiversity loss and mass species extinction (Griscom et al., 2017[38]; IPBES, 2019[35]). The use of nature-based solutions for adaptation can be particularly cost-effective in delivering co-benefits for mitigation when other sustainability criteria are considered (IPCC, 2018[1]). Natural climate solutions can provide more than one-third of the emission reductions that are required between now and 2030 to keep global warming well below 2°C, and do so in a cost-effective way (Griscom et al., 2017[38]). There are also clear opportunities to address different environmental challenges coherently through climate action, for example pertaining to oceans. Ocean-based climate solutions, such as ocean-based renewable energy systems and the restoration of coastal and marine ecosystems, have the potential to deliver around one-fifth of the emissions reductions that are needed to limit warming to 1.5°C by 2050, while also delivering major co-benefits for adaptation (Hoegh-Guldberg et al., 2019[39]). By supporting combined solutions such as these, development co-operation can help to shore up the natural systems that have a proven role in sustaining human health and livelihoods, while facilitating the transition that the Paris Agreement requires.

1.4. Development co-operation is critical to unlocking ambitious climate action

Low-emissions, climate-resilient pathways offer opportunities not just for development, but for better development. The question for development co-operation, then, is how to most effectively support developing countries to seize these opportunities and address risks. The challenge of strategic, timely and effective climate action is not confined to developing countries. It also concerns those OECD countries where domestic policy action on climate change remains insufficient. Development finance, which measures development co-operation flows, constitutes the fundamental resource basis of international action in support of sustainable development. The volume of development finance invariably defines the scope of its reach and ambition. At the same time, the development and climate challenges need to be situated and understood within a broader financing landscape.

Development co-operation needs to apply financial resources more strategically

Increased financing for development is essential for achieving both the 2030 Agenda and the objectives of the Paris Agreement. The financing needs for achieving the SDGs and shifting to low-emissions, climate-resilient pathways are much higher than the levels of historical development finance flows. Official development finance (ODF) – concessional and non-concessional international finance from public sources that is deployed with a policy mandate to support development – is an especially important part of the picture (OECD, 2018[2]). The explicit development co-operation mandate, and especially the ability of

ODF to provide highly concessional resources, make this finance a core tool for the more difficult and ambitious changes that need to occur in developing countries to shift to low-emissions, climate-resilient development pathways.

There has been an encouraging, increasing trend in climate-related development finance in recent years. Bilateral and multilateral actors have made ambitious announcements of increased climate-related financing, which points to continued and growing prioritisation of climate-related development finance. However, this prioritisation is occurring alongside a concerning declining trend in ODA provided to LDCs, which are most reliant on international development finance (OECD, 2019[40]). Moreover, development finance, and especially concessional development finance, is a fundamentally scarce resource relative to needs.

It is essential to meet financing targets – including, for those countries that have committed to it, the target of 0.7% of donors' gross national income to ODA – as well as commitments with regard to climate finance to developing countries. At the same time, even where it can be substantially scaled up, development finance should not be considered a resource capable of directly meeting overall financing gaps. The total annual investment gap in key sustainable development sectors is estimated at USD 2.5 trillion – equivalent to 17 times current ODA volumes (UNCTAD, 2014[41]).

The order of magnitude of this gap reflects the scale of the challenge of overcoming the resources gap for financing development. The gap exists irrespective of whether this financing follows outdated modes or sustainable pathways of low-emissions, climate-resilient development. In some instances, approaches that are aligned with the objectives of the Paris Agreement may require more upfront capital investment. For example, compared to fossil fuel-based energy, the capital expenditure constitutes a higher share in the overall cost of power generation, which translates into a higher cost of financing as a share of the total project cost. Conversely, renewables do not require any fuel costs for the subsequent operations, whereas the costs of fossil fuels represent a high share in the overall cost of fossil fuel-based energy generation. Moreover, the fossil fuels required for operation are subject to price fluctuations that can increase a power plant's operational expenditure significantly. In other instances, such as where nature-based solutions are used, sustainable development solutions may actually reduce or eliminate financing needs.

Nonetheless, ODF alone will certainly not be able to fill the resource gap, which makes it essential to situate ODF in the broader system of financial flows and sources. Meeting direct funding and financing needs remains an important function of development finance in specific contexts, notably in the poorest countries and those with the least access to other resources. Overall, it is vital that development co-operation actors focus strategically on ensuring that development finance creates incentives and pathways for more of the total available finance to be invested in sustainable, low-emissions and climate-resilient development (OECD, 2018[42]).

While financing needs in developing countries dwarf ODF flows, there is a much broader landscape of financing for sustainable development, as set out in the Addis Ababa Action Agenda (AAAA) agreed by countries in 2015 (UN, 2015[43]). Similarly, the scope of the Paris Agreement explicitly includes the alignment of all financial flows within its objectives. Beyond the need for internal coherence within development finance, development co-operation should be used strategically to shift broader financial flows in line with low-emissions, climate-resilient pathways.

The resources called for under the AAAA far exceed the investment gap identified for low-emissions, climate-resilient development pathways. Within international systems of financing for development, the largest financial resource for developing countries in all income categories is domestic, government revenue, although with substantial variation. In 2016, ODF corresponded on average to half of domestic tax revenue in LDCs, about 13% in lower middle-income countries and less than 0.2% in upper middle-income countries (OECD, 2018[42]). Looking beyond this system, total global financial assets amounted to USD 382 trillion in 2017, reflecting the scale of financial flows that should be aligned with mitigation and adaptation goals set out in the Paris Agreement (Financial Stability Board, 2019[44]).

In addition to providing targeted support to individual, climate-relevant sectors, the public fiscal and budgetary systems and the private financial systems need to be adjusted. These systems are directly associated with the two largest sources within the financing for development system – government revenue and private, market-based finance – and are responsible for the mobilisation, intermediation and allocation of financial resources they comprise. Their systemic function and importance mean that they play a fundamental role, both in shifting and mobilising the increased financial resources at the required scale and in aligning financial flows generated by these systems with low-emissions, climate-resilient pathways in line with the Paris Agreement.

Development co-operation should support countries to use this window of opportunity

The low-emissions, climate-resilient development pathways now represent the only sound option for achieving the ambitions of development co-operation under the 2030 Agenda. As the Global Commission on the Economy and Climate noted in 2018, the world currently has a "use it or lose it" opportunity to take bold climate action while achieving economic gain (New Climate Economy, 2018[14]). Development co-operation providers and developing countries should work together urgently to align their activities with the Paris Agreement.

Given the scale of the challenges and the need to avoid catastrophic impacts that place the world's poorest people at the greatest risk, the coming decade is crucial for advancing long-term economic prosperity and development. As the findings of the IPCC (2018[1]) underscore, the combined actions of developed and developing countries in the years to 2030 will determine the world's ability to shift to development pathways that can curb global warming to 1.5°C. The coming year, 2020, will be especially decisive, as countries update their NDCs, outline vital long-term strategies, commit to the required levels of transparency and accountability, and through these actions, set their levels of practical and political ambition on climate change and sustainable development (New Climate Economy, 2018[14]).

The role of development co-operation implies an inherent focus on supporting developing country partners with the resources, capacities and information they need to address gaps and manage the challenging transitions that arise during the process of sustainable development and that they cannot easily or sufficiently address endogenously.

Recognising that sound climate policy is sound development policy is the essential first step. The urgency of development challenges in many developing countries means that short-term responses to needs may be pursued because they are immediately feasible, notwithstanding their long-term cost and unsustainability in the context of the climate crisis. In such cases, and despite awareness of the benefits of an ambitious climate response, the default course of action may often be business as usual.

Providers of development co-operation are key actors, mandated to support developing countries to successfully navigate their development pathways. As such, they cannot shy away from the challenging transformations that are an intrinsic part of the development process.

It may be tempting to continue past practices and approaches in which both sides of the development partnership have decades-long expertise and experience and that both sides may easily execute. But doing so would miss the essential rationale of development co-operation – to support developing countries to acquire the knowledge, resources and capacities to make the shift towards a transition that represents the only long-term option to achieve sustainable development, and to ensure that these are ingrained in providers' policies and operations.

Time is of the essence, given the short horizon imposed by climate change and the length of policy, planning and implementation cycles. Only concerted, co-ordinated action will be able to achieve the much-needed transformation in finance, policy and capacity that is needed to ensure activities are consistent with the objectives of the Paris Agreement over the long term and across all sectors and systems.

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Notes

[1] The IPCC defines large-scale singular events as "relatively large, abrupt and sometimes irreversible changes in systems that are caused by global warming". See http://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf

[2] This estimate refers to the mean net present value of the costs of damages from global warming, and includes what Hoegh-Guldberg et al. (2018[3]) describe as "costs associated with climate change-induced market and non-market impacts, impacts due to sea level rise, and impacts associated with large-scale discontinuities". A further discussion can be found at https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_Chapter3_Low_Res.pdf

2. What does Paris alignment mean for development co-operation?

What does development co-operation look like when it is aligned with the Paris Agreement? This chapter outlines its four main characteristics: (i) it does not undermine the Paris Agreement but rather contributes to the required transformation (ii) it catalyses countries' transitions to low-emissions, climate-resilient pathways (iii) it supports the short- and long-term processes under the Paris Agreement (iv) it proactively responds to evidence as well as to opportunities to address needs in developing countries. This chapter then discusses how some providers are already actively pursuing Paris alignment, and examines how development finance patterns and allocations point to significant remaining gaps and inconsistencies in integrating climate objectives.

In brief

- This report argues that development co-operation that is Paris-aligned actively supports the core objectives of the Paris Agreement on climate change mitigation, adaptation and finance flow consistency and the country-driven processes established to achieve them. These processes include, in particular, nationally determined contributions (NDCs) and long-term low greenhouse gas emissions strategies.
- This report identifies a set of key characteristics that describe what Paris alignment looks like for development co-operation. The characteristics propose that aligning development co-operation with the objectives of the Paris Agreement means ensuring that activities make an overall positive contribution to the global shift to low-emissions, climate-resilient pathways. Paris-aligned development co-operation does not undermine effective climate action. Rather, it proactively supports and catalyses countries' climate action, facilitating more robust and ambitious NDCs and long-term strategies and responding to evidence and emerging opportunities in developing countries.
- In recent years, various providers of development co-operation have made useful progress on Paris alignment and increasingly situate climate action at the centre of sustainable development. Nevertheless, further efforts are needed.
- Providers are not sufficiently integrating climate considerations across portfolios. Climate-related development finance accounted for 18% of bilateral and 32% of multilateral development finance in 2013-17. But climate-related development finance is not trending strongly upward, suggesting insufficient action in development co-operation to date.
- Climate-related development finance has so far been concentrated in the sectors typically viewed as central to transitioning towards low-emissions, climate-resilient pathways. But it remains a relatively small share of overall development finance in certain sectors that are increasingly recognised as critical to effective climate action, such as banking and financial services and health. This indicates that providers should more thoroughly integrate climate objectives across all sectors.
- Development finance needs to achieve a better balance between countries' needs for mitigation and adaptation objectives across sectors.

2.1. Paris alignment means supporting ambitious climate action and reinforcing the principles of sound development

The Paris Agreement establishes global objectives and processes to achieve them

The Paris Agreement offers a way forward to address climate change that supports Sustainable Development Goal (SDG) 13 on climate action and the broader 2030 Agenda for Sustainable Development (UN, 2015[1]). Article 2.1 of the Agreement (Box 2.1) includes its three core objectives: mitigate climate change, adapt to its adverse impacts, and make finance flows consistent with low-emissions, climate-resilient pathways in the context of sustainable development and efforts to eradicate poverty. Taken together, these objectives are a basis for global climate action, as achieving them means effectively

addressing the drivers and impacts of climate change. This is reflected in Article 3, which refers to Article 2 as establishing the purpose of the Agreement (UNFCCC, 2015[2]).

Article 2.1 also acknowledges that these targets require a global response, thereby implicating a range of actors from governments and international organisations to the private sector, civil society and research organisations, among others.

Box 2.1. Article 2 of the Paris Agreement

Article 2.1 states that the aim of the Agreement is to "strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by":

(a) "Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognising that this would significantly reduce the risks and impacts of climate change;"

(b) "Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production;" and

(c) "Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development."

Article 2.2 states that the Agreement "will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances".

Source: (UNFCCC, 2015, p. 2[2]), *Paris Agreement*, https://unfccc.int/sites/default/files/english_paris_agreement.pdf

Article 4.1 of the Paris Agreement sets a clear, longer-term target for abating global emissions over the coming decades – the achievement of "a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century" – that is often described as "net zero emissions" (UNFCCC, 2015[2]). The Agreement states that Parties to the Agreement should "aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science". The latest evidence shows that global emissions are not estimated to peak by 2030, let alone by 2020 (World Meteorological Organization, 2019[3]).

Two global mechanisms are key to delivering on the Paris Agreement

Nationally determined contributions

The first nationally determined contributions (NDCs) were prepared by countries in 2015-16 and are due to be revised every five years. NDCs are intended to raise collective ambition to the levels needed to meet the objectives of the Agreement on limiting global average temperature rise (UNFCCC, 2015[4]). However, current NDCs put the world on track to experience between 2.9°C and 3.4°C of warming compared to pre-industrial levels by 2100 (see Chapter 1), and the Agreement's objectives, therefore, will not be reached (World Meteorological Organization, 2019[3]); (IPCC, 2018[5]). The next round of NDCs need to be stronger.

Long-term low emissions strategies

Article 4.19 of the Paris Agreement calls on Parties to "strive to formulate and communicate long-term low greenhouse gas emission development strategies" (UNFCCC, 2015, p. 2[2]). As these strategies, or LTSs, are to be communicated to the United Nations Framework Convention on Climate Change (UNFCCC) by the end of 2020, Parties to the Agreement are making major short- and long-term decisions now and over the coming year (UNFCCC, 2016[6]). Chapter 3 examines the challenges posed by current NDCs and LTSs.

Other mechanisms

Developing countries also use various combinations of other UNFCCC processes to determine and communicate their efforts to address climate change, and use these in parallel with other efforts and processes at regional, national and subnational levels that have been initiated and implemented outside the UNFCCC architecture (including under the 2030 Agenda and specifically in support of SDG 13) (UNFCCC, 2019[7]; UNFCCC, 2019[8]). Among the UNFCCC processes are nationally appropriate mitigation actions, national adaptation plans (NAPs), adaptation communications, national adaptation programmes of action, technology needs assessments and technology action plans.

Ownership is fundamental to Paris alignment

Countries' determination and ownership of their development pathways are practical necessities for effective, long-term action (Box 2.2). Both the 2030 Agenda and the Paris Agreement recognise that countries hold primary responsibility for their economic and social development, and that global aims will be met through national and subnational actions (UN, 2015[1]). As such, they echo the principle of country ownership that the Busan Partnership for Effective Development Co-operation identifies as a requirement for making development co-operation effective and sustainable (OECD, 2012[9]).

Box 2.2. Country ownership

Country ownership is a broad principle that can be interpreted in different ways by different actors (Carothers, 2015[10]). For example, some development co-operation activities may focus primarily on supporting country ownership and approval of individual programmes and projects ("rubber stamping"), while others may focus on fostering ownership at a political level among leaders, or among key government and non-government stakeholders through inclusive, participatory methods. While a detailed examination of its multiple dimensions and practical implications is beyond this report's scope, country ownership is a fundamental development concept and principle that underpins both the 2030 Agenda and the Paris Agreement

Countries included these principles when formulating the universal yet country-driven approaches of the 2030 Agenda and the Paris Agreement. The 2030 Agenda states that the SDGs and their accompanying targets are "integrated and indivisible, global in nature and universally applicable, taking into account different national realities, capacities and levels of development and respecting national policies and priorities" (UN, 2015[1]). The UNFCCC and the Paris Agreement, in Article 2.2, also explicitly recognise that "in light of different national circumstances", countries have common but differentiated responsibilities and respective capabilities in addressing the challenges of climate change (UNFCCC, 2015[2]). This recognition of developed and developing countries' different circumstances is particularly important for developing countries that need significant support – for example in the form of funding, technology transfer or capacity development assistance from developed countries – to be able to determine and carry out their priorities on both sustainable development and climate action. This recognition also is consistent with

Article 4.4 of the Paris Agreement, which underscores that developed countries "should continue taking the lead by undertaking economy-wide absolute emission reduction targets" (UNFCCC, 2015[2]).

The 2030 Agenda and the Paris Agreement further acknowledge that inclusive, local input is needed to ensure that approaches to global challenges are both just and robust. The Paris Agreement, in Article 7, states that adaptation is "a global challenge faced by all with local, subnational, national, regional and international dimensions", and that adaptation action should "be based on and guided by … traditional knowledge, knowledge of indigenous peoples and local knowledge systems" (UNFCCC, 2015[2]). The Agreement also emphasises that national governments should engage with subnational actors to build in-country capacity in a way that fosters these actors' ownership of activities and effectively responds to countries' needs. It states that capacity development should be "an effective, iterative process that is participatory, cross-cutting and gender-responsive" (UNFCCC, 2015[2]). The same principles are reflected in the 2030 Agenda, which calls for countries to inclusively review their progress on the SDGs at both national and subnational levels and to draw on contributions from indigenous populations, civil society, private actors and others (UN, 2015[1]).

2.2. Paris alignment can be understood by its four main characteristics

In view of the objectives and mechanisms outlined in the Paris Agreement and the fundamental development principles that complement them, this report proposes four main characteristics of development co-operation that is effectively aligned with the Paris Agreement, namely that it:

- does not undermine the Paris Agreement but rather contributes to the required transformation
- catalyses countries' transitions to low-emissions, climate-resilient pathways
- supports the short- and long-term processes under the Paris Agreement
- proactively responds to evidence and opportunities to address needs in developing countries.

These characteristics offer a conceptual framework for development co-operation providers to design, implement and continually assess their efforts to align with the Paris Agreement. They are relevant at different levels and over varied timescales. They can guide decisions about the larger-scale strategic changes that are needed across systems and sectors as well as decisions about specific development practices, activities and projects. The extent of change envisioned by the Paris Agreement – at local to global levels and over the span of multiple decades – means that individual development actions and practices need to be consistent with long-term goals (Box 2.3).

The four characteristics of Paris-aligned development co-operation are qualitative and descriptive to allow for the diversity of mandates, priorities, operating models and circumstances among development co-operation providers and developing countries. These characteristics could potentially inform the design and implementation of more quantitatively measurable actions in the future, in line with the temperature goals articulated in Article 2.1 of the Paris Agreement. These characteristics are also complementary; development co-operation providers should prioritise and pursue all of them simultaneously.

Box 2.3. Example of alignment across different activities and timescales

To align with the objectives of the Paris Agreement, development co-operation providers need to understand more than just the short-term imperatives of sustainable development in the face of climate change. They should also understand, and support, system-wide transformation over the long term (World Resources Institute/UNDP, 2018[11]).

This may entail, for example, not only using current climate data and vulnerability assessments to design and implement immediate development interventions, but also simultaneously working to strengthen the quality and availability of data and assessment tools to support stronger, evidence-based policies and practices for the long term.

Another example relates to the imperative to anticipate and support more electrified energy end use. In addition to providing financial support for renewable energy-based power systems and technologies, development co-operation can support developing countries to formulate regulatory and policy support measures for greater electrified energy end use in the long term as well as education policies and systems to prepare today's students for tomorrow's employment opportunities in a more sustainable energy system.

Characteristic 1: Paris-aligned development co-operation does not undermine the Paris Agreement but rather contributes to the required transformation

Development co-operation activities that are Paris-aligned not only do no harm to effective action on climate change. They also make a positive contribution to the system-wide transformation needed to achieve low-emissions, climate-resilient societies, as discussed in detail in Chapter 1. Both the 2030 Agenda and the objectives in Article 2.1 of the Paris Agreement set out an ambitious vision for countries to fundamentally transform their development. It is insufficient for development co-operation providers to focus on meeting a minimum standard of doing no harm by avoiding decisions and activities that undermine the Paris Agreement. A systemic shift is only possible if all countries comprehensively prioritise and pursue the required transformation in all of their decisions about their growth and development, across all sectors and activities, and with a consistent emphasis on inclusion and leaving no one behind (New Climate Economy, 2018[12]).

Development co-operation providers are important agents for supporting the transition away from outdated frameworks and activities that add to the existing mitigation and/or adaptation burden. Their mandate is to actively contribute to the type of development progress that is needed in the 21st century. To be Paris-aligned, all development co-operation activities – including those without a designated climate objective – should be low-emissions and climate-resilient. While it is not necessary for all development co-operation activities to include active climate objectives, it is critical that their underlying assumptions, conditions and objectives be comprehensively adapted to support a systemic approach to achieving low-emissions, climate-resilient development.

The Paris Agreement, in Article 3, acknowledges the need to raise ambition to adequately address climate change, committing that the Parties shall undertake and communicate ambitious efforts so that the Agreement is effectively implemented (UNFCCC, 2015[2]). The stark reality, as discussed in Chapter 1, is that the collective commitments outlined in current NDCs are insufficient to limit temperature rise in line with either of the objectives of Article 2.1, i.e. to well below 2°C or to 1.5°C. In parallel with these inadequate commitments, global progress across sectors on both climate change mitigation and adaptation has been limited since adoption of the Paris Agreement in 2015 and its entry into force in late 2016. Global energy-related CO_2 emissions reached a historic high in 2018, growing by 1.7% from 2017 (IEA, 2019[13]). This was the highest rate of annual growth since 2013, and demonstrates the massive gap between current

emissions and global mitigation objectives (IEA, 2019[13]). Similarly, on adaptation, a major gap persists between current efforts and the levels of coherent policy commitment and financing that are needed across many sectors. The United Nations (UN) Environment Programme noted in 2018 that fewer than half of 162 countries[1]– both developed and developing – had in place integrated frameworks for holistically addressing climate change adaptation (UNEP, 2018[14]). Moreover, available adaptation finance remains far less than the latest global estimates of the costs of adaptation and far below the needs identified in current NDCs (UNEP, 2018[14]).

As Chapter 1 outlines, the world is not yet on track to achieve the fundamental transformation of socio-economic systems that is needed for low-emissions, climate-resilient societies (OECD/World Bank/UNEP, 2018[15]; UNFCCC, 2019[16]). Chapter 3 discusses further the challenges and limitations of efforts to date.

Characteristic 2: Paris-aligned development co-operation catalyses countries' transitions to low-emissions, climate-resilient pathways

Development co-operation that is Paris-aligned acts as a catalyst for developing countries' inclusive transformation (as described in Characteristic 1). This means deploying finance strategically and engaging in policy support and capacity development (see Section 2.3) to trigger broader change, in particular change led by partners and other actors. In this sense, Paris alignment requires providers to plan and implement individual projects with a view towards creating a more conducive environment for the transformation while also helping to ensure that activities support the groups and communities in developing countries that need support the most (Box 2.4). This reflects what the Paris Agreement calls the "intrinsic relationship" between "climate change actions, responses and impacts" on the one hand and "equitable access to sustainable development and eradication of poverty" on the other (UNFCCC, 2015[2]).

Given the mandate of development co-operation and the limited volumes of available development finance, providers need to use development finance to support interventions that maximise development impact. Catalysation is vital. Concessional development finance, in particular, provides significant flexibility to beneficiaries and enables them to operate in higher-risk environments and activities. It is especially critical that such finance be allocated in a way that is targeted, strategic and uses resources efficiently for optimal impact, including by catalysing further action.

While development finance is a relatively small resource, it is the major source of international climate finance flows to developing countries (OECD, 2015[17]). Development co-operation providers need to increase the volume of development finance resources that are available to support Paris-aligned development. As a first step, they should meet their existing commitments and ensure that these commitments are Paris-aligned. Among these are developed countries' long-standing commitments to continue their existing collective mobilisation goal of increasing the joint mobilisation of climate finance to developing countries to USD 100 billion annually through 2025, and to set a higher collective goal before this date (UNFCCC, 2016[6]), recognising that the need to scale up dedicated climate finance will persist over the coming decades (UNFCCC, 2018[18]).

At the same time, it is clear that development finance alone cannot deliver or account for the full extent of the transition that needs to happen. Where possible, catalysation should support the reduction or phasing out of development finance in sectors, markets, locales or categories of interventions when adequate flows of other financing and funding resources are present. Catalysation includes direct finance mobilisation as well as support for the systems that underpin resource flows in countries, including those that support private financial markets in particular and also fiscal and public financial management and revenue systems in developing countries (Box 2.4). The objectives set out in Article 2.1 demand greater mobilisation and shifting of all financial flows to meet the objectives of the Paris Agreement. A strategic focus on using development co-operation to catalyse increased resources across a broad range of financial flows supports Article 2.1c, which calls for making all financial flows consistent.

Box 2.4. Catalysation and mobilisation in the context of financing low-emissions, climate-resilient development

In this report and across the broader work of the OECD, catalysation refers to activities that help to create a more conducive environment for meeting a certain objective by triggering changes led by other actors. Catalysation can involve the use of development finance to crowd in commercial capital through programmatic approaches and market creation (such as the Renewable Energy Independent Power Procurement Programme in South Africa), for example, or support to capacity development for local governments to unlock commercial resources for building climate-resilient urban settlements. Mobilisation is a subset of catalysation and refers to finance transactions wherein one form of financing unlocks another that otherwise would not have been available. Notably, mobilisation is specific to the context of individual transactions, and maximising mobilisation is not a goal in itself but should instead be pursued in order to meet development objectives.

In recent years, focus has increasingly centred on mobilising private finance for sustainable development, including in climate-sensitive sectors, with an emphasis on blended finance.[2] A shift away from the traditional focus on financing the private sector and towards mobilising private finance is crucial to effective climate action in line with the objectives of the Paris Agreement. Such a change requires greater mobilisation of specific development finance transactions and increased catalytic ambition over time (OECD, 2018[19]). Effective catalysation is consistent with a trend of increasing mobilisation of commercial finance and decreasing use of development finance in a given geographic area or sector, with the eventual goal being an exit from development finance. While mobilisation at the transaction level holds significant potential and is important, the catalytic role of development co-operation for aligning financial flows with low-emissions, climate-resilient development is broader, as it aims beyond the transaction level to have a wider impact. The OECD Blended Finance Principles reflect a broader perspective, referring to the need for local financial market development and promotion of a sound enabling environment (OECD, 2018[20]), two goals for which development co-operation providers' support for capacity development and engagement at the policy and regulatory level is key.

Characteristic 3: Paris-aligned development co-operation supports the short- and long-term processes under the Paris Agreement

The Paris Agreement establishes short- and long-term processes to achieve its objectives for addressing climate change in the 21st century and beyond. Paris-aligned development co-operation helps countries to increase their ambition over time, in line with the objectives presented in Article 2.1 of the Agreement, by supporting the development, financing and implementation of NDCs and LTSs. In many developing countries, development co-operation providers have an equally important role to play by supporting the integration of other climate action processes that countries are pursuing in parallel, including under and outside of the UNFCCC architecture, including at the subnational level (see Section 2.1).

Development co-operation should also help countries to link Paris Agreement processes with other overarching development and sectoral plans. Action on climate change cannot be effective when it is disconnected from countries' broader visions and decision making on development, including efforts to achieve the SDGs (World Resources Institute/UNDP, 2018[11]). One example pertains to adaptation – countries often develop policies by sector, and both developed and developing countries commonly formulate national adaptation strategies that they pursue through more detailed national and sectoral plans (UNEP, 2018[21]); (New Climate Economy, 2018[12]). Immediate and mid-term plans provide crucial policy signals that create the enabling environment for forward-looking decision making by both public and private actors, and therefore have the potential to determine the effectiveness of both NDCs and LTSs (World

Resources Institute/UNDP, 2018[11]). Development co-operation providers already help developing countries to integrate climate processes into development planning. This integration is vital for establishing the right policy settings, realising co-benefits by connecting efforts to achieve multiple SDGs, creating project pipelines that support ambitious climate action, and mobilising new sources of finance (including the unlocking of private capital).

Development co-operation providers need a concerted, long-term focus if they are to plan and allocate resources and encourage institutional change in a way that supports the transformation to low-emissions, climate-resilient pathways. As Chapter 1 illustrates, LTSs that adequately incorporate the necessary transitions in countries are critical for reducing the risks of carbon lock-in and embedded climate vulnerability (Ross and Fransen, 2017[22]).

Development co-operation providers should support countries to connect the short-term and longer-term policy imperatives of climate change and sustainable development. They should also support countries to address the inconsistencies that may arise if climate change and sustainable development are pursued in isolation, as separate agendas. Where greater ambition or coherence between approaches is needed, development co-operation providers should support and work with developing countries to identify and take up opportunities to enable a smooth transition, leveraging their concessional finance resources and long-standing role in facilitating the transfer of technology. This is particularly applicable in developing countries with limited capacities and special needs, and which require support to develop coherent short- and long-term approaches through means such as continuous capacity development, peer learning and collaboration programmes (Ross and Fransen, 2017[22]). Chapter 3 examines some of the key challenges, considerations and priorities for development co-operation in promoting ambitious NDCs and LTSs in the context of sustainable development.

Characteristic 4: Paris-aligned development co-operation proactively responds to evidence and opportunities to address needs in developing countries

Paris-aligned development co-operation proactively responds to continually emerging and evolving evidence on the pace and scale of climate change and its impacts; to identified needs and special circumstances within specific communities and sectors (consistent with Article 2.2 of the Agreement); and to opportunities and solutions (including technologies, innovation and good practices) for addressing these challenges. New information, lessons and opportunities continue to emerge as countries develop. Development co-operation should be attuned and responsive to support countries' self-determined development pathways while also facilitating the transformation to low-emissions, climate-resilient societies that is needed to achieve the SDGs and the Paris Agreement.

Development co-operation can only facilitate this required transformation if providers commit to using up-to-date information on both climate change and sustainable development progress to inform their institutional priorities and guide their work with developing countries. The Paris Agreement sets objectives that countries will pursue over multiple decades. It is self-evident, then, that Paris alignment is not a single or static task; rather it is a continuous and dynamic process in which providers should refer to the latest evidence to regularly assess and adjust their efforts and take up new opportunities that offer the greatest impact potential (UNFCCC, 2015[2]; World Resources Institute/UNDP, 2018[11]). Such an approach supports the ratchet mechanism of the Paris Agreement and the process for assessing collective progress towards achieving the purpose of the Agreement and its long-term goals. The Agreement states that this assessment process, which it terms the global stocktake, should be done "in the light of equity and the best available science" (UNFCCC, 2015[2]).

The direct relationship between action on climate change and sustainable development means that providers can be crucial pioneers in their Paris-aligned development interventions by supporting developing countries to identify opportunities, respond flexibly to emerging evidence, and work towards Paris alignment in their development and sector strategies. This includes gathering and using not only the

latest of evidence of good practice but also evidence from different sources and at different scales – including the best available science on climate scenarios, impacts and emissions trajectories as well as knowledge from traditional, emerging country- and local-level sources on vulnerability, risks and potential solutions. Development co-operation providers' institutional incentive structures, operations and practices offer catalytic potential, so it is especially important that these are flexible and able to adapt to address existing and emerging constraints. Providers that support Paris alignment focus on the accelerated identification, deployment and scaling of innovation and new solutions (including technologies and practices stemming from local innovation) and are ready to adjust their own operations to the changing approaches or products that these solutions require.

The climate strategy of the European Investment Bank (EIB) – the first version of which was approved two months before the Paris Agreement in 2015 – is an example of a plan that has successfully provided for institutional responsiveness to new evidence and opportunities. The strategy commits EIB to extending its coverage of sector policies and to regularly updating policies in view of sectors' climate sensitivity and the need to account for "the most recent scientific knowledge and available best practice" (European Investment Bank, 2015[23]). The strategy further provides for the revision of sector policies with reference to shifting economic and regulatory conditions, as well as "transition pathways towards a maximum 2°C global temperature rise"[3] (European Investment Bank, 2015[23]). In 2019, these provisions were a basis for informing a new energy lending policy that commits the EIB Group to aligning all financing activities with the goals of the Paris Agreement from the end of 2020, and to end EIB financing for fossil fuel energy projects from the end of 2021 (see Section 2.4) (European Investment Bank, 2019[24]).

Responding to evidence inherently entails also responding to existing and future needs for support within countries at both the national and subnational levels. Development co-operation providers already significantly contribute to recognising and responding to needs and opportunities within developing countries. This knowledge allows them to target their interventions and help to protect populations facing the greatest vulnerability. This role is also recognised throughout the Paris Agreement including in Article 2.2, which notes the differentiated responsibilities and respective capabilities of actors in the light of different national circumstances (UNFCCC, 2015[2]).

Development co-operation providers best support developing countries' transformation by being responsive to evidence and needs and working with these countries to improve access to vital information and evidence and identify emerging opportunities, experience, innovation and needs.

The four characteristics of Paris alignment work in tandem

While not exhaustive, these four characteristics highlight important considerations for development co-operation providers in interpreting and prioritising Paris alignment. Taken together, they synthesise what Paris alignment means for development co-operation and underscore that providers will contribute positively to the needed transformation by making the most of their resources, connecting with and involving the right actors, and using established mechanisms to support climate action and raise ambition in line with the objectives of the Paris Agreement.

2.3. Paris alignment means supporting climate action through financing, policy support and capacity development

The four characteristics of Paris-aligned development co-operation (Section 2.2) apply to development co-operation actors that pursue their mandate and work through three levers: **financing,** which is the provision of financial resources that address financial gaps and bottlenecks to enable development interventions by public and private actors; **policy support** to developing countries to identify and advance policy and regulatory measures that create and sustain an enabling environment conducive to the

achievement of development goals; and **capacity development**, which means supporting the development and enhancement of the ability of people, organisations and society as a whole to manage their affairs successfully with the required information, knowledge, skills and technology (Figure 2.1).

Figure 2.1. Complementary levers of development co-operation

Source: Authors

To support developing countries' transition towards low-emissions, climate-resilient pathways, development co-operation providers need to use all three levers:

- Financial resources provided should be consistent with the adaptation and mitigation needs of sustainable development.
- Development co-operation providers should support enabling policy and regulatory frameworks for the transformation of economic and social sectors in line with low-emissions, climate-resilient pathways over time.
- Development co-operation providers should support capacity development as an essential element in undertaking practical, country-driven and participatory steps towards low-emissions, climate-resilient pathways.

In practice, development co-operation interventions almost always involve more than one lever. Policy and regulatory action is contingent on the capacity for policy development and implementation, for instance. Likewise, financial support is not merely provided to fill a financing gap but can be paired with technical assistance to support capacity to implement and sustain associated new technology. Policies shape public actions as well as investment, in that policies determine the scope and frame for private economic actors operating in a country, both domestic and international, that have the ability to unlock and direct funding and finance.

At the same time, different types of actors in the international development system have different approaches, roles and underlying business models. These are relevant when considering Paris alignment, and are discussed in this section, according to a stylised categorisation, as donor governments, development banks and bank-like institutions, non-bank providers of development co-operation, and specialised agencies and funds (including both those with and without a climate focus).

The stylised institutional models are less clear-cut in the real world, and it is often difficult to make categorical distinctions between the support that development banks, development finance institutions

(DFIs) and development agencies provide across the different levers of financing, policy support and capacity development. Development banks, for example, often support capacity building in partner financial institutions in developing countries as an accompanying measure to the provision of green credit lines (Gietzen, 2018[25]). Donor countries use the financing lever in a complementary manner, for example issuing financial compensation for forest conservation efforts to reflect the value of forest ecosystems for the climate and, in tandem, supporting developing country partners with the legal and institutional framework for sustainable forest management and biodiversity conservation (Government of Norway, 2018[26]). Moreover, many multilateral development banks (MDBs) engage in policy-based lending to developing countries, such as by targeting policy reform for renewable energy promotion (European Bank for Reconstruction and Development, 2018[27]). With specific reference to the Paris Agreement, MDBs and members of the International Development Finance Club (IDFC)[4] committed to a variety of actions in 2017, such as supporting institutions to translate NDCs into policies, investment plans and bankable projects (Asian Development Bank, 2017[28]). Donor governments raise resources, set the mandates, and define the authorising environment and policy priorities for development co-operation.

Donor governments are defining actors of the international development co-operation system. They represent the sovereign peer and partner to developing country governments as the basic fundament for development partnerships and counterpart for policy dialogue. Individually, donor governments define bilateral development co-operation; together with developing countries, they collectively shape and sustain the multilateral development architecture.

Donor governments raise the budgetary resources that underpin development co-operation and finance. They provide the funds for grant spending and highly concessional instruments, and raise resources through the capitalisation of development banks and institutions with a bank-like business model.

Donor governments also set the mandates for bilateral development co-operation and determine the priorities, strategies and resource allocations to achieve these mandates. Donor governments have either direct execution capacity or they are responsible for the governance and oversight of the institutions and organisations charged with the implementation of technical or financial assistance. They also are responsible for addressing potential conflicts between policy goals in different areas. Through their shareholding and governance role and their substantial contributions and funding, donor governments also steer the strategies and policies of multilateral development institutions and define their overall authorising environment.

Importantly, an expanding range of countries are able to actively, and at increasing scale, contribute to the international development effort. Historically, members of the OECD Development Assistance Committee (DAC) were predominant in international development. Increasingly, countries that are not DAC members – including some that are themselves developing countries – are playing an important role and making important contributions, both as providers of technical and financial co-operation to other countries and as financial supporters and sponsors within the multilateral system.

Development banks and development finance institutions have a primary focus on non-grant instruments typically used for infrastructure financing

Development banks and DFIs include multilateral and bilateral institutions of vastly different sizes, financial assets and operational focuses. While heterogeneous, development banks and DFIs share a fundamental, defining feature – their business model is that of a financial institution, which means that their operations need to generate the financial returns to cover their operating expenditure and funding costs. As such, and by necessity, the core operations of these institutions rely on non-grant, repayable financial instruments. Once capitalised, development banks and DFIs can continue to operate and recycle their financing, although in the absence of additional grant or concessional funding, they are constrained in their ability to finance highly concessional activities with high financial risks.

In addition to financing, development banks and DFIs provide capacity development and policy support. To do so, they also receive grant resources from their shareholders and additionally use these resources to offer highly concessional financial terms to the poorest countries and countries with the least access to market finance. MDBs, for example, engage in these activities through their concessional windows. While development banks and DFIs are distinctly financing institutions, they also are often a channel of choice for donors to engage in capacity-building policy support, due to their substantial and unique expertise, skill set, and delivery capacities

Nonetheless, it is useful to differentiate development banks from DFIs according to their partner entities and use of financial instruments. Very generally, bilateral and multilateral development banks pursue both public and private sector operations. Public sector operations of bilateral banks and MDBs provide debt finance and, to a lesser degree, grants. With a view to their partner entities, these institutions work largely with the public sector; private sector operations of development banks have a specific mandate to engage with the private sector. Many DAC members also have bilateral DFIs. DFIs and private sector operations of development banks provide equity, loans, guarantees and insurance, for example to private sector infrastructure projects, and most often do so at non-concessional terms.

Development banks and DFIs serve as important channels for infrastructure finance to developing countries, and therefore have a direct impact on low-emissions, climate-resilient pathways (Crishna Morgado and Taşkın, 2019[29]). For development co-operation providers and development banks, particularly DFIs, investments in hard infrastructure, i.e. physical assets, have taken centre stage in Paris alignment to date. Beyond the provision of finance for infrastructure-related investment, however, their efforts – for example, the mobilisation of additional resources and provision of finance to promote specific business models and technologies – have an impact on developing countries' transition to low-emissions, climate-resilient pathways.

Development agencies are critical to facilitating the transformation that is needed

Non-bank development co-operation providers, hereinafter called development agencies, deliver grant-based development co-operation across a range of sectors and policy areas, relying on recurrent funding from budgetary appropriations and donor contributions. Very generally, development agencies focus on capacity development, technical co-operation and support to policy reform. With few exceptions, the financial volume of these activities usually does not reach the scale of development co-operation in the form of debt instruments such as sovereign lending or project finance for hard infrastructure. As a rule, development agencies are comparatively more focused on activities that do not lend themselves to non-grant, i.e. repayable, assistance that is typically associated with hard infrastructure.

Policy support and capacity building usually do not have major direct climate outcomes per se, for example in the form of greenhouse gas (GHG) emissions produced or avoided by a financed power plant. However, policy support and capacity development can have significant impacts on developing countries' enabling environment and the resulting public or private investment choices, as well as on their capacities to successfully undertake the transition to low-emissions, climate-resilient pathways. Paris alignment is much less understood and developed with respect to policy support and capacity development. But alignment across all three levers is essential for development co-operation to effectively support low-emissions, climate-resilient development (see Section 2.2).

Specialised agencies and vertical funds need to integrate the climate dimension into their policy and sector focus

Specialised agencies and vertical funds are institutions with a focused mandate on a specific development priority or challenge. In the climate change area, some notable examples include the Green Climate Fund (GCF), the Adaptation Fund and the Global Environment Facility (GEF), although the latter has a somewhat

broader mandate. The International Renewable Energy Agency and the Global Green Growth Institute can also be included in this category.

Specialised agencies and vertical funds concentrate expertise and substantive capacity on climate change, although they tend to have less implementing capacity on the ground in developing countries compared to development agencies and development banks. Their individual models and mandates vary. The Adaptation Fund has an exclusive focus on adaptation and resilience activities. The GCF mandate relates to both adaptation and mitigation, whereas GEF's remit covers a broader range of environmental priorities including but not limited to climate change. All operate through accredited entities that develop and have execution responsibility for selected programmes and activities. Their public counterparts include many traditional development finance actors, both international and national, that invariably link them back to the broader institutional architecture for international development.

The specialised institutions with a dedicated mandate for addressing climate change do not operate with a bank-like business model, although they may use financial instruments such as loans, equity, guarantees and grants. In doing so, they have a greater ability to take on financial risk across their portfolio of activities than do bank-type institutions, because the core resources that sustain their operations do not rely on these financial activities and instead are provided mainly through regular replenishments. At the same time, the financial scale within which they can take on risk is more limited than that required for full project finance of large-scale infrastructure.

Many other specialised agencies exist to address specific development priorities outside the area of climate change. Most are international bodies, among them the Global Fund to Fight AIDS, Tuberculosis and Malaria and specialised UN agencies such as the Food and Agriculture Organization and the UN Industrial Development Organization, although some, like the President's Emergency Plan for AIDS Relief, are bilateral institutions. Like specialised funds in the climate change space, these agencies often have unique expertise and resource capacities, and they play a systemic role in their focus area, including to identify and understand new and emerging challenges to their policy mandates. One of these challenges is climate change, given its impact on development, and these actors need to respond to it. While the immediate, direct exposure to climate change is well understood in sectors such as agriculture, stronger awareness and action are also required for development priorities that have so far been only marginally associated with climate change such as health, as climate change is liable to affect the entire delivery system for health in many developing countries (UNEP, 2018[14]).

Paris alignment of development co-operation requires a stronger focus beyond the financing lever

Measures of Paris alignment and analytical work have so far largely focused on the financing lever and emissions reduction, as indicated by a survey conducted for this report, commitments made by providers and a growing body of literature (IDFC, 2018[30]; Larsen et al., 2018[31]; African Development Bank et al., 2018[32]) (Germanwatch/NewClimate Institute, 2018[33]). Focus on direct financing, and particularly direct financing of hard infrastructure, is clearly relevant and important. Across developing countries, the investment gap for sustainable infrastructure is estimated at USD 4 trillion annually until 2030, equivalent to two-thirds of global infrastructure investment needs (Global Commission on the Economy and Climate, 2016[34]). The goals of the Paris Agreement require a fundamental transformation of existing infrastructure (IPCC, 2018[5]). This should be reflected in the policies and factors development banks and DFIs look at in determining how and why to finance infrastructure projects and the technologies they support through this financing.

Nonetheless, the overall share of development finance in direct financing of infrastructure is relatively small, at 6-7% of total infrastructure spending in developing countries (OECD, 2015[35]). Moreover, direct financing of infrastructure investments through development finance is much more important in least developed and low-income countries than it is in middle-income countries. This difference reflects their

greater aid dependency and that alternative sources of infrastructure finance are less available and accessible. It also points to the need to unlock alternative sources of development financing as income levels increase (Sy and Rakotondrazaka, 2015[36]).

Policy reform and capacity strengthening levers have an important catalysing role for climate and development financing. Against this backdrop, the policy and capacity levers assume central importance, including with regard to the mobilisation and re-directing of further funding and finance. For example, much of the advancement of renewable energy has been achieved due to effective policies that provided a level playing field with fossil fuel-based energy sources, a basic precondition for the financial viability of such investments in the first place (IRENA, 2019[37]) (IRENA, International Energy Agency and REN21, 2018[38]). In developing countries, development agencies have supported such policy reform and are increasingly taking a systems approach to support developing countries to leapfrog inefficient and polluting heating, cooling and transport systems.

In addition to supporting these emission-critical sectors, policy reform can support the establishment of financial systems and fiscal policies for climate action that will be needed to mobilise domestic and international and public and private financing for sustainable development. While not directly responsible for climate policy and action, fiscal policy and the way financial systems are regulated and governed can have significant effects on climate outcomes. These can be direct effects, e.g. through fossil fuel subsidies, or reflected in the way climate risks are accounted for in financial regulation for due diligence, which has immediate and significant impacts on the performance and viability of a given project (OECD, 2018[39]). Beyond this, indirect effects can be important, for example through inadvertent technology bias in corporate income taxation (Dressler, Hanappi and van Dender, 2018[40]). Fiscal policy and financial regulatory frameworks are therefore powerful determinants in efforts to transition to low-emissions, climate-resilient pathways.

Policy frameworks need to be matched with essential capacity to provide an enabling environment for climate action. Developing and developed countries need stronger capacities at different levels to effectively undertake the transition to low-emissions, climate-resilient pathways. While there is no universal definition of these levels, capacities can be required at the system, institutional, individual and network level (GIZ et al., 2012[41]). Development agencies have traditionally supported capacities across these levels. For example, they support municipalities to design and implement climate change action plans. Development agencies also facilitate exchange among industry and business associations, financing institutions, and governmental entities to promote conducive partnerships for the implementation of mitigation measures that go beyond those supported directly through individual technical co-operation projects.

Policy support and capacity development are critical building blocks in Paris alignment. While development co-operation providers can only facilitate the processes of establishing and strengthening enabling environments, they can extend their impact beyond individual measures by informing and supporting the rules of the game for economic and financial and public and private actors and by building these actors' capacities. All of these can have a beneficial, catalytic effect. Therefore, it is critical that development agencies integrate the objectives of the Paris Agreement across their activities.

Given that Paris-aligned development co-operation can take the form of financing, policy support and capacity development, separately or in tandem, these efforts will require different approaches, tools, monitoring and reporting. The three levers need to be used in improved ways that sufficiently incorporate climate objectives and facilitate sustainable development. For example, triangular co-operation, whereby providers of development co-operation facilitate initiatives between two developing countries, can be used as a tool for technical exchange that furthers various environmental objectives (OECD, forthcoming[42]). More information and evidence on emerging good practice approaches, initial lessons learned and challenges to Paris alignment are needed across varying scopes and domains of development co-operation.

Delivering effective development co-operation against existing and future threats of climate change will require a more systematic and scaled-up effort to provide development finance that consistently supports low-emissions, climate-resilient pathways. A systematic and accelerated effort will also be needed to embed climate considerations in the policy and capacity levers and into endeavours to catalyse financial flows more broadly.

2.4. Paris alignment means inclusion of climate action in development co-operation strategies, programmes and operations

Paris alignment involves different approaches and instruments that can be used alone or together to support developing countries to strengthen the global response to the climate crisis. Development co-operation providers have developed an array of tools to ensure that development co-operation activities support climate and other environmental aims. Such tools are essential for institutionalising and implementing commitments made under the Paris Agreement. Identifying and examining providers' most commonly used tools and approaches provide a baseline for strengthening efforts towards Paris alignment and ensuring that providers are supporting climate objectives and, by extension, sustainable development.

Three themes emerge from actors' efforts to conceptualise and interpret Paris alignment. First, these efforts reflect a growing understanding that climate action belongs at the heart of sustainable development, fully integrated into strategies, theories of change and programming. This understanding places the Paris Agreement within the broader strategic context of sustainable development. Second, many approaches emphasise that Paris alignment means increasing the mobilisation of climate finance while concurrently ensuring that all activities, whether or not they are financed via climate financing, consider and incorporate the objectives of the Paris Agreement. Third, emerging conceptions of alignment combine the same bottom-up, country-oriented processes and top-down, global approaches that are outlined in the Paris Agreement.

This section explores the main emerging approaches, instruments and mechanisms of Paris alignment that development co-operation providers are using. It draws on a survey of DAC members and multilateral development co-operation providers, direct engagement and interviews with those providers, and a broader literature review. The section also reviews examples of how selected actors in the development community are interpreting what Paris alignment means – concretely, through initiatives and approaches – and how it can be more clearly centred in development co-operation.

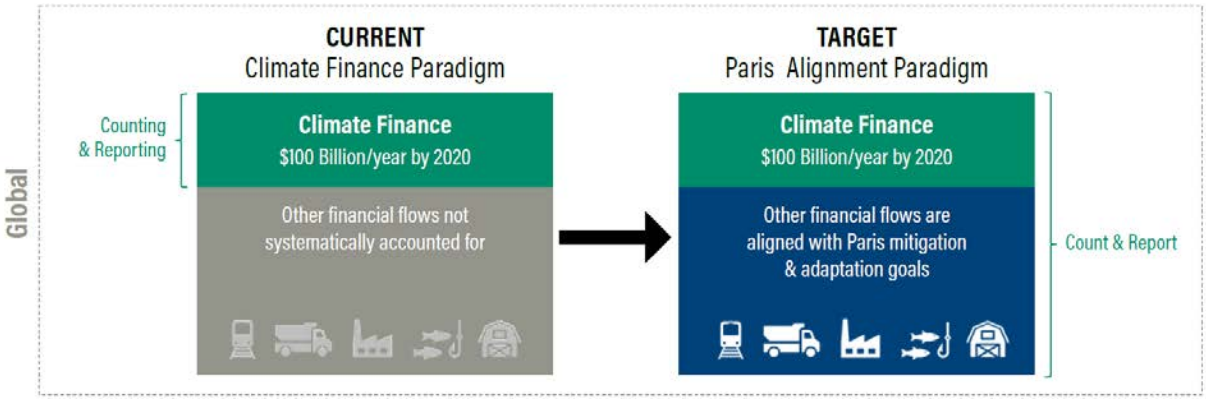
Linking climate action to sustainable development requires alignment across development finance and associated activities

Aligning development co-operation with the objectives of the Paris Agreement preserves development progress already made and helps to achieve the SDGs. Climate action and sustainable development are inseparable, as is put forth in Article 2.1 of the Agreement. As sustainable development is the primary aim of development co-operation, the impacts of climate change need to be taken into account in pursuing this objective. These include all areas that substantially affect, or are substantially affected by, climate change either directly or indirectly, such as investment, taxation, fiscal systems, energy, agriculture and sustainable food production, employment, transport, and regional and urban policy. In this way, an overarching understanding can be built of what Paris alignment entails for development co-operation, and which is relevant to most policy areas and sectors in developing countries.

Intertwining climate action and sustainability has implications for how development co-operation conceives of financing and respective mandates. Development co-operation providers have begun to make commitments to align with the Paris Agreement, and this reflects an evolving interpretation and conceptual shift.

Recent analysis shows the need for what Larsen et al. (2018[31]) call a "Paris Alignment Paradigm" that supports Article 2.1c and would represent a shift from the current "Climate Finance Paradigm". Climate financing currently focuses on defining, tracking and maximising financing towards climate change mitigation and adaptation. The Paris alignment paradigm would alternatively ensure consistency with the Paris Agreement across portfolios, pipelines and activities in addition to maximising climate finance volumes. While this literature focuses on MDBs and DFIs, the significance of the Paris alignment paradigm applies across development co-operation. Its associated framework (Figure 2.2) applies globally to all activities across countries and organisations. This paradigm also highlights a need for all development co-operation providers and developing countries to pursue Paris alignment using the levers of finance, policy support and capacity development and a need to carefully track and report on how finance flows are shifting towards low-emissions, climate-resilient development pathways.

Figure 2.2. What does a Paris alignment paradigm look like?



Source: (Larsen et al., 2018[31]), *Toward Paris Alignment: How the Multilateral Development Banks Can Better Support the Paris Agreement*, https://germanwatch.org/sites/germanwatch.org/files/MDBs%20and%20Paris%20Report.pdf

Development actors have various approaches to alignment

Bilateral development co-operation providers have started to purposefully define Paris alignment as a core dimension of financial decision making, and they have made commitments towards alignment. One example is the French Development Agency (AFD). Having committed to making its activities "100% Paris Agreement-compatible", AFD created what it terms a "sustainable development analysis" mechanism (AFD, 2018[43]; AFD, 2017[44]). This mechanism defines six operational dimensions for sustainable development, including a two-part climate change dimension on the "transition to a low-carbon pathway" and "climate change resilience". This approach situates climate action at the heart of sustainable development along with five other dimensions of sustainable development (AFD, 2018[43]): sustainable and resilient economic growth; social well-being; gender equality; biodiversity conservation and management of environments and natural resources; and project impact sustainability and governance.. AFD also defines the scope of climate action at the country level through respective NDCs. This strengthens consistency with country-led climate action but requires emphasis on the role of development co-operation in raising ambition and ensuring that NDCs themselves are Paris-aligned. Box 2.5 outlines the AFD approach.

Box 2.5. French Development Agency's commitment to "100% Paris Agreement compatibility"

The French Development Agency (AFD) is one of the first institutions to commit to an alignment-related goal in its overarching strategy. In 2017, AFD announced its ambition to ensure all activities are "100% Paris Agreement-compatible", i.e. aligned with the goals of the Paris Agreement (AFD, 2017[44]). This commitment originated in the French government's national Climate Plan, published in 2017, and is the first of five goals in the AFD Group's corporate strategy for 2018-22 (AFD, 2018[43]). While the strategy reiterates AFD's continued target of 50% of climate finance in overall financing, it also represents a shift to the broader goal of ensuring that all operations are consistent with the Paris Agreement objectives while also supporting developing countries to prepare long-term strategies for low-carbon and climate-resilient growth.

AFD's strategy aims to support developing countries to achieve the SDGs by focusing on what it terms "transitions" in sectors and thematic areas that integrate climate and other sustainability considerations. For example, AFD's support for the energy transition focuses on decarbonisation alongside the need for affordable and reliable energy in developing countries. In line with such a transition, AFD will support electricity and transport policy reform, increase investment in renewables and power distribution, and promote energy efficiency. In the strategy, AFD also commits to not invest in coal or nuclear power.

AFD also is implementing the commitment to 100% compatibility by integrating specific alignment-related criteria into the Sustainable Development Analysis framework that it applies to all operations. Alignment is assessed not only from the point of view of promoting low-carbon development, but also resilience and adaptation. The approach used in the framework is qualitative and embedded in national efforts; consistency with national climate policies is one of the criteria use for assessing alignment. The AFD's initial experience of implementing this approach has shown its utility in supporting a wider discussion on alignment with project teams.

Source: (AFD, 2018[45]), *Towards a World in Common - AFD Group 2018-2022 Strategy*, https://www.afd.fr/sites/afd/files/2018-09-04-05-09/afd-group-strategy-2018-2022.pdf

The Netherlands Development Finance Company (FMO) is an example of an actor approaching climate mitigation as fundamentally tied to the science-based temperature goals set out in Article 2.1 of the Paris Agreement (Box 2.6). Actors that are not development co-operation actors are taking similar approaches. The Science Based Targets initiative, for instance, supports companies to develop corporate targets for reducing their emissions that are consistent with the temperature goals of the Paris Agreement (Science Based Targets, 2019[46]). To accomplish this, the initiative proposes methods such as defining a carbon budget and using emissions scenarios and allocation approaches to make companies' approaches credible and rigorous (Science Based Targets, 2019[46]). The initiative's aim – to help private sector actors to make their activities consistent with the global temperature goals in the Agreement – reflects the growing recognition that Paris alignment is a priority for non-government actors and a critical part of the global effort to meet the objectives of Article 2.1. Science Based Targets also emphasises that companies should devise targets that cover up to 15 years of activity while also developing long-term targets for 2050 (Science Based Targets, 2019[46]). This approach is mitigation-centric and does not explicitly support companies to achieve climate resilience or adaptation aims, but instead concentrates support into high-emitting sectors when Paris alignment requires shifts across portfolios.

Box 2.6. Netherlands Development Finance Company: Investing in climate action

The Netherlands Development Finance Company (FMO) focuses on financing the private sector in developing countries. In terms of portfolio size, it is the largest member of the association of European Development Finance Institutions. In 2017, as part of a new Sustainability Policy, FMO committed to using its investments to contribute towards the goals of the Paris Agreement, specifically to limit global temperature rise to well below 2°C and preferably to 1.5°C (FMO, 2019[47]). This commitment is contained within the FMO strategy, which highlights SDG 13 (climate action) as a key priority. It also reflects the approach of FMO to sustainability, which incorporates an exclusion list (e.g. on coal); screening for environmental, social and corporate governance risks; and proactive promotion of sustainable finance using a green label. This green label identifies investments that reduce greenhouse gas emissions, promote natural capital and support adaptation, and it corresponds with internal annual targets. FMO accounts for greenhouse gas savings from these investments, and an independent panel within FMO screens investments to assess whether the benefits of the investment are aligned with FMO's green label criteria.

For FMO, delivering on SDG 13 translates into climate adaptation, climate mitigation and climate finance mobilisation.

Government funds and the Dutch Fund for Climate and Development (DFCD), which FMO manages, are the main source of funds for FMO's adaptation efforts. The DFCD aims to achieve climate-resilient economic growth in least developed countries by adopting what it calls a "landscape strategy" for deal origination and execution. DFCD investments seek to improve the well-being, economic prospects and livelihoods of vulnerable groups – particularly women and children – and to enhance the health of critical ecosystems including water basins, rivers, tropical rainforests, marshland and mangroves.

In terms of mitigation (i.e. reducing emissions), FMO uses the 1.5°C pathway as a benchmark to steer investments towards renewable energy, energy efficiency, and negative-emitting transactions like reforestation and climate-smart agriculture. FMO also uses a 1.5°C scenario and corresponding carbon budgets as a starting point for assessing alignment of its portfolio with the Paris Agreement (FMO, 2019[47])(FMO, 2019[47]).

As a first step, FMO's so-called "fair share" of the global carbon budget and corresponding pathway are assessed using global data on OECD and non-OECD countries. Second, FMO compares the annual emissions footprint of its finance against the point where it should be along a pathway towards limiting global temperature rise to 1.5°C. This goes beyond calculating and reporting greenhouse gases avoided as a result of an investment and towards an approach that steers overall portfolio allocations and investment decisions based on an absolute emissions footprint of FMO's portfolio. FMO carried out an assessment of new investments in 2015 and 2016 as a way of piloting this approach. It found that annual financed emissions were within its emissions allowance, largely due to a large share of investments being in renewable energy and other low-carbon sectors.

Source: (FMO, 2018[48]), *Absolute GHG Accounting Approach for Financed Emissions*, https://www.fmo.nl/l/en/library/download/urn:uuid:a85bc36b-feb5-4321-9a49-4dd3dd00bfb8/absolute+ghg+accounting+approach+final+for+consultation+oct+2018.pdf.

Another approach to Paris Alignment is exemplified by the United Kingdom, which has embedded its commitment within broader government policy. In July 2019, the United Kingdom committed to align its official development assistance (ODA) with the Paris Agreement in the government's Green Finance Strategy, which is designed to align private sector financial flows with clean, environmentally sustainable and resilient growth supported by government action (Government of the United Kingdom, 2019[49]). The

strategy specifies that aligning ODA includes pricing carbon during the assessment of relevant bilateral development programmes and ensuring that fossil fuel support aligns with temperature goals and transition plans, as well as a commensurate response for addressing climate risks. The strategy also highlights a need to ensure that development activities do not undermine the ambition of country NDCs and adaptation plans in support of fundamental processes of the Paris Agreement. This approach translates the objectives in Article 2.1 into a top-down commitment for development co-operation activities, and also recognises the need to work with developing country governments to make their contribution towards the Paris Agreement goals.

Multilateral development co-operation providers have also committed to define alignment across financing activities and have started to do so. At the 2017 One Planet Summit, MDBs and the IDFC committed to align financial flows with the Paris Agreement. One aspect of this is the commitment by MDBs and IDFC members to redirect financial flows in support of low-emissions, climate-resilient development in developing countries and to develop processes and tools to put commitments into practice. They also expressed the need for urgent action to enhance support to developing countries to develop decarbonisation and long-term, low-emissions development strategies. This joint commitment illustrates the recognition of a need for consistency across development banks and DFIs, and builds on existing efforts to harmonise approaches in tracking climate finance.

In 2018, reinforcing their 2017 joint statement with IDFC, nine MDBs announced they would develop a dedicated approach to Paris alignment, identifying six “building blocks” that reflect its conceptualisation (African Development Bank et al., 2018[32]). The building blocks present Paris alignment as a process and objective that the MDBs will incorporate into internal and external activities in pursuance of the objectives of mitigation, adaptation and finance flow in Article 2.1. Three of the building blocks are clearly anchored in these objectives: align with the Paris Agreement’s mitigation goals and countries’ individual low-emissions development pathways; manage climate change risks and support adaptation; and increase and accelerate the provision of climate finance (African Development Bank et al., 2018[32]). The other three relate more to the processes that support coherent and effective implementation: i.e. support the revision of NDCs and broader policies; further develop and harmonise monitoring and reporting of Paris alignment activities; and align MDBs’ internal activities. The MDB group was to report in late 2019 on its progress on the joint approach and on advances by individual MDBs towards Paris alignment.

A 2018 IDFC position paper recognises the need to go beyond examining areas “that are directly beneficial for the climate and traditionally classified as climate finance” in aligning finance flows with the Paris Agreement (IDFC, 2018[30]). The IDFC articulated this position in the context of its joint commitment with a group of MDBs to align financial flows with the Paris Agreement (African Development Bank et al., 2018[32]). The IDFC paper focuses on Article 2.1c as a guidepost for alignment and emphasises the overarching need to mobilise finance for climate action while ensuring that the “non-climate” aspects of IDFC members’ portfolios are consistent with low-emissions, climate-resilient pathways (IDFC, 2018[30]). The paper recognises the need to increase domestic and international resources mobilised for climate action and to support country-led, climate-related policies (e.g. long-term, 2050 decarbonisation pathways). IDFC has also committed to help to enhance developing countries’ capacity for implementing climate-related policies, particularly in regard to the support for climate resilience to those most vulnerable to risks. The IDFC paper further states the IDFC’s intention to support the transition away from fossil fuels and prioritise financing for renewables, for example by embedding GHG emissions into project selection and overall decision-making processes. Finally, it notes the need for financial institutions to make the internal transformation necessary to comply with the Five Voluntary Principles for Mainstreaming Climate Action adopted at the time of the Paris Agreement in 2015 (IDFC, 2018[30]).

A number of studies in recent years have examined development co-operation providers’ progress on Paris alignment to date and reflect that Paris alignment is a far-reaching imperative that providers need to pursue across their strategies, programmes and operations. For example, a review of six MDBs’ consistency with Article 2.1c assesses progress along four extensive categories derived from the Financial Stability Board’s

Task Force on Climate-related Financial Disclosures: governance, strategy, risk and operational management, and transformational initiatives (Wright et al., 2018[50]). Another 2018 study focuses on the role of financial policies and regulations, fiscal policy, public finance, and information instruments as part of governments' and non-state actors' efforts to pursue the objectives of Article 2.1c (Whitley et al., 2018[51]). Both studies are examples of the predominant focus of the Paris alignment literature to date on Article 2.1c and the critical role of finance, policy and regulation.

Development actors' interpretations of Paris alignment suggest an emerging consensus

These examples are just a sampling of the important initiatives and approaches related to Paris alignment that are underway within the development community. Reviewed as a whole, these interpretations of Paris alignment suggest some emerging areas of consensus on its key elements among development co-operation actors and others. For example, the frameworks for identifying aligned and misaligned investments and activities – such as those devised by Larsen et al. (2018[31]) and Wright et al. (2018[50]) – indicate that certain investments and approaches are increasingly seen as fundamentally incompatible with the objectives of the Paris Agreement.

The focus so far has been on which projects and technologies to finance, often using a mitigation lens and driven by the more quantifiable and measurable elements of Article 2.1, that is, the temperature goals for climate change mitigation (Article 2.1a) and the consistency of all finance flows (Article 2.1c). As noted, this has resulted in a de facto focus on investments in hard infrastructure and assets; while clearly essential, this narrow focus relates to only a small share of infrastructure financing in developing countries (OECD, 2015[52]). Such a focus also does not appropriately account for the systemic role and constraints posed by capacity and policy gaps and their ability to unlock and direct broader financial mobilisation.

Internal and external provider policies and capacities are increasingly being integrated as key aspects for Paris alignment (Whitley et al., 2018[51]; IDFC, 2018[30]; African Development Bank et al., 2018[32]). This concept of Paris alignment needs to broaden and apply across development co-operation activities. Collectively, development co-operation actors enjoy a breadth of reach and diversity of operational models that can produce transformational impact if they embrace a broad-based approach to Paris alignment (see Chapter 3). Development co-operation should make full use of policy and capacity levers, in addition to finance, to achieve transformational change.

Incorporating climate action into overarching commitments, therefore, not only places it at the heart of sustainable development. It also enables development actors to formulate coherent strategies, programmes and operations that support sustainable development objectives and to implement climate action in accordance with the Paris Agreement. Many of the emerging approaches to Paris alignment demonstrate that development co-operation providers are embracing the Paris Agreement vision of climate action through top-down or global approaches and bottom-up, country-driven processes.

Paris-aligned development co-operation is both top-down and bottom-up

The Paris Agreement advances a top-down, global approach to climate action while facilitating implementation through bottom-up, country-driven processes. The global objectives of the Agreement describe a desired collective outcome of countries' climate action. The aim of this combined top-down and bottom-up approach is to maximise coherence by ensuring that countries take climate action in the context of reaching the shared goals. While its goals are ambitious, the Agreement allows countries to tailor their approaches to individual contexts and needs. Country-level mechanisms outlined in the Agreement, most notably NDCs and LTSs, constitute the primary bottom-up, country-driven processes for achieving the Agreement's overarching objectives. Development actors are already working to ensure that activities support transformative change along both dimensions.

Development co-operation providers' approach to climate action is embodied in their strategies, programmes and operations. In the context of the top-down and bottom-up approaches underpinning the Agreement, this report focuses on how providers can set and pursue goals within their own organisations that are consistent with the top-down approach, while also ensuring that development co-operation activities support bottom-up processes in developing countries.

Top-down approaches anchor criteria in the objectives of the Paris Agreement

Development co-operation providers are using tools and approaches such as financing targets, investment criteria and climate mainstreaming to guide their own institutions' activities in developing countries and to integrate climate change in their strategies, programmes and operations. All these relate directly to the objectives set out in the Paris Agreement. Financing targets, for example, commit actors to reduce the funding gap for the mitigation and adaptation objectives in Articles 2.1a and 2.1b. Moreover, investment criteria, embedding GHG emissions into decision-making processes and climate risk screening all have the potential to make financial flows more consistent, as called for in Article 2.1c. Climate mainstreaming can address fragmentation that negatively affects alignment across providers and within their organisational structures.

Financing targets

Climate financing targets can help to set the level of ambition of climate action and drive mainstreaming. Of the 23 bilateral and multilateral organisations responding to the survey undertaken for this report, 18 report that they have committed to specific climate finance targets. The climate financing targets of bilateral providers include absolute as well as relative targets and are often linked to commitments made in the context of negotiations under the UNFCCC. Germany, for example, has committed to double its commitments of climate finance by 2020 over 2014 levels, and aims to provide balanced finance to adaptation and mitigation in line with Article 2.1. The United Kingdom committed in 2015 to spend at least USD 5.8 billion in 2016-20 and recently committed to double this amount from 2021 onwards (United Kingdom House of Commons, 2019[53])

Most major MDBs have adopted climate financing targets, and many committed in 2015 to double or even triple their allocation of climate finance from various baselines by 2020 (African Development Bank et al., 2015[54]). The latest joint report by these MDBs[5] estimates that these institutions committed USD 43.1 billion in climate finance in 2018, a 22% increase over 2017 (European Bank for Reconstruction and Development, 2018[27]). Importantly, the climate financing targets are being translated into incentive systems to guide operations. For example, the EIB includes climate financing targets as a key performance indicator in its overall corporate plan. The Bank-wide targets also are translated into informal targets for operational departments.

Investment criteria

Investment criteria allow for the contextualisation of Paris alignment for project screening across financial portfolios. Based on the mitigation, adaptation and financing objectives set out in Article 2.1, criteria allow for projects to be screened against their effects on the objectives of the Paris Agreement. This tool can take multiple forms and is adaptable across different organisation types. Investment criteria can be informed by different climate scenarios that relate to both the reduction of emissions to mitigate climate change and climate risk screening to promote resilience.

The work of Larsen et al. (2018[31]) provides an example of how providers can assess their investments according to global climate scenarios. To inform their analysis of alignment, the authors review a collection of global climate scenarios and note that "global CO_2 emissions need to reach net zero around 2050" (Larsen et al., 2018[31]). This defines the deadline for decarbonisation for energy supply and use (including transportation, buildings and industry). In line with this scenario analysis, different types of investments in

different sectors – such as energy supply and transport – are rated according to whether they are Paris-aligned (defined by the authors as fully aligned with the Paris Agreement consistently across all scenarios); conditional (alignment depends on project- or country-specific factors as assumed under certain scenarios); or misaligned (consistently Paris misaligned in all scenarios). Particularly for conditionally aligned projects, decision trees allow for a more refined assessment, as the assessments are based on global scenarios while the extent to which investments are aligned will vary by country context.

Integrating the potential GHG emissions of investments into the processes of allocating development finance, designing country strategies and selecting individual investments can help to avoid carbon-intensive activities in the long term. While it is common for mitigation-specific support to use GHG-related criteria to prioritise financing, the application of such criteria across entire portfolios is less common among development co-operation providers. Less than half the bilateral and multilateral development co-operation providers responding to the survey report having approaches in place to take GHG emissions into account, and in only three organisations is this reported to be mandatory. For example, the EIB has integrated shadow carbon pricing into its economic assessment of investments and requires a threshold economic rate of return for supporting investments. The EIB has also developed an emissions performance standard that requires all electricity generation projects to meet a minimum GHG emissions threshold. FMO also takes the approach of embedding GHG emissions into decision-making processes, defined through the lower bound of the temperature goal in Article 2.1a (Box 2.4).

Another approach to avoid carbon-intensive activities is the use of exclusion lists prohibiting support for certain types of activities and technologies. About one-third of survey respondents state that they have such lists in place with regard to fossil fuel-intensive activities, most commonly to prohibit support for coal or nuclear power. KfW Development Bank, for example, stopped financing the construction of coal-fired power stations and the retrofitting of decommissioned coal-fired power stations in developing countries in 2015. In November 2019, the EIB approved a new energy lending policy that commits the EIB to ending financing for fossil fuel energy projects from the end of 2021, and the EIB Group to aligning all financing activities with the goals of the Paris Agreement from the end of 2020 (European Investment Bank, 2019[24]).

Development co-operation providers report on other climate-related indicators (with or without targets) in corporate scorecards and results monitoring systems. Common indicators that are integrated in development co-operation strategies include the volume of GHG emissions avoided or saved and beneficiaries of adaptation efforts. The European Union, for instance, reports in its results framework on its overall emissions (rather than emissions saved or avoided) using SDG-aligned indicators. Among development finance institutions, another example is the Inter-American Development Bank (IDB), which calculates and reports on the gross emissions of emissive projects and emission reductions of mitigation projects.

The use of climate risk screening tools to build climate resilience into the planning, design and implementation of projects is common across development co-operation providers. More than 80% of survey respondents report that they have such approaches in place. Many providers integrate specific screening for physical climate change risks into existing environmental and social safeguards screening processes. The Asian Development Bank, for example, initially screens projects using a checklist and online tool during the project concept development stage, and subjects medium- and high-risk projects to a more thorough Climate Risk and Adaptation Assessment during project preparation to identify adaptation options. Several organisations have also developed specific tools to screen climate risks. Switzerland has developed the Climate, Environment and Disaster Risk Reduction Integration Guidance tool that is used to screen strategies and projects to systematically assess climate and other environmental risk and to understand whether the activity creates new risks or exacerbates existing risks.

Mainstreaming

As a major part of their efforts to align their activities with the objectives of the Paris Agreement, providers may choose to strengthen or expand the climate mainstreaming approaches they are already using to achieve the objectives in Article 2.1. Climate mainstreaming typically involves making a top-down decision to consider and address climate change across all of an institution's activities, and requires consistent anchoring of these objectives across development co-operation. It can be an instrumental tool for advancing the shift to low-emissions, climate-resilient pathways.

Mainstreaming is already a common approach among development co-operation providers to integrate environmental and climate considerations. It can ensure that activities contribute to the required transformation and do not undermine climate objectives, which is the essence of the first characteristic of Paris-aligned development co-operation (Section 2.2). Effective mainstreaming requires institutions to have a mandate for the integration of environmental issues as an essential foundation to sustainable development (OECD, 2019[55]). Such a mandate allows for systematic consideration across policies, plans, budgets and activities at all stages of the programming cycle. Climate mainstreaming integrates climate in monitoring and evaluation and in the design of development policies and programmes, which underscores the need to incorporate emerging evidence and lessons learned. This feature of mainstreaming is notable for providers considering it as a tool to help to pursue Paris alignment, as is in line with Characteristic 4 of Paris-aligned development co-operation – i.e. it proactively responds to evidence and opportunities to address needs in developing countries (Section 2.2). Climate mainstreaming has the potential to enable consistency and ensure that policy decisions are not contradictory across development co-operation portfolios.

Climate mainstreaming is gaining traction beyond development co-operation and finance, in particular in the financial industry. The Climate Action in Financial Institutions initiative, for example, brings together public and private financial institutions to share practices and lessons learned, and advocates for the Five Voluntary Principles for Mainstreaming Climate Action (Institute for Climate Economics, 2017[56]). These principles include committing to climate strategies with a strong organisational mandate and managing risks across portfolios, both of which contribute to ensuring that activities do not undermine but contribute positively (Characteristic 1). One of the five principles is to promote climate-smart objectives by encouraging organisations to share lessons learned and to engage clients and other stakeholders on climate change risks and resilience. This is similar to the catalytic role of development co-operation in supporting climate action, which is Characteristic 2 of Paris-aligned development co-operation in this report. The five principles also include improving climate performance, and this, too, is similar to Characteristic 4 on responsiveness to emerging evidence.

Most current mainstreaming of environmental issues by development co-operation providers focuses on climate change adaptation and mitigation (OECD, 2019[55]). Biodiversity and oceans, however, are increasingly emphasised in provider mainstreaming, and Paris alignment requires that environmental objectives are integrated in a way that supports climate action across development co-operation (OECD, 2019[55]). Article 5 of the Paris Agreement, for example, highlights the crucial role of forest conservation in supporting both climate adaptation and mitigation objectives and that such efforts are synergistic with biodiversity goals (Convention on Biological Diversity, 2010[57]); (UNFCCC, 2015[2]).

Mainstreaming is a useful and necessary tool that can contribute to achieving the objectives of the Paris Agreement. Nevertheless, effective climate action requires more than the interpretations and approaches of traditional mainstreaming, as shown by the characteristics of Paris-aligned development co-operation presented in this report. For development co-operation providers, Paris alignment means they should fully reassess and reorient all of their activities to ensure that these are consistent with the objectives of the Paris Agreement. Mainstreaming can contribute to this process. But it needs to be delivered in parallel with broader political and strategic changes so that the objectives are a defining feature of overall development co-operation and not approached simply as isolated imperatives or boxes to be ticked in programming.

Bottom-up processes increase capacity in developing countries to fulfil Paris objectives

Country-driven, bottom-up approaches take a variety of forms among countries and organisations and as anchored in NDCs. They also can involve other UNFCCC processes, such as NAPs and technology needs assessments, that can contribute to longer-term strategies to achieve low-emissions, climate-resilient pathways. Development co-operation plays a clear role in supporting developing countries' pursuit of self-determined, sustainable development pathways.

Nationally determined contributions

Some developing countries, and especially least developed countries (LDCs), have indicated that the goals and targets in their NDCs are contingent on both the commitments and the level of support that developed countries provide for implementation (Fransen, Northrop and Mogelgaard, 2017[58]). This suggests that development co-operation can potentially help to mobilise further action within countries by providing implementation support and through such support, help to raise ambition (OECD, 2012[9]). Additionally, this implies a mandate for development co-operation providers to work with developing countries to elaborate and update their NDCs and to build on efforts to meet existing, locally identified development needs, incorporate emerging international priorities and good practices, and support more ambitious action.

The current levels of ambition across NDCs are insufficient to achieve the goals of the Paris Agreement, which reinforces the need for development co-operation providers to support developing countries to strengthen, design and implement NDCs. Development co-operation providers acknowledge and try to address this shortfall within their development activities. The NDC Partnership, for example, was established to bring together governments and other stakeholders to support NDC implementation. The NDC Partnership works through a demand-driven country approach that takes countries requesting support through a rapid needs assessment to identify areas for support. This combines capacity development and knowledge-sharing support at the policy and planning levels, with help to connect countries with sources of finance to mobilise financing for NDCs. In 2018, the Partnership was active in 85 countries (NDC Partnership, 2019[59]).

The IDB's NDC Invest is an example of platforms developed by MDBs to specifically support developing countries to design and prepare investments to be consistent with their NDCs. NDC Invest takes a systems approach by supporting developing countries to develop investment plans for NDC implementation, undertake feasibility studies and other upstream project preparation measures, identify sources of finance for NDC-related projects, and strengthen local markets for NDC-aligned investments. Another example is the Asian Development Bank's NDC Advance.

The large majority of survey respondents (21 out of 23) report that they support developing countries to strengthen their NDCs, either directly through specific support for NDC design, review and implementation or tangentially by supporting climate mainstreaming in sector policies and planning. Technical assistance for NDCs includes support to build political momentum for increased ambition; develop institutional and technical capacity; undertake sector-specific policy reforms; and develop monitoring and reporting systems to track progress on NDCs. Bilateral organisations that responded to the survey report that they engage with developing countries on these issues directly and through multi-country NDC support platforms such as the NDC Partnership.

Long-term strategies

The Paris Agreement calls for the development of long-term strategies by 2020 to achieve low-emissions, climate-resilient development by 2050. These strategies provide a long-term vision and plan to increase the ambition of NDCs. In developing countries, these efforts are particularly important to build an evidence base for climate action and raise the political profile of climate action.

Support to developing countries to develop such long-term strategies for climate action appears so far to be limited. Where providers do support developing countries in developing these strategies, the support often is channelled through dedicated initiatives such as the Deep Decarbonization Pathways Project. Another channel for this support is the 2050 Pathways Platform, which works with national and subnational governments in developed and developing countries to provide policy and technical advisory support for the design of long-term pathways to achieve climate and other development goals.

Given the centrality of long-term, low-emissions development strategies to achieve the objectives of the Paris Agreement in the short and long term, development co-operation providers should enhance support related to the formulation of these strategies.

A range of approaches and tools are being used to define and implement Paris alignment for development co-operation. Certain actors are clear standouts for their efforts to date, and most of the progress overall, mainly in financing, has been made by a few actors. Development co-operation providers need to focus on harmonising their efforts towards Paris alignment, using the finance, policy support and capacity development levers. Climate action calls for strengthened ambition and collective support to transform economic and social sectors in developing countries. Initiatives such as the NDC Partnership provide a platform for supporting harmonisation. But development co-operation as a whole continues to fall short on this front, as evidenced by inconsistent integration of climate considerations in development finance flows.

2.5. Paris alignment requires the integration of climate action across development finance

Examining development finance is critically important for assessing all three levers through which development co-operation can achieve the objectives of the Paris Agreement (Figure 2.1). Financing, policy support and capacity development interventions translate to, and are reflected in, flows of development finance resources. These flows serve a broader purpose by targeting policy and other areas that influence and catalyse systemic change, for example by evolving financial systems and expanding fiscal capacity in developing countries. A primary challenge of aligning development finance with the Paris Agreement is the need to leverage and recruit a broader range of actors to finance sustainable development (Section 2.3).

The Paris alignment paradigm (Section 2.4) is useful for the purpose of analysing development finance, particularly the degree to which development finance flows and the activities they support are aligned with the Paris Agreement. This allows for a wider perspective than climate finance because it goes beyond a subset of activities that are climate-financed to include consideration of how project portfolios as a whole align with Paris objectives. Not all activities across all sectors within a given portfolio will be relevant, but integration should go beyond sectors that are typically thought of as climate-related (e.g. agriculture and environmental protection) and into all areas where there is sufficient evidence of effects on climate objectives. As all development takes place in the context of climate change, providers should consider the relevance and potential impact of climate change across all activities and integrate objectives where necessary.

Analysis of development finance can also indicate the extent to which development co-operation providers are supporting Article 2.1 of the Paris Agreement. Looking at the share of development finance that contains each climate objective, in terms of trends over time as well as the recent state of such finance, provides a sense of the support for mitigation (Article 2.1a) and adaptation (Article 2.1b). Measuring climate-related development finance as a share of overall development finance flows also provides an indicator of the consistency of all development finance (Article 2.1c) by distinguishing climate-related finance from that finance that is not climate-related. It is equally important to examine how development finance is leveraged, particularly those flows that are climate-related. Such analysis includes looking at

how various instruments, channels and grant-based resources are used to support the most climate-vulnerable countries, as called for in Article 9 of the Paris Agreement (UNFCCC, 2015[2]).

Data in this section, unless otherwise stated, refer to both concessional and non-concessional official development finance (ODF). An important part of the analysis here builds on statistics for climate-related development finance from bilateral and multilateral partners that report to the DAC. Climate-related development finance is different than climate finance, and the two terms cannot be equated. The differences between these two types of finance are discussed in Box 2.7.

Box 2.7. Climate-related development finance versus climate finance

As noted, data in Section 2.5 refer to both concessional and non-concessional official development finance. An important part of the analysis in this section builds on statistics for climate-related development finance from bilateral and multilateral providers that report to the DAC. Climate-related development finance relies on two different reporting methodologies.

One of these is the Rio Marker Methodology, which is used for data from bilateral donors as well as multilateral data from non-bank multilateral institutions and programmes (i.e. multilateral climate funds). For MDBs, analysis is based on the Climate Components Methodology, which is expanded in this report to cover the underlying development finance activities for each component reported (OECD, 2019[60]).

Climate-related development finance through the Rio Marker Methodology and climate finance cannot be equated. While climate-related development finance is the main funding source for bilateral public climate finance, reflecting the existing OECD DAC international statistical standards and system for reporting on development finance, a variety of reporting practices have been observed. The majority of OECD DAC members reporting to the UNFCCC draw on donors' standard annual reporting of climate-related development finance. This follows the Rio markers' definitions and eligibility criteria but applies coefficients that vary across members to these activities (OECD, 2015[17]).

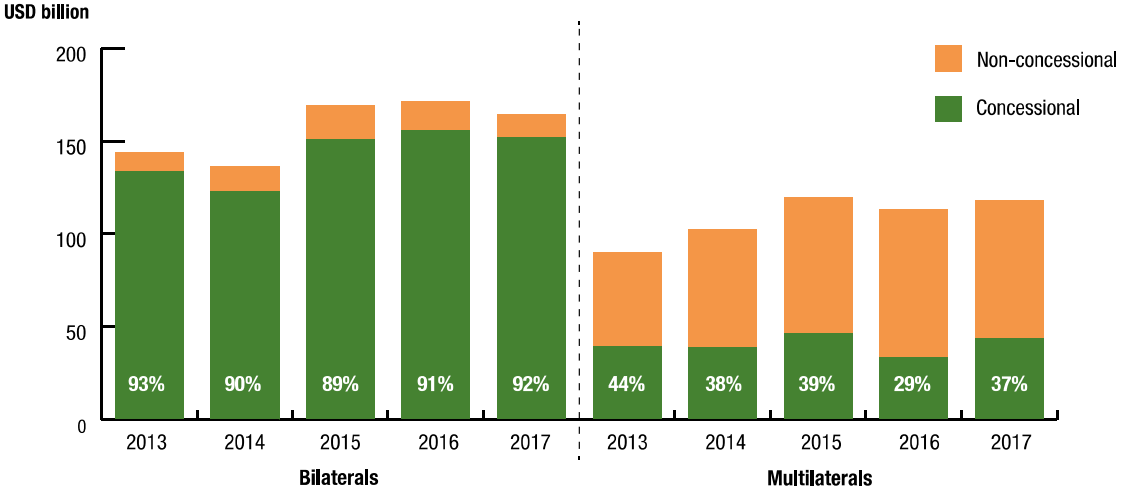
To improve comparability across climate-related development finance, this report derives the full volume of the underlying project for MDB data reported under the Climate Components Methodology. Focusing on climate-related development finance reflects the development perspective, specifically the view that climate objectives need to be situated as an integral part of broader project finance and funding. Climate finance, on the other hand, aims to account for incremental costs and specific climate shares. For both the Rio Marker and Climate Components methodologies, the volume of climate-related development finance is invariably greater than the volume of what is reported as climate finance to the UNFCCC.

Development financing needs to support Paris alignment as a part of broader financing for sustainable development

As discussed in Chapter 1, development finance is increasingly seen as an important part of a broader context of financing for sustainable development. It encompasses flows beyond such development finance resources as domestic taxation, private investment and remittances. The Addis Ababa Action Agenda (AAAA), in a similar vein to Article 2.1c of the Paris Agreement, calls on actors to work together across the public and private sectors in support of sustainable development. In development co-operation, this collaboration varies by provider type and the nature of finance being used. This is illustrated in Figure 2.3 which shows the breakdown in 2013-17 of concessional versus non-concessional ODF[6] by provider.

Figure 2.3. Official development finance by flow, 2013-17

ODA and OOF, bilateral and multilateral development co-operation providers



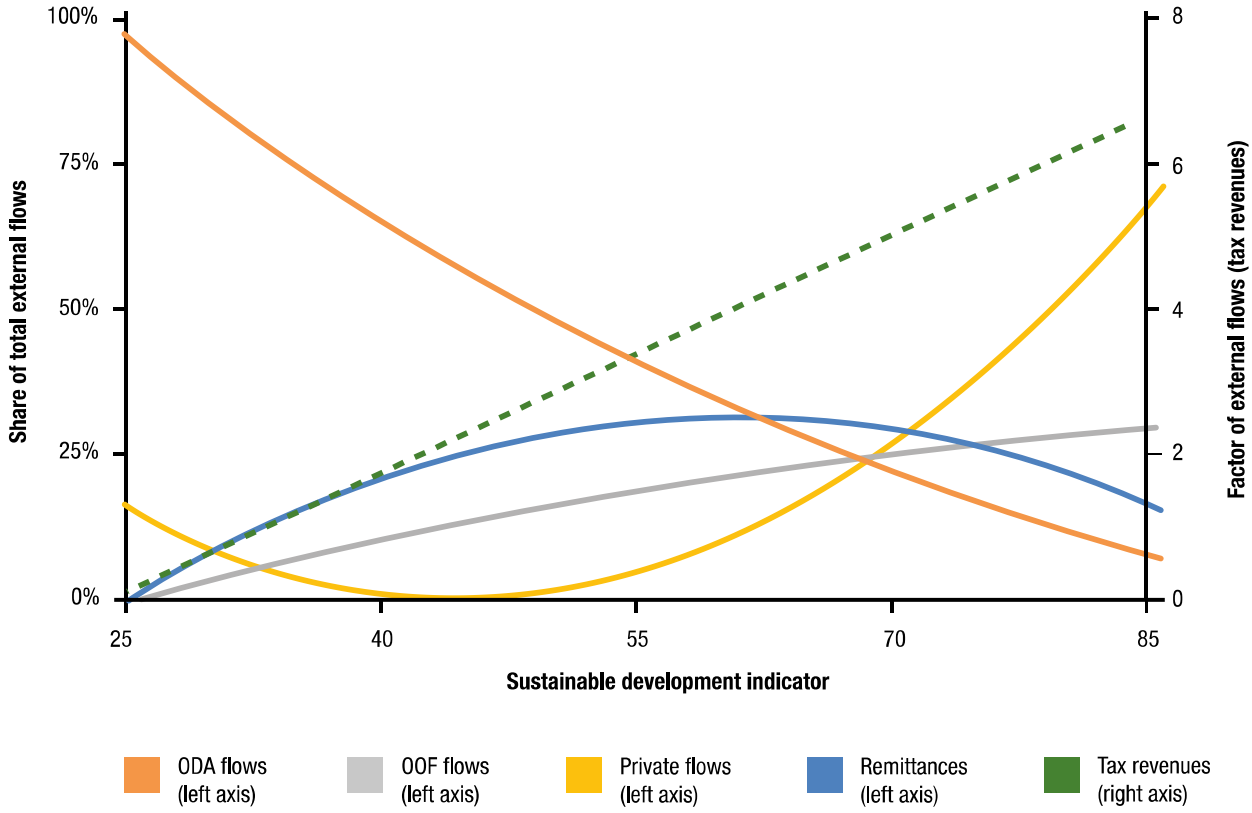
Note: Percentages represent shares of concessional development finance as a proportion of overall development finance committed within each year by provider type. OOF is other official flows.
Source: (OECD, 2019[61]), *Creditor Reporting System* (database), https://stats.oecd.org/

StatLink https://doi.org/10.1787/888934036728

In developing countries, development finance – financial instruments and resources with an explicit development mandate – has an essential role to play to achieve the ambitious goals of the AAAA by directly addressing finance, policy and capacity gaps and through leveraging additional resources. At the same time, the volumes and composition of finance for sustainable development evolve over the different stages of development, implying that the role and use of development finance also changes in different contexts. Figure 2.4 depicts trend lines of finance for sustainable development as recipient countries progress along their respective development pathways, as measured by a sustainable development indicator that combines gross national income (GNI) per capita and environmental, social and other economic vulnerability measures. The figure shows that ODA gradually phases out as these vulnerability indicators improve in recipient countries and that other flows follow a similarly incremental trend as they take the place of ODA. There is a notable lag for less concessional flows (OOF and private) in entering transitioning markets along this scale for sustainable development, suggesting a clear response to the risks that exist along the multiple dimensions of economic, social and environmental vulnerability.

Figure 2.4. Evolution of financing for sustainable development

2012-17 disbursements, 2017 prices



Note: The sustainable development indicator is based on three indices applied at equal weight: GNI per capita; the Economic Vulnerability Indicator (EVI), which includes an environmental factor; and the Human Asset Index (HAI), which includes health and education factors.
Source: (OECD, forthcoming[62]), Paris alignment in a transition context, Calculators based on (OECD, 2019[61]), *Creditor Reporting System* (database), https://stats.oecd.org/Index.aspx?DataSetCode=CRS1 (ODA, OOF and private flows); (World Bank, 2019[63]), *Personal remittances, received*, https://data.worldbank.org/indicator/BX.TRF.PWKR.CD.DT; (UN-WIDER, 2019[64]), *GRD - Government Revenue Dataset* (database), https://www.wider.unu.edu/project/government-revenue-dataset.

StatLink https://doi.org/10.1787/888934036747

Domestic resources, and especially tax revenues, are increasingly recognised as the main long-term source of financing for development, and amounted to USD 4.3 trillion in 2016 (OECD, 2018[65]). This volume was more than 25 times the development finance disbursements to developing countries, although with significant variations for income groups; development finance amounted to the equivalent of 51% of tax revenues in LDCs but 13% of tax revenue in lower middle-income countries (LMICs) and 0.2% in upper middle-income countries (UMICs) (OECD, 2018[65]). Tax revenue has been rising in low-income countries and emerging markets, but remains limited to 16% of gross domestic product (GDP) on average, while tax revenue accounts for 34% of GDP on average for OECD countries (Akitoby et al., 2018[66]; OECD, 2018[67]). The structure of taxation, as a method of incentivising or discouraging certain economic activities, is one of the main tools available for a government to influence a country's development pathway.

Private finance, both international and domestic, also plays a key and increasingly significant role in developing countries. Total domestic investments tend to compose a sizable portion of GDP – at estimates of 20% – for many developing countries, including those that are considered low-income and LMICs.. Total external financing, in comparison, represents less than 20% in low-income countries, under 10% in LMICs and below 5% in UMICs, on average. Private financing is often volatile in these contexts. As private finance

flows make up a significant share of resources in developing countries, they need to be mobilised for the transition to low-emissions, climate-resilient development pathways.

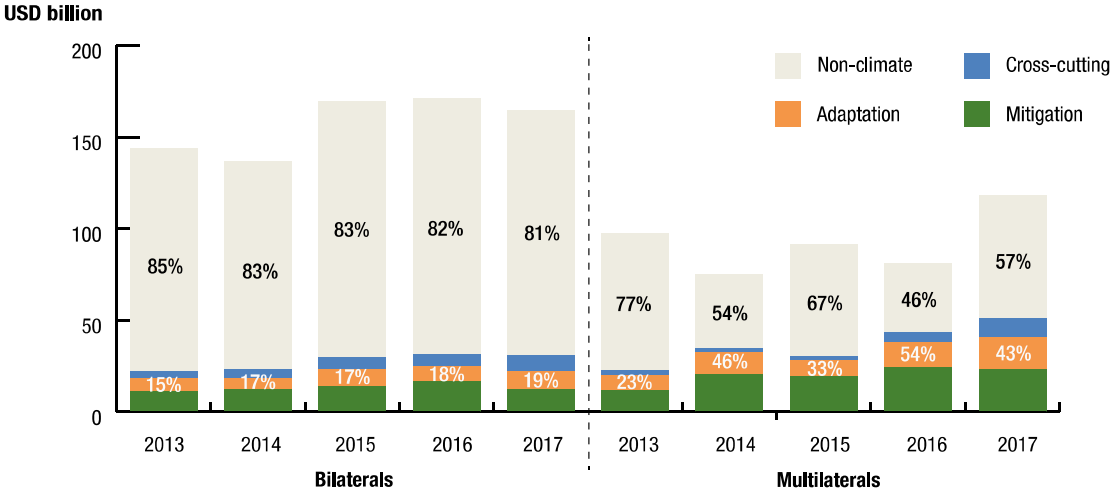
Development actors are working to mobilise additional private resources through indirect interventions and direct co-financing. Between 2012-17, development finance mobilised USD 152 billion from the private sector through the use of guarantees, syndicated loans, shares in collective investment vehicles, credit lines, direct investment in companies and project finance special purpose vehicles, and simple co-financing arrangements (OECD DAC, 2019[68]). Blended finance is one of the most prominent approaches to mobilisation, and climate action is clearly a priority for blended finance funds and facilities. A survey undertaken to inform a recent OECD paper on blended finance funds and facilities (Basile and Dutra, 2019[69]) indicates that, of 180 responding countries, almost two-thirds report that they contributed towards SDG 13 (climate action), with energy as the largest sector focus (42%), followed by agriculture (15%) and water and sanitation (14%).

The situation of development finance within the context of other financing sources has implications for its role. Given the scarcity of development finance relative to domestic flows and private investments, and the scope of the Sustainable Development Goals, the focus needs to be on catalytic change if the development mandates of these financial resources are to be met. What this change entails varies according to country context, particularly income level. Given that Paris alignment is a priority for development, the integration of climate action across development co-operation activities needs to fulfil a catalytic role if climate objectives are to be met. Fulfilling both climate objectives and development mandates in developing countries requires a systematic focus on supporting change through low-emissions, climate-resilient pathways. The extent to which this is being done can be observed by examining where development co-operation providers are integrating climate considerations across various activities, income levels and climate objectives.

Providers are not sufficiently integrating climate considerations across activities

The effects of climate change and its risks to developing countries are well evidenced in an increasingly broad range of areas. However, it is not clear that development co-operation is responding adequately to address the impacts of the climate crisis. Climate-related development finance accounted for 18% of bilateral and 32% of multilateral development finance over 2013-17. The political consensus signalled by the Paris Agreement did not bring a notable shift of climate-related development finance from bilateral providers between its adoption in 2015 through 2017,[7] although for multilateral providers, this finance has increased each year since (Figure 2.5). Data on development finance towards mitigation and adaptation needs (in line with Article 9 of the Paris Agreement) and technology support and transfer (in line with Article 10) in developing countries also indicate a need to increase these efforts for Paris alignment and the sustainable development it supports.

Figure 2.5. Shares of climate-related development finance, 2013-17



Note: Percentages shown in white text represent shares of climate-related development finance as a proportion of overall development finance committed within each year by provider type. Percentages shown in black text represent shares of development finance reported without any climate objective as a proportion of overall development finance committed within each year by provider type.
Source: Authors based on (OECD, 2019[61]), *Creditor Reporting System* (database), https://stats.oecd.org/; (OECD, 2019[70]), *Climate Change: OECD DAC External Development Finance Statistics* (database), http://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/climate-change.htm

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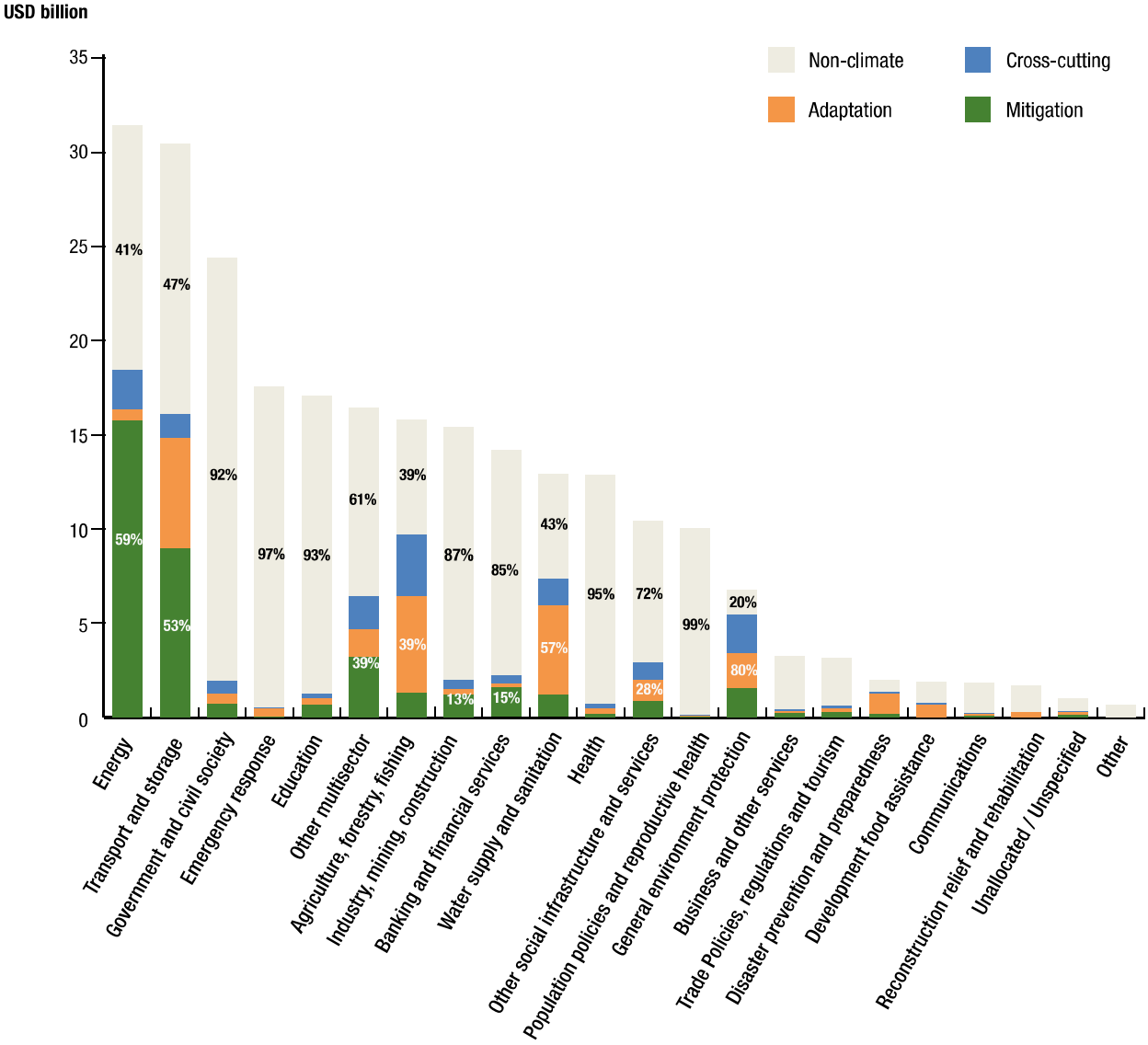
The absence of a strong upward trend in climate-related development finance is indicative of insufficient action in development co-operation, although this varies by provider type. Bilateral support to climate-related development finance has stagnated, ranging from a share of 15% to 19% of overall development finance over 2013-17. Volumes of climate-related development finance from multilaterals have been on an upward trend since 2015. As a share of overall development finance, climate-related development finance notably increased, from 33% to 43%, over this period, peaking in 2016 at 54%. These differences by provider type may reflect the focus of Paris alignment, and of climate action more broadly, on aligning financial flows with the objectives of the Paris Agreement. Multilaterals primarily operate through debt financing, while bilateral institutions include comparatively more grant-based agencies. As is highlighted in Section 2.4, most approaches to alignment emphasise the role of multilateral institutions in fulfilling Article 2.1c, which calls for aligning all financial flows. Bilateral providers, however, also need to emphasise the role of policy support and capacity development in achieving Paris Agreement objectives across their respective development portfolios.

Climate-related development finance is concentrated in areas frequently cited as fundamental to the transition to low-emissions, climate-resilient pathways (Figure 2.6). The sectors of energy (24%); transport and storage (20%); agriculture, forestry and fishing (12%); water supply and sanitation (9%); general environment protection (7%); and “other multisector” (6%) accounted for nearly 80% of the total climate-related development finance committed in 2016-17.

However, the need to shift from a climate finance paradigm to a Paris alignment paradigm (Section 2.4) means that climate considerations should be integrated across activities and beyond these priority areas to advance the transition to low-emissions, climate-resilient pathways. Yet climate-related development finance is limited even within the priority sectors. In the agriculture, forestry and fishing sector, for example, 40% of development finance was not climate-related. In light of overwhelming evidence that climate considerations should be integrated into areas related to land and water use, this suggests that improved development co-operation is needed even in priority climate-related sectors (IPCC, 2019[71]; IPCC, 2019[72]). Other areas with increasing relevance for achieving low-emissions, climate-resilient

development pathways, most notably the sectors of banking and financial services and health, receive especially low levels of climate-related development finance.

Figure 2.6. Shares and volumes of climate-related development finance by sector, 2016-17 average



Note: Volumes of finance calculated using the two-year average in each sector by climate objective for 2016-17. Percentages shown in white text represent shares of climate-related development finance as a proportion of overall development finance committed within each sector, calculated using the two-year average volume of finance in each sector for 2016-17. Percentages shown in black text represent shares of development finance reported without any climate objective as a proportion of overall development finance committed within each sector, calculated using the two-year average volume of finance in each sector for 2016-17.

Source: Authors based on (OECD, 2019[61]), *Creditor Reporting System* (database), https://stats.oecd.org/; (OECD, 2019[70]), *Climate Change: OECD DAC External Development Finance Statistics* (database), http://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/climate-change.htm

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Achieving a balance between adaptation and mitigation objectives requires a focus on country needs

Developing countries will be better placed to participate in and benefit from a low-emissions, climate-resilient global economy if mitigation and adaptation needs are supported without delay. While Article 4.1 of the Paris Agreement recognises that peaking emissions will take longer for developing countries, this should not be taken as a presumption that prevents developing countries from taking up opportunities to transition (New Climate Economy, 2018[12]); (OECD, 2017[73]) (UNFCCC, 2015[2]). Meeting adaptation needs is a prerequisite for sustainable development as by definition, it requires long-term resilience. Accounting properly for climate risks, however, also depends on the progress of mitigation efforts. Closing the finance gap for adaptation, even in a scenario where warming is limited to 1.5°C, requires greater ambition and increased scale (UNEP, 2018[14]). Addressing development challenges is intrinsic to fulfilling these adaptation needs.

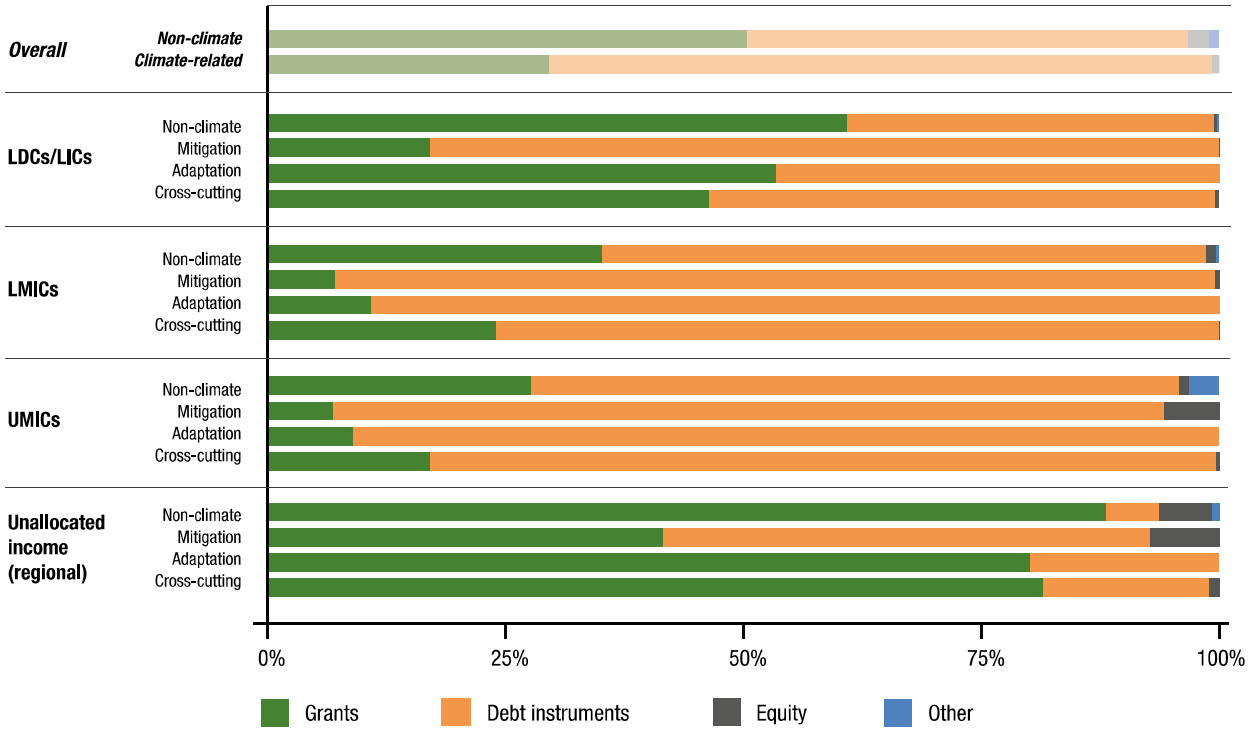
Allocation of development finance towards adaptation and mitigation should advance the inclusive, low-emissions and climate-resilient transition in a way that strikes a balance between countries' needs for both of these climate objectives. Article 9.4 of the Paris Agreement states that "financial resources should aim to achieve a balance between adaptation and mitigation, taking into account country-driven strategies, and the priorities and needs of the developing country Parties" (UNFCCC, 2015[2]). The role of Paris-aligned development co-operation as a catalyst for inclusive low-emissions, climate-resilient pathways (Characteristic 2) is particularly relevant in terms of how providers should determine the balance between adaptation and mitigation. Although climate-related development finance is different from the climate finance referenced in Article 9 of the Paris Agreement, as discussed in Box 2.7, development financing needs to play a complementary role to climate financing if it is to fulfil a catalytic role in the inclusive low-emissions, climate-resilient transition.

Climate-related development finance did not fluctuate notably over 2013-17 in terms of shares for each Paris Agreement objective,[8] and mitigation accounted for the majority (52%) of this finance. Multilaterals emphasised mitigation objectives more than did bilateral providers (54% versus 48%, respectively) within their respective portfolios. Multilaterals also emphasised adaptation slightly more than did bilaterals (33% versus 30%), although bilaterals financed significantly more cross-cutting objectives (22% versus 13%). It is difficult to directly compare financing for climate objectives, particularly to determine whether a balance is reached between the two categories and climate-related country needs. For example, progress made in adaptation is incremental and context-specific, and there is a persistent lack of quality metrics for climate resilience (UNFCCC, 2018[74]). Furthermore, climate change adaptation requires integration across relevant interventions; it is almost never the sole objective of any single development project but rather a feature that is essential for project sustainability. However, some overarching traits can be gleaned from the nature of goals and targets within climate change mitigation, adaptation and cross-cutting objectives.

Total climate-related development finance as a proportion of total development financing does not vary significantly across national income levels of recipient countries. Less than 20% of bilateral development finance on average was climate-related within each income group category in 2016-17. For multilateral development finance, almost 40% was climate-related in the same period. Income levels are a key determinant of how populations are affected by climate change, however, with lower-income countries requiring more adaptation support and higher-income countries needing to engage in more mitigation activities (IMF, 2017[75]). This is reflected in development financing in the climate objectives that are emphasised and in the instruments that are used. Finance that was reported to have only a mitigation objective was concentrated in LMICs and UMICs for both bilateral and multilateral providers, while finance with only an adaptation objective primarily targeted LDCs and low-income countries (LICs),[9] as shown in Figure 2.7. Proportions of bilateral finance at a regional scale were similarly distributed across climate objectives, with the plurality of such finance (43%) reported to have both adaptation and mitigation objectives; 35% of the finance was reported to be for mitigation and 22% for adaptation.

Financing instruments used by bilateral providers vary significantly across national income groups and by climate versus non-climate-related objectives. More than 70% of development finance to LDCs, for instance, was issued in the form of grants in 2016 and 2017, for both climate and non-climate objectives. Middle-income countries received 45% of non-climate financing from grants and over 70% of climate-related financing through debt instruments. Regionally distributed finance from bilaterals was notably grant-heavy in this period, comprising more than 70% of non-climate-related finance and almost 90% of climate-related finance. Multilateral providers primarily utilised debt instruments across income groups, and also integrated climate objectives into their development finance at similar rates (approximately 40%) regardless of income level. For regional financing, however, half of non-climate-related development finance from multilaterals was in the form of grants, while over 80% of climate-related financing issued used debt instruments.

Figure 2.7. Shares of development finance by income, climate objectives and instrument, 2016-17



Note: Percentages represent shares of development finance as a proportion of the financing instrument used in each income group and climate objective, calculated using the cumulative volume of finance for 2016-17.
Source: Authors based on (OECD, 2019[61]), *Creditor Reporting System* (database), https://stats.oecd.org/ (OECD, 2019[70]), *Climate Change: OECD DAC External Development Finance Statistics* (database), http://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/climate-change.htm

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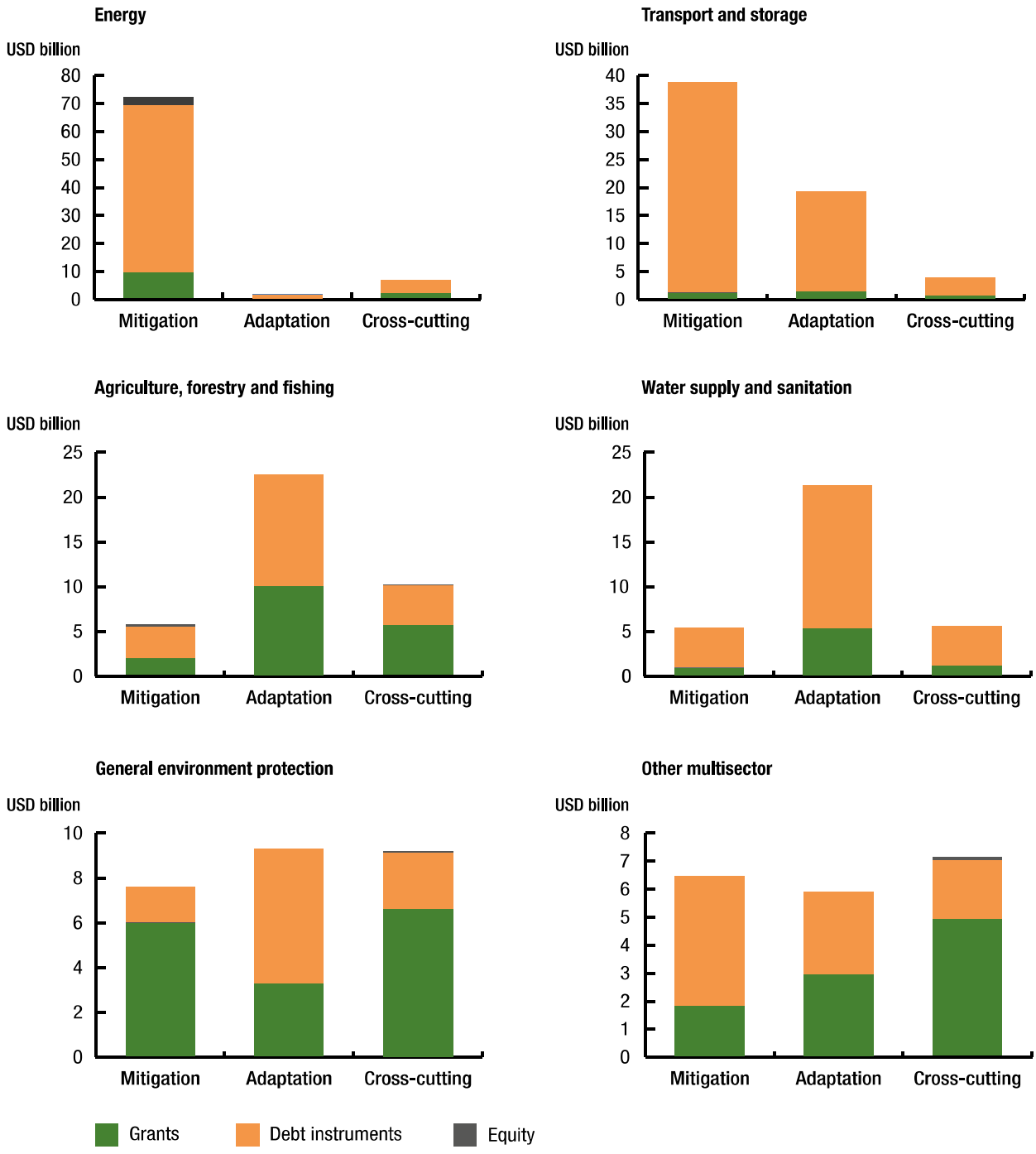
Article 9 of the Paris Agreement outlines the need to consider grant-based finance to achieve adaptation objectives and generally a mix of instruments to achieve climate goals. Adaptation-related development financing has been consistent with the Agreement on this score depending more on grants, while mitigation has used debt instruments more (UNFCCC, 2015[2]). This division is particularly pronounced in LDCs/LICs and in finance at a regional scale, although most climate-related finance is in the form of debt instruments.

There have also been shifts in the use of grants and debt instruments across income groups and providers over time. For example, bilateral providers increased the use of grants for adaptation objectives in LICs and UMICs, as shown in a comparison of 2014-15 to 2016-17 averages. Mitigation-related bilateral development finance for LDCs/LICs in the same period shifted away from grants towards more debt financing, and finance reported to contain both adaptation and mitigation objectives significantly increased the use of grants in LMICs. These changes reflect a stronger need for adaptation in low-income countries, as well as the role of higher incomes in providing adaptive capacity and resilience in middle-income countries that focus more on mitigation needs.

Mitigation-related development finance dominates the energy and transport and storage sectors. The majority of climate-related development finance was adaptation-related in agriculture, forestry and fishing sector and the water supply and sanitation sector. Distribution of this finance in the sectors of general environment protection and "other multisector,"[10] is relatively balanced across climate change adaptation, mitigation and cross-cutting objectives. The sector being financed also affects the instrument used for each climate-related objective. For example, mitigation tends to favour the use of debt instruments (Figure 2.7) but is primarily grant-based in the general environment protection sector (Figure 2.8). Similarly, adaptation tends to favour grants, but is almost entirely debt-based in the energy and transport and storage sectors.

Figure 2.8. Priority climate-related sectors by objective and instrument, 2016-17 average



Note: Volumes of finance calculated using the two-year average in each sector by climate objective for 2016-17.
Source: Authors based on (OECD, 2019[61]), *Creditor Reporting System* (database), https://stats.oecd.org/; (OECD, 2019[70]), *Climate Change: OECD DAC External Development Finance Statistics* (database), http://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/climate-change.htm

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Box 2.8. The challenge of forest loss for ambitious climate action

The Intergovernmental Panel on Climate Change (IPCC) estimates that 13% of anthropogenic CO_2 emissions are derived from the agriculture, forestry and other land use sectors, and mostly due to deforestation (IPCC, 2019[71]). Article 5 of the Paris Agreement also underscores the challenge that deforestation poses to progress in climate action (UNFCCC, 2015[2]). Reducing deforestation could simultaneously lessen CO_2-equivalent emissions by more than 3 gigatonnes (Gt) per year while contributing positively to climate change adaptation, desertification, land degradation and food security objectives (IPCC, 2019[71]). More sustainable forest management practices have similar potential to contribute positively across these climate objectives; it is estimated that they could improve adaptation for more than 25 million people (IPCC, 2019[71]). Depending on the mix of responses, these co-benefits can be delivered without increasing competition for land (IPCC, 2019[71]). Best practice for achieving this is projected to involve, among other things, the reforestation of native species through local stakeholders, reductions in illegal logging and halting forest loss in protected areas (IPCC, 2019[71]).

There are significant barriers and challenges to successfully implementing sustainable forest management and decreasing deforestation (New Climate Economy, 2018[12]). Even where laws safeguard forested land, capacity constraints – particularly in terms of accountability measures between forest law enforcement and judicial bodies – often pose a challenge to enforcement (Blaser, 2010[76]). Policies that support agribusiness opportunities also are often misaligned with the protection of natural resources for ecosystem services (World Wildlife Fund, 2018[77]). This is due in part to market failure – a robust market valuation for the services provided by forests is still lacking (New Climate Economy, 2018[12]). Growing global demand for commodities (e.g. palm oil, soy, beef and wood) has increased the strain on forested land. The most notable example is the destruction of the Amazon rainforest, where more than 75% of clearing between 1978 and 2000 was for cattle ranching alone (New Climate Economy, 2018[12]; Butler, 2019[78]). A consistent global failure to legally recognise indigenous rights to land also places communities that reside in forested areas at risk of being displaced from their ancestral homes by extractive industries (USAID, 2013[79]; Forest Peoples Programme, 2015[80]).

Development co-operation activities in the forestry sector account for more than USD 1 billion in development finance annually (2016-17 average). Of this finance, 88% is climate-related, divided primarily between mitigation (39%) and cross-cutting (35%) objectives. Adaptation makes up just 4% of development finance to forestry, an inadequate proportion given its importance for increasing climate resilience. While climate considerations are being integrated into financing to the forestry sector, USD 240 million in development finance annually for forestry does not contain any climate objectives. Improving sustainability in forest management and deforestation can play a pivotal role but requires a holistic approach to achieve low-emissions, climate-resilient development pathways across the forestry sector.

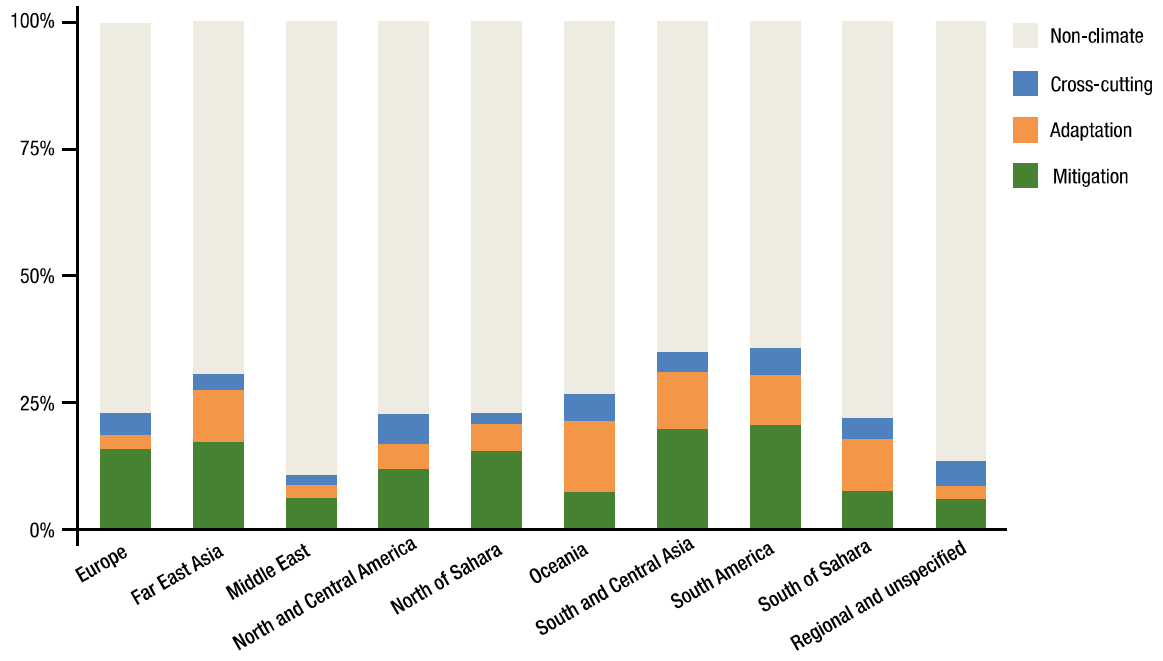
The concentration of adaptation-related development finance in the agriculture, forestry and fishing sector and the water supply and sanitation sector reflects the particular need for adaptation in these areas in developing countries. However, a more holistic approach could be more effective. The cost of adapting to global warming of 2°C is estimated at between USD 70 and 100 billion a year from 2010 to 2050 (World Bank, 2010[81]). Inclusive development in countries that require it most can dramatically offset these costs in terms of proportions of GDP. Inclusive development, however, needs to include adaptation. Adaptation analyses particularly emphasise the agriculture, forestry and fishing and water supply and sanitation sectors, along with health, disaster prevention and preparedness, infrastructure, and coastal areas (World Bank, 2010[81]; UNFCCC, 2008[82]; Olhoff, Bee and Puig, 2015[83]). Development finance is particularly emphasised in agriculture, forestry and fishing due to this sector's outsized economic role, as it employs

the majority of the labour force in developing countries, and its implications for food security and health. The water supply and sanitation sector is similarly emphasised for food security and health reasons. Box 2.8 outlines how sustainable forest management contributes to climate action for both adaptation and mitigation objectives, and how unsustainable deforestation undercuts this cross-cutting potential.

Mitigation-related development finance in the energy and transport and storage sectors reflects the sectors' fundamental role in achieving global temperature goals (IPCC, 2018[5]). The prominence of infrastructure finance by development co-operation in these sectors and the large volume size that is required for infrastructure financing amplifies the amounts of climate-related development finance for mitigation objectives relative to adaptation. This can be seen in the size of projects with a mitigation objective that are benefiting from development finance – almost double the average finance for projects with an adaptation objective across providers. Although infrastructure is also relevant to meeting adaptation needs, mitigation tends to be concentrated in these high-volume activities while adaptation objectives apply to a wider range of projects and levels of financing.

Climate-related development finance comprises more than 20% of development finance for most regions, but its share was notably low (10%) in the Middle East and high (over 30%) in Asia and South America in 2013-17. The Middle East and North Africa region is considered to require less adaptation financing than other regions, amounting to only 3% of the total annual cost of adaptation globally (World Bank, 2010[81]). Higher shares of climate-related development finance are driven by fast-growing economies such as India and Bangladesh in South and Central Asia and by China in Far East Asia. Shares of climate-related development finance in Latin America are particularly high in Brazil and Colombia. Figure 2.9 shows a breakdown by region of climate-related development finance as a share of development finance.

Figure 2.9. Share of climate-related development finance by region, 2013-17



Note: Percentages represent shares of climate-related development finance as a proportion of overall development finance committed to each region listed, calculated using the cumulative volume of finance in each region for 2013-17.
Source: Authors based on (OECD, 2019[61]), *Creditor Reporting System* (database), https://stats.oecd.org/; (OECD, 2019[70]), *Climate Change: OECD DAC External Development Finance Statistics* (database), http://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/climate-change.htm

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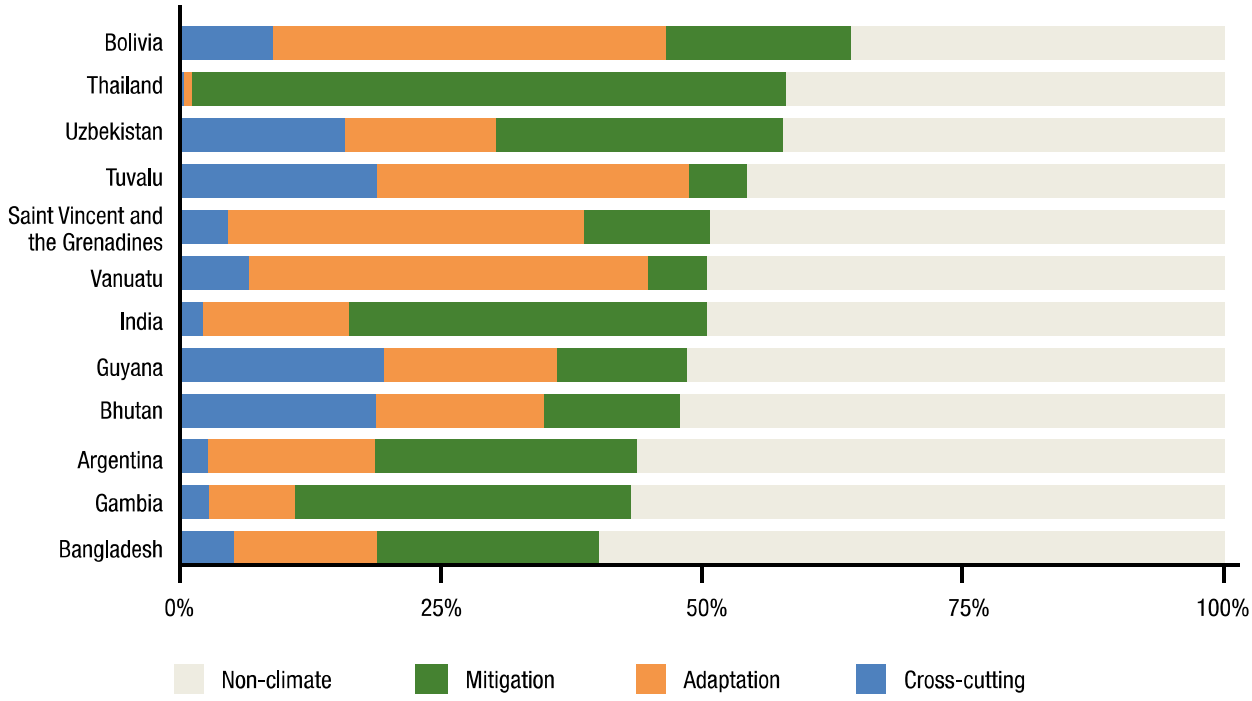
Commitments to climate-related objectives vary by region, but especially high and low shares of climate-related finance in certain regions are usually attributable to specific countries. Only 12 countries received climate-related finance amounting to more than 40% of total development finance in 2013-17, and each of these 12 received different proportions for different climate objectives (Figure 2.10). In the same period, climate-related finance made up less than 10% of all development finance in 26 countries. These figures underscore the importance of both country-led climate action and improving ambition through NDCs, for which development co-operation plays a key role. The 7 countries that receive more than half of their development finance commitments with climate-related objectives either report national sustainable development goals in their respective NDCs or are small island developing states that emphasise disaster risk reduction and equity. Of these 7, 3 (Bolivia, India and Thailand) expressly aim to mainstream their respective NDCs and SDG implementation. India and Thailand also explicitly link achievement of their NDCs to SDG achievement.

Figure 2.10. Share of climate-related development finance >40% by recipient, 2013-17



Note: Percentages represent shares of climate-related development finance as a proportion of overall development finance committed to each country listed, calculated using the cumulative volume of finance in each country for 2013-17.
Source: Authors based on (OECD, 2019[61]), *Creditor Reporting System* (database), https://stats.oecd.org/; (OECD, 2019[70]), *Climate Change: OECD DAC External Development Finance Statistics* (database), http://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/climate-change.htm

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Development finance data indicate that providers need to enhance efforts to integrate climate considerations across development co-operation activities. Overall, climate-related development finance is significantly less concessional than is development finance that is not climate-related. Significantly higher volumes of climate-related finance also are committed through debt instruments (70%) compared to development finance without climate objectives (46%). This holds true across income levels. Climate-related development finance is less grant-based than financing without climate objectives within the low-income and middle-income groupings.

The lower degree of concessionality in climate-related development finance is linked to its concentration in a limited number of priority sectors (Figure 2.8) and the focus on infrastructure financing within a majority of these priority sectors. In overall development finance, support to infrastructure includes a much higher share of non-concessional development finance, and this support is predominantly through non-grant instruments. Improving the systematic consideration of climate across relevant activities, beyond priority sectors, will likely bring about a more even balance between the use of grants versus debt instruments for development finance with a climate objective.

Paris alignment – to the extent that it is indicated by a holistic consideration for climate across sectors, instruments and climate objectives – appears to be lacking across income levels, regions and countries, based on the best available data for climate-related activities. Providers need to see climate finance not exclusively as a dedicated resource for climate action to fulfil the objectives in Article 2.1c. Rather, the potential effects of development finance to enable, or hinder, the transition to low-emissions, climate-resilient pathways should be systematically considered across development co-operation portfolios. Chapter 3 discusses further challenges to Paris alignment and recommendations for addressing these obstacles in development co-operation.

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Notes

[1] This finding relates to the 162 countries included in the database used for the study – the Climate Change Laws of the World database published by the Grantham Research Institute. For further detail, see (UNEP, 2018[14]) at https://www.unenvironment.org/resources/adaptation-gap-report

[2] Blended finance refers to the strategic use of development finance for the mobilisation of additional finance towards sustainable development in developing countries. See (OECD, 2018[19]) at https://dx.doi.org/10.1787/9789264288768-en

[3] The 2015 EIB climate strategy refers solely to the global temperature rise goal of 2°C because it was adopted in September 2015, in advance of the creation of the Paris Agreement. The Agreement sets more ambitious goals of limiting the temperature increase to "*well below* 2°C" (emphasis added) and to "pursuing efforts to limit" the rise to 1.5°C. See (UNFCCC, 2015[2]) at https://unfccc.int/sites/default/files/english_paris_agreement.pdf

[4] The IDFC, created in 2011, is a collective of 24 public, national and regional development banks from around the world that have more than USD 4 trillion in assets under management. Most of them are active in emerging markets and have the overall mandate to finance the implementation of domestic development policies while transferring international priorities into their own constituencies.

[5] The MDBs that prepared and are covered in the report are the African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, EIB, IDB Group, Islamic Development Bank, and the World Bank Group. With the exception of the Islamic Development Bank, these major MDBs also made a joint statement in 2015 on their respective new commitments to provide climate finance.

[6] ODF is comprised of ODA and other official flows (OOF).

[7] This period is highlighted because 2017 is the last year for which project-level development finance data are available.

[8] Reporting by MDBs to the DAC using their joint approach for measuring climate components begins for 2013 flows. Climate-related development finance reported prior to 2013 does not include MDBs.

[9] The vast majority of LICs are also classified as LDCs. Only 2 of the 49 LICs are not also LDCs.

[10] Climate-related development finance committed to "other multisector" primarily supports urban and rural development purposes and co-operative agreements.

3. How can development co-operation align with the objectives of the Paris Agreement?

This chapter presents a framework for how development co-operation can align with the Paris Agreement by supporting increased levels of ambition for tackling climate change and ceasing activities that undermine sustainable development.
At home, donor countries and providers can address these issues through their own strategies, policies and operations. In developing countries, providers should support central, in-country actors to take ambitious climate action by including climate objectives in overarching development strategies and sector policies and plans. At the system level, basic definitions and common approaches should account for the climate dimension of sustainable development; providers should tackle fragmentation in data, finance and project standards; and providers should create a partnership to achieve systemic de-risking of low-emissions, climate-resilient infrastructure investments in developing countries.

In brief

- Development co-operation should help developing countries to address some of the main challenges they face in co-ordinating development and climate policy. Collectively, the existing nationally determined contributions are not ambitious enough to achieve the objectives of the Paris Agreement. Moreover, very few countries have prepared holistic, long-term low greenhouse gas emissions strategies, and climate action planning often is siloed from broader development and sector planning.
- Development finance is still being used for activities that undermine sustainable development. A conservative estimate places average commitments of official development finance for upstream and downstream fossil fuel activities at USD 3.9 billion annually over 2016-17.
- Development co-operation providers are still not prioritising climate considerations in important sectors that developing countries have identified as most in need of support.
- Development co-operation providers and donor country governments have a range of changes they can make at home, in developing countries and across the development co-operation architecture at the system level to overcome the challenges and work towards Paris alignment.
- Certain of these changes are of high priority: stronger mandates and capacity for providers; more coherence in donors' international activities; support to increase central leadership and capacity on climate in developing countries; and revision of existing rules, approaches and partnerships across the development co-operation system to more actively support the shift to low-emissions, climate-resilient pathways.

Four years on from the adoption of the Paris Agreement, the international community is reviewing the progress made in reducing emissions and increasing climate resilience (IPCC, 2018[1]).The collective commitments, as expressed in initial nationally determined contributions (NDCs), are not sufficient to halt and contain global warming and to increase resilience to climate change impacts. Similarly, only limited progress is reported on formulating and communicating long-term low greenhouse gas (GHG) emissions strategies (LTSs). Achieving the objectives of the Paris Agreement is still possible. But bold and ambitious action needs to start without delay. Building on the analysis in Chapters 1 and 2, this chapter examines key challenges and urgent priority action areas for donor governments and development co-operation providers – at home, within developing countries and at the system level – to strengthen the Paris alignment of their own activities and catalyse developing countries' transitions to low-emissions, climate-resilient pathways.

3.1. Development co-operation should support developing countries to eliminate inconsistencies between the objectives of the Paris Agreement and countries' NDCs and LTSs

Development co-operation providers are increasingly aware of the urgency of climate change and its implications for sustainable development (see Chapters 1 and 2). This has led to growing momentum for including climate action in strategies, programmes and operations. Still, alignment of development co-operation with the objectives of the Paris Agreement faces three core challenges. The first is the insufficient ambition of current NDCs. The second is the persistent absence, for the most part, of LTSs. The third is the institutional disconnect that isolates the main implementation mechanisms of the Paris

Agreement, on the one hand, from other development and sector strategies and the associated policy and resources plans, on the other.

Collectively, current NDCs are not ambitious enough to achieve the objectives of the Paris Agreement

Countries have begun to act on the climate crisis. Yet it is clear that current NDCs are insufficient to keep greenhouse gas emissions in check and increase resilience to impacts of climate change. The emissions trajectory implied by current NDCs will lead to global warming of between 2.9°C and 3.4°C compared to pre-industrial levels by 2100, while weather and climate-related hazards already are putting development prospects and lives at risk because adaptation and resilience efforts so far are insufficient (IPCC, 2018[1]; World Meteorological Organization, 2019[2]). Countries need to take bolder action, and are required to prepare and submit new or updated NDCs in the coming months that go beyond current efforts and demonstrate a higher level of ambition.

Countries faced considerable challenges in developing their initial NDCs as a result of limited time, resources, capacities and expertise. Additionally, current NDCs were largely developed before the adoption of the Paris Agreement, which meant targets, actions and measures were developed in the abstract and with limited certainty regarding the rules and guidelines of the new global climate regime (Fransen, Northrop and Mogelgaard, 2017[3]). As a result, initial NDCs were often hastily compiled and did not take into account the context of national priorities, available capacities and sectoral contexts (Table 3.1) With a view to adaptation, the underlying process did not always foster consistent strategies and action; for instance, more than three out of four NDCs include adaptation components but in many cases, these components bear no clear relation to the previously introduced national adaptation plans (GIZ, 2017[4]). National adaptation plans are explicitly intended to facilitate the integration of adaptation into development planning processes across all sectors and at different levels, and are the mainstay of national adaptation planning and action for many developing countries.

Very few countries have developed a long-term strategy to carry forward their ambition for climate action

While the Paris Agreement allows developing country governments to consider their development priorities in defining climate action, all countries need to increase ambition over time and globally, emissions need to reach net zero in 2050 if global warming is to be limited to 1.5°C (UNFCCC, 2015[5]); (IPCC, 2018[1]). It is in this context that LTSs become an essential element to address the climate emergency – they define the trajectory of action, create a framework for progressively ambitious NDCs and provide a tool for policy makers to explore the implications of short-term policy decisions on the required long-term structural transformation. By providing clear, long-term political signals, these strategies support the mobilisation of sectors to implement climate-related measures and achieve climate goals, shape expectations of economic actors about the scale and nature of needed investment, and help to minimise stranded assets[1] (Buira and Arredondo, 2019[6]).

Lack of progress in formulating and communicating LTSs in both developed and developing countries is a core challenge to delivering the objectives of the Paris Agreement. While many countries have begun developing these strategies for submission by 2020, only 13 have submitted them to date. Only 4 are by countries that are eligible to receive official development assistance[2] (ODA) (UNFCCC, 2019[7]), and a recent survey of policy makers indicates that progress on LTSs remains limited (van Tilburg et al., 2018[8]).

Planning for climate action is often still separate from other development and sector planning

The limitations of current NDCs and LTSs arise in large part from their disconnect from development planning processes and strategies, which centres of government typically lead or co-ordinate, and from sector policies and resource plans. The failure to link and integrate NDCs into development processes and sector planning is a key factor in their weakness, both in terms of ambition and with regard to their financing and implementation. Additionally, the insufficient integration of NDCs and LTSs into other national development and sector processes represents a missed opportunity to fully harness the co-benefits of the development and climate agendas. Development and sector strategies and planning, and resourcing processes that fail to take into account the need to transition to low-emissions, climate-resilient development pathways, will fail to deliver sustainable development.

Implementing structural change policies will be impossible so long as NDCs and LTSs are not embedded in, or reflective of, countries' central planning tools and mechanisms and their broader development plans and sector policies. Nor is it possible, in the absence of a comprehensive approach, to effectively address the need for a just transition and leaving no one behind. The experience of the first round of NDCs shows clearly that many of the main challenges stemmed from the limited involvement of relevant government and other stakeholders in the preparation of NDCs (Table 3.1)

Table 3.1. Countries' main challenges in drafting initial nationally determined contributions

Planning	• NDCs were often prepared in silos or with limited degrees of whole-of-government approaches.* In many developing countries, the limited degree of country ownership in drafting NDCs exacerbated this challenge. • NDCs were often prepared with limited involvement of sector stakeholders in civil society, academia and the private sector. This contributes to a lack of progress, both in implementing structural change and, more generally, in increasing the ambition and scale of action. Also missing are considerations of just transition, leaving no one behind and the political economy of sector stakeholders. • NDCs often lack linkages between the climate and development agendas, and particularly lack links to efforts to achieve the SDGs.
Costing and budgeting	• NDCs, often led by environment ministries, feature limited or no involvement by the finance and/or planning ministries that are in charge of the national budget. • Many NDCs were not costed or the costing exercise was based on incomplete, inadequate or insufficient data. • Most NDCs do not include designated financial means for implementation. Overall, commitments are disconnected from budget planning and the private resource mobilisation needed for implementation.
Monitoring and evaluation	• Many NDCs lack a sound scientific and data base. • Most NDCs do not have SMART indicators and targets, which makes it difficult to assess progress and draw lessons learned for the next rounds of NDCs.

Note: *As noted by Christensen and Lægreid (2007[9]), whole-of-government approaches typically involve different ministries and levels of government collaborating horizontally and vertically to achieve shared goals and reduce fragmentation. See "The whole-of-government approach to public sector reform" at https://doi.org/10.1111/j.1540-6210.2007.00797.x

Source: (UNFCCC, 2017, p. 21[10]), *Opportunities and Options for Integrating Climate Change Adaptation with the Sustainable Development Goals and the Sendai Framework for Disaster Risk Reduction 2015–2030*, https://unfccc.int/sites/default/files/resource/techpaper_adaptation.pdf; (NDC Partnership, 2019, p. 34[11]), *Partnership In Action 2018: Two Years On,* http://www.ndcpartnership.report/wp-content/uploads/2019/03/FINAL-PDF-PIA-FULL.pdf; (Briner and Moarif, 2016, pp. 7, 25[12]), "Unpacking provisions related to transparency of mitigation and support in the Paris Agreement", https://doi.org/10.1787/5jlww004n6nq-en; (UNEP, 2018, pp. 15-34[13]), *Aligning Climate Finance to the Effective Implementation of NDCs and to LTSs*, http://unepinquiry.org/wp-content/uploads/2018/10/Aligning_Climate_Finance_to_the_effective_implementation_of_NDCs_and_to_LTSs.pdf; (Löhr et al., 2017, p. 16[14]), *Transport in Nationally Determined Contributions (NDCs)*, https://www.international-climate-initiative.com/fileadmin/Dokumente/2017/171115_Publikation_EN_TransportInNDCs.pdf; (Pauw et al., 2018[15]), "Beyond headline mitigation numbers: We need more transparent and comparable NDCs to achieve the Paris Agreement on climate change", https://doi.org/10.1007/s10584-017-2122-x

Paris-aligned development co-operation should respond to the core challenges

These inconsistencies between the objectives of the Paris Agreement and countries' NDCs and LTSs have implications for development co-operation providers. The Paris Agreement recognises the need for country-based processes, consistent with the ownership principle for effective development co-operation. At the same time, these country-driven processes, in their current form, outline climate action that is not commensurate with the objectives of the Agreement, which provides their basic rationale. Therefore, supporting the financing and implementation of current NDCs implies, in many cases, acceptance of inconsistencies with the objectives of the Paris Agreement, as the national commitments are estimated to lead to global warming of between 2.9°C and 3.4°C compared to pre-industrial levels by 2100 (World Meteorological Organization, 2019[2]). Moreover, it would entail a notion of ownership that is essentially autochthonous. Development co-operation would essentially be merely a passive delivery of resources, rather than a partnership in which developing countries and providers work together to overcome constraints to the realisation of their development needs and objectives. As isolated planning processes of the past will not lead to the required transformation to inclusive, low-emissions and climate-resilient societies, it is evident that countries need to enhance their processes and their capacity to integrate climate considerations into their planning across difference sectors. Furthermore, actively supporting and promoting action that addresses binding constraints to sustainable development is the core of the mandate of development co-operation.

However, as NDCs are intended to be progressively more ambitious over time, the initial commitments represent a baseline ambition, not a ceiling. Development co-operation that supports countries to achieve climate outcomes beyond NDC targets would thus not constitute misalignment or undermine country ownership. Exceeding targets for poverty reduction, sustainable economic growth and other development indicators is rightly considered an achievement. In much the same way, overachieving on NDCs would not constitute a failure. This is particularly the case if overachievement brings development co-benefits, supports a just and inclusive transition, and contributes positively to the long-term sustainability of progress. Moreover, countries will only successfully transition to low-emissions, climate-resilient pathways when their development and sector priorities, plans and policies and their budgeting processes integrate climate considerations. Therefore, development co-operation that focuses on efforts to establish whole-of-government approaches to NDC planning, formulation, financing and implementation – and that supports the integration of climate action into countries' development plans and strategies – does not challenge country ownership. It constitutes, instead, support to developing countries to secure sustainable development.

Continued progress on Paris alignment requires development co-operation providers to respond to the inconsistencies between the objectives of the Paris Agreement, on one hand, and the current NDCs and the missing LTSs, on the other. Providers have can use the levers of financing, policy support and capacity development to engage in more ambitious climate action and to facilitate the institutional and policy co-ordination across sectors and levels of government that is needed in this process. Providers are uniquely positioned to do so, as engagement on developing country strategy formulation, policy co-ordination and implementation processes, as well as institutional and individual capacity building for any given development outcome, are inherent to development co-operation.

3.2. Development co-operation should stop financing activities that undermine sustainable development

A challenge to Paris alignment of development co-operation is the absence of an approach that appropriately integrates climate considerations across development financing. The scarcity of development finance, combined with the risks that climate change poses for developing countries, mean

that activities that conflict with the transition to low-emissions, climate-resilient pathways are an ineffective and inadequate use of these resources.

This section, based on sectoral analysis, identifies where development co-operation providers are failing to make the best use of development financing to respond to the climate crisis, including by engaging in activities that are not sustainable if climate mitigation objectives are to be achieved and by not integrating climate adaptation objectives in areas with expressed country needs. While this report does not provide an exhaustive analysis of all sectors, the following examples clearly show how development financing is being delivered in key areas in a way that is inconsistent with the aims of the Paris Agreement and that threatens other development objectives.

Development finance continues to support the production and consumption of fossil fuels in developing countries

Development co-operation is a traditional source of infrastructure finance in developing countries. It takes three forms: direct financing, mobilising additional financing from commercial sources into these investments and supporting the creation of markets (OECD/World Bank/UNEP, 2018[16]). These include both downstream fossil fuel-based energy infrastructure and upstream development of fossil fuel extraction and generation. There is no question that energy plays a fundamental role in enabling countries' development; indeed, SDG 7 is to ensure access to affordable, reliable, sustainable and modern energy for all (UN, 2015[17]). Nonetheless, it is clear that many high-emissions energy sources are at odds with the objectives of the Paris Agreement to urgently limit further global warming, avoid carbon lock-in and work towards net zero emissions in the second half of this century (UNFCCC, 2015[5]; Rogelj et al., 2018[18]).

The Paris Agreement requires countries, and the development co-operation providers they work with, to develop a clear approach to how they will transition from fossil fuel-based energy sources by the end of 2020 (UNFCCC, 2015[5]). An analysis of development finance alone cannot show whether development financing of fossil fuel activities is accompanied by a transition or exit plan that provides for short-term development needs to be met without compromising the long-term transition that needs to happen in countries and globally. Existing fossil fuel energy infrastructure around the world and proposed developments of new operating capacity, however, currently surpass the timeline for phase-out required to limit global warming to 1.5°C (Tong et al., 2019[19]). Gas-fired power is often called a transition fuel Box 3.1), but replacing fossil fuel sources in the electricity and industry sectors with non-emitting alternatives is the most cost-effective mitigation solution in many contexts (Tong et al., 2019[19]).

Box 3.1. The role of development co-operation and concessional development finance in gas-fired power generation

Developing countries face a three-fold energy challenge for achieving low-emissions, climate-resilient pathways: improving access and reliability, increasing generation capacity, and ensuring that energy sources are sustainable or paired with sufficient transition plans. Gas-fired power is sometimes framed as a transition fuel and more sustainable alternative to other fossil fuel-based generation options because it produces fewer CO_2 emissions, especially in comparison to coal-fired power. This does not automatically translate to a strong argument for development co-operation to support gas-fired power plants, particularly for new investments and through concessional financing. Gas may be considered a lower-emitting energy option where it uses existing infrastructure to replace a higher-emitting energy source (IEA, 2019[20]). Where gas-fired power is under consideration for new infrastructure investments, however, the calculation is more complex.

There are strong economic, social and environmental arguments against building new gas-fired power plants. One is that gas-fired operations emit, in addition to CO_2, an estimated 40 megatonnes (Mt) of methane globally; a gas with 28 times more global warming potential over 100 years than CO_2 (IEA, 2019[20]; IPCC, 2014[21]). Furthermore, countries are not on track to achieve sustainable energy pathways by 2050, including for scenarios that factor in a role for natural gas activities in supporting these pathways (IRENA, 2019[22]). Gas-fired power also poses the risk of stranded assets – a significant opportunity cost for developing countries as a share of gross domestic product (GDP) (Bradley, Lahn and Pye, 2018[23]). This makes gas-fired power a high-risk investment because it can lock in physical infrastructure and unsustainable consumption patterns that limit the scope for ambitious NDCs.

In certain circumstances, gas-fired power may be the least GHG-emitting option available for balancing power grids and ensuring reliable electricity in developing countries that need to improve energy access. These short-term considerations still require alignment with long-term strategies through progressive decarbonisation if low-emissions, climate-resilient development pathways are to be achieved. Renewables, however, are already the least-cost option for new power generation in most parts of the world (IRENA, 2019[24]). As renewable energy provision and storage continue to improve and are projected to drop dramatically in price, the instances in which gas-fired power is justified become increasingly rare (McKinsey & Company, 2019[25]).

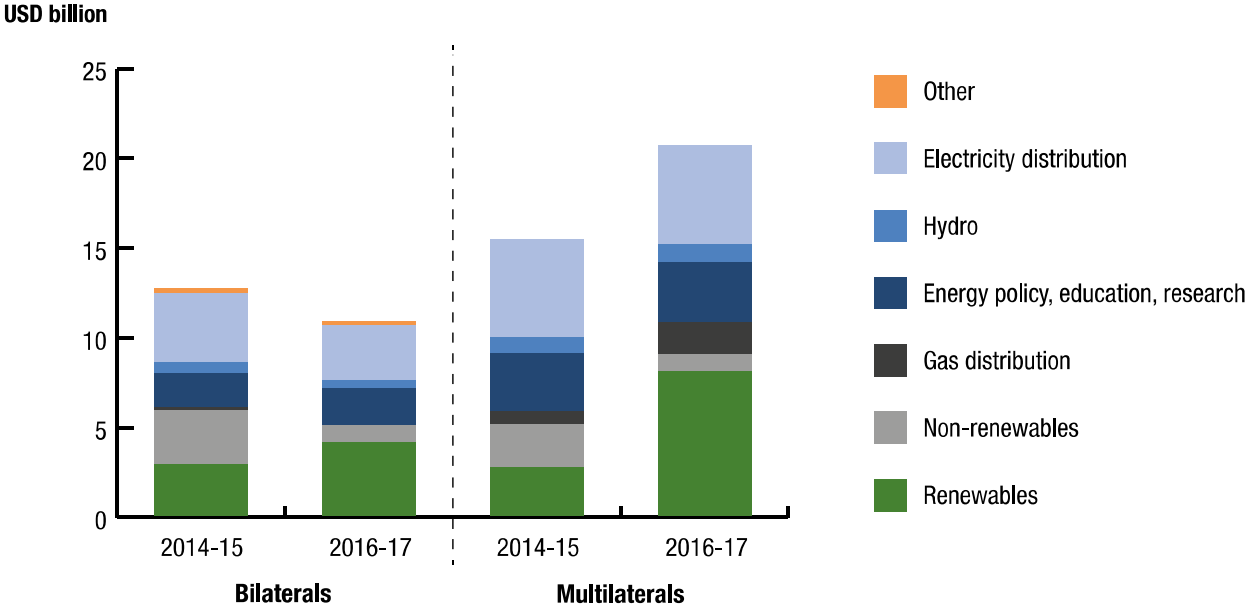
To help achieve net zero global emissions by 2050, development co-operation needs at minimum to avoid the perpetuation of fossil fuel reliance in developing countries, and ideally should help to reduce it (UNFCCC, 2016[26]). It is also important to consider the additionality of development finance in this area. In 2017 alone, global investments into oil and gas exceeded USD 700 billion and increased modestly from 2016 (IEA, 2018[27]). Private businesses engaged in this sector are among the largest corporations globally and have long-standing operating experience in developing counties. Both the mass volume of investments in oil and gas and the need to achieve sustainable development call into question any use of concessional financing to support gas-fired power. However, there is a clear role for development co-operation to support countries to develop transition plans that phase out existing fossil fuel infrastructure while ensuring sustainable energy access (UNFCCC, 2015[5]; United Kingdom House of Commons, 2019[28]; AFD, 2018[29]; FMO, 2019[30]). Given the scarcity of development finance resources, providers should focus their support whenever possible on future-proof technologies that are consistent with sustainable, low-emissions, climate-resilient pathways.

Development finance for renewables and energy efficiency is on an upward trend but continues to be undermined by fossil fuel-related financing. As illustrated in Figure 3.1, bilateral development co-operation providers' support for renewable energy has increased from USD 2.9 billion per year in 2014-15 to USD

4.1 billion per year, on average, in 2016-17, a 40% jump. Support to energy efficiency also increased in this period, from USD 19 million per year in 2014-15 to USD 486 million per year in 2016-17 (OECD, 2019[31]). From 2016-17, bilateral support for fossil fuels is estimated to amount to USD 938 million per year, on average – equivalent to almost double the volumes of finance for energy efficiency and nearly one-fourth the volumes of finance for renewables. In 2016-17, coal-related activities constitute 45% of the fossil fuel support (USD 420 million per year) from bilateral providers and went almost entirely towards new power plants. Total development co-operation support for new fossil fuel plants may be higher than what is estimated here, as 29% of fossil fuel-related bilateral development finance is composed of non-concessional finance for which data are not always disaggregated by technology.

Multilateral providers also have significantly increased support for renewable energy and reduced financing for coal-fired power generation, but they continue to support other fossil fuels such as natural gas. Multilateral providers reduced non-renewable financing over 2014-15 to 2016-17, with the two-year averages dropping from USD 2.4 to USD 1 billion. Multilateral financing continues to support natural gas power plants and significantly increased spending for gas distribution. Remaining fossil fuel generation projects financed by multilateral providers in 2016-17 appear to largely comprise natural gas- and fuel-powered power plants, while gas distribution accounted for 8% of total multilateral energy financing in the same period. Coal is almost totally missing from new multilateral commitments in 2016-17, with only one transaction at a comparatively small scale. However, this does not mean that some multilateral institutions will not provide new coal financing in coming years, as not all multilateral institutions have committed to withdraw their support to this form of fossil fuel.

Figure 3.1. Development finance to energy sector, by provider type and subsector, 2014-17



Note: Volumes of finance calculated using the two-year average in each subsector by provider type for 2014-15 versus 2016-17.
Source: (OECD, 2019[31]), *Creditor Reporting System* (database), https://stats.oecd.org/

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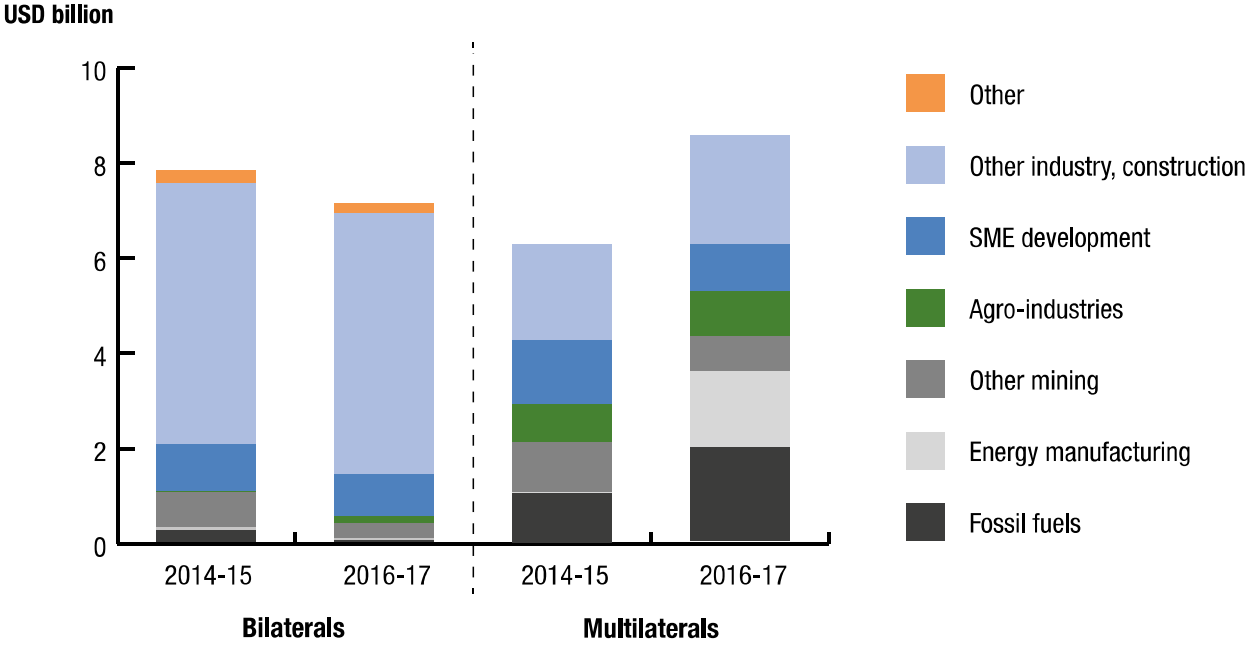
Fossil fuel industries pose an institutional barrier for the transition to low-emissions, climate-resilient pathways that is necessary to achieve both sustainable development and global temperature goals (IPCC, 2018[1]). A shift to renewable energy systems is required to meet the need for sustainable energy, and continued investment in fossil fuel industries in developing countries only increases the risk of stranded

assets and other risks for communities (New Climate Economy, 2018[32]). This also poses an opportunity cost for developing countries to increase competitive advantage in international markets through renewable industries (Moomaw et al., 2011[33]).

Development co-operation also is continuing to support upstream fossil fuel operations such as oil and gas exploration and refineries, coal mining, etc., as shown in Figure 3.2. Bilateral development finance support towards upstream fossil fuel operations was estimated at USD 47 million per year, and multilateral support for such operations at USD 1.9 billion per year, over 2016-17. Key subsectors are energy manufacturing, which includes gas liquefaction and petroleum refineries, and fossil fuel subsectors (comprised of coal, oil, and natural gas upstream activities such as drilling and production and transport through pipelines). These industrial investments have implications as well for sectors that support functions related to fossil fuel activities. For example, and as is the case for these upstream activities, development finance for transport and storage infrastructure for fossil fuels poses risks of stranded assets and other risks for communities.

Development finance from multilateral institutions to the industry, mining and construction sectors increased considerably from 2014-15 through 2016-17, with a significant increase to sectors related to fossil fuels. Multilateral finance reported to the sectors of upstream fossil fuels, energy manufacturing and other mining activities increased from USD 2.1 to USD 4.3 billion (Figure 3.2). The composition of total sector finance also changed, with finance for fossil fuels and energy manufacturing increasing from a 17% to a 42% share over the period.

Figure 3.2. Development finance to the industry, mining and construction sector, by provider type and subsector, 2014-17



Note: Volumes of finance calculated using the two-year average in each subsector by provider type for 2014-15 versus 2016-17.
Source: (OECD, 2019[31]), *Creditor Reporting System* (database), https://stats.oecd.org/

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A conservative estimate places ODF in support of upstream and downstream fossil fuel activities at an annual average of USD 3.9 billion[3] from 2016 through 2017, for which non-concessional finance from multilateral providers comprised 70% (OECD, 2019[31]). Investment in fossil fuel activities that lock countries into outdated energy systems and industries is an ineffective use of development financing

considering the critical objectives of both the Paris Agreement and the 2030 Agenda for Sustainable Development. Renewable energy systems, on the other hand, offer significant social and economic benefits to developing countries. For example, the decentralised nature of these systems can improve rural development, and integrating more renewables into the energy mix can increase security through diversification (Arvizu et al., 2011[34]). Renewables need to supply between 52% and 67% of primary energy worldwide, and there needs to be a virtually full decarbonisation of the power sector by 2050 to achieve the goal of limiting global warming to 1.5°C (IPCC, 2018[1]).

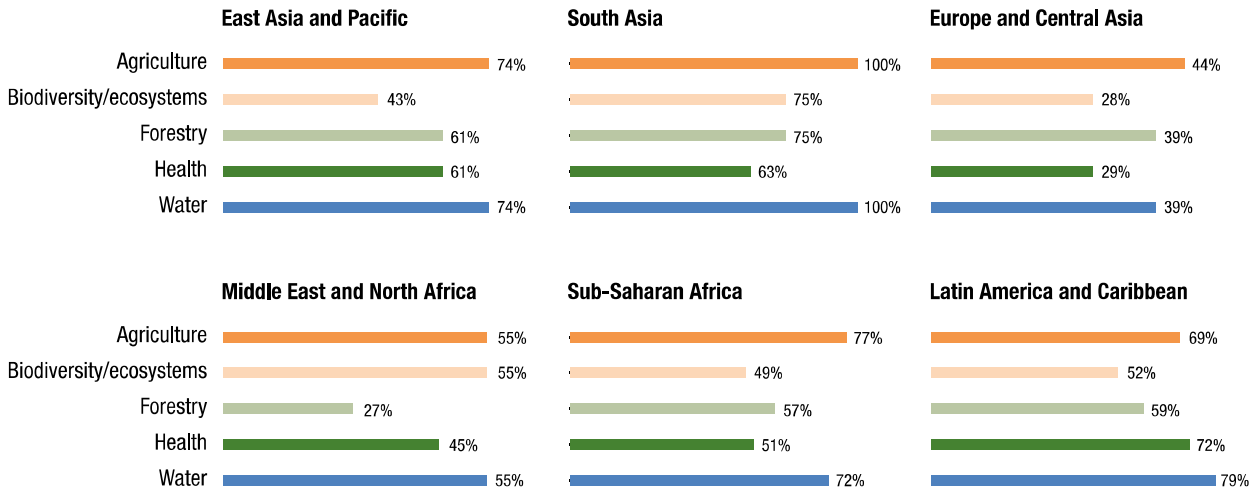
Providers underemphasise climate considerations in sectors where developing countries have expressed adaptation needs

Within the fragmented landscape of climate finance providers, country ownership and alignment with partner countries' own needs are important guiding principles (Shine, 2017[35]). These are applicable to both mitigation and adaptation. The principle of responding to country needs is relevant for both climate objectives. It is also consistent with the dual focus of the Paris Agreement on top-down approaches and bottom-up, country-driven processes for climate action. Adaptation efforts should particularly result from a gender-responsive, participatory and transparent approach, and be based on developing countries' own identified vulnerabilities, needs and priorities (UNFCCC, 2015[5]). This section uses a gap analysis of NDCs to identify areas where developing country demand indicates a strong justification for considering climate impacts, but where development finance in these sectors fails to reflect these needs.

Approximately 75% of developing countries specify, in their NDCs, the sectors related to agriculture, biodiversity and ecosystems, forestry, health, and water as priority sectors for their adaptation action in response to identified climate risks (German Development Institute, 2019[36]). Figure 3.3 provides a regional breakdown of these sectors in the NDCs of developing countries. Given the role of providers to support developing countries in implementing their NDCs and the importance of climate change adaptation for sustainable development, development activities should reflect these prevalent needs. However, trends in development financing indicate that these dovetail only in certain cases with the priority sectors identified in NDCs.

Figure 3.4 shows changes in the relative proportion of climate-related development finance going to different sectors and compares the two-year average of this finance committed in 2014-15 compared to the two-year average of commitments in 2016-17. While shares of climate-related finance rose during this timeframe in most sectors and decreased in only 2 sectors, the increases are marginal in most cases. The most notable percentage point (pp) increases across these years occurred in the sectors of water supply and sanitation (14 pp); transport and storage (12 pp); development food assistance (20 pp); and other social infrastructure and services (19 pp). The distribution of development finance indicates an increase in climate-related activities in the water sector, but also indicates an under-emphasis in sectors related to agriculture, biodiversity and ecosystems, forestry, and health that developing countries also designate as priorities in terms of adaptation needs.

Figure 3.3. Priority sectors designated in developing countries' NDCs, by region



Source: Authors based on (German Development Institute, 2019[36]), *Klimalog: The NDC Explorer,* https://klimalog.die-gdi.de/ndc/#NDCExplorer/worldMap?NDC??climatechangemitigation???cat1

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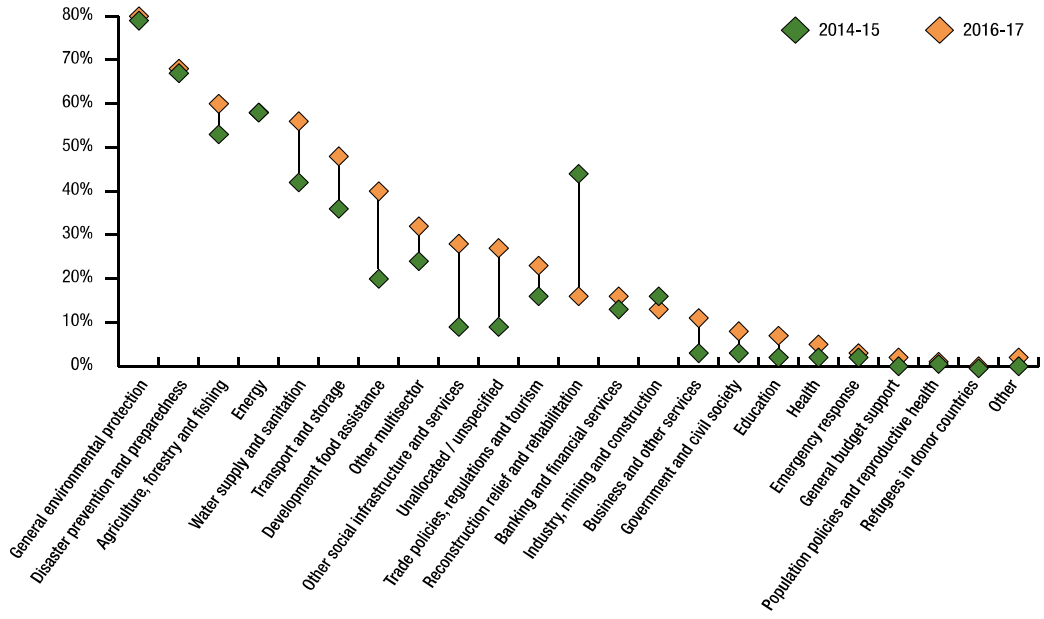
Figure 3.4. Change in shares of climate-related development finance by sector, 2014-17



Note: Percentages represent shares of climate-related development finance as a proportion of overall development finance committed within each sector, calculated using the two-year average volume of finance in each sector for 2014-15 versus 2016-17.
Source: Authors based on (OECD, 2019[31]), *Creditor Reporting System* (database) https://stats.oecd.org/; (OECD, 2019[37]), *Climate Change: OECD DAC External Development Finance Statistics* (database), http://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/climate-change.htm

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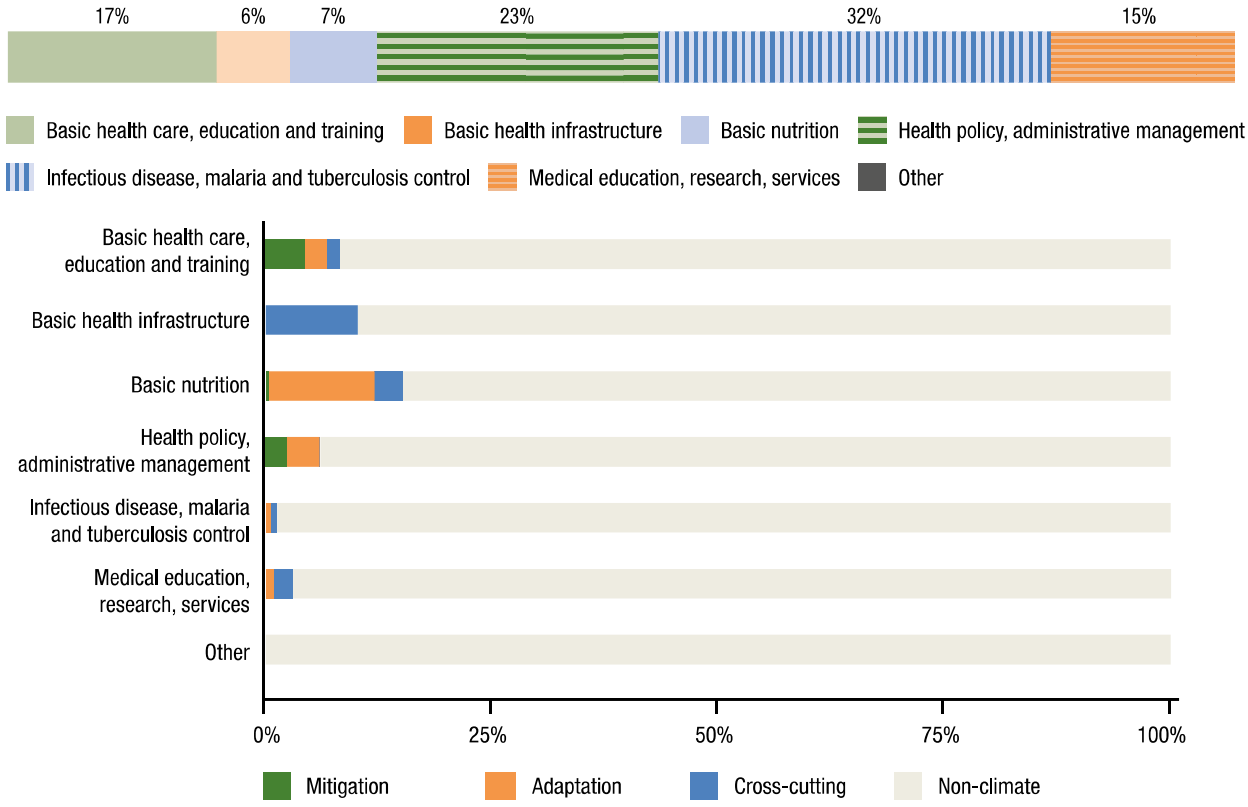
The comparison of developing country needs, as expressed in NDCs, with trends in climate-related development finance commitments also shows that this financing particularly underemphasises the health and agriculture sectors. Only 5% of development finance to the health sector contained climate objectives in 2016-17, although many developing countries designate health as a priority sector in their NDCs. At 60%, the share of climate-related development finance in the agriculture, forestry and fishing sector is much higher, but is still too low given its importance in developing countries and its clear associations with climate risks.

The health sector is a significant focus of developing country NDCs. Among developing countries, between 28% (in Europe and Central Asia) and 51% (in sub-Saharan Africa) of developing countries identify the health sector as vulnerable to climate change in their NDCs. In Africa and Central and South America, key risks in the health sector are linked to changes in the incidence and geographic range of vector- and water-borne diseases (IPCC, 2014[21]). The Intergovernmental Panel on Climate Change (IPCC) further identifies heat-related mortality and drought-related water and food shortages causing malnutrition as key risks of climate change in Asia (IPCC, 2014[21]).

Adaptation needs are not reflected across the health sector, including in the areas that receive the most development finance (Figure 3.5). Bilateral and multilateral providers focus a plurality of commitments for health (32%) in the infectious disease, malaria and tuberculosis control subsector. Infectious disease is highly climate-sensitive and projected to rise globally as temperatures continue to warm, particularly in Africa and Asia (IPCC, 2018[1]). Addressing the effects of climate change on infectious disease requires an integrated approach with public health functions and related sectors, particularly for food and water (UNEP, 2018[38]). Improving data availability at a regional level to monitor and the effects of temperature change on the prevalence of various diseases is also crucial for ensuring an effective public health response (UNEP, 2018[38]). Despite these factors, less than 2% of development finance in the infectious disease, malaria and tuberculosis control subsector in 2016-17 was climate-related.

Both multilaterals and bilaterals provide a significant proportion of support within the health sector to policy and administrative management (32% and 16%, respectively) (Figure 3.5). Health policy and administrative management plays a crucial role in enhancing the climate resilience of health systems – when applied at the national level, for example, it ensures that health considerations are integrated across relevant sectors (e.g. agriculture, transport, energy, urban planning) and within public health functions (UNEP, 2018[38]). However, only 8% of multilateral development finance and less than 3% of bilateral development finance committed to this subsector was climate-related in 2016-17.

Figure 3.5. Shares of climate-related development finance in health subsectors, 2016-17



Note: Percentages represent shares of climate-related development finance as a proportion of overall development finance committed within each sector, calculated using the two-year average volume of finance in each sector for 2016-17.
Source: Authors based on (OECD, 2019[31]), *Creditor Reporting System* (database), https://stats.oecd.org/; (OECD, 2019[37]), *Climate Change: OECD DAC External Development Finance Statistics* (database), http://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/climate-change.htm

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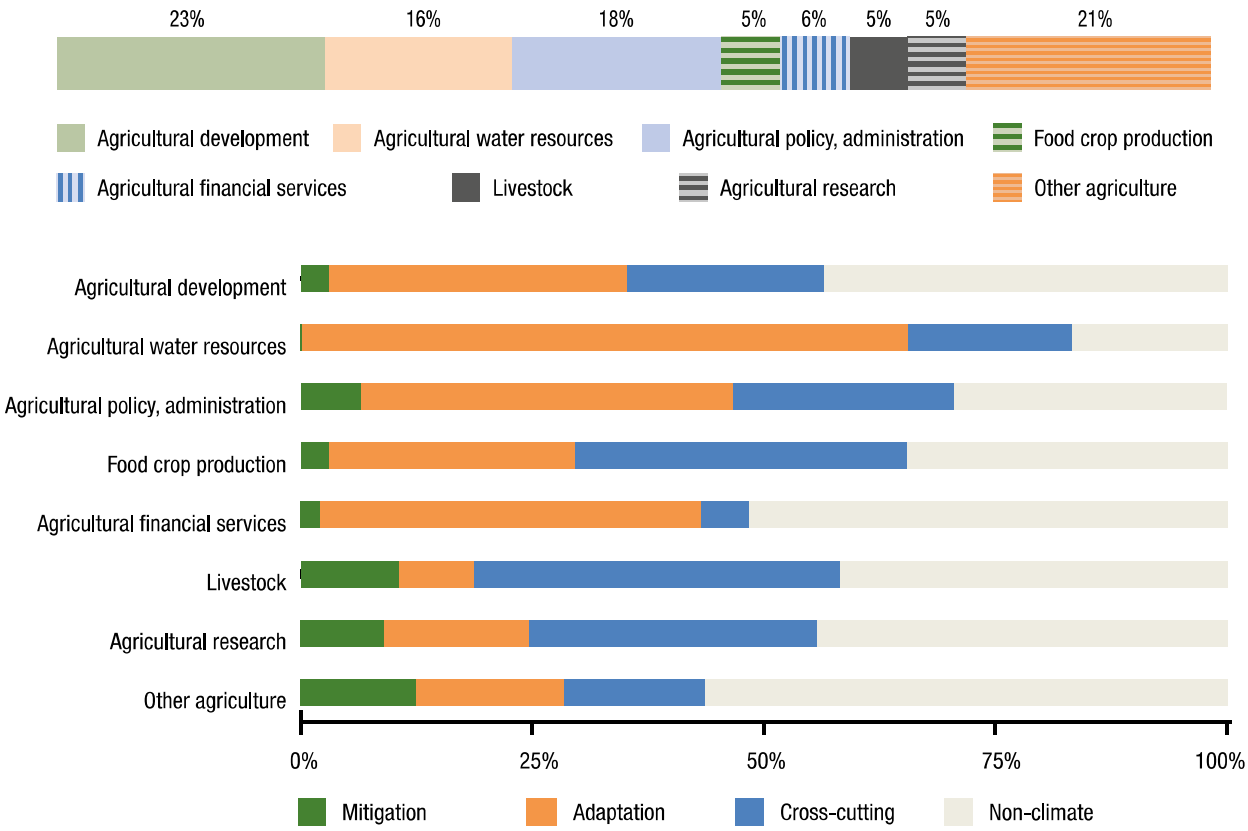
The agriculture sector is identified by most countries, across regions, as vulnerable to adverse impacts of climate change. All developing countries in South Asia identify agriculture, in their NDCs, as a vulnerable sector. This is consistent with the IPCC's assessment of climate risks, which finds that one out of three key, regional-specific risks relates to the agricultural sector (IPCC, 2014[21]). In Africa, climate change is projected to negatively impact food security and livelihoods of households by reducing crop productivity and increasing pest and disease damage and flood impacts (IPCC, 2014[21]).

Development finance that does not have a climate-related objective in the agriculture sector is primarily concentrated in the subsectors for financial services, development and policy, and administration (Figure 3.6) Climate objectives are integrated in development finance to other agriculture subsectors to varying degrees, with 17% to agricultural water resources non-climate-related compared to 56% of the finance to "other agriculture".[4]

Strengthening adaptation efforts for agricultural financial services is particularly vital in countries where the majority of jobs are in agriculture. It is estimated that over 60% of the labour force in low-income countries was employed in the agricultural sector in 2018 (ILO, 2018[39]). SDG 2, moreover, includes the explicit target of doubling agricultural productivity and the incomes of small-scale food producers, and notes a parallel need to strengthen capacity for climate change adaptation to achieve the target of zero hunger by

2030. Given the role of economic development in addressing adaptation needs, integrating climate considerations in development financing across the agriculture sector is crucial for adaptation generally in most low-income countries (IMF, 2017[40]).

Figure 3.6. Shares of climate-related development finance in agriculture subsectors, 2016-17



Note: Percentages represent shares of climate-related development finance as a proportion of overall development finance committed within each sector, calculated using the two-year average volume of finance in each sector for 2016-17.
Source: Authors based on (OECD, 2019[31]), *Creditor Reporting System* (database), https://stats.oecd.org/; (OECD, 2019[37]), *Climate Change: OECD DAC External Development Finance Statistics* (database), http://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/climate-change.htm

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Significant volumes of development finance continue to be committed without including climate considerations in sectors where developing countries have expressed climate-related needs. As with many aspects of climate change and sustainable development, lack of investment in specific sectors can create a chain reaction of broader implications for other sectors and for sustainable development as a whole. For example, sustainable agricultural development and access to water and sanitation affect both economic and food security in many developing countries. Food security in turn affects malnutrition rates and health, health outcomes affect labour force productivity and wider economic development, etc.

Alignment with the objectives of the Paris Agreement requires climate action at different levels to ensure that low-emissions, climate-resilient pathways are reinforced across activities. Weak NDCs and long-term strategies, as well as inconsistencies in development finance that undermine sustainable development, are overarching challenges to achieving Paris alignment.

3.3. Development co-operation needs to address challenges at home, within developing countries and at the system level

This section unpacks the core challenges described in Section 3.1 to allow for a detailed examination of how they constitute barriers to Paris alignment for donor country governments and development co-operation providers. It further elaborates priority action areas for these actors to address the challenges. The proposed actions presented here, and the accompanying analysis, are not exhaustive. But they serve to identify those action areas that play a central role in the ability to align development co-operation with the Paris Agreement, and further highlight some of the constraints to both Paris alignment and action on other priorities. The challenges and proposed priority actions are framed at three levels:

- **at home**, i.e. in donor countries' and development co-operation providers' overarching strategies and policies – to help ensure that providers and donor countries are coherently supporting the transition of developing countries towards low-emissions, climate-resilient pathways
- **within developing countries** – to support a broad range of stakeholders in developing countries to plan for and implement the transition towards inclusive, low-emissions and climate-resilient pathways
- **at the system level** – to establish consistent standards and pursue ambitious action across the international development co-operation architecture to promote the transition of developing countries to inclusive, low-emissions and climate-resilient pathways.

Aligning with the objectives of the Paris Agreement at home

Challenge 1: Development co-operation providers are not yet adequately set up to address the climate emergency

While development co-operation providers increasingly recognise the importance of the objectives of the Paris Agreement for achieving sustainable development, they face persistent challenges in integrating climate considerations into their policies, budgets and activities across portfolios. Figure 2.6 in Chapter 2, showing the sectoral breakdown of shares and volumes of climate-related development finance, demonstrates that addressing the climate emergency across all economic and social sectors requires more robust and wide-ranging approaches than today's climate-related finance commitments, strategies and tools can deliver (Germanwatch/NewClimate Institute, 2018[41]).

Several development co-operation providers have begun efforts to align their portfolios with the objectives of the Paris Agreement, and many others have recognised the need to clarify what Paris alignment means (AFD, 2017[42]; IDFC, 2018[43]; African Development Bank et al., 2018[44]). One-third of the providers that responded in the survey undertaken in connection with this report note that they have yet to establish a definition of Paris alignment within their institution. For the remaining institutions where a definition exists, it remains unclear how this definition ensures consistency of operations across portfolios with the objectives of the Paris Agreement.

If providers are to play a transformational role, they need to go beyond conventional approaches such as developing standalone climate strategies (which often remain siloed), setting targets for climate finance without simultaneously ensuring that other areas of their own activities do not counteract those targets, and undertaking climate mainstreaming that does not reflect the required level of ambition. Alignment requires that providers move systematically and strategically towards aligning their overall activities with the objectives of the Paris Agreement and scale up efforts to catalyse additional resources for climate outcomes (OECD/World Bank/UNEP, 2018[16]).

For their approaches to be effective, providers need to revisit their fundamental parameters – e.g. mandates, performance indicators and capacities – as these parameters are not now set up to address

the climate emergency. Providers' mandates currently do not reflect that climate change and sustainable development are inseparable. A desk review of public mandates of 37 development co-operation providers finds that climate considerations are explicitly integrated in only 5 of these mandates to date. The survey conducted in connection with this report additionally shows that while targets on climate-related development finance are fairly common, only 9 out of 22 providers report that they include climate-related targets and indicators in their institution's results and performance framework. In response to questions regarding internal incentive systems, only one provider reported that a few departments within the institution have integrated climate objectives into performance metrics. Until they deliberately embed climate considerations in both mandates and performance and incentive systems, it seems unlikely that providers will be able to strategically and systematically move towards Paris alignment.

Development co-operation providers also lack capacity to support transformative climate action in developing countries. Only ten of the providers responding to the survey state that staff with technical expertise on climate change are positioned across corporate-level climate teams, regional/sector teams, and country teams. Most other providers report that rather than having dedicated climate expertise across the house, they concentrate their technical climate expertise in teams operating at the corporate level. While most providers indicate that they have climate risk screening tools in place, it is less clear how these tools can be effectively applied, given the climate capacity constraints in operational teams. The dearth of dedicated climate expertise across a range of departments and teams in most provider institutions raises questions as to whether development co-operation providers are able to effectively undertake climate risk screening and, as a consequence, whether they are adequately equipped to support developing countries' efforts to transition to inclusive, low-emissions and climate-resilient development pathways.

The way forward: Integrate the climate imperative into providers' mandates and performance systems and establish the right capacities and tools

The mandates, performance and incentive systems, capacities, and tools of development co-operation providers should reflect the ambition of the Paris Agreement and the commitment to support developing countries to engage in progressively ambitious climate action, in line with the objectives of the Agreement. In particular, donor country governments and providers should do the following:

- **Establish mandates for providers that are commensurate with the ambition of the Paris Agreement**. Donor governments and development co-operation providers should revisit and revise the mandates of providers to ensure that these integrate the climate imperative and reflect that the climate and sustainable development agendas are inseparable.
- **Change providers' institutional practice through internal performance and incentive systems** that drive staff behaviour to engage in transformative climate action. Providers should embed metrics related to climate outcomes in their performance and incentive systems to direct the focus of their institution and staff towards the objectives of the Paris Agreement and ensure that resource allocation and operational practice are mission-driven.
- **Establish adequate capacity for providers to execute the mandate**. Development co-operation providers' capacity is a fundamental condition to address the climate imperative. Ideally, providers should strengthen capacities across the institution and its operations, but at a minimum, providers should strengthen capacity in their priority sectors, including with a view to deploying development finance catalytically in these priority sectors.
- **Deploy a set of tools that enable staff to drive climate action** at the pace and scale needed. Providers should require that mitigation and adaptation-related tools are applied as compulsory elements of decision making across all activities. In particular, climate risk screening tools are critical to ensure that all development co-operation activities achieve their intended purpose over the short-, medium- and long-term.

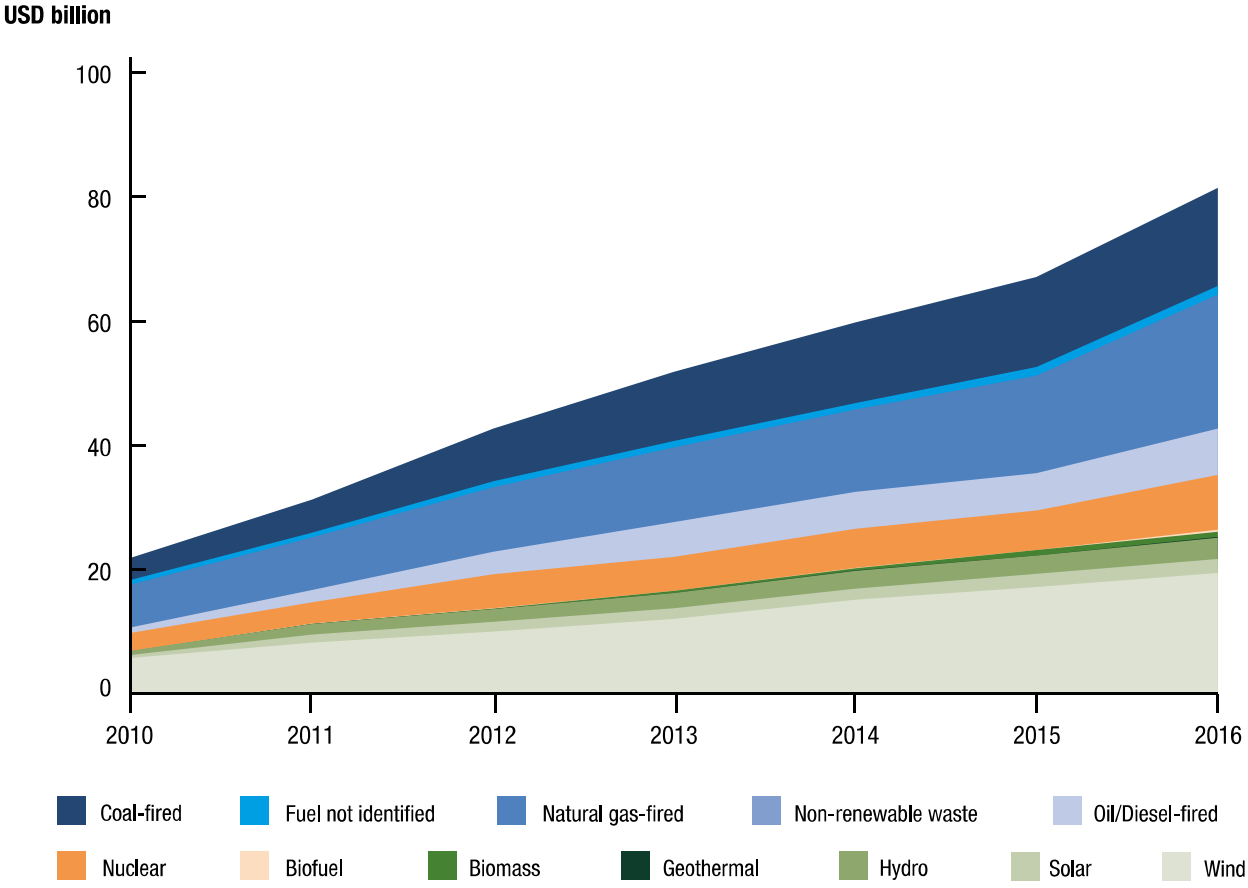
Overall, integrating the climate imperative into providers' mandates, incentive systems, capacities and tools has the potential to dramatically accelerate progress on Paris alignment by making the Paris Agreement central to sustainable development and the set-up of development co-operation itself. In this regard, it is essential that donor governments take consistent positions and approaches to integrating these elements comprehensively – into activities under their immediate control as well as through their governance and shareholder role as multilateral and bilateral providers, and thereby throughout development co-operation supply chains.

Challenge 2: Lack of coherence in donor countries' broader international activities counteracts climate action through development co-operation

The Paris Agreement highlights developed countries' role in supporting developing countries' mitigation and adaptation efforts, including by providing financial support and co-operation for technology development, dissemination and deployment (UNFCCC, 2015[5]). Developed countries engage with developing countries through a range of international activities, notably in this context through development co-operation and trade and investment promotion. In consequence, it is important that developed countries support the needed transition across these policy areas. This calls for policy co-ordination across different government ministries, agencies, and the government-supported or government-directed institutions that oversee and implement the full range of international activities.

The transition towards low-emissions, climate-resilient pathways cannot be achieved without transformation of energy systems, including energy supply infrastructure, and the energy sector is a key example of an area in need of greater policy co-ordination. While development co-operation providers are supporting renewable energy (see Figure 3.1), governments continue to provide officially supported export credits for activities that undermine global climate and sustainable development goals. According to an analysis of OECD member countries that have reported arrangements,[5] 58% of the official export credits that support energy production benefit fossil fuel technologies. Developing countries received 48% of the total export credits committed in 2010-16, a significant proportion relative to economic size of the lower-income countries (OECD, 2019[45]). Volumes of export credits reported for non-renewable energy production plants nearly quadrupled over this period, increasing from USD 12 to USD 46 billion (Figure 3.7). Renewables increased nearly five-fold in the same period, although from a much lower baseline, growing from less than USD 5 billion in 2010 to more than USD 24 billion in 2016.

Figure 3.7. Official export credit for energy production plants, 2010-16



Note: Data derived from reporting to the OECD Working Party on Export Credits and Credit Guarantees. Y-axis is shown in cumulative value.
Source: (OECD, 2019[45]), *Export Credit Statistics* (database), http://www.oecd.org/trade/topics/export-credits/statistics/

StatLink https://doi.org/10.1787/888934036994

Government-backed financial support to fossil fuel-based energy production directly conflicts with Article 2.1c of the Paris Agreement and, by extension, Articles 2.1a and b, which all Group of 20 members have ratified. This support delays the transition to net zero emissions economies and increases costs related to adaptation, climate resilience and residual risks. In consequence, it counteracts public monies spent on both domestic and international climate action, including climate-related development finance, and development co-operation more generally.[6] A recent report by the International Development Committee of the United Kingdom House of Commons (2019[28]) finds that export finance – including, for example, export credits, refinancing or interest-rate support, guarantee cover for credits, and export credit insurance – creates incoherence in donor countries' efforts to address the climate challenge across different policy areas.

Development co-operation providers are planning for and undertaking efforts to align with the objectives of the Paris Agreement. There is less evidence, however, that donor countries are working to ensure that their international activities beyond ODA are individually and collectively consistent with the objectives of the Paris Agreement, as is indicated by responses to the survey conducted for this report.

Many countries use interministerial and interdepartmental committees and strategies to promote whole-of-government decision making and policy coherence, although it has often proven difficult for these government entities to achieve consistency and coherence across policy areas (OECD, 2018[46]). Some

countries are deliberately pursuing coherence with the Paris Agreement through dedicated plans and co-ordination mechanisms. For example, the survey conducted for this report shows that Ireland's new National Climate Action Plan represents a whole-of-government approach to the Paris Agreement that integrates domestic and international efforts. Likewise, the Netherlands is taking steps, in consultation with the business community, to promote what is termed the "greening" of general export instruments such as export credit insurance. Building a whole-of-government response to the climate emergency across all forms of international activities should generally include consideration of the political economy, including with a view to actors with vested interests in the status quo.

The way forward: Donor countries should eliminate policy conflicts between their international activities and their commitments under the Paris Agreement

Donor countries' international activities across different policy areas should not undermine each other, and fundamental inconsistencies between these activities and the objectives of the Paris Agreement should be eliminated. In particular, donor country governments should do the following:

- **Ensure that strategies and action plans in relation to the Paris Agreement cover the entire range of international activities**. To coherently and effectively deliver commitments under the Paris Agreement, donor country governments should establish whole-of-government strategies and action plans that integrate all forms of international activities and include clear objectives consistent with the commitments under the Paris Agreement. Such strategies should establish a clear hierarchy of priorities and transparent guidance on addressing any policy conflicts.
- **Establish cross-government mechanisms** to translate whole-of-government strategies and action plans into implementation that supports commitments under the Paris Agreement and is based on clear targets.

Aligning with the objectives of the Paris Agreement in developing countries

Challenge 3: Process and capacity limitations in many developing countries constrain the integration of climate action into critical plans and decision making

One of the core challenges to achieving the objectives of the Paris Agreement is the insufficient integration of climate action into development plans, sector policies and budgetary processes. As noted in Section 3.1, this is reflected in the weakness of initial NDCs, which are expected to lead to an average global temperature increase of between 2.9°C and 3.4°C by 2100 compared to pre-industrial levels (IPCC, 2018[1]; Larsen et al., 2018[47]). In delivering more ambitious climate action, governments should reflect mitigation and adaptation considerations in national and subnational development planning processes and across sector-specific policies, and should adequately budget and fund mitigation and adaptation measures (England et al., 2018[48]; Bird, Monkhouse and Booth, 2017[49]; UNEP, 2018[38]). Several factors have hampered the integration progress (UNDP/UNEP, 2011[50]). These include the following:

- Conflicting or staggered government policy-making and budget cycles lead to key decisions on climate and fiscal policy being made in isolation from one another.
- Low awareness of the climate emergency among actors in central positions, and the perception that addressing climate change is too burdensome or not cost-effective, results in decision makers not taking adequate action.
- Insufficient information on technological advancements is an obstacle to adoption of cost-effective climate solutions and the delivery more ambitious climate action.

An example of the insufficient integration of climate action into plans, policies and processes is seen in the area of transforming energy systems. Renewable energy technologies have consistently surpassed expectations in terms of their technological advancement, declining investment cost and development co-

benefits, and yet energy sector plans and policies continue to neglect these developments as drivers for a more secure and affordable energy system and for climate action (IRENA, 2017[51]). Moreover, persistent inconsistencies with respect to institutions and instruments in the energy and climate realms hamper the transition to sustainable energy systems and effective climate action overall (GIZ, 2019[52]).

Integrating climate action into core development processes implies that institutions whose remit relates to key climate sectors need to change. Traditionally, environment and climate change ministries have been designated to lead on international climate regimes and their implementation. However, this generally has not led to the integration of climate action in critical plans and policies, as these ministries are often perceived as limited in their resources and public spending authority (Jones et al., 2015[53]). As discussed in Section 3.1, the limited policy authority of environment ministries had an impact on initial NDCs, in that finance and/or planning ministries were insufficiently involved and thus budgets for mitigation and adaptation measures were sometimes inadequate. If ambitious climate action is to be adequately integrated into development plans and policies, the challenges of political will and leadership also need to be addressed alongside associated institutional arrangements and co-ordination mechanisms (UNDP/UNEP, 2011[50]; Pervin et al., 2013[54]; Bickersteth et al., 2017[55]; Ruhnhaar et al., 2018[56]; Mogelgaard et al., 2018[57]).

Climate change is yet to be fully integrated into central development planning processes and policies

Centres of government are pivotal in whole-of-government, economy-wide climate action. They have responsibility and oversight of apex intergovernmental co-ordination mechanisms, a primary role in initiating transformative policy reforms, and the ability to pursue integration opportunities within and across different sectors. By setting policy frameworks at the national level, centres of government also can either support or hinder climate action. In this regard, they are often decisive in defining the enabling environment for climate action and the scope of climate action by a multitude of other actors. On the ground, for example, centres of government are not the principal entities to execute climate action. Rather, local communities lead adaptation measures and cities lead mitigation action. Nonetheless, centres of government have a crucial impact because supportive national policies and incentives are required to ensure that sub-national and local-level climate action has sufficient resources and potential to effect meaningful change (OECD/Bloomberg Philanthropies, 2014[58]). Initiatives such as the global Coalition of Finance Ministers for Climate Action have recognised the critical role of central policy, budgetary and financial decision-making institutions. However, such a comprehensive approach to climate action – i.e. with centres of government embracing the climate challenge and leading action to address it – is still in the early stages. This approach also is to date limited to a relatively small number of countries.

Development co-operation providers are beginning to integrate climate change dimensions into strategic dialogues with developing country governments and into their support to institutional arrangements to drive sustainable development. As they adopt a more consistent approach to Paris alignment, providers also are focusing on strengthening the climate components in their overarching development and individual sector and policies. Yet fewer than one in five providers responding to the survey indicate that they support developing countries to translate NDCs into sectoral policies and to establish action plans. For example, the integration of climate change into employment, labour and social policies is a precondition to address the challenges of a just transition, including inclusive climate action for marginalised communities and those disproportionately affected by global warming. Irish Aid is the only provider that reports making climate vulnerability part of its support for social protection programmes. In Mexico, the German Agency for International Cooperation supports comprehensive institutional and legal reform whereby the office of the Mexican President assumes the central co-ordination function to implement the 2030 Agenda and the Paris Agreement in an integrated approach (MGM Innova Mexico, 2018[59]); (BMZ, 2018[60]). Importantly, this reform has received political backing from the Ministry of Finance and Public Spending and includes

the aim for greater coherence between Mexico's National Development Plan, energy and climate policies, strategies, as well as underlying planning and consultation processes (GIZ, 2019[52]).

Central institutions face resourcing constraints that impose fundamental limitations to climate capacity

Fully integrating climate change dimensions into central planning and policy-making processes requires adequate capacity in centres of government. Yet these central institutions often lack the financial resources to enhance capacities. Capacity not only is a condition of political leadership on climate but also determines its scope, and a lack adequate institutional knowledge, expertise and resourcing narrows the scope for whole-of-government approaches for climate action (UNDP/UNEP, 2011[50]; Mogelgaard et al., 2018[57]). Current capacity constraints of line agencies and other key government institutions hamper the integration of climate objectives into sectoral plans and programmes. These constraints also hamper appropriate budgeting for climate action.

Only two development co-operation providers responding to the survey report that they support developing countries to establish integrated approaches to implementing the Paris Agreement and the 2030 Agenda in development plans and processes and in sector policies. Similarly, support to build capacity (for instance of national statistical offices, including for improved data and information on the physical and societal impacts of climate change) has been supply-driven and piecemeal, and remains limited to a relatively small number of countries (OECD, 2017[61]; PARIS21, 2017[62]). Such capacity constraints have repercussions for climate action, as illustrated in the first round of NDCs. Many of the NDCs were not based on adequate scientific evidence and data, which are also needed to establish meaningful baselines for the formulation of LTSs.

The importance of enhanced climate change expertise and capacity is generally well understood in development co-operation, and capacity development interventions for climate policy and planning form a core part of many providers' activities. Initiatives such as the NDC Partnership aim to address these essential capacity needs, typically through different forms of technical co-operation and peer exchange or dialogue formats. Overall, however, such approaches rely on the underlying base capacity of line agencies and other key government institutions. In such instances, development co-operation providers should support these institutions, including through the direct provision of financial resources. Addressing the resourcing constraints to strengthened climate capacity is essential for effective policy support and capacity development across sectors and, importantly, for inclusive and participatory decision making.

Development co-operation plays an important role in building institutional capacity of developing country partners. Strengthening central actors, institutional co-ordination and decision-making processes, including with a view to the climate imperative, is crucial, as these processes determine the authorising and enabling environment for sustainable development. Effectively transitioning to inclusive, low-emissions and climate-resilient pathways depends on the climate capacity of these institutions.

The way forward: Support the leadership and capacity of central actors and systems to drive the integration of climate change into policy and planning

Key developing country processes and capacities should reflect the indivisibility of climate change and sustainable development and the repercussions of climate change on all economic and social sectors. To support developing countries, development co-operation providers should do, in particular, the following:

- **Work with developing countries to incorporate appropriately ambitious climate objectives in their development plans and sector policies**. Development co-operation providers should support developing countries to develop and integrate climate objectives that are commensurate with the objectives of the Paris Agreement in national and subnational development legislation,

policy documents, strategies and action plans and ensure that these are appropriately connected with successive NDCs and LTSs.

- **Support and facilitate leadership for transformative climate action at centres of government.** Providers should support developing countries to establish ambitious and transformative climate action that is championed at the highest levels of national leadership. To that effect, providers should support the strengthening of country processes to underpin whole-of-government approaches to implementing the mutually reinforcing Paris Agreement and 2030 Agenda.
- **Provide targeted resources to enhance climate capacities in central institutions**. Providers should support the core climate capacity of central government institutions, including through the direct provision of financial resources to build and further strengthen dedicated climate units in the offices of national leaders or central co-ordination units.

Challenge 4: Central systems in public administrations and private finance in many developing countries continue to perpetuate high-emitting, climate-vulnerable pathways

Public and private actors[7] in both developing and developed countries continue to finance high-emitting, climate-vulnerable activities. As recently as 2017, for example, investment in fossil fuels represented 57% of all global investments in energy supply (IEA, 2018[27]). In 2018, investment in upstream oil and gas and coal supply drove the increase in global energy investment, while investment in energy efficiency was unchanged and investment in renewables decreased (IEA, 2019[63]). Central mechanisms for the allocation and intermediation of financial resources – tax and budgetary systems and processes on the public side and financial systems on the private side – enable these financial flows because they are not integrating climate considerations into authoring environments, despite increasing evidence of the impacts of climate change on these systems (Huxham, Anwar and Nelson, 2019[64]); (Tooze, 2019[65]).

These systems form the space within which decisions on financial resource allocations and activities of all economic agents (domestic and international, governments, companies and households) are made. Public sector entities such as governments, central banks and finance ministries set the rules that frame economic and financial decisions. For example, governments choose which behaviours and activities to tax, which behaviours and activities to subsidise, and how otherwise to spend public funds. In terms of volumes and leverage, tax revenues are a particularly significant resource, and indeed these revenues are the central pillar of the financing for sustainable development system (OECD, 2018[66]).

Financial systems provide similar incentives for certain types of economic and financial behaviours and activities to which actors such as companies and households respond when formulating and meeting individual goals and needs. Like tax revenues, private investment is important as it makes up around 20% of GDP for many developing countries and routinely dwarfs development finance (OECD, 2018[66]). Overall, public and private financial systems are not neutral. Rather, they form a path along which societies and economies develop, and currently this path is high-emitting and climate-vulnerable. As developing country governments aim to further develop their public and private financial systems as critical enablers of development, it is essential that they integrate climate outcomes in these systems.

The challenge of integrating climate dimensions extends beyond the realm of national policy making in key areas such as fiscal policy, and equally pertinent in specific sectors and subnational jurisdictions; climate dimensions clearly need to be integrated in different sectors' regulations and norms (World Bank Group, 2019[67]). There is nascent but increasingly available evidence of misalignments in policy domains such as finance, domestic resource mobilisation, energy end use and land use, trade, and innovation. For example, fiscal systems often contain several provisions that continue to guide companies and consumers towards higher fossil fuel consumption and production and increase their vulnerability to climate change impacts (OECD, 2013[68]). Policy and regulatory environments also need to more stringently support innovation, emerging technologies and business models including those that offer mitigation and adaptation solutions and can provide important co-benefits for the 2030 Agenda (OECD, 2018[69]). The integration of land use

planning and sustainable transport systems has proven difficult in the past (Ang and Marchal, 2013[70]); (ITF, 2019[71]), and environmentally harmful subsidies remain in rural land use (Helming and Tabeau, 2018[72]); (Mamun, Martin and Tokgoz, 2019[73]).

Fiscal policies covering taxation, expenditure and contingent financing are seen as a powerful but under-utilised tool in aligning financial resources towards fulfilling the Paris Agreement. The World Bank, for example, has called for a blend of environmental tax reforms that could finance resilience building and pre-finance contingency funds to cope with increasing disaster impacts (World Bank Group, 2018[74]). Green budgeting approaches can integrate a climate perspective through all stages of government financing, from budget design to taxation as well as procurement and performance auditing (OECD, 2018[75]). Similarly, financial system development is a key mechanism to foster better access to international financial markets, generate and channel domestic savings and investments to productive investments, and diversify and manage risk. It is long seen as a critical driver for development (Beck, 2012[76]).

The call to make all financial flows, both public and private, consistent with the objectives of the Paris Agreement (Article 2.1c) (UNFCCC, 2016[26]) relates to the need to integrate the climate imperative into fiscal and financial systems. A similar and related ambition is at the heart of the Addis Ababa Action Agenda (AAAA) (UN, 2015[77]). This agreement sets out an agenda for financing the SDGs by diversifying the sources of financing that serve development needs and requiring actors to recalibrate financial choices, incentives structures and rules of the game to “shift the trillions” towards development outcomes (OECD, 2018[66]). Although transformative climate action is the prerequisite for sustainable development, the AAAA does not yet have climate at its core. As developing countries work to deploy a broad range of financing to achieve their national development goals – for example through integrated national financing frameworks outlined in the AAAA – development co-operation providers should support these efforts, including through policy support and capacity building that enable developing countries to integrate the climate imperative into these activities.

Development co-operation providers should support developing countries to integrate climate considerations in their fiscal and financial systems to equip these systems to effectively support sustainable development. A track record of support for public financial management is increasingly focused on the mobilisation of tax revenues for development, and financial system development is a mainstay in development co-operation. Nonetheless, this support often fails to integrate the climate imperative and thereby foregoes opportunities to deliver climate and development outcomes. An analysis of climate-related development finance shows that only 20% of development finance commitments to private financial systems was climate-related in 2016-17 (OECD, 2019[31]). The climate-related share of development finance is significantly lower for commitments to domestic resource mobilisation (10%) and public financial management (7%).

By supporting the integration of climate considerations in budgetary processes, fiscal policies and financial systems, development co-operation can unfold its catalytic potential towards Article 2.1c of the Paris Agreement as well as more ambitious NDCs and LTSs. The support provided should additionally boost developing countries’ ability to engage with and act on the findings of recent related international initiatives. 50 developed and developing countries have to date joined the Coalition of Finance Ministers for Climate Action and endorsed the Helsinki Principles and the associated Santiago Action Plan to promote comprehensive national climate action through fiscal policy and the use of public finance. In the realm of financial systems, the Network of Central Banks and Supervisors for Greening the Financial System is a forum for its 34 member countries to share emerging good practice approaches to develop climate-related risk management in the financial sector and increase the consistency of financial flows towards sustainable pathways. Moreover, the Task Force on Climate-related Financial Disclosures, mandated by the Financial Stability Board, has developed recommendations for integrating climate risks into financial disclosures.[8]

The way forward: Assist countries to incorporate ambitious climate objectives throughout their financial and budgetary systems

Developing countries need public and private financial systems and financing strategies that can unlock greater financial flows to meet the objectives of the climate and sustainable development agendas. Support from development co-operation providers can help to establish such systems with strong climate components to avoid further financing of unsustainable and high-emitting development. In particular, providers should do the following:

- **Support the integration of climate action into financing strategies** that leverage public and private and domestic and international sources. Development co-operation providers should support the formulation and implementation of national financing strategies, such as the integrated national financing frameworks outlined in the AAAA, to increase the consistency of all financial flows with the objectives of the Paris Agreement.
- **Support the integration of climate objectives into national budgeting frameworks and tax systems** as a core component of robust public financial management. Provider efforts to support developing countries in mobilising revenues and reinforcing robust public expenditure frameworks need to integrate climate objectives, foster alignment of national financial resources and support incentives for transformative climate action across the economy.
- **Support the development of green financial systems in developing countries.** While these countries are developing, broadening and deepening their financial systems, providers should support them in integrating climate action so that financial flows are oriented towards low-emissions, climate-resilient pathways.

Aligning with the objectives of the Paris Agreement at the system level

Challenge 5: The basic rules of the game of the international development system do not consider climate as an integral dimension of sustainable development

The Paris Agreement recognises that developing countries' emissions will take longer to reach a peak (UNFCCC, 2015[5]), and fossil fuel-based energy supply is projected to continue playing an important role in energy systems globally over the medium term (IEA, 2019[78]). Nevertheless, avoiding average global temperature increase beyond 2°C – and thereby keeping adaptation objectives and sustainable development within reach – requires a transformation of energy supply infrastructure (IPCC, 2018[1]; Edenhofer et al., 2014[78]).

Analysis of IPCC and energy industry data indicates that the current stock of fossil fuel fields and mines in operation or under construction will alone release CO_2 emissions resulting in a 1.5°C rise in global temperatures (Oil Change International, 2019[79]). Furthermore, emissions from these sources together with those from land use change and cement would exhaust the levels of emissions consistent with a 2°C limit (Oil Change International, 2019[79]). Even if global coal use were to be eliminated from this mix, CO_2 emissions from developed reserves for oil and gas alone would push the world above global warming of 1.5°C (Oil Change International, 2019[79]). While renewable sources are estimated to comprise more than three quarters of investments in new power generation up to 2050 (Bloomberg NEF, 2019[80]), this still falls significantly short of what is required to limit temperature rise to under 2°C (Oil Change International, 2019[79]). Even if the 2°C target is reached, global temperature rise of 2°C versus 1.5°C means several hundred million more people will be in poverty by 2050, and climate risks will be higher for the world's most vulnerable communities (IPCC, 2018[1]).

Developing countries will continue to use fossil fuels, and while further investment in new fossil fuels is expected according to both current plans and alternative scenarios oriented towards sustainable development, it would drop rapidly under the latter (IEA, 2019[78]). However, support from development co-

operation in this area raises concerns about value for money and additionality. The effective and efficient allocation of resources, and associated technology choices, requires cost-reflective pricing that accounts for externalities. The externalities of fossil fuel production and consumption are not limited to climate impacts but also include effects such as the harm to public health from pollution. As such, development co-operation supporting fossil fuel-based energy supply and power generation raises fundamental questions of consistency with the sustainable development mandate as well as global climate goals. The use in particular of concessional development finance implies an active promotion of a given activity, with high levels of financial subsidy as reflected in the high concessionality criteria (OECD, 2018[81]). The deployment of these scarce resources for fossil-fuel based energy supply is already incompatible with sustainable development today given the lifespan of these investments. Moreover, such deployment would constitute directing these scarce development resources to an area that already receives direct and indirect subsidies that are estimated to have amounted to up to USD 5.2 trillion globally in 2017, or 6.5 percent of world GDP (IMF, 2019[82]).

The promotion of energy supply has always been an important component of development co-operation given that energy enables almost every aspect of development and economic growth. Development co-operation can support the energy needs of developing countries by enabling them to fully benefit from already available alternatives to fossil fuel-based power generation. As a shift away from fossil fuels is inevitable, development co-operation providers need to ensure more than ever that they work with developing countries to meet the energy needs and achieve the energy access goals required for their development. Building reliable, affordable, secure and sustainable energy systems requires a comprehensive approach to energy policy and investments. Development co-operation can support developing countries in considering and addressing the changing synergies, co-benefits and trade-offs involved in building sustainable energy systems. For example, many developing countries in Southeast Asia are expected to become energy importers by 2040 and face mounting energy security concerns without an accelerated transition to sustainable energy systems (IEA, 2017[83]).

Renewables as alternatives to fossil fuels are available, especially in the power sector, and have developed into one of the most cost-effective ways to enhance energy supply security, boost economies' competitiveness and potential for employment generation, deliver health co-benefits, and help to achieve global climate and sustainable development goals. Falling technology costs have led developing countries to add more renewable energy-based power generation capacity than fossil fuel-based generation (Bloomberg NEF, 2018[84]). Accordingly, renewable energy technologies are now being deployed at a faster pace than any other energy source (IRENA, 2019[85]). Further accelerating renewables deployment requires addressing challenges in three key areas, i.e. policy and regulatory uncertainty, high investment risks in developing countries, and system integration of wind and solar (IEA, 2019[86]). All of these relate to areas in which development co-operation can provide critical support through the levers of financing, policy support and capacity development. The current scale of investment in renewables (including in power generation) does not put the world on track to reach either of the temperature goals of the Paris Agreement (IEA, 2019[87]), and this has negative implications for achieving adaptation objectives in developing countries.

Sustainable energy systems and the promotion of renewables provide wide-ranging development benefits. Distributed renewable energy systems such as mini-grids and off-grid applications are the most cost-effective means for providing access to electricity in rural and remote regions, and women and girls particularly benefit from such solutions (IEA, 2017[88]). The energy demand reflected in the International Energy Agency's most recent Sustainable Development Scenario implies a sharp drop over the next two decades in global fossil fuel demand, reflecting decreases in all fossil fuel sources between today and 2040 at varying degrees (IEA, 2019[89]). According changes in the global electricity generation mix from 2018 to 2040 would entail the respective shares of coal dropping from 38% to 4%, oil from 3% to 0.4%, and natural gas from 23% to 12% (IEA, 2019[78]). The global market and policy transformations that are needed to support sustainable development are beyond the control of any individual country's policy

decisions – this invariably implies increased risks for stranded assets in fossil fuel-related sectors. New investments in fossil fuel-related assets are thereby liable to increase fiscal stress and debt burden, particularly for countries reliant on fossil fuels for export revenues. This is especially problematic for countries that depend on international financing in foreign currency to undertake investments in fossil fuel-related sectors but are marginal fossil fuel consumers relative to the global market. Introducing alternatives to fossil fuel-based power generation into the energy mix decreases these risks in parallel with managing other risks associated with the transition, such as job losses (Huxham, Anwar and Nelson, 2019[64]). Fully realising the development benefits of sustainable energy systems requires appropriately accounting for these factors, while ensuring the long-term support for policy reform and capacity development required for a successful transition.

Key standards for development co-operation do not yet reflect that sustainable development involves a shift to low-emissions, climate-resilient pathways

While there is growing momentum to move away from using development finance to promote fossil-fuel based energy supply, many of the basic standards and processes of development co-operation do not account for the fact that a decisive and systematic shift away from fossil fuel-based energy generation offers the only pathway for sustainable development. Development co-operation has a clear role to play in addressing fundamental bottlenecks and constraints for developing countries' transition to low-emissions, climate-resilient pathways and sustainable development. This role entails contributing consciously and coherently to the establishment of the sustainable energy systems that are needed to limit global warming and keep sustainable development within reach. Given the long lifespan of energy infrastructure assets, it is essential that inconsistencies in the use of development finance in the energy sector are eliminated now to support a clear, accelerated shift towards sustainable energy systems.

Development co-operation providers have the opportunity to improve the coherence of their approaches by revising their standards and processes to ensure they are collectively supporting a decisive shift to low-emissions, climate-resilient pathways. Climate considerations are not currently reflected in agreed definitions of development co-operation, nor in the criteria that determine the range of activities that constitute development co-operation. The Paris Agreement recognises that developing countries' emissions will take longer to reach a peak and that developing country parties will need support for effective implementation (UNFCCC, 2015[5]). Revising the standards and processes of development co-operation would not preclude the use of other sources of finance or support to facilitate developing countries' continued use of fossil fuels. Yet the evidence is clear that fossil fuel-based energy supply needs to be dramatically and progressively reduced if countries are to avoid dangerous climate change and achieve both adaptation objectives and sustainable development (IPCC, 2018[1]).

There is a broader need for more systemic frameworks to guide low-emissions, climate-resilient development

Apart from definitions of eligibility and other basic standards that apply universally, there is currently no existing mechanism or process that provides a common agreement among development actors on the kinds of activities that are consistent with low-emissions, climate-resilient pathways. Such central mechanisms exist in other areas to help ensure consistency across the range of development co-operation actors. For instance, the International Monetary Fund debt sustainability framework provides a tool to ensure an agreed, collective approach to financial sustainability for low-income countries. This framework is accepted by and guides almost all providers of development co-operation to avoid the risk of debt distress.

In the context of climate change, such common mechanisms could help to guide efforts to achieve mitigation, adaptation and resilience objectives. They could inform the assessment of financial interventions in a given context as well as the extent to which policy support and capacity development

interventions are consistent with low-emissions, climate-resilient pathways. Such tools could also help to co-ordinate and ensure the coherence of development co-operation activities with NDCs and sector strategies.

Without mechanisms and tools of this type, the risks of system incoherence persist. Where development co-operation providers only partially align their activities with the Paris Agreement, they may be undercutting their dedicated climate efforts. In much the same way, partial alignment by some actors could thwart others' alignment efforts and compromise the effectiveness of the international development co-operation effort as a whole.

The way forward: Adopt core definitions and mechanisms to ensure Paris alignment at the system level

The basic standards and processes of development co-operation should coherently and unequivocally support sustainable development. To accomplish this, such standards and processes should include clear provisions for effectively addressing climate change and its implications for sustainable development. In particular, all countries and institutions providing development co-operation should:

- **Promote the transition to low-emissions, climate-resilient pathways, including by updating key standards.** While development co-operation would continue to support secure and affordable energy supply, a revision of eligibility criteria would rule out the promotion and subsidisation through concessional resources, such as ODA, of activities that undermine or delay the transition to low-emissions, climate-resilient pathways and, by extension, sustainable development, such as new fossil fuel-based energy supply and power generation. To enhance the effectiveness of these exclusions governments should actively promote this approach in their governing functions in multilateral development banks. Relevant eligibility criteria should also be periodically reviewed to ensure that standards are based on the best available current evidence.
- **Support measures that provide systemic guidance to all development co-operation providers to identify activities that are incompatible with the objectives of the Paris Agreement, and by extension sustainable development**. These measures should include a basic, context-specific framework that could act as a central point of reference to ensure that development co-operation integrates climate action and does not contribute to unsustainable development. Providers of development co-operation should actively promote and support the creation of such a framework, based on broad international agreement, with a clear methodology and objective criteria, and modelled on the debt sustainability framework. Such guidance would assist providers in aligning all of their development co-operation activities with low-emissions, climate-resilient development pathways, including the 80% of bilateral and 60% of multilateral development finance that does not report the integration of any climate objectives (Figure 2.5).

Challenge 6: Fragmented approaches in development co-operation limit the scale of effective climate action

The international development co-operation system is characterised by a multitude of actors. The number of actors has continued to increase in both the bilateral and multilateral space over recent decades, and their different policies, approaches and procedures have contributed to and maintain a fragmented system. One result is that there are now more than 1 000 different development finance instruments (OECD, 2018[66]). Harmonised approaches, including through common standards, are more essential than ever to avoid further fragmentation and limit transaction costs and system inefficiencies where possible. To increase Paris alignment of development co-operation providers at the system level, common approaches are critical, particularly in funding and financing instruments; data and information standards; and operational and procedural standards, and especially those pertaining to infrastructure projects.

Lack of transparency and common access standards limits the potential impact of climate-related development finance

Developing countries need significant financial resources to transition to inclusive, low-emissions and climate-resilient pathways. While relatively small in terms of volume, climate-related development finance can have a catalytic effect on these transitions (see Section 2.2 and Challenge 4). The provision of climate-related development finance is set in a complex international architecture, however, and is often perceived as inadequate, inefficient and ineffective (Commonwealth Expert Group on Climate Finance, 2013[90]) (Amerasinghe et al., 2017[91]).[9]

The complexities of the international architecture of climate-related development finance stem from financing vehicles and instruments with differing thematic and policy priorities and an even broader array of implementing entities; together, these have led to inefficiencies and the overburdening of developing countries (Bird, Watson and Schalatek, 2017[92]); (Lundsgaarde, Dupuy and A., 2018[93]). For example, developing country governments may find it difficult to obtain a full overview of financing options in this complex landscape, and this restricts their ability to access those financial resources that are the best fit for their identified priorities. Moreover, these difficulties often are aggravated and prolonged due to access modalities and spending rules that require significant resources and specialist knowledge on behalf of developing countries. Like the complex and restrictive procurement policies, the monitoring, reporting and verification requirements of funding entities of climate-related development finance place considerable burden on developing countries, particularly least developed countries. Complying with such requirements can strain countries' already limited capacity.

Fragmented approaches turn climate data and information from signal into noise

Data and information are vital for climate action that is responsive to emerging evidence of the pace and scale of climate change and its impacts, and to evolving opportunities and challenges. A sound base of data and information is needed to inform not only NDCs and LTSs but also decision making on climate action more broadly by public and private actors at all levels, from local to global. Given that climate change will have impacts on every sector and every community, a sound base of climate data and information is a public good that can prevent market failures. It is a requirement for the transition to inclusive, low-emissions and climate-resilient pathways.

The public goods aspect of data and information gives public actors, including development co-operation providers, an important role in supporting the production and dissemination of data and information as a prerequisite for an effective response to the climate emergency (Hallegatte et al., 2018[94]). Common standards and methods for the generation and availability of data and information – in particular, for comparability over time and aggregation across countries and regions – are crucial to this support (OECD, 2017[61]). While development co-operation is already engaging in the generation of data and information, including related to climate, this support is largely supply-driven and focuses on isolated interventions. In the absence of a co-ordinated approach, there has been a surge of continuously new data and information even as basic data and information remain scarce, particularly with respect to disaggregated, localised climate change impacts and risks (OECD, 2017[61]).

Development actors are beginning to respond to the data challenge, and the recent emergence of central hubs for climate-related data and information marks an important step. However, to decrease uncertainty for users of these data, common standards and frameworks are needed for their generation and use. Such common standards and frameworks also are needed to minimise lost opportunities for climate action and avoid costly, ineffective measures as well as lock-in and maladaptation. Development co-operation providers should facilitate a co-ordinated approach by international and domestic actors that responds to identified data and information needs and increases the usability of data and information. Global weather and climate-related data and information from the World Meteorological Organization and the IPCC,

including the underlying methodologies and standards of the scientific assessments should be at the core of this harmonised effort.

All development is taking place in a changing climate. Therefore, climate-related data and information – generated and used in a co-ordinated approach and through common standards – provide essential signals for development activities across sectors. An illustrative good practice approach to co-ordination and common standards of data and information is the Global Emerging Markets (GEMs) Risk Database, within which an increasing number of development banks and DFIs provide information on infrastructure project performance (OECD, 2017[61]). By providing countries an investment track record that otherwise would not exist, the GEMs database helps to fill the gap of comprehensive, asset-level and systematised data on infrastructure projects. This data gap is repeatedly cited as a key challenge to establishing infrastructure as a broad-based asset class. To make this information available to private markets, the data are anonymised, but the database nevertheless performs an important function with regard to supporting market creation and ensuring additionality of development finance.

Lack of standardisation limits the mobilisation of resources to promote sustainable infrastructure at scale

The ability of societies to limit global warming and to adapt and increase resilience to climate change impacts rests, to a significant degree, on their infrastructure choices. To meet the objectives of the Paris Agreement, developing countries need to make infrastructure investments on the order of USD 4 trillion per year that take into account, in particular, the needs of already marginalised and vulnerable communities (Global Commission on the Economy and Climate, 2016[95]); (IPCC, 2018[1]). Due to the magnitude of the investment needs, governments will not be able to fund this infrastructure through public resources alone and will need to look to private resources. Infrastructure investments offer long-term, predictable revenue. Even so, only a small fraction of private finance – estimated at between 1.1% and 2.9% across major OECD-based funds – is invested in infrastructure (OECD, 2018[96]). Of these investments, only a fraction is invested in low-emissions, climate-resilient infrastructure. For many projects, this is due to a mismatch between the nature and terms of finance supplied on one hand and the demand for financing on the other. Long tenors and high upfront capital costs, illiquidity, market uncertainties and uncertainty regarding the policy and regulatory environment deter potential investors (Dasgupta, Hourcade and Nafo, 2019[97]). In the case of developing countries, foreign exchange risk is an additional constraint (see Challenge 7).

Against this backdrop, mobilising commercial capital for infrastructure-related investment has become a priority for development co-operation. Support so far has focused on the mobilisation of private finance for individual projects, particularly in power generation, and on the promotion of sound policy and regulatory environments. But limited progress has been made in addressing systemic bottlenecks that could unlock unprecedented resources and drive them towards infrastructure-related investments including in urban areas and low-income countries (Humphrey, 2018[98]). To address these systemic bottlenecks, development co-operation providers should widen the focus of their support (see Challenge 3).

To mobilise finance at required scales, low-emissions, climate-resilient infrastructure needs to be established as a broad-based asset class.[10] Infrastructure projects are highly heterogeneous, and there is a lack of comprehensive, asset-level and systematised information on the performance of infrastructure-related investment. In consequence, investors face high degrees of uncertainty that deter them from investing their resources in such projects. Enhanced data and information concerning different features of infrastructure projects, in particular their expected risk-return profile, could enable progress in individual infrastructure projects and establish infrastructure as a broad-based asset class (G20, 2018[99]). The example of the GEMs Risk Database highlights the important role that development banks and DFIs, in particular, can play in the provision of data and information and more broadly in infrastructure promotion and common standards. If infrastructure is to be established as a broad-based asset class, however, further progress is needed in generating data for long-term performance metrics at the asset and project level and in making these data available to global markets.

The way forward: Providers should drive effective, scaled-up climate action through common standards in finance, data and infrastructure

Standards provide a basis for co-ordinated interaction, underpin markets and ensure transparency. They also allow effective action on issues ranging from data and information to research and development, technology, and finance. To advance Paris alignment, development co-operation providers should support collaborative approaches to establish standards so that the fragmented development landscape can deliver greater and more coherent impact. In particular, providers should do the following:

- **Increase harmonisation and transparency of climate-related development finance and improve access to such finance.** Development co-operation providers should develop and adhere to greater transparency and accountability around existing and future climate finance commitments. Additionally, providers should ensure improved efficiency and access to existing sources of climate finance.
- **Promote harmonised standards and approaches regarding the generation and use of climate data**. Providers should agree on the support of key data and information standards to address risks of critical gaps, duplication and inconsistency. In doing so, they should aim for and support an architecture in which data and information produced at the local, national and international levels are complementary, consistent, verified and accessible.
- **Reinforce efforts to standardise procedures and specifications for infrastructure investments.** The much-vaunted prospect of unlocking – at scale – financing from private markets for low-emissions, climate-resilient infrastructure will not become reality without a concerted effort to establish infrastructure as broad-based asset class. Providers especially should strive for greater standardisation and harmonisation across the landscape of development finance actors.

Challenge 7: Large volumes of finance are available globally, but systemic barriers impede investment in low-emissions, climate-resilient infrastructure in developing countries

The investment decisions for infrastructure will determine whether the interlocking agendas for sustainable development and climate action are achieved. Establishing infrastructure as a broad-based asset class can open unprecedented opportunities (see Challenge 6). Developing countries, however, face additional systemic barriers in promoting low-emissions, climate-resilient infrastructure. Among these barriers are shallow capital markets (see Challenge 4), limited scope for local currency financing and foreign exchange risks. These risks are linked, and while they partly reflect weak policy environments, they also denote more fundamental handicaps, such as the limited ability to trade and use developing countries' currencies, that have the effect of limiting access to the capital of international institutional investors. Even if the policy environment is otherwise sound, investments in countries that need significant amounts of external finance for their development but lack significant export earnings or commonly traded currencies, face expensive foreign exchange risk premiums (Eichengreen, Hausmann and Panizza, 2002[100]).

Evidence suggests that unresolved foreign exchange risks not only inhibit capital inflows and discourage investments in low-emissions, climate-resilient infrastructure. These risks also have undermined development objectives by contributing to systemic instability and over-indebtedness, less effective macro-policy adjustment, and excessive volatility of local interest rates. There have been efforts to promote local currency financing, notably through the capitalisation of hedging instruments such as TCX, a fund established in 2007 with support from different providers of development finance to help manage currency risk in developing countries. But the available instruments have not reached the needed scale, and their small size makes them expensive to use. A larger-scale, more systemic approach to dealing with foreign exchange risk would overcome the limitations of currently operating facilities, including by making available

a greater range of currencies, instruments and products with longer tenure that can further facilitate the promotion of low-emissions, climate-resilient infrastructure.

A broad partnership of development co-operation providers is needed to realise this potential. This will require a combination of budgetary resources for capitalising such a facility, deep expertise in infrastructure projects and their financing, and large-scale financial risk absorption capacity. No single development actor is equipped to do this on its own. Approaching risk mitigation systemically, by pooling the capacities and assets of different actors, can help not just to mobilise individual transactions but also to catalyse a pipeline of future investments. Collectively, the capital, tools and expertise exist and are already being used. Moreover, all these elements can be generated in the international development system, which already features the common practice of regular capitalisation and replenishments of international funds or vehicles; development banks with unique experience in developing country infrastructure projects; and innovative approaches such as the Swedish International Development Cooperation Agency's use of part of the balance sheet of the Swedish National Bank to provide development-oriented guarantees (Dasgupta, Hourcade and Nafo, 2019[97]).

Partnership approaches have demonstrated that they can help to deliver collective, up-front risk mitigation to overcome persistent market failures. In the health sector, for example, advance market commitments succeeded in spurring the development of vaccines for long-neglected tropical diseases (Gavi, 2019[101]). An architecture is not yet in place that brings actors together to resolve the challenge of systemic de-risking of long-term infrastructure finance in developing countries. But several initiatives and feasibility studies already aim beyond transactional-level co-financing or risk mitigation, with the goals of pooling contributions and expertise and harmonising, standardising, and simplifying processes and policies. Proposals include systemic risk mitigation to underpin these activities, either through direct capitalisation by sovereign shareholders or by arrangements of sovereigns directly taking on additional contingent liabilities (Dasgupta, Hourcade and Nafo, 2019[97]; CEEW, 2017[102]).

A collective and concerted approach is needed to address the systemic barriers to climate-related investment in developing countries and urgently align development co-operation with the Paris Agreement at the system level. Such efforts should build on initial success stories, including initiatives supported by different donor and non-donor country governments to address foreign exchange risks. But the enormity of the climate challenge to sustainable development also calls for larger-scale international partnerships to promote the roll-out, implementation and operationalisation of approaches that can spur investment in low-emissions, climate-resilient infrastructure in developing countries.

Strong and broad political support are essential, given the considerable resource, engagement and co-ordination needs. Building on the momentum generated from the United Nations Climate Action Summit in September 2019, strategic partnerships of governments, development co-operation providers and the private sector will be decisive.

The way forward: Focus on effective partnering to promote finance for investments in low-emissions, climate-resilient infrastructure at scale

Financing for investment in low-emissions, climate-resilient infrastructure can be promoted at scale through strategic partnerships of governments, development banks, development agencies and private sector actors. For these partnerships to be effective, political will and backing are needed. Donor country governments should do the following:

- **Focus on multi-stakeholder partnerships to trigger the needed transformation**, building on momentum generated by the United Nations Climate Action Summit 2019. Overcoming the gap for low-emissions, climate-resilient infrastructure will not be possible through bilateral partnerships or development co-operation providers alone. Instead, providers should facilitate the creation of forceful multi-stakeholder partnerships that convene a critical mass of players and are backed by

political and institutional capital to deliver systemic solutions. These partnerships should focus on meeting an identified objective and establish a clear timeline for delivery.

- **Establish a strong, mission-driven partnership to address foreign exchange risk that signals political commitment and will to deliver a systemic solution**. Donor country governments and development co-operation providers should come together in an alliance focused on providing a systemic solution to foreign exchange risk and complementing other efforts to promote low-emissions, climate-resilient infrastructure in developing countries. To achieve critical mass and momentum, donor country governments and providers should clearly and visibly invest political and institutional capital into this partnership and establish a clear ambition, goal and timeline for delivery.

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Notes

[1] The International Energy Agency defines stranded assets as "those investments which have already been made but which, at some time prior to the end of their economic life (as assumed at the investment decision point), are no longer able to earn an economic return, as a result of changes in the market and regulatory environment brought about by climate policy". For a further discussion, see (IEA, 2013[106]) at https://www.iea.org/publications/freepublications/publication/WEO_Special_Report_2013_Redrawing_the_Energy_Climate_Map.pdf

[2] The four ODA-eligible countries are Benin, Marshall Islands, Mexico and Ukraine.

[3] These activities comprise those described in the DAC Creditor Reporting System (CRS) database under "Energy generation, non-renewable sources" (purpose codes 23310, 23320, 23330, 23340, 23350 and 23360) for downstream sources, plus the purpose codes for coal (32261) and oil and gas (32262) under "Mineral resources and mining" for upstream sources. See https://stats.oecd.org/Index.aspx?DataSetCode=CRS1

[4] The "other agriculture" subsector is composed of 11 smaller subsectors that individually do not account for a significant amount of the development finance committed to the agricultural sector, but that in aggregate account for 21% of the financing.

[5] These countries are Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Hungary, Israel, Italy, Japan, Korea, Netherlands, Norway, Poland, Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

[6] As discussed more fully in Section 3.2, development finance also currently supports activities that undermine climate-related development interventions and, thereby, developing countries' development prospects.

[7] These actors include public entities such as central and local governments, central banks, national development banks, and private entities such as commercial financial institutions, companies and individuals that undertake financial decision making.

[8] The Task Force on Climate-related Financial Disclosures considers "the physical, liability and transition risks associated with climate change and what constitutes effective financial disclosures across industries" in order to develop "voluntary, consistent climate-related financial risk disclosures for use by companies in providing information to investors, lenders, insurers, and other stakeholders". For more information, see https://www.fsb-tcfd.org/about/

[9] While climate finance includes a broader range of flows than development finance, international public finance for climate is delivered largely through channels, institutions and instruments of development co-operation. Where this is the case, the two categories of finance are practically indistinguishable at the operational level.

[10] Infrastructure as an established, broad-based asset class would enable individual, bespoke infrastructure investments to be aggregated into larger pools of finance with a more homogenous risk-return profile. This would in turn increase liquidity and make them more tradeable on secondary markets, which ultimately expands the potential investor base for such investments.

Annex A. Members of the High-Level Advisory Group

The High-Level Advisory Group has been convened by the OECD Secretary-General, Angel Gurría. The OECD is represented in the group by Jorge Moreira da Silva, Director of the Development Co-operation Directorate, who is overseeing this work, and Rodolfo Lacy, Director of the Environment Directorate. The High-Level Advisory Group members include:

- Adnan Amin, Director-General Emeritus, International Renewable Energy Agency
- Yvo de Boer, Former Executive Secretary, United Nations Framework Convention on Climate Change
- Patrick Dlamini, CEO, Development Bank of Southern Africa
- Patricia Espinosa, Executive Secretary, United Nations Framework Convention on Climate Change
- Naoko Ishii, CEO and Chair, Global Environment Facility
- Ma Jun, Chairman, Green Finance Committee of China Society for Finance and Banking; Special Advisor to the Governor of the People's Bank of China
- Sigrid Kaag, Minister for Foreign Trade and Development Cooperation, The Netherlands
- Rachel Kyte, Former CEO of Sustainable Energy for All (SEforALL), Special Representative of the UN Secretary-General for SEforALL and Co-Chair of UN-Energy
- Joaquim Levy, Former Minister of Finance, Brazil; Former President, Brazilian Development Bank (BNDES); Former Managing Director and Chief Financial Officer, World Bank
- Emma Navarro, Vice-President, European Investment Bank
- Rémy Rioux, CEO, Agence Française de Développement; President, International Development Finance Club
- Richard Samans, Managing Director and Head of Policy and Institutional Impact, World Economic Forum
- Andrew Steer, President and CEO, World Resources Institute
- Meg Taylor, Secretary General, Pacific Islands Forum

Annex B. Members of the Informal Expert Group

- Austria - Austrian Development Agency (ADA)
- Finland - Ministry for Foreign Affairs
- France – Ministry of Foreign Affairs (Ministère des affaires étrangères) (AFD)
- Germany - Ministry for Economic Cooperation and Development, GIZ, KfW Development Bank
- Hungary - Ministry for Innovation and Technology
- Ireland - Department of Foreign Affairs and Trade
- Italy - Ministry of Environment, Land and Sea
- Japan - Japan International Cooperation Agency (JICA)
- Luxembourg - Ministry of Foreign and European Affairs
- Netherlands - Ministry of Foreign Affairs
- Sweden - Swedish International Development Cooperation Agency (SIDA)
- United Kingdom - Department for International Development (DFID)
- Asian Development Bank (ADB)
- Development Bank for Latin America (CAF)
- Climate Policy Initiative (CPI)
- European Bank for Reconstruction and Development (EBRD)
- European Investment Bank (EIB)
- Germanwatch
- Institute for Climate Economics (I4CE)
- Institute for Sustainable Development and International Relations (IDDRI)
- Inter-American Development Bank (IDB)
- International Institute for Environment and Development (IIED)
- International Finance Corporation (IFC)
- Islamic Development Bank (IsDB)
- Netherlands Development Finance Company (FMO)
- New Climate Institute (NCI)
- Overseas Development Institute (ODI)
- Third Generation Environmentalism (E3G)
- United Nations Development Programme (UNDP)
- United Nations Environment Programme (UNEP)
- World Resources Institute (WRI)
- 2050 Pathways Platform

Annex C. Methodology

This annex outlines the sources of evidence and approaches to analysis for this report.

Official development finance data

All development finance figures presented in this report are derived from officially reported data to the OECD, i.e. the Development Assistance Committee (DAC) Creditor Reporting System (CRS) data (extracted in July 2019) and climate-related development finance flows (extracted in June 2019) (OECD, 2019[1]); (OECD, 2019[2]). As outlined in Box 2.7 in Chapter 2, **climate-related development finance** cannot be equated to **climate finance**, as both represent different perspectives. Two methodologies that compose climate-related development finance are reported to the DAC: the Rio Marker Methodology and the Climate Components Methodology.

The Rio Marker Methodology

Applied to development finance by bilateral providers and non-bank multilateral institutions and programmes

- For each activity reported to the OECD, reporting countries and institutions indicate whether the activity targets mitigation, adaptation or both objectives as a “principal” or “significant” objective (OECD, 2018[3]).
- Activities marked as “principal” would not have been funded but for that policy objective. Activities marked as “significant” have other prime objectives, but have been formulated or adjusted to help meet the policy objective.

The Rio markers provide an indication of the degree of mainstreaming in development co-operation portfolios for environmental objectives. These include climate objectives, but still as a quantification for mainstreaming rather than finance that is climate-specific.

The Climate Components Methodology

Applied to development finance by multilateral development banks

- The methodology measures specific climate components committed to development operations that enable activities that mitigate or adapt to climate change in developing and emerging economies (European Bank for Reconstruction and Development, 2018[4]).
- For adaptation finance, the methodology attempts to capture the incremental cost of adaptation activities and is project- and location-specific in accounting for a response to climate vulnerabilities.
- For mitigation finance, estimates are based on a list of activities in sectors and subsectors that are deemed to support low-carbon development pathways.
- The components range from the full investment amount (e.g. for a standalone, energy-efficient street lighting project) to only a small fraction of a development project that relates specifically to climate change mitigation or adaptation objectives.

Climate components are reported as-is for climate finance to the United Nations Framework Convention on Climate Change. Rather than providing an indication of mainstreaming, this approach aims to provide a conservative account of finance, or financial components, that specifically support climate objectives.

Accounting for climate-related development finance

Description

This report estimates how much development co-operation as a whole is integrating climate objectives across activities. In support of this, the Rio Marker Methodology is applied to climate-related development finance reported under the Climate Components Methodology. Climate-related development finance is represented as a combination of (a) commitments reported under the Rio markers and (b) commitments reported using climate components but shown as the full investment amount of the underlying activity. This applies to each climate-related objective, i.e. adaptation, mitigation and cross-cutting.

Each climate-related objective is accounted for as follows:

- For activities marked with only a mitigation-related objective, the entire underlying commitment is attributed to **climate-related development finance with a mitigation objective**.
- For activities marked with only an adaptation-related objective, the entire underlying commitment is attributed to **climate-related development finance with an adaptation objective**.
- For activities marked with both a mitigation-related and an adaptation-related objective, the entire underlying commitment is attributed to **climate-related development finance with a cross-cutting objective**.

This approach does not change climate-related development finance reported under the Rio markers, but does significantly increase the attribution of climate-related development finance from multilateral development banks.

Data limitations

Official development finance reported to the DAC and presented in this report as a combination of climate-related and non-climate-related activities is a qualitative indication of whether activities are consistent with the objectives of the Paris Agreement. When this approach is used as an estimate for this purpose, it is likely to overestimate the extent to which development finance is Paris-aligned. It is impossible to ensure that all climate-related activities sufficiently fulfil the characteristics of alignment. Moreover, in the context of insufficient nationally determined contributions and long-term low-emissions strategies, it is probable that a significant proportion of climate-related development finance also falls short of fulfilling Paris objectives.

Official development finance figures, both climate-related and non-climate-related, are shown as financial commitments and include the most recent activity-level data (2017) available when this report was being written. These financial commitments are attributed in full to the year they are signed. Amounts are presented in the form of two-year averages to smooth out potential fluctuations.

Providers are required to follow a number of accounting protocols when reporting to the DAC, which governs the allocation and presentation of these resource flows. Most applicable to this report are the accounting measures for sector and purpose code classification and cross-cutting climate objectives. Providers are limited to reporting under only one sector and purpose code per project to avoid the risk of double counting. While many activities are liable to apply across multiple areas, this report examines sectors and purpose codes as the best available indication of the type of activities being supported in recipient countries. When accounting for cross-cutting climate objectives (i.e. climate change adaptation and mitigation), the entire amount of development finance is attributed equally to both objectives. While this allows for equal representation of each objective in these instances, it does not accurately reflect

projects that overwhelmingly contribute to one objective over the other. Development finance presented in this report as “climate change mitigation” or “climate change adaptation” is marked with only one of these respective objectives, while those marked with both are shown as a separate “cross-cutting” category.

Providers included by type

Bilateral

- Australia
- Austria
- Azerbaijan
- Belgium
- Bulgaria
- Canada
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- European Union Institutions
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Japan
- Kazakhstan
- Korea
- Kuwait
- Latvia
- Liechtenstein
- Lithuania
- Luxembourg
- Malta
- Netherlands
- New Zealand
- Norway
- Poland
- Portugal

- Romania
- Russia
- Saudi Arabia
- Slovak Republic
- Slovenia
- Spain
- Sweden
- Switzerland
- Chinese Taipei
- Thailand
- Timor-Leste
- Turkey
- United Arab Emirates
- United Kingdom
- United States

Multilateral

- Adaptation Fund
- African Development Bank
- African Development Fund
- Arab Bank for Economic Development in Africa
- Arab Fund for Economic and Social Development (AFESD)
- Asian Development Bank
- Asian Infrastructure Investment Bank
- Caribbean Development Bank
- Center of Excellence in Finance
- Central Emergency Response Fund
- Climate Investment Funds
- Council of Europe Development Bank
- Development Bank of Latin America
- European Bank for Reconstruction and Development
- Food and Agriculture Organization
- Gavi, the Vaccine Alliance
- Global Environment Facility
- Global Fund
- Global Green Growth Institute
- Green Climate Fund
- IDB Invest
- IFAD
- IMF (Concessional Trust Funds)
- Inter-American Development Bank
- International Atomic Energy Agency

- International Bank for Reconstruction and Development
- International Development Association
- International Finance Corporation
- International Labour Organization
- Islamic Development Bank
- Montreal Protocol
- Nordic Development Fund
- OPEC Fund for International Development
- OSCE
- UN Peacebuilding Fund
- UNAIDS
- UNDP
- UNECE
- UNEP
- UNFPA
- UNHCR
- UNICEF
- UNRWA
- WFP
- World Health Organization
- World Tourism Organization

Survey

Over the course of March and April 2019, the OECD conducted a survey of 22 development co-operation providers including governments and multilateral actors. The survey asked participants about policies, strategies, capacity, operations and finance, and examined co-operation within countries as well as systemic issues with regard to Paris alignment. Participants' associated literature, such as strategies and policies relevant to Paris alignment, augmented the survey responses.

Literature and desk reviews

A review of existing international literature complemented informal consultations on Paris alignment to inform this report. In addition, a desk review of development co-operation providers' published mandates was conducted in July 2019, to complement the survey. These mandates were accessed from OECD peer reviews of DAC members (OECD, 2019[5]) and from the official websites of donors and agencies. This review focused primarily on development agencies and banking institutions that are DAC members, and identified the frequency that climate and/or environment was explicitly included in their mandates.

Expert guidance

Guidance was provided for this report by the OECD DAC; the DAC Network on Environment and Development Co-operation (ENVIRONET); and two advisory groups, the High-Level Advisory Group (Annex A) and the Informal Expert Group (Annex B).

The Development Dimension

The Only Way Forward

ALIGNING DEVELOPMENT CO-OPERATION AND CLIMATE ACTION

Climate change is altering the ecological and social systems that underpin human well-being and economic activity, and developing countries are particularly vulnerable to its impact on the growth and sustainable development prospects of every sector and community. Being part of the solution requires all providers of development co-operation to align their activities with the objectives of the Paris Agreement. However many still lack the mandates, resources, incentives and strategies to do so. This report outlines how providers can make changes at home, in developing countries and in the international development co-operation system, to help create low-emissions, climate-resilient economies, and how they can avoid supporting activities that lock the world into an unsustainable future.

Consult this publication on line at ***https://doi.org/10.1787/5099ad91-en***.

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