THE DEVELOPMENT ASSISTANCE COMMITTEE:
ENABLING EFFECTIVE DEVELOPMENT

Engaging the Private Sector for Green Growth and Climate Action: An Overview of Development Co-Operation Efforts

Naeeda Crishna Morgado and Bérénice Lasfargues

OECD DEVELOPMENT CO-OPERATION WORKING PAPER 34

Authorised for publication by Brenda Killen, Deputy Director, Development Co-operation Directorate

OECD
BETTER POLICIES FOR BETTER LIVES

May 2017

OECD DEVELOPMENT CO-OPERATION WORKING PAPERS

OECD Working Papers should not be reported as representing the official views of the OECD or of its member countries. The opinions expressed and arguments employed are those of the authors.

Working Papers describe preliminary results or research in progress by the author(s) and are published to stimulate discussion on a broad range of issues on which the OECD works. Comments on the present Working Paper are welcomed and may be sent to Liwayway.Adkins@oecd.org, Development Co-operation Directorate, OECD, 2 rue André-Pascal, 75775 Paris Cedex 16, France.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgement of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org.

COPYRIGHT © OECD 2017

Please cite this paper as "Crishna Morgado, N. and B. Lasfargues (2017), "Engaging the private sector for green growth and climate action: An overview of development co-operation efforts", *OECD Development Co-operation Working Papers*, No. 34, OECD Publishing, Paris.

THE DEVELOPMENT ASSISTANCE COMMITTEE:
ENABLING EFFECTIVE DEVELOPMENT

ENGAGING THE PRIVATE SECTOR FOR GREEN GROWTH AND CLIMATE ACTION: AN OVERVIEW OF DEVELOPMENT CO-OPERATION EFFORTS

Naeeda Crishna Morgado and Bérénice Lasfargues

ABSTRACT

The private sector plays an important role in supporting green growth in developing countries. As a result, there is increasing emphasis for development co-operation providers to integrate private sector engagement (PSE) approaches into their programmes on green growth and climate change. This paper provides an overview of activities in this area, estimating that 22% of climate-related development finance supported PSE activities in 2013. It also presents a stock-taking of efforts to: mobilise private climate investment, promote green private sector development and harness skills and knowledge of private actors. The paper highlights some challenges and lessons learned, such as the need for PSE to target a wider range of environmental issues, the importance of investing in integrated approaches to enable the development of pipelines, and the need to align private sector approaches with national contexts. The findings in this paper contribute to the discussion on how development co-operation providers can improve the effectiveness of PSE approaches to promote green growth and climate action, and may be a useful starting point to guide evidence-based policy-relevant research.

Keywords: private sector engagement, climate change, green growth, green investment, climate finance, development co-operation, development finance, private sector development

JEL classification: O13, O19, O44, Q56

ACKNOWLEDGEMENTS

The paper was written by Naeeda Crishna Morgado and Bérénice Lasfargues under the guidance of Jan Corfee-Morlot, with oversight from Nadine Gbossa, OECD Development Co-operation Directorate. Substantive contributions were made by Till Bajohr on the analysis of climate-related development finance flows supporting private sector engagement. The research was conducted under the auspices of the DAC Network on Environment and Development (ENVIRONET). It contributes to the research work of the OECD Centre on Green Finance and Investment.

The paper draws on in-kind contributions, guidance and input from experts in this field, whom the authors would like to thank: Céline Bernadat (Agence Française de Développement), Shannon Kindornay (Carleton University), Merete Pedersen (Denmark), Angelika Frei-Oldenburg, Alexandra Opperman (GIZ), Isabelle Braly-Cartillier, Hilen Gabriela Merovich, Maria Netto (Inter-American Development Bank), Mick Blowfield (International Institute for Environment and Development), Henny Gerner (Netherlands) and Carolina Mayeur Danel (Spain). The authors would like to acknowledge review and comments received from the following OECD secretariat colleagues: Liwayway Adkins, Galina Alova, Wiebke Bartz, Emilio Chiofalo, Paul Horrocks, (Development Co-operation Directorate), Kate Eklin (Development Centre), Raphaël Jachnik, Mariana Mirabile, Robert Youngman (Environment Directorate) and Giovanni Maria Semeraro (Education Directorate).

This paper has benefitted from several rounds of discussion. In particular, it has benefited from insights gained from a collaborative workshop between DAC ENVIRONET and the Donor Committee for Enterprise Development Green Growth Working Group on “Development Co-operation and the Environment: Engaging the private sector for green growth and climate change” in March 2016. It has also benefitted from discussions held at two meetings of the Advisory Group on Investment and Development, a joint forum of the DAC and the Investment Committee, in 2015-16. The paper also draws from and has fed into research conducted as part of the OECD DAC peer learning review on working with and through the private sector, conducted in 2015-16 (OECD, 2016a).

TABLE OF CONTENTS

EXECUTIVE SUMMARY **4**

1. ENGAGING THE PRIVATE SECTOR FOR GREEN GROWTH AND CLIMATE ACTION IN DEVELOPING COUNTRIES: INTRODUCTION AND RATIONALE **7**

Introduction *7*

Rationale for development co-operation providers to engage the private sector for green growth and climate action *7*

Drivers of and barriers to company action on climate change and green growth in developing countries *8*

2. MAPPING DEVELOPMENT CO-OPERATION APPROACHES TO PRIVATE SECTOR ENGAGEMENT FOR GREEN GROWTH AND CLIMATE ACTION **11**

Overview of development partners' approaches *11*

Roles of different actors in private sector engagement for green growth and climate action *19*

3. ANALYSIS OF CLIMATE-RELATED DEVELOPMENT FINANCE FLOWS SUPPORTING PRIVATE SECTOR ENGAGEMENT **23**

Development partners support for private sector engagement related to climate change *23*

Mobilisation of private climate finance as a result of development finance interventions *27*

4. EMERGING INSIGHTS ON CHALLENGES AND LESSONS FROM PRIVATE SECTOR ENGAGEMENT FOR GREEN GROWTH AND CLIMATE ACTION **29**

Ongoing challenges in engaging the private sector for green growth and climate action *29*

Emerging areas of good practice and lessons learned *31*

Research gaps and areas for further work *32*

ANNEX 1: ESTIMATING PRIVATE SECTOR ENGAGEMENT USING CLIMATE-RELATED DEVELOPMENT FINANCE FLOWS **33**

Scope of the analysis *33*

Approach used to estimate private sector engagement *33*

Limitations *36*

REFERENCES **39**

EXECUTIVE SUMMARY

The Sustainable Development Goals and the Paris Agreement on climate change reconfirm that the remarkable gains in global growth and development achieved in recent decades will be threatened without all countries tackling climate change and promoting environmental sustainability. Transitioning to a low-carbon, climate-resilient and sustainable development pathway will require significant finance and investment in developing countries, and moreover, a major shift in the way both the public and private sectors invest. To support partner countries in achieving their Nationally Determined Contributions (NDCs) and pursuing green growth, development co-operation providers will need to better engage with the private sector to mobilise resources, innovation and know-how. This paper contributes to the emerging literature on how development co-operation providers are working with and through the private sector to promote development outcomes. With a focus on green growth and climate change, the paper provides a broad overview of private sector engagement (PSE) approaches used by development co-operation providers, discusses ongoing challenges, and highlights emerging areas of good practice.

There is clear recognition across the development co-operation community of the critical role that private sector actors can play in developing countries to promote green growth and climate action. The challenge is great, as much of the infrastructure investment needs in coming decades will be in emerging and developing countries. Beyond investment in low-carbon, climate-resilient infrastructure, investments will be needed in green and inclusive business models and in products and services that tackle the degradation of natural capital. In these areas, multinational companies, small businesses and investors can promote green supply chains and lead innovation in clean technologies and resource efficiency. At the same time, businesses can also be drivers of negative environmental outcomes through their impacts on pollution and habitat degradation, especially in countries where national safeguards policies and governance need strengthening. Public support and advice – including from development co-operation providers – plays a critical role to catalyse, leverage and guide private investment towards investment that supports green growth and climate action.

Providers use a range of approaches to engage private actors and address climate change and promote green growth

Development co-operation providers are engaging with private sector actors to address environmental issues, especially climate change. In 2013, around 22% of climate-related development finance recorded by the OECD Development Assistance Committee (DAC) - or USD 9.5 billion - supported activities to engage the private sector. The majority of this support was channelled through bilateral and multilateral development finance institutions (DFIs) - specialised agencies and operations set up to engage with the private sector for development.

Policy frameworks play a critical role in mobilising investment in green sectors such as renewable energy or energy efficiency, and in screening and mitigating the environmental impacts of investment projects in developing countries. Development co-operation providers play an important role in working with partner countries to **improve the enabling conditions for green investment**. This includes, for example, policy reforms such as helping phase out fossil fuel subsidies, which in turn increases the profitability of clean energy investment and the potential for instruments such as feed-in tariffs to promote renewable energy technologies. More broadly, this support also goes towards building much needed institutional and technical capacity in partner country governments and institutions, which enables governments to mobilise and sustain green investment.

As part of their efforts on green private sector development, development co-operation providers also support efforts to improve the environmental performance of businesses in partner countries. Small businesses, in particular, face several barriers in adopting environmentally friendly practices including a

lack of capacity and access to tools needed to 'green' their businesses, poor access to finance for greener technologies, and inadequate awareness of the business case for increasing efficiency and improving resilience. Emerging approaches by development partners take a 'market systems' approach to promote green growth by encouraging the development of green value chains and markets for green products and services. An example of this is the Promotion of Green Economic Development (ProGED) programme in the Philippines, supported by Germany, which works with the Department of Trade and Industry to raise awareness of green economic development, promotes green value chains through facilitation and matchmaking services, and supports the policy framework in the country.

Development co-operation providers and governments also use financial instruments **to mobilise green investment and private climate finance**, such as the use of blended finance approaches to de-risk private finance for renewable energy technologies and low-carbon transport infrastructure, where risks (e.g. political, regulatory, macroeconomic, commercial) reduce returns on investment. In addition, development partners are also increasingly using grant financing in a more 'catalytic' way, e.g. through matching grant schemes requiring private co-finance, in order to support particularly innovative companies and technologies, that could play a role in climate change mitigation and adaptation, and that would otherwise not have access to finance. One emerging trend in this area is the increased use of green credit lines, provided through local financing institutional and national development banks, targeting the uptake of green technologies. In the case of JICA's Financing Scheme for Energy Savings Projects in India, for example, a loan to the Small Industries and Development Bank of India (SIDBI) supports micro, small and medium-sized enterprises' (MSMEs) investments in environmental improvements and energy efficiency.

Development partners also engage in direct partnerships with the private sector in order to **harness skills and experience** to address environmental and climate-related issues, such as through dialogues and policy discussions as well as through more formalised co-financing partnerships or special developed tools. One example is the Swedish Leadership for Sustainable Development platform, through which Sida, the Swedish development co-operation agency, facilitates a network of 26 Swedish companies that meet regularly in Sweden to discuss opportunities to promote 'global leadership' in addressing sustainability issues.

Growing experience in this area has highlighted ongoing challenges and lessons learned

While the need to engage the private sector is clearly recognised across the development community, recent experience and emerging literature on the topic of PSE for green growth topic highlight challenges, issues and some lessons learned.

Private sector engagement needs to go beyond the 'low-hanging fruit' and target a range of environmental issues and countries. The focus of private sector approaches has been, unsurprisingly, mostly in upper middle income countries and in sectors where there is a clear business case and potential for returns, i.e. renewable energy and to a smaller extent energy efficiency. The analysis of climate related development finance in 2013 in this paper shows that the majority of development co-operation support went to projects in middle income countries and was deployed toward climate change mitigation (around 80%), supporting activities in the energy sector such as the development of renewable energy projects. In order to expand efforts in other areas – such as sustainable forest management and climate change adaptation – and in more challenging lower income countries, there is a need to further develop, pilot, document and scale up innovative ways to engage the private sector.

Efforts are needed to build a stronger evidence base of what works and what doesn't. There is a general lack of evidence on the extent to which private sector engagement efforts have resulted in wide-ranging environmental impact and results, beyond the mobilisation of private investment. There is also a need to clearly identify what constitutes effective private sector engagement approaches in development co-operation for the environment. In the case of climate action, the focus on mobilising private climate finance has been driven largely by the United Nations Framework Convention on Climate Change

negotiations which have resulted in high visibility for tracking the amounts of private capital mobilised, but less attention to the effectiveness and impacts of these efforts. In addition, development co-operation providers' efforts to improve the environmental performance of businesses increasingly involve working through intermediaries such banks, business and professional associations, and companies with extensive supply chains. While this approach may be a necessary and effective way of reaching out to companies, especially small and medium-sized enterprises, it leads to significant difficulties in monitoring and verifying environmental impacts and outcomes. The lack of consistent monitoring is compounded by issues related to attribution of impact and to the establishment of baselines for the analysis.

Alignment with country contexts and priorities is important for longer term scale up. Efforts to mobilise private investment and work through the private sector should be aligned with local contexts and priorities e.g. through NDCs and national adaptation plans (NAPs). Some development co-operation providers combine private sector engagement for development with efforts to promote their own private sector in developing countries. While this may be effective in delivering environmental benefits at a project level, such as fuel savings or reduced emissions, it could have implications for the efficiency of the project (e.g. in terms of promoting the most affordable clean technologies in partner countries, rather than those from the donor country). It could also affect the overall development effectiveness of the activity, by limiting national ownership, and in turn longer term scale up of the project.

There is a need to scale up innovative approaches and develop project pipelines. While there are several examples of successful, innovative ways to engage the private sector in promoting green growth, there is still a need to scale up such approaches and develop bankable projects. Building a pipeline can be facilitated by integrated approaches, which support the demonstration of business models and develop projects on one hand, while also supporting the policy frameworks in developing countries, on the other hand. Another challenge is the tension between the innovation process and the scaling up phase. While concessional financing and grants are needed to pilot and demonstrate the business case for green growth, as well as replicate these business models to lower transaction costs, these will only lead to scale up of approaches if they are defined with clear and time-bound exit strategies.

Areas of good practice are also emerging

With increasing experience in this area, some areas of good practice are emerging:

- In order to engage private sector companies in partner countries where there may be a lack of awareness and understanding of environmental issues, development providers need to **'speak the language' of the private sector** i.e. focus on the benefits of improving environmental performance such as increased competitiveness, reduced costs and exposure to risks, rather than environmental benefits

- Private sector engagement approaches for green growth need to be centred on a good **understanding of demand from the private sector** for support from development co-operation providers. This support should target the major barriers companies face in pursuing green growth in developing countries.

- In order to drive lasting positive environmental change, private sector engagement approaches need to **promote sound business models for environmental protection** i.e. approaches that deliver environmental outcomes, are financially feasible and create jobs and good quality employment.

- In order to scale up successful project cases, it is important to **promote integrated approaches** - i.e. support towards policies and regulations for climate change and the environment, as well as tools / instruments to leverage green private investment.

1. ENGAGING THE PRIVATE SECTOR FOR GREEN GROWTH AND CLIMATE ACTION IN DEVELOPING COUNTRIES: INTRODUCTION AND RATIONALE

Introduction

International agreements, such as the 2030 Agenda for Sustainable Development, the Addis Ababa Action Agenda and the Paris Agreement on climate change all strongly emphasise the critical role for the private sector in achieving development outcomes, both as a source of finance as well as know-how (UNFCCC, 2015; UN, 2015). There is also clear recognition across the development co-operation community of the central position private sector actors can play in supporting the implementation of Nationally Determined Contributions (NDCs) – as drivers of green growth in developing countries, promoters of green supply chains, as a source of investment in low-carbon, climate-resilient infrastructure, and as leaders in innovation in clean technologies and resource efficiency. In recognition of this, the OECD Development Assistance Committee is looking at the lessons learned and best practice experiences from efforts to engage the private sector for development outcomes, more broadly, and in relation to green growth and climate change, in particular (OECD, 2016a).

This paper presents a broad stock-taking of the range of approaches that development assistance providers use to engage the private sector to promote green growth and address climate change, and outlines initial challenges and lessons learned. The first chapter provides the context, and describes why development co-operation providers are engaging the private sector, and what issues they address with their support. The second chapter maps development partner approaches – it discusses key concepts and adopts a framework to understand policy objectives, it presents examples of activities, and finally, it highlights the roles of different development co-operation actors. The third chapter presents an analysis of climate-related development finance flows supporting private sector engagement, highlighting the geographies of private sector engagement according to sector, provider, income of the recipients and aim (mitigation vs. adaptation). The final chapter discusses the main challenges and opportunities, and identifies areas where further analytical work could contribute to enhancing donor activities of development co-operation provider to engage the private sector.

Rationale for development co-operation providers to engage the private sector for green growth and climate action

There is a need to scale up investment - both public and private - for the SDGs and climate action

Transitioning to green growth pathways will require significant finance and investment in developing countries, and more importantly, a major shift and scale up in the way both the public and private sectors invest. The expected infrastructure financing gap in developing countries over the next two decades is a good illustration of the scale of resources still needed. McKinsey (2016) estimates that USD 3.3 trillion per year between 2016 and 2030 needs to be invested in infrastructure in accordance with expected rates of growth, 60% of which will be in emerging economies. These needs are currently partially met, with an annual investment gap estimated at USD 350 billion (McKinsey, 2016). If we consider infrastructure investment needs consistent with the Sustainable Development Goals (SDGs), the gap triples (McKinsey, 2016). According to NCE (2016), USD 4 trillion per year needs to be invested in infrastructure over the next 15 years. However, incremental costs for low-carbon, climate-resilient infrastructure are relatively low and at around 5% of investment requirements for new and upgraded infrastructure (NCE, 2014). The private sector – including financiers from capital markets but also firms - could help bridge part of the financing gap for sustainable infrastructure. In particular, institutional investors' capital (e.g. pension funds, sovereign wealth

funds, insurance companies and investment funds) is large and underutilised. OECD (2014a) estimated that such investors in OECD countries held USD 92.6 trillion in assets in 2013, but that their investments to sustainable energy infrastructure were minimal. Beyond sustainable infrastructure, investments will also be needed in new green products, services and business models (e.g. water recycling).

Among the different sources of finance for the SDGs and Paris Agreement, the relative share of official development assistance has been on the decline over the last two decades, compared to other official flows of development finance, foreign direct investment and remittances (OECD, 2014b). When considering the balance between public and private resources for climate change specifically, the private sector is already the major source of climate finance globally while public finance plays a critical role to catalyse, leverage and guide private investment. In the case of investment for renewable energy, for example, Haščič et al. (2015) estimates that investment from the private sector was almost 5 times higher than investment from the public sector between 2000-12. The paper also estimates that the majority of private climate finance is employed within developed countries, suggesting the discrepancy is partly due to a difference in maturity of the financial services industry between different income groups. Domestic resources were also estimated to far outweigh cross-border investment for renewable energy, which highlights the need to strengthen domestic policy frameworks for low-carbon and climate-resilient investment in partner countries. Similarly, Buchner et al. (2015) estimates that private climate finance was 1.64 times higher than public climate finance in 2014.

Companies and businesses are drivers of environmental change in developing countries

Besides being a source of finance for sustainable development, businesses also play several important roles in delivering development outcomes. Private sector companies and entrepreneurs are a major source of innovation to help achieve growth without further damage to the environment. Private businesses are also an important channel and target of implementation for development projects and activities, where their business networks and links provide unique avenues of influence and embed established understanding of local needs, capabilities and requirements. In addition, businesses are drivers of negative and positive environmental change in developing countries. As a result, efforts to address environmental concerns can be more effective if done by engaging businesses and private companies. For example, agricultural investments involving large scale land acquisition in developing countries have had significant negative impacts in the form of land degradation and deforestation, especially in countries with weak governance systems (FAO, 2013). However, efforts by agricultural companies to green supply chains can also be very effective in driving stronger environmental management by subcontractors in developing countries and effectively applying 'supply chain pressure'. The situation is similar for small and medium-sized enterprises (SMEs). The IEA (2015) estimates that SMEs account for 13% of final energy consumption annually, but also, energy efficiency measures among SMEs with best available technologies could result in significant savings in final energy consumption in the order of 10 to 30% globally.

Drivers of – and barriers to – company action on climate change and green growth in developing countries

The context and challenges faced by companies, investors and businesses in acting on climate change and green growth is the first step to designing effective private sector engagement approaches and tools. These challenges vary widely, and depend largely on the size of the company as well as the context within which it operates.

Addressing environmental issues is key to a new way of doing business

Climate change and the environment are featuring more prominently on the agenda of businesses. The scale and extent of private sector involvement in and support for the Paris Agreement is a recent illustration of this. Two examples of commitments made by companies at COP 21 include the Science Based

Targets initiative, which saw 144 companies commit to set targets in line with the overarching 2° C temperature goal of the Paris Agreement, and the Paris Pledge for Action or 'L'Appel de Paris', which united 400 businesses and 120 investors with other non-state actors in committing to support the delivery of the Paris Agreement (Science Based Targets, n.d.; COP 21, 2015). The Global Commission on Business and Sustainable Development, headed by Unilever, highlights why companies need to engage in delivering the SDGs: economic benefits from new markets and innovation, risks to business performance and stability, and the necessity to work closer with the government and other stakeholders in the future (Business and Sustainable Development Commission, n.d.).

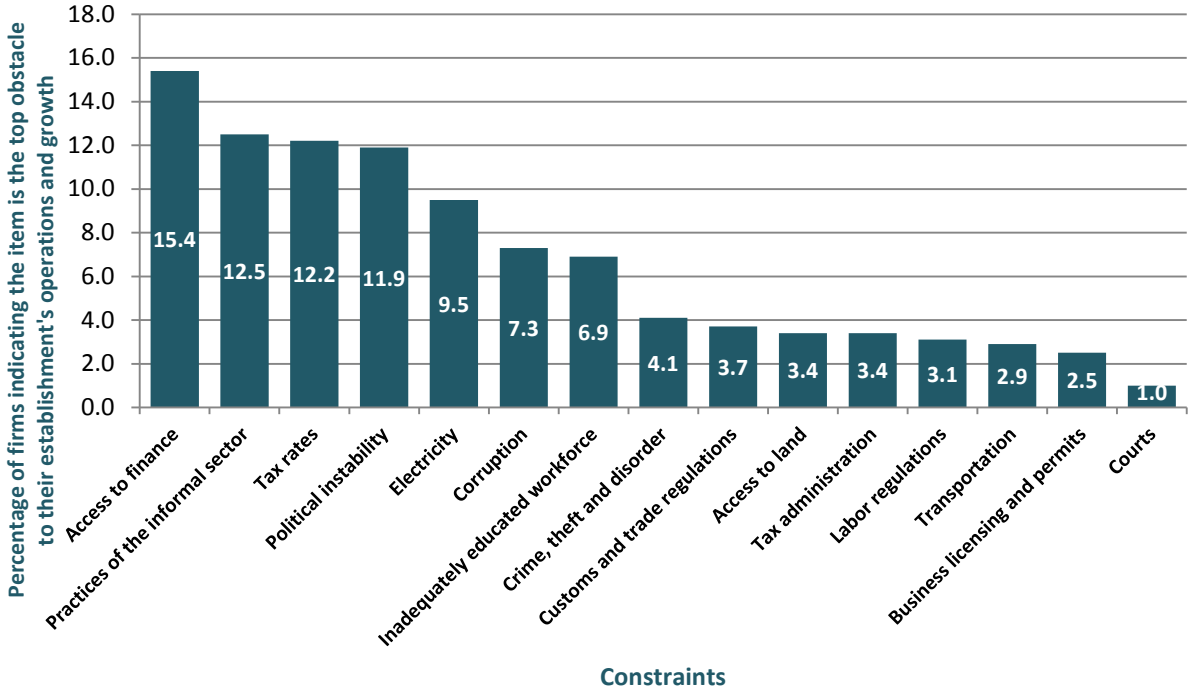
Addressing global environmental challenges is being seen as key to managing business and investment risks and ensuring stable growth. In a well-publicised speech before COP 21, the Governor of the Bank of England identified three categories of risks to financial stability from climate change: physical risks, liability risks and transitions risks. Physical risks are risks to companies and insurance providers from damages to property (e.g. companies in vulnerable areas) and disruption to trade (e.g. non-resilient value chains). Liability risks are risks to high carbon emitters if they are made to compensate in the future for emissions produced today or to companies that have failed to adapt to physical risks that threaten to disrupt their supply chain. Transition risks are risks arising from changes in policy and regulation as a result of the transition to a greener economy that could affect the profitability of carbon-intensive industries (Carney, 2015).

Promoting green growth is in the business interest of companies by reducing costs and diversifying business and investment opportunities. Reducing resource use and measuring environmental performance is an opportunity to streamline operations, increase efficiency and competitiveness. The need for innovation and new green and inclusive business models also provides an opportunity for companies to contribute to green growth and climate action on a profitable basis, by developing new products and services, diversifying their business streams, as well as reaching new targets. A survey of the heads of 'Caring for Climate' members, a coalition of businesses under the UN Global Compact, found that over half viewed climate change as a driver of growth and innovation in their companies over the next five years (UN Global Compact/Accenture, 2015). Furthermore, green sectors have experienced higher-than-average growth rates over the last few years; for example, the 'green and renewable energy' sector ranks first globally in compounded annual growth rates (CAGR) in revenues by sectors over 2012-2017, as shown by NYU Stern which tracks historical CAGR in revenues and net income by sectors. In the same time span, the total global market CAGR in revenues was 6.45% for comparison (NYU Stern, 2017).

Access to finance and awareness continues to hamper small companies

A lack of access to finance hinders efforts to investing in clean technologies and environmental solutions among businesses in developing countries. According to data from the World Bank Enterprise Surveys from 2010-2017 in developing countries, access to finance is the foremost barrier to firm development (World Bank, 2017; Figure 1.1). These financial constraints are exacerbated for green growth and climate action in which the private sector is sometimes reluctant to invest, in part, to a lack of proven and readily available business models or a failure to understand the business case. Development co-operation can address both the demand side and offer side of the access to finance equation. On the one hand, it can stimulate demand for clean technologies, for example, by raising awareness and demonstrating the business case. On the other hand, it can also address the offer side of the problem by increasing capital availability and adequacy for private sector projects dealing with green growth and climate action (e.g. small-scale adaptation-related projects, innovative green growth projects), through direct financing (e.g. grants, challenge funds), risk sharing mechanisms which improve the risk-return profile of investments (e.g. guarantees), provision of medium to long-term finance to cover the longer payback of relatively new green technologies, etc.

Figure 1.1. Top business environment obstacle to private sector operation and growth in developing countries



Note: The graph represents the global average for upper middle income, lower middle income and low income countries and is based on World Bank Enterprise Surveys posted during 2010-2017. The global average is computed by taking a simple average of country-level point estimates. For each economy, only the latest available year of survey data is used in this computation. The methodology for the surveys is available at: www.enterprisesurveys.org/~/media/GIAWB/EnterpriseSurveys/Documents/Misc/Indicator-Descriptions.pdf.

***Source*:** World Bank (2017).

Improving awareness - especially among small companies - on green growth and climate action

Small businesses are often not sufficiently aware of the impacts of climate change and environmental degradation, lack the knowledge and capacity to tackle these impacts, or sometimes seem unwilling to hedge against the risks they represent (Agrawala et al., 2011; Biagini and Miller, 2013). Development co-operation can assist the private sector in identifying risks and opportunities presented by green growth and the transition to a low-carbon, climate-resilient economy, as well as disseminate knowledge and stimulate preparedness on these topics.

2. MAPPING DEVELOPMENT CO-OPERATION APPROACHES TO PRIVATE SECTOR ENGAGEMENT FOR GREEN GROWTH AND CLIMATE ACTION

Overview of development partners' approaches

Concepts and definitions

Several comprehensive studies exist on how development co-operation providers work with and engage the private sector for development in general. One clear finding is that there is currently no clear typology among the terms and definitions used to describe these activities. The ambiguity extends from terminology used to describe types of activities ('private sector engagement', 'private sector collaboration', 'private sector partnerships', 'private sector co-operation', 'private sector development'), to the approaches used, the roles of different development actors, and the definition of the private sector itself (Di Bella et al., 2013; Vaes and Huyse, 2015). To understand the breadth of development partners' activities in this area, this paper adopts a framework and working definitions of key terms (Box 2.1), based on the existing literature on development provider's engagement with the private sector.

Box 2.1. Working definitions of key terms

Private sector: Organisations that engage in profit-seeking activities, and have a majority private ownership (i.e. not owned or operated by the government). Includes, *inter alia*, financial institutions and intermediaries, multinational companies, small, and medium-sized enterprises, cooperatives, individual entrepreneurs, and farmers which operate in the formal and informal sectors. This definition excludes actors with a non-profit focus, such as private foundations.

Private sector development: Activities carried out by governments and development organisations with the objective of promoting the private sector in partner countries. Includes activities to create an adequate enabling environment for private sector growth, such as promoting a conducive policy environment, addressing market imperfections (e.g. through value chain development) as well as direct firm-level interventions (e.g. capacity building, access to finance and markets).

Private sector collaboration and partnerships: Direct collaboration between governments, development partners and the private sector that aim to promote the twin goals of enhancing companies' core business activities while meeting development outcomes. Such partnerships could involve companies from the partner country, donor country or elsewhere.

Private sector engagement: Activities with the aim of engaging the private sector for development outcomes, which involve the active participation of the private sector in the activity. This term refers to private sector collaboration and partnerships, as well as private sector development activities in partner countries where the private sector is actively involved in the project.

***Sources*:** Di Bella et al. (2013); Heinrich (2013) and Garside et al. (2016).

A three-pronged framework for understanding development partners' approaches

Recognising the different roles the private sector plays in development, Kindornay and Reilly-King (2013) describe the main objectives for development partners to involve the private sector in development projects as: i) *promoting private sector development* in partner countries in order to achieve overall

development outcomes, and ii) *partnering with the private sector* to mobilise financial resources and know-how. The main difference in these two objectives is the expectation of what the private sector brings to development co-operation programmes. In the first, the private sector is the beneficiary and focus of development co-operation efforts (within the wider context of promoting development), while in the second, the private sector is expected to provide resources (financial or non-financial) and partner with development co-operation providers in order to achieve the programme's aims. Building on this distinction, Figure 2.1 presents a framework to describe development partners' objectives in engaging the private sector for green growth and climate action: to promote green private sector development, to mobilise green investment and to harness skills and knowledge for climate change and green growth. These three objectives are not mutually exclusive as development partners' activities to engage the private sector often target multiple objectives.

Figure 2.1. How development partners engage the private sector in environment-related activities

***Source*:** Adapted from Kindornay and Reilly-King (2013).

Promoting green private sector development

Development partners promote green private sector development in developing countries as a way of supporting sustainable and inclusive growth. Within this area, development partners are working at three levels (Kindornay and Reilly-King, 2013, Di Bella et al., 2013). At the *macro level,* development partner programmes strengthen the enabling environment or investment climate (i.e. development of policies, regulations and institutional frameworks) that supports the greening of the private sector and green investment, by supporting the design of policies and building the in-country capacity of government agencies and other involved stakeholders and institutions. This is an important area of support, as the effectiveness of project level development finance interventions, in mobilising private investment over time and in ensuring delivery of intended environmental and social outcomes, is largely dependent on the right policy framework being in place in developing countries. Such a policy framework needs to be 'investment-friendly' overall, and also have in place certain additional elements to ensure that it is conducive to green. These include: a strong commitment at both the national and international levels to support and mobilise private investment for green growth; policies and regulations to provide a level playing field for more environment-friendly investments; policies to encourage more environmentally responsible corporate behaviour; an institutional capacity to design, implement and monitor policies to foster green growth objectives; financial mechanisms for green investment; and policies to support private sector involvement in green projects (Corfee-Morlot et al., 2012; OECD, 2015a). The targeted use of official development finance is particularly relevant to set the right incentives (e.g. fiscal, economic, legislative, etc.) to improve business

practice related to the environment. In particular, since some green sectors operate in highly regulated markets (e.g. energy), development finance could support opening up markets for private actors or help set regulatory environment conducive for private investments in these sectors. Some examples of how development co-operation providers are supporting the enabling environment for green investment in a country are illustrated in Box 2.2; research on this area of development co-operation support is ongoing (e.g. DCED Green Growth Working Group).

Box 2.2. Development partner support for the enabling environment for green investment in Viet Nam

Addressing climate and green growth challenges in Viet Nam provides significant opportunities to mobilise green investment, particularly in the energy and transport sectors. The need for clean infrastructure, particularly solar and wind energy, and the potential for energy efficiency and technological innovation, provide entry points for private sector participation. Increasing demand for environmental services, such as waste and water management, also create opportunities for private investment, both foreign and domestic.

While Viet Nam has made much progress in putting in place policies and targets for green growth and climate change in recent years, several challenges remain, as highlighted in an upcoming OECD Investment Policy Review of Viet Nam. Energy policies include provisions for feed-in-tariffs, but these are largely deemed to be too low to attract private investment. A lack of institutional capacity and human resources in key policy and decision making units related to environment acts as a barrier to mainstreaming of environmental targets across sector policies and plans, especially energy. Indirect fossil fuel subsidies support and incentivise state-owned enterprises in the energy sector which are investing in fossil fuels, and capped fuel prices mean that renewable energy and energy efficiency investments are not always viable.

In recognition of these challenges, development partners have been supporting the enabling environment for green investment in Viet Nam, both at the policy level and at the project level. According to OECD DAC statistics, in 2014, just over USD 1.5 billion in development finance flows supported climate change projects in Viet Nam, with around half (47%) focusing on climate change mitigation, a third supporting climate change adaptation (34%) and the rest supporting both mitigation and adaptation. Support for Viet Nam's policy framework for green investment has included **enhancing the capacity of key ministries to implement Viet Nam's Green Growth Strategy** (VGGS). For example, the Macro-economic Reforms / Green Growth Programme in Viet Nam, implemented by GIZ on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) is supporting the ministries of planning and finance to implement their green growth objective, including providing technical advice to strengthen green fiscal reform and develop green finance guidelines for the State Bank of Viet Nam. Similar support from UNDP and USAID, as well as from the Global Green growth Institute, are helping to implement the VGGS at the sector and province level, by supporting the Ministry of Planning and Investment (MPI) to track and monitor progress on the VGGS and develop province-level action plans for green growth.

Several development partners are also **strengthening sector policies and incentives to mobilise private investment**. GIZ's Support for Scaling Up Wind Power programme (implemented on behalf of BMZ), for example, is working with government and non-government stakeholders to refine and develop the policy framework for wind power in Viet Nam by providing technical advice and analysis to the government to enable refinement of the feed-in-tariffs for wind and solar energy. The programme is also helping to develop vocational and academic training to develop the skills required to operate and use wind power.

In addition, development partners are supporting **demonstration of green technologies and piloting incentive mechanisms** at a small scale. Denmark's Low Carbon Energy Efficiency Project and Green Investment Facility is providing guarantees to SMEs in the ceramics and brick industry to enable them to invest in energy efficiency. The project is also supporting the government to develop and implement a new building energy code to promote energy efficiency in buildings.

Sources: OECD (forthcoming); GIZ (n.d. a); GIZ (n.d. b); KfW (2015); UNDP (2016) and World Bank/MPI (2016).

At the *meso level*, development co-operation providers support the development of markets that contribute to green growth. This includes, for example, promoting the development of green value chains and markets for green products and services or building up green business development service providers. Green value chain development programmes often combine approaches in order to catalyse change across various levels – development partners support environmental appraisals and feasibility studies, conduct pilot projects and also raise awareness and build the capacity of stakeholders along the value chain in order to reduce environmental impacts while ensuring business opportunities (FAO/FiBL, 2015). An example of such a project is the Promotion of Green Economic Development (ProGED) implemented by GIZ on behalf of BMZ in the Philippines (Box 2.3). Development co-operation's support for market conditions can also take the form of encouraging good practices with standard contracts and verification of quality or providing the private sector with the confidence to invest in green growth by insuring the monetization of environmental results. One example of the latter is IDB's Energy Savings Insurance model which provides compensation to firms if projected financial savings associated with specific energy efficiency technologies are not realized.

Box 2.3. Promotion of Green Economic Development programme in the Philippines

In the Philippines, micro, small and medium-sized enterprises (MSMEs) account for 99.6% of all registered businesses and contribute more than 60% of employment and 35% of GDP. The country is one of the most affected by climate change — the 2016 *World Risk Report* ranks it third most at risk worldwide — and has been prone to more frequent and severe extreme weather events over the years. Due to their limited resources and sensitivity to price and availability of supplies, MSMEs are especially susceptible to the effects of climate change.

Therefore, to encourage MSMEs to adopt green, climate smart and inclusive strategies and measures, GIZ on behalf of the German Federal Ministry of Economic Cooperation and Development (BMZ) launched the Promotion of Green Economic Development (ProGED) programme, in partnership with the Philippines' Department of Trade and Industry in 2013. ProGED uses a three-dimensional results framework to guide project implementation which centres on i) raising awareness, gathering information and recognising best practices on green economic development, ii) greening value chains through green service facilitation and matchmaking and iii) establishing local and national green policy frameworks. In its first phase, the programme focused on the tourism sector.

***Sources*:** Alliance Development Works/UNU-EHS (2016) and GIZ (2015a).

At a *micro-level* development partners are working to improve the environmental performance of businesses in partner countries. These efforts include promoting new business models for sustainable growth and entrepreneurship, influencing business behaviour – for instance, by promoting corporate social responsibility (CSR) activities – and improving access to finance to encourage uptake of green technologies (DCED, 2014). Box 2.4 presents some initial lessons learned from development provider efforts to work with small businesses. For climate change adaptation, development partners support projects that are building resilience capacity and piloting risk transfer approaches among firms, as well as building awareness of the risks of impending climate change on business supply chains in developing countries (Trabacchi and Mazza, 2015). One example is the "Private Sector Adaptation to Climate Change" (PSACC) programme implemented by GIZ on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ), whose four-pronged approach focuses on raising awareness, providing advisory services (including on vulnerability analysis and adaptation financing), capacity building and dissemination of knowledge (GIZ, 2015a, 2015b). As part of the program GIZ co-operated with Adelphi to launch the Climate Expert website to make available tools and instruments to build adaptation capacity in the private sector (GIZ, 2017).

Box 2.4. Initial lessons learned from greening small and medium enterprises

Small businesses are considered the engine of growth, particularly in developing countries, where much economic activity takes place in the informal sector. In Asia, for example, micro, small and medium-sized enterprises make up 98% of all enterprises and employ 66% of the workforce (Asian Development Bank, 2014). SMEs act as a supplier of and investor in green technologies and services, and at the same time, these enterprises are particularly vulnerable to the effects of environmental deterioration. At a very broad level, development co-operation providers use targeted approaches to address two main barriers faced by SMEs: limited access to finance and a lack of awareness of costs and benefits of addressing environmental issues.

Much can be learned from development co-operation approaches that have been successful in reaching small and medium-sized enterprises and influencing their behaviour. The Green Growth Working Group of the Donor Committee for Enterprise Development (DCED) has brought together lessons learned in *Green Growth and Private Sector Development: Stocktaking of DCED Experiences* (DCED, 2014). For example:

- Small businesses will often engage in green growth to benefit from the financial benefits and cost savings, rather than for environmental reasons. For example, small businesses that engaged in an Asia-wide program on sustainable production and consumption did so to improve their competitiveness and reduce costs (EU Switch Asia Network Facility, 2013).
- Many micro, small and medium-sized enterprises have limited capacity to invest in green interventions, despite the potential to save costs, and are also reluctant or incapable to invest without a clear demonstration or assurance of potential benefits, such as an externally validated study or an energy saving insurance.
- While access to finance is often a barrier to uptake of green interventions, other factors are also important: interventions need to involve awareness raising and capacity development within local financial institutions, as well as entrepreneurial capacity building among the enterprises themselves.

Source: OECD (2016b).

Mobilising investment for green growth and climate change

Within the context of climate finance, much effort has gone to cataloguing public sector experience in mobilising private investment (Venugopal et al., 2012; Whitley, Chiofalo and Barnard, 2014; OECD, 2015a; 2015b; Cochran et al., 2014). Investors face several barriers when investing in green growth, particularly in the context of infrastructure projects, including the real and perceived risks of investing in developing countries, lack of medium-term to long-term finance, and a lack of bankable projects. Bilateral and multilateral development finance providers use a range of instruments to encourage the scale up of renewable energy and green technologies or to mitigate the risks of green investment in low-income countries. The main groups of 'private sector instruments' used by development finance providers are as follows (OECD, 2016a; 2014c):

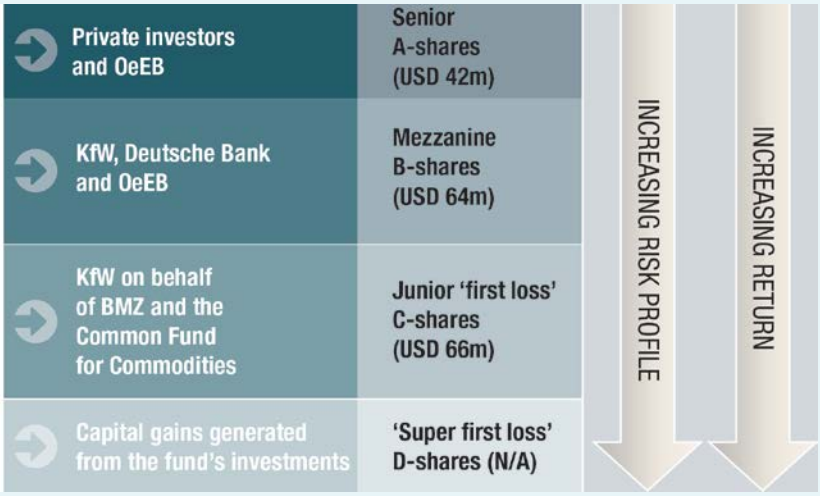
- *Debt instruments,* including loans, bonds, asset-backed securities and reimbursable grants. This includes syndicated loans, that bring different types of finance together to generate larger financial packages or more attractive loan terms
- *Equity and shares in pooled vehicles / funds*
- *Guarantees*, that help mitigate risks for investors and improve the financial viability of green projects
- *Mezzanine finance instruments*, which shares risks amongst different investors and attracts private financing to a project (Box 2.5).

Box 2.5. Blended finance facilities: multifaceted approaches resulting in positive results for development co-operation providers, investors and communities

The concept of blended finance - the strategic use of public finance to mobilise private investment - came to prominence over the past decade as a means to unlock wider resources for development, in a context of limited public budgets (OECD/WEF, 2016). Blended finance facilities can be structured in a variety of ways and include, for example, structured debt funds with a waterfall structure (e.g. European Fund for Southeast Europe, Africa Agriculture and Trade Investment Fund), challenge funds (e.g. Africa Enterprise Challenge Fund) and multi-donor funds of funds (e.g. Global Energy Efficiency and Renewable Energy Fund).

An example of a blended finance facility using a 'cascade' approach is the Africa Agriculture and Trade Investment Fund (AATIF). The USD 172 million public-private structure debt fund is administered by Deutsche Bank and targets sustainable agriculture investments in Africa. The capital structure of the fund is made of several tranches of different size, risk-return profile and maturity as follows:

- The German Federal Ministry for Economic Cooperation and Development (BMZ) invests, through KfW, in the most junior tranche known as C-shares. The C-shares provide public 'first loss' capital which serves as a catalytic risk buffer to encourage private investment in more senior share classes.
- Deutsche Bank, the Austrian DFI OeEB, and KfW are investors in the mezzanine B-tranche.
- Private investors and the Austrian DFI OeEB invest in the senior A-shares.



A, B and C-shareholders are also potentially protected by a D-share layer, made of capital gains generated by the fund's equity investments, which provides 'super first loss' capital. To-date, there has been no issuance of D-shares, since AATIF has yet to have made equity investments. AATIF's loan portfolio encompasses loans of different sizes (USD 0.25 to 30 million) and maturity (3 to 5 years). Furthermore, loans were extended to a diverse set of entities (e.g. sovereign and supranational entities with differing credit ratings). Projects chosen by the fund need to meet AATIF's social and environmental safeguards and most projects benefit from a technical assistance facility. The facility was created to maximise the development impact of projects through project preparation activities such as feasibility studies, research support, employee training or the implementation of environmental and social management systems.

Building on AATIF's experience, Deutsche Bank announced the creation of the Universal Green Energy Access Program (UGEAP), a blended finance fund which aims to finance clean energy solutions in sub-Saharan Africa in September 2016. UGEAP – administered by Deutsche Bank with GCF as anchor investor – has the ambition to reach USD 500 million.

***Sources*:** OECD/WEF (2015); Convergence (2015); AATIF (2014); Deutsche Bank (2016) and NCE (2016).

In addition to the instruments above, development partners are also increasingly using grant financing in a more 'catalytic' way, e.g. through matching grant schemes, in order to support particularly innovative companies and technologies that would otherwise not have access to finance. One example of such an approach are "challenge funds" that provide grant financing through an open competition for businesses; this in turn spurs the development of innovative solutions to targeted issues - in this case environmental issues (Pompa, 2013; Box 2.6). Such funds usually require matching private sector funds to ensure the grant is catalytic to attract other investors and that financial risks are shared between partners.

In mobilising private investment, some development finance providers are increasingly integrating financial intermediation into their approach; for example, financial intermediation increased from representing 40% of IFC's portfolio in 2011 to 62% in 2014 (CAO, 2014). Another example is IDB and IIC's work to provide long-term finance at concessional terms through national development banks and loans to commercial banks. Working through financial intermediaries presents both opportunities and risks for development finance providers: on one hand, development partners can enhance the ability of local banks and financial intermediaries to support green investments through knowledge sharing, technical assistance, and the establishment and enforcement of strong environmental safeguards. On the other hand, poor vetting of private local partners, inadequate enforcement of environmental safeguards and insufficient accountability on the part of development finance end-users can lead to a lack of tangible positive environmental impacts, if not actually produce negative outcomes (Oxfam, 2015). Box 2.7 highlights one type instrument used in financial intermediation i.e. credit lines.

Box 2.6. Using competition to strategically disburse development partners' funds: the case of challenge funds

A challenge fund is a financing vehicle that uses competition to allocate funds to innovative and high-impact development projects. Challenge funds' financial contribution to a project is usually small compared to the overall size of the project, but sufficient to improve its risk profile and financial viability (Irwin and Porteous, 2005). Challenge funds typically require the grantee to match a portion of the funds disbursed, so as to ensure ownership and commitment to success. Green projects that benefit from challenge funds are often either commercially viable or at the cusp of commercial viability and present a strong potential for scalability.

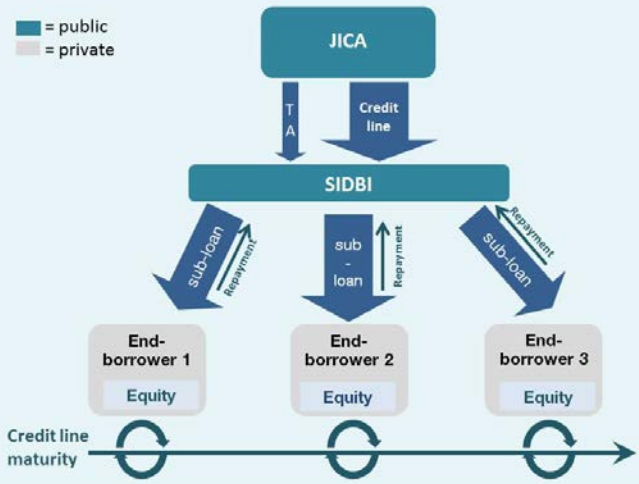
An example of a challenge fund is the Africa Enterprise Challenge Fund (AECF), which is a USD 244 million fund that targets innovative investments in agriculture, renewable energy, adaptation, as well sector-related rural financial services and communications systems. It awards grants and repayable grants through competitions to private companies that wish to implement innovative, commercially viable, high-impact projects in agribusiness and renewable energy in Africa. The fund has financed over 200 projects since its initiation in 2008, with private sector companies committing a minimum 50% of the costs in each case. The fund also had a good impact on business performances, measured by turnover and profitability, with 56% of AECF-funded companies that were three years old or older having had positive revenue growth rates from inception.

***Sources*:** Pompa, (2013); Irwin and Porteous (2005) and OECD (2016c).

Box 2.7. Green credit lines

Credit lines are loan facilities provided by development banks (DBs) or development finance institutions (DFIs) to local financial institutions to address financing needs for development issues and enhance their banking capabilities. By enabling local financial institutions to provide financing to stakeholders in partner countries, DBs and DFIs have been able to reach out to a wider group of beneficiaries. Credit lines have been used extensively to address financing needs of disaggregated groups of stakeholders, such as SMEs and smallholder farmers. 'Green' credit lines distinguish themselves from regular credit lines by requiring the financing to support projects that address environmental and climate issues. In recent years, green credit lines have been used increasingly to incentivise and support renewable energy and energy efficiency projects in developing countries. It is important to note that credit lines alone cannot be effective without demand from private enterprises, hence the importance to develop integrated approaches that raise awareness and build capacity 'hand in hand' with supplying finance.

An example of a green credit line is JICA's Financing Scheme for Energy Savings Projects in India. The three-phase programme is made up of a EUR 660 million loan facility made available by JICA to the Small Industries and Development Bank of India (SIDBI) to support micro, small and medium-sized enterprises' (MSMEs) investments for environmental improvements and energy efficiency. Eligibility criteria for project appraisal include a restricted list of preapproved equipment, as well as other standard financial criteria (a minimum end-borrower's contribution which is different for existing and new units, a maximum debt to equity ratio, minimum asset coverage, etc.). By using simple eligibility criteria the project approval process was streamlined and allowed from loans to be approved and disbursed quickly. As of January 2017, the project was in its third phase; with phase I and II having provided finance to close to 5 000 MSMEs.



Notes: TA: technical assistance; SIDBI: Small Industries Development Bank of India; JICA: Japan International Cooperation Agency.

Sources: World Bank (2014), Sanyal and Eisenger (2016).

Harnessing skills and knowledge for green growth

Development co-operation providers engage in partnerships with the private sector with the explicit aim of harnessing skills and experience in partner countries in order to address environmental issues. In its simplest form, development co-operation providers engage in one-off dialogues and policy discussions with private sector actors operating in-country. This could include discussions to understand the regulatory barriers and opportunities for private investment (for example, in renewable energy projects), and also to understand how development providers and partner country safeguards impact business practices and

strategies of local stakeholders involved in green private finance. Such partnerships can also be institutionalised and targeted at specific outcomes. For example, in the case of the Swedish Leadership for Sustainable Development platform, Sida facilitates a network of 26 Swedish companies that meet regularly in Sweden to discuss opportunities to promote 'global leadership' in addressing sustainability issues (Sida, 2015). Several donor funded multi-stakeholder partnerships and platforms have also gained prominence in promoting sustainable supply chains and reducing environmental degradation in developing countries. The IDH Sustainable Trade Initiative, backed by the Netherlands, Switzerland and Denmark, is one such platform that is implementing sustainability programs for several commodities with global supply chains including tea, coffee, cotton, timber etc. (IDH, n.d.). Likewise, the Spanish Green Growth Group, an association supported by the Spanish government which brings together 30 companies committed to a low-carbon economy, is promoting public-private partnership and private sector action for climate change, decarbonisation and the circular economy (Grupo Español para el Crecimiento Verde, n.d.). Another example of a multi-stakeholder dialogue platform is the GIZ-supported Moroccan Competence Centre for Climate Change (4C Maroc), which unites the public and private sectors, civil society and research organisations. The centre was instrumental in the development of the Moroccan climate change policy and national green investment plan and supported the elaboration of Morocco's NDC (GIZ, 2016). Similarly, the donor-supported NDC Partnership, launched at COP 22, supports countries in the implementation of their NDCs through the facilitation of technical assistance; global knowledge platforms; and improved coordination and engagement with the private sector.

These partnerships can also take the form of direct collaborations between the development provider and the private sector company to pursue a specific objective. A survey of DAC members in 2015 illustrated that a number of development providers are encouraging partnerships between private sector actors in their own countries with private sector actors in partner countries as a way of pursuing development outcomes and promoting their domestic private sector activities abroad (e.g. Sweden's Swedpartnership, Finland's Finnpartnership) (OECD, 2016a). Such partnerships have been used to address environmental issues, for example, in order to transfer skills and green technologies, and to ensure a minimal environmental footprint of domestic companies operating in partner countries.

Roles of different actors in private sector engagement for green growth and climate action

Development co-operation providers

Private sector engagement as described above is a wide ranging set of activities and programmes, and different actors in the development co-operation landscape have to date, played different roles. Figure 2.2 presents an illustration of how three different groups of providers engage the private sector: bilateral development co-operation providers, public sector operations of development banks and climate funds, and bilateral DFIs and private sector operations of development banks. It should be noted, however, that the distinction between these three groups is not clear cut, and there is increasing overlap in these roles. In the case of Sweden, for example, the bilateral aid agency, Sida, largely provides grant financing to public recipients, but also provides guarantees that mobilise private finance; other bilateral donors also offer finance to private sector through challenge funds (e.g. UKAID). In France the Agence Française de Développement (AFD) largely provides loans positioning itself as a bank, however it sometimes also aims at mobilising private finance – though obviously less systematically than its private sector counterpart, Proparco. Similarly, bilateral DFIs and private sector operations of development banks also engage in private sector development (e.g. through credit lines).

Figure 2.2. Roles of different development finance actors in engaging the private sector

	Biliateral donor governments and aid agencies	Bilateral and multilateral development banks (public sector operations) Climate funds	Bilateral DFIs, bilateral and multilateral development banks (private sector operations)
Role in development co-operation	Largely grant financing (and loans to a smaller extent) to public sector and civil society	Loans, grants and guarantees to public sector	Equity, loans, guarantees, risk insurance to the private sector
Role in private sector engagement	**Main objective:** Private sector development, harnessing skills and knowledge, mobilising private finance **Activities:** Dialogues with private sector, enabling conditions support and capacity building channelled through NGOs and public sector, matching grants schemes.	**Main objective:** Private sector development, mobilising private finance **Activities:** Enabling conditions support and capacity building channelled through NGOs and public sector, financial support through credit lines via public agencies.	**Main objective:** Mobilising private finance, private sector development **Activities:** Directly financing companies, mitigating risk to attract private investment, demonstrating viability in high risk areas, capacity building through credit lines via private agencies.
Examples	USAID, Sida, DFID, EuropeAid	World Bank, KfW, AFD, GCF, GEF, CIF	IFC, IIC, DEG, OPIC, Proparco

Notes: AFD: Agence Française de Développement; DEG: Deutsche Investitions- und Entwicklungsgesellschaft mbH; DFID: United Kingdom Department for International Development; GEF: Global Environmental Facility; GCF: Green Climate Fund; IIC: Inter-American Investment Corporation, IFC: International Finance Corporation; KfW: Kreditanstalt für Wiederaufbau; NGOs: Non-governmental organisations; OPIC: Overseas Private Investment Cooperation; PROPARCO: Promotion et Participation pour la Coopération Économique; USAID: United States Agency for International Development.

***Sources*:** Adapted from Dalberg (2010) and IFC (2011).

Bilateral development co-operation agencies and public sector operations of bilateral and multilateral development banks have a long history of pursuing private sector development activities – either through grants, loans or technical assistance support - and within this context, in engaging the private sector in partner countries (Kindornay and Reilly-King, 2013; IFC, 2011). Such agencies generally engage in activities such as establishing dialogues and platforms for sustainability, building capacity of companies in-country to address environmental issues, raising awareness of environmental risks and opportunities, and contributing to the strengthening of the enabling environment for green private sector development, often working through civil society organisations and partner governments. Bilateral providers also have established partnership models with the private sector based on the provision of matching grants. Examples include USAID's Global Development Alliances and Sida's Public Private Partnerships for

Development (Johansson de Silva, Kokko and Norberg, 2015; USAID, 2015). Providers also make use of challenge funds to stimulate innovation for cleaner technologies and solutions (Box 2.6).

Bilateral development finance institutions (DFIs) and private sector operations of bilateral and multilateral development banks (MDBs) are specialised agencies and departments that focus on engaging the private sector in order to mobilise private finance and investment for development. The majority of bilateral DFIs typically function as financially self-sustaining institutions and have a unique mandate supported by a range of financial instruments that allow them to bridge the gap between concessional aid and private commercial financiers (OECD, 2014b). Bilateral DFIs are usually owned by donor governments, source their core capital from official development funds, and have access to government guarantees. Some examples include Proparco (France), DEG (Germany) and FMO (Netherlands). The multilateral equivalents of DFIs are the private sector arms or departments of multilateral development banks (such as the International Finance Corporation under the World Bank Group, and non-sovereign operations under the regional development banks). These institutions focus on leveraging private climate and environment related finance, and their activities include directly financing low-carbon projects in developing countries (e.g. renewable energy), mitigating risks for green investments (e.g. IFC loan loss guarantees which support partner banks to finance energy efficiency investments as part of the China Utility-Based Energy Efficiency Finance Program), and in some cases attracting institutional investors to finance clean infrastructure in developing countries (e.g. Denmark's Climate Investment Fund engages several Danish pension funds; green bonds raised by the MDBs).

Climate funds - such as the Global Environmental Facility (GEF), the Climate Investment Funds (CIFs) or Green Climate Fund (GCF) – also have a history of engaging with the private sector and mobilising private sector investment, either through dedicated private sector windows or programmes. For example, GEF's vision statement clearly outlines private sector engagement as a way through which "the GEF can support innovative approaches and play a catalyst role in environmental finance" (GEF, 2013); in 2014-2018, the GEF is piloting a USD 110 million non-grant pilot programme, aimed at demonstrating and validating the application of non-grant financial instruments to combat global environmental degradation. Likewise, the GCF features a private sector facility window and the Clean Technology Fund (CTF) several Dedicated Private Sector Programs (DPSPs).

Civil society

Non-governmental organisations (NGOs) and civil society organisations (CSOs) also play several important roles in ensuring delivery of intended outcomes in private sector engagement approaches for the environment. They act as conveners of public and private sector actors (e.g. WWF's Market Transformation Initiative to promote sustainable commodity supply chains), they help to engage businesses in areas where there is no clear profit margin, such as biodiversity conservation and air pollution, and can also help to ensure private investments for the environment meet their objectives to deliver intended outcomes (e.g. Conservation International's partnership with the Althelia Climate Fund to promote investments for ecosystem protection). Johansson de Silva, Kokko and Norberg (2015) describes the ideal 'win-win-win' relationship in multi stakeholder partnerships, and the different strengths donors, the private sector and civil society bring to them, based on a review of Sida's private sector collaboration programmes (Table 2.1).

Table 2.1. The role of different stakeholders in private sector engagement approaches

Roles	Development co-operation providers	Private sector	Civil Society
What they contribute to partnerships	• Funding • Knowledge of development and program effectiveness • Legitimacy and formal authority • Local connections, institutional longevity and presence	• Funding • Innovation and technology, standards and business practices, know-how and expertise, efficiency • Economic sustainability • Local connections, especially in value chains	• On-the-ground contacts, local context and expertise, • Implementation capacity • Convening, bargaining, facilitating power • Legitimacy and credibility • Watchdog/Whistle-blower
What they gain from partnerships	• Increased private investment, especially in low-income countries and in sectors where needed • Influencing development outcomes of private business practice • Enhanced leverage, in line with public policy • Soft (organisational etc.) and hard (technology) skills used to make ODA more effective	• Cost sharing • Risk and reputation sharing in CSR and other activities, • legitimacy • Help in the project process • Help in increasing development impact • Good-will, long term market development, increased customer base through brand establishment and increased incomes • Better competitiveness • Increased market share	• Influence • Higher development impact in focus areas • New sources of financing

Source: Adapted from Johansson de Silva, Kokko and Norberg (2015).

Private sector

Firms – be they in the financial sector or not - also have an important role to play as the target of private sector engagement approaches. The private sector is not monolithic; hence development co-operation approaches to private sector engagement need to be tailored to specific private sector beneficiaries (e.g. multinational companies, utilities, local SMEs, commercial banks) and contexts, taking into account potential multipliers which can contribute in disseminating information, approaches and state of the art concepts (e.g. business associations, chambers, business developers, industrial zone management). For instance, many development co-operation providers focus on greening SMEs, either directly or through the use of financial intermediaries (e.g. local commercial banks, private equity funds, state-owned banks, national development banks).

3. ANALYSIS OF CLIMATE-RELATED DEVELOPMENT FINANCE FLOWS SUPPORTING PRIVATE SECTOR ENGAGEMENT

A top-down assessment of how development partners are working with private sector actors based on environment-related development finance flows provides important context for this discussion by outlining the focus, variety and geographic spread of efforts in this area, however, current data restricts what areas of engagement can be clearly tracked. The figures in the following section illustrate elements of development co-operation in this area, based on best estimates with available data (Box 3.1). A discussion on the approach used to estimate these is given in Annex 1.

Box 3.1. How does the OECD DAC monitor climate-related development finance?

OECD DAC statistics track development finance from DAC members, non-DAC providers, multilateral development banks and climate funds to developing countries in support of climate change mitigation and adaptation, using two main approaches:

- Climate-related development finance from bilateral sources and multilateral funds (such as the Global Environment Facility) are monitored through the DAC Creditor Reporting System (CRS) using the 'Rio Markers' approach which screens projects having climate change as a "principal" or "significant" objective. The former includes activities which would not have been undertaken but for this objective; the latter includes activities for other objectives, but which have been formulated or adjusted to meet climate change concerns.

- Climate-related development finance provided by the multilateral development banks is monitored by identifying the climate component within projects.

These statistics include data on Official Development Assistance (ODA) (i.e. concessional finance, including grants and concessional loans) and as well as Other Official Flows (OOF) (i.e. non-concessional developmental finance such as loans provided at market rates). While the OECD DAC statistical system provides the most consistent source of data on climate-related development finance across bilateral and multilateral providers, some data gaps remain: a) coverage of OOF data, especially from DFIs, is incomplete, and b) there is no clear method to isolate development finance flows that support private sector engagement activities in their entirety.

It is important to note the difference between climate-related development finance and climate finance as reported by parties to the UNFCCC. Whilst party reporting is often based on climate-related development finance statistics, not all climate-related development finance is reported as climate finance as some members may apply additional quantitative methodologies to identify climate finance. Hence the two are not directly comparable.

Furthermore, since 2015, the OECD DAC has started to collect data on amounts mobilised from the private sector by official development finance. To this end, methodologies on specific financial instruments – guarantees, syndicated loans, shares in collective investment vehicles (CIVs), credit line and direct investment in companies – have been piloted and implemented. The OECD DAC is also investigating the suitability of their approach for complex finance structures. Systematic data collection will start from 2017.

Development partners support for private sector engagement related to climate change

The estimates are the result of an assessment to identify development partners' finance that addresses environmental objectives, where the private sector has been actively engaged, either as a partner, a recipient or as a direct beneficiary of the activity. While the OECD DAC statistical system monitors

development finance that addresses different environmental issues (e.g. biodiversity, climate change, desertification), the analysis in this paper focuses on climate-related development finance only due to the availability of data – currently, only climate-related data are available for both bilateral and multilateral providers (Box 3.1). Annex 1 provides a detailed account of how these estimates were made.

Development partners' support for private sector engagement (as defined in this paper) is estimated by identifying two elements, as below.

- *Direct financial support* to the private sector i.e. climate-related development finance provided to private actors, by bilateral DFIs and private sector operations of the bilateral and multilateral development banks. This includes all climate-related development finance provided by bilateral DFIs as well as a subset of climate-related development finance provided by bilateral and multilateral development banks, where the direct recipients were identified as private actors through a search of agency websites (see Annex 1 for details on the approach used), including in some cases technical assistance programmes that accompany direct assistance to private actors.

- *Support 'likely to engage' the private sector* i.e. climate-related development finance provided to public sector agencies or CSOs for activities with a high likelihood of private sector engagement, identified through a keyword search of project descriptions in the OECD DAC statistical system. Examples of activities that fall within this latter category include partnerships between development partners and companies that are facilitated by CSOs, and matching grant schemes where development partners' financing goes to a third party to implement the activity. Activities to support the enabling environment / private sector development more broadly are included, if there is an implication of active private sector involvement (e.g. SME engagement / development programmes, business capacity building, value chain development activities, etc.).

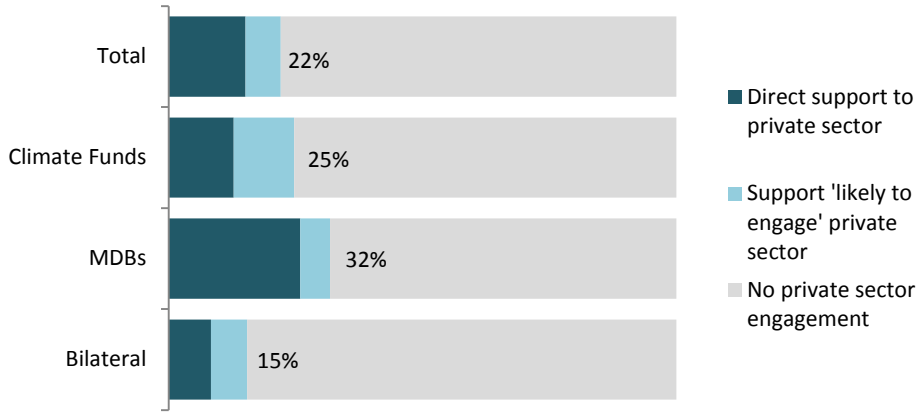
The two categories above provide the best approach of estimating private sector engagement as defined in Figure 2.1., but do not overlap directly with the three objectives for development partners engagement in this area (as described in preceding sections of this paper and in Figure 2.2). This is because development partners' activities often pursue multiple objectives with the same activity. For example, in the case of an energy efficiency credit line, development partner objectives often include mobilising private finance, improving the environmental performance of businesses and strengthening existing financial systems for green finance. A rough estimation of how activities with different objectives are covered in the data shown here is given in the table below.

Table 3.1. Coverage of different PSE activities within the data and analysis in this paper

<table>
<tr><th colspan="2" rowspan="2"></th><th colspan="3">Objectives of private sector engagement</th></tr>
<tr><th>Promoting green private sector development in partner countries</th><th>Partnering to mobilise investment for green growth and climate change</th><th>Partnering to harness and exchange skills and knowledge for green growth</th></tr>
<tr><td>Direct financial support</td><td>Support provided by private sector operations of MDBs and bilateral DFIs</td><td rowspan="2">Covered under both categories</td><td>Covered under this category</td><td></td></tr>
<tr><td>Support 'likely to engage' the private sector</td><td>Support provided by private sector operations of MDBs and bilateral DFIs</td><td></td><td>Covered under this category</td></tr>
</table>

Support for private sector engagement makes up a fifth of climate-related development finance. According to the above scope, the DAC CRS statistics show that support for private sector engagement (according to the working definition adopted in this paper) made up around 22% of total climate related development finance flows or around USD 9.5 billion in 2013. Of this, the majority of support went directly to private sector recipients (around 70%) and was provided by bilateral DFIs and private sector operations of the bilateral and multilateral development banks, highlighting the key role such specialised agencies play in engaging the private sector (Figure 3.1). The remainder – around USD 3 billion –was provided by bilateral aid agencies and development banks to the public sector and CSOs in support of activities where there was a high likelihood of private sector engagement.

Figure 3.1 Climate-related development finance supporting private sector engagement in 2013, by provider



Note: Bilateral providers include DAC members; MDBs include African Development Bank, Asian Development Bank, European Investment Bank, European Bank for Reconstruction and Development, Inter-American Development Bank and the World Bank (including IFC); climate funds include estimates from the Adaptation Fund, Climate Investment Funds, Global Environment Facility, IFAD and Nordic Development Fund

Source: OECD DAC statistical system, estimates are based on USD commitments for 2013 (see Annex 1).

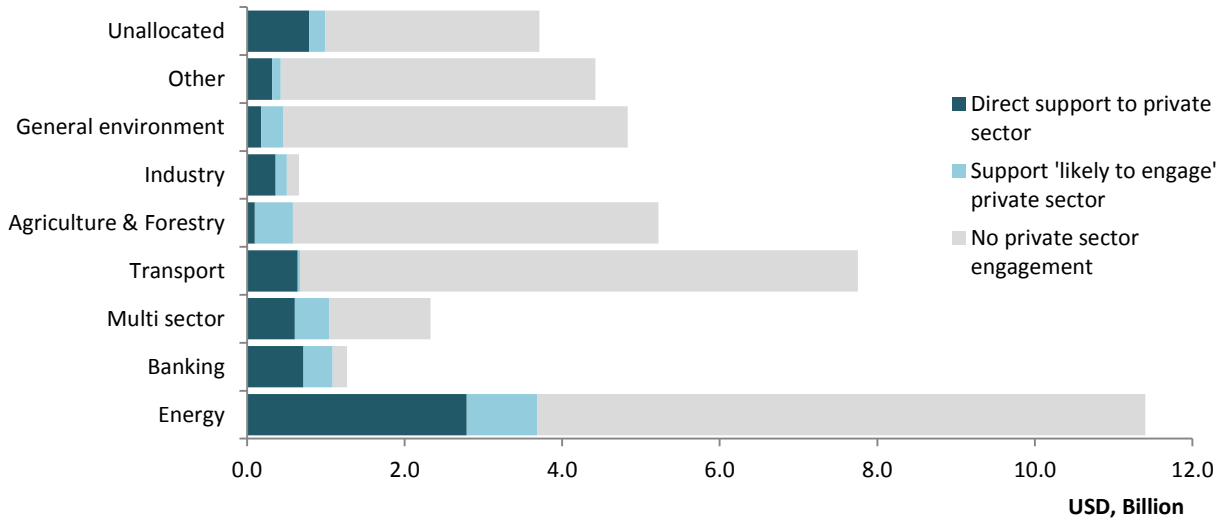
When considering the split between multilateral and bilateral sources, **the majority of climate-related development finance supporting private sector engagement was from multilateral sources** i.e. multilateral development banks (MDBs) and climate funds (around 60%). In addition, as shown in Figure 3.1, the six MDBs considered here used larger shares of their climate-related development finance portfolios in 2013 to target the private sector, compared with other providers. This can in part be explained by data gaps for bilateral sources (see Annex 1), but could also be due to multilaterals in general being better equipped to engage the private sector for development, for example, by having access to and using capital markets to raise added funds for sustainable development. A recent OECD survey on private finance mobilisation found that over half the private finance mobilised for development as a result of development partners' efforts resulted from multilateral programmes (largely due to the use of guarantees) (Benn et al., 2016).

The major share of private sector engagement is occurring in activities targeting climate change mitigation, including clean energy and green financial products and services. A larger share of climate-related development flows targeting the private sector is going towards climate change mitigation activities (i.e. those that aim to reduce greenhouse gas emissions) compared to adaptation activities. Mitigation activities comprise just under 80% of climate-related development finance supporting private sector engagement in 2013, while 11% targets adaptation, and a further 12% targets both mitigation and adaptation. This is roughly in line with the findings of other studies. For example, OECD (2015c) estimated that in 2013-14, over 90% of mobilised private climate finance targeted mitigation – this included finance associated with export credits for renewable energy. The focus on mitigation can, in part, be explained by difficulties in measuring and tracking adaptation finance – while mitigation is global and unambiguous and

agreed upon metrics exist to measure impacts of mitigation measures (e.g. $MtCO_2e$), adaptation is local and there is no consensus on how to define adaptation measures nor there are clear adaptation metrics – but also due to a larger global trend of businesses engaging more on mitigation related issues so far, rather than on adaptation. Several reasons may be behind this, including incomplete or asymmetric information on climate risks, uncertainty about the extent of future risks, imperfect capital markets with short-term horizons, and a lack of clarity on policy direction from the public sector (PwC, 2010; UNEP, 2016). Often, mitigation activities are perceived by the private sector to have a clearer path to profitability and to generate obvious revenue streams and savings, while the business case for adaptation is often less known. In addition, adaptation is a much more recent policy concern and thus providers are only just now beginning to target their private sector engagement efforts to also include adaptation objectives.

The majority of development partners' efforts to engage the private sector are occurring in the energy sector (Figure 3.2). This is largely driven by investments in renewable energy projects in developing countries by bilateral DFIs and private sector operations of the development banks, but also by a significant number of technical assistance programmes targeting energy efficiency and renewable energy, such as training and capacity building for utilities, support for the development of clean technologies, and feasibility or demonstration projects for small scale renewables and energy efficiency technologies. The second largest share of private sector engagement went to green banking efforts and multi-sector projects (e.g. urban development). With respect to the banking sector, almost all development partners' efforts included the development of green credit lines to support the uptake of renewable energy and energy efficiency in developing countries. Such projects usually involve development partners providing concessional finance to public and private financial intermediaries in order to set up and demonstrate green financing, and technical assistance to finance institutions and related stakeholders to build capacity and raise awareness of green finance (Box 2.7). Natural resource related sectors (agriculture and forestry) are less targeted by bilateral DFIs and dedicated private sector operations within bilateral and multilateral development banks. Where natural resource sectors were targeted, they received the majority of support from bilateral agencies and public sector operations of development banks, largely towards value chain development.

Figure 3.2. Climate-related development finance supporting private sector engagement in 2013, by sector

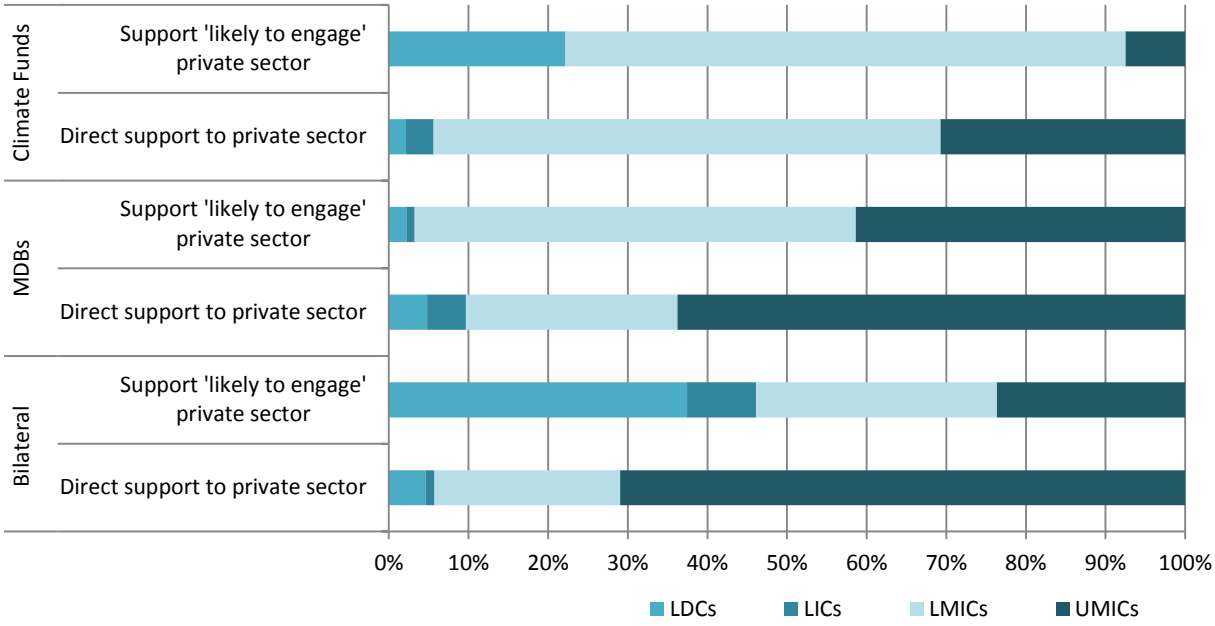


***Source*:** OECD DAC statistical system, estimates based on USD commitments for 2013 (see Annex 1).

Direct support to the private sector for climate change targets middle income countries, while wider private sector engagement also focuses on low income and least developed countries (Figure 3.3). The majority (over 70%) of private sector engagement activities for climate change are occurring in middle

income countries (Upper Middle Income Countries (UMICs) and Lower Middle Income Countries (LMICs)), while only a quarter is taking place in Least Developed Countries (LDCs) and Low Income Countries (LICs). The countries receiving the largest volumes of support for private sector engagement for climate change in 2013 (in absolute terms) were Turkey, India, South Africa, Chile and China. The large share of finance going towards private sector engagement in middle income countries, particularly UMICs, is driven by finance provided by bilateral DFIs and private sector operations of bilateral and multilateral development banks, directly to private sector actors. Such financing usually targets countries where there is a relatively strong private sector, with functioning capital markets in place that can absorb financing at non-concessional terms, and where there is strong policy direction to address climate change. Many LDCs have weaker enabling environments and governance structures, and limited formal banking functions or other capital markets, and as a result, it is more challenging to attract private climate investment in such environments.

Figure 3.3. Climate-related development finance supporting private sector engagement in 2013, by provider and recipient income group



Note: Bilateral providers include DAC members; MDBs include African Development Bank, Asian Development Bank, European Investment Bank, European Bank for Reconstruction and Development, Inter-American Development Bank and the World Bank (including IFC); climate funds include estimates from the Adaptation Fund, Climate Investment Funds, Global Environment Facility, IFAD and Nordic Development Fund. The figures here exclude unallocated amounts i.e. where the recipient income group could not be specified (e.g. bilateral finance provided to a regional fund).

***Source*:** OECD DAC statistical system, estimates are based on USD commitments for 2013 (see Annex 1).

Mobilisation of private climate finance as a result of development finance interventions

As described in the previous section, leveraging or mobilising private climate finance is one of the main objectives for development partners to engage the private sector for climate change. Work conducted to date under the OECD-led Research Collaborative on Tracking Private Climate Finance highlights that measuring private climate finance mobilisation is challenging due to the lack of comprehensive data on private finance, methods to estimate the mobilisation impact and the range of actors and complexity of interactions associated with mobilising private climate finance (Jachnik, Caruso and Srivastava, 2015).

However, progress on data and methodologies is being made, thereby allowing a range of pilot studies and estimates to be completed (OECD, n.d. a).

In particular, the joint OECD and Climate Policy Initiative (CPI) study on climate finance and progress towards the USD 100 billion goal presented aggregate estimates for mobilised private finance from bi- and multilateral public climate finance interventions attributable to developed countries (OECD, 2015c). The study estimated private climate finance mobilised by multilateral and bilateral finance to be USD 12.7 in 2013 and USD 16.7 billion in 2014. Mobilised private financing was estimated and attributed on the basis of private co-financing directly associated with public climate finance instruments at the project, activity or fund level. The estimates came with two caveats: a) the figures given were preliminary partial estimates of mobilised private climate finance, drawing on private co-financing data associated with public finance interventions as best-available evidence at the time of the analysis and b) direct co-financing does not necessarily equate to mobilisation and does not capture the indirect mobilisation effect of capacity building, budgetary support and domestic policies.

A year-on-year and statistically consistent way of tracking mobilisation as a result of development partners' instruments targeting the private sector is to be implemented in the OECD DAC statistical system in 2017. In the lead up to this, an OECD DAC survey in 2015 collected data on the amounts mobilised from the private sector through three development finance instruments: guarantees, syndicated loans, and shares in common investment vehicles (Benn et al., 2016). The survey focused on development finance generally rather than on climate finance in isolation, but it found that over the course of three years (2012 to 2014), 18% of the finance mobilised through use of these instruments from the private sector was climate related i.e. around USD 2.2 billion. Other findings also echo the trends in private sector engagement for climate change shown in the preceding sections: most of the finance mobilised was in middle income countries (around 70%), a larger share of private finance mobilised was for mitigation (73%), and a majority of the private fund mobilised benefited the energy, financial services and industry sectors. Ongoing efforts under the OECD DAC work stream on tracking mobilisation of private finance is focusing on credit lines and direct investment in companies (Benn et al., 2016, OECD, n.d. b).

4. EMERGING INSIGHTS ON CHALLENGES AND LESSONS FROM PRIVATE SECTOR ENGAGEMENT FOR GREEN GROWTH AND CLIMATE ACTION

Ongoing challenges in engaging the private sector for green growth and climate action

While the need to engage the private sector is clearly recognised across the development community, ongoing challenges and issues related to private sector engagement for green growth and climate action remain.

Private sector engagement approaches should target a wider range of environmental issues

The focus of development finance targeting private sector engagement in climate action has been, unsurprisingly, on the 'low-hanging fruit', i.e. in areas where there is a clear business case and potential for returns i.e. renewable energy, and, to a smaller extent, energy efficiency through credit lines to financial institutions. Attention has also focused on countries and locations where the perceived risks of investment are relatively low i.e. UMICs, while potential for cheap emission reduction in countries with more challenging business environment (e.g. LDCs) are often overlooked. However, the business case, especially in terms of making a profit, is not as easily applicable in all areas of environmental protection and in the countries that need the most support. In those countries and sectors, additionality must be assessed (e.g. replication at lower cost) and there is a need to develop, pilot and document innovative ways to engage the private sector, such as through the use of green and inclusive business models. One example of this is the need to better finance climate change adaptation efforts - as is discussed in Chapter 4, less than a fifth of climate-related development finance targeted climate change adaptation in 2013. In the case of adaptation, development co-operation efforts to engage the private sector could include, removing information asymmetries and providing good practices for adaptation and resilience, developing customized approaches such as risk-assessment strategies and cost-benefit analyses as well as capacity development for business multipliers to disseminate approved approaches to individual sectors. In all cases, providing green and inclusive business models and financial instruments that incorporate environmental and financial objectives equally (e.g. impact investment) is key (OECD, 2015d).

Alignment with country contexts is important for longer term scale up

Another challenge is the need for efforts to mobilise private investment and work through the private sector to be aligned with local contexts and *priorities* in partner countries. In the case of climate change, alignment with nationally determined contributions (NDCs) and national adaptation plans (NAPs) is critical. However, a number of development co-operation providers are combining private sector engagement for development with efforts to promote their own private sector in developing countries. For instance, Whitley (2013) estimates that all public flows from Japan for private sector engagement in development countries support either directly or indirectly Japanese technologies, expertise or firms. For the United States and Germany, this number is estimated at 49% and 19%, respectively, while in the case of the United Kingdom, no evidence of tied support could be identified. While this may be effective in delivering environmental benefits at a project level, such as fuel savings or reduced emissions, it could have implications for the efficiency of the project (e.g. in terms of promoting the most affordable clean technologies in partner countries, rather than those from the donor country). It could also affect the overall development effectiveness of the activity, by limiting national ownership, and in turn longer term scale up of the project.

We need to invest in scaling up innovation and developing integrated approaches for pipeline development

While there are several examples of successful, innovative ways to engage the private sector in promoting green growth, there is still a need to scale up such approaches. On the one hand, one of the biggest challenges facing infrastructure investors is the limited flow of bankable projects in clean infrastructure such as renewable energy or low-carbon transport in developing countries, despite many of these technologies being proven at a small scale. Building a pipeline can be facilitated by the phasing of different instruments and types of development finance - for example, technical assistance can be used to build capacity in utilities which can then develop bankable projects themselves. On the other hand, it is not enough to develop pipelines without finance. Hence there is a need to develop integrated approaches for pipeline development, which look at both offer and demand for financing. Another challenge is the tension between the innovation process and the scaling up phase. While concessional financing and grants are needed to pilot and demonstrate the business case for green growth, as well as replicate these business models to lower transaction costs, these will only lead to scale up of approaches if they are defined with clear and time-bound exit strategies.

There is a need to better mainstream climate action across DFI operations

Private sector engagement is increasingly being acknowledged as a 'new trend' in development co-operation, and efforts to ramp up these efforts are evident across all DAC members, especially through bilateral DFIs and dedicated private sector programs within the development banks. Development finance institutions - specialised agencies set up to engage with the private sector for development - have the skills and knowhow to effectively engage the private sector, however, in order for them to play a major role in climate action, their efforts need to move beyond renewable energy to energy efficiency, adaptation, sustainable forestry and agriculture etc. While these organisations and programmes are subject to strong environment and social safeguards systems it is important that private sector engagement goes beyond 'do no harm' to 'do more good'.

We need a stronger evidence base of what works and what doesn't

Several critiques describe the lack of an evidence base on the extent to which private sector engagement results in wide-ranging environmental outcomes beyond the mobilisation of private investment i.e. there is a need for more evidence on what works and what doesn't in terms of environmental impact. In the case of climate action, the focus on mobilising private climate finance has been driven largely by the United Nations Framework Convention on Climate Change negotiations and financial commitments made by developed countries to address climate change in developing countries. This has resulted in high visibility for tracking the amounts of private capital mobilised, but less attention to the effectiveness and impacts of these efforts. In particular, some authors note that there is no clear consensus among development co-operation policies and practice regarding the overarching 'theory of change' in engaging the private sector for sustainable development (Kindornay and Reilly-King, 2013; Vaes and Huyse, 2015). In some cases, there can be a failure to demonstrate 'financial additionality' i.e. that the private finance mobilised would not have occurred without the public intervention (CAFOD/Oxfam/ActionAid UK/Eurodad/WWF/BOND, 2015). In regard to climate finance, Nakhooda and Norman (2014) attribute part of the lack of evidence to the absence of a clear, consistent approach for measuring the impact of climate finance more broadly, and private sector engagement for climate change, in particular. The lack of consistent monitoring is compounded by issues related to attribution of impact and to the establishment of baselines for the analysis. In the case of adaptation, for example, it would be valuable to know to what extent the private sector needs to be supported in its risk management in order to provide economic stability.

Complexity of climate finance transactions breeds opacity

There is a *lack of transparency* related to public-private projects, particularly on finance flows and project impacts (Pereira, 2012). Climate finance is increasingly being channelled through complex networks of financial intermediaries, and there are significant difficulties associated with tracking and assigning private climate finance (Caruso and Jachnik, 2014). In particular, development co-operation providers' efforts to improve the environmental performance of businesses often involve working through intermediaries such as banks, businesses and professional associations, as well as companies with extensive supply chains. Similarly, a review of multilateral climate funds found five different routes to mobilise private investment, comprising a combination of intermediaries (Whitley, Chiofalo and Barnard, 2014). Such complexity leads to significant difficulties in monitoring and verifying environmental impacts and outcomes.

There is no consensus on what constitutes effective private sector engagement

Finally, there is also a need to clearly identify what constitutes effective private sector engagement approaches in development co-operation for the environment. The Busan Partnership for Effective Development Co-operation agreed four principles to ensure aid effectiveness: ownership by partner countries, results focused efforts, inclusive partnerships, and delivery of aid within an environment of transparency and accountability. Garside et al (2016) translates this into four elements of effective aid-business partnerships for sustainable development, based on a review of 11 existing partnerships: ensuring additionality of private sector efforts (i.e. going beyond what business would have invested in anyway); financial sustainability of approaches; mutual transformation (i.e. changing of attitudes and business models); and risk-sharing, all within a transparent manner without market distortion. These four elements could provide a structure for further assessment and guidance for good practice recommendations for development cooperation efforts in private sector engagement for the environment.

Emerging areas of good practice and lessons learned

Some areas of good practice and lessons learned emerging from reviews of development co-operation activity in the area of private sector engagement are as follows:

Find Common Ground: To engage the private sector in partner countries where there may be a lack of awareness and understanding of environmental issues, development co-operation providers need to find ways of communicating with private sector partners that highlight win-win solutions. In the context of private sector engagement on the environment, this approach involves focusing on the benefits of improving environmental performance such as increased competitiveness, reduced costs and reduced exposure to risks, rather than environmental benefits per se. Overcoming barriers between relevant departments (e.g. environmental department and private sector development department) within development agencies could facilitate the implementation of interdisciplinary approaches, which use the language of the private sector.

Understand the needs of the private sector and demand for support from development providers: Private sector engagement to support green growth should be centred on a good understanding of demand from the private sector for development co-operation support. In other words, approaches should be rooted in an understanding of how development co-operation providers can better address the barriers that companies face in pursuing market opportunities for green technologies, products and services in developing countries.

Promote sound business models: To drive lasting positive environmental change, private sector engagement needs to promote sound business models for environmental protection that deliver environmental outcomes, are financially feasible and create decent jobs.

Adopt a holistic approach and support enabling environments: Mechanisms to leverage green private investment will only result in improved long-term environmental performance if an adequate enabling policy environment exists in partner countries. To scale up successful project cases to programmes or sustainable market level, it is important to adopt a holistic approach to private sector engagement on climate change and green growth. This approach involves supporting a range of policy reforms and regulations to promote climate change mitigation and adaptation and improved environmental performance – the enabling policy environment for private climate investments – along with use of limited public finance for mechanisms to leverage green private investment.

Research gaps and areas for further work

In order to contribute towards building an evidence base for private sector engagement approaches targeting green growth and climate change, there is a need for best practice guidance and the sharing of cases - both successes and failures. Based on the research undertaken for this paper, possible areas of focus for further analysis and case studies could include the following:

1. Collating experience and reviewing development partners' efforts in *building the enabling environment* (i.e. policies, institutions and capacity) to improve the environmental performance of businesses in partner countries (e.g. green value chain development, capacity building programs, using environmental certification and labels to access and benefit from growing markets for green certified products)

2. Gathering evidence on *financial instruments* for *private sector engagement* that are currently gaining momentum in the development co-operation community (e.g. guarantees for low-carbon and climate resilient infrastructure, green credit lines to promote energy efficiency and renewable energy among SMEs), particularly with a focus on identifying the success factors determining environmental outcomes, and how trade-offs are managed.

3. Additionally, there is also a need to better define and measure successful private sector engagement efforts to address climate change and green growth – especially when it comes to the environmental impact of private sector engagement.

Further research could be geared towards formulating more practical 'hands-on' guidance for development practitioners in any of the three areas above.

ANNEX 1: ESTIMATING PRIVATE SECTOR ENGAGEMENT USING CLIMATE-RELATED DEVELOPMENT FINANCE FLOWS

This assessment is based on climate-related development finance statistics which are tracked by the OECD DAC statistical system. Currently, there is no clear method to isolate development finance flows that support private sector engagement activities in their entirety, as described in Figure 2.1 on page 12. Hence, a hybrid approach was adopted for the purpose of this paper as described below.

Scope of the analysis

Development partner support for private sector engagement (as defined in this paper) is estimated by identifying two elements, as below.

A. *Direct support to the private sector* i.e. climate-related development finance provided to private actors, by bilateral DFIs and private sector operations of the bilateral and multilateral development banks. This includes all climate-related development finance provided by bilateral DFIs as well as a subset of climate-related development finance provided by bilateral and multilateral development banks, where the recipients were identified as private actors through a search of agency websites. It does not include activities where the support for the private sector is channelled through public sector agencies e.g. credit lines through state owned banks or challenge funds managed by NGOs, which are covered in the second category. This approach has been used in two previous OECD analyses in Miyamoto and Chiofalo (2015) and Miyamoto and Biousse (2014).

B. *Support 'likely to engage' the private sector* i.e. climate-related development finance provided to public sector agencies, publicly owned financial institutions or CSOs for activities with a high likelihood of private sector engagement, identified through a key word search of project descriptions in the OECD DAC statistical system. This approach has been used in a previous OECD analysis in Brown and Wang (2015). Examples of activities that fall within this latter category include partnerships between donors and companies that are facilitated by CSOs, and matching grant schemes (e.g. challenge funds) where donor financing goes towards a third party to implement the activity. Activities to support the enabling environment are also included, if there is an implication of active private sector involvement (e.g. SME engagement/ development programs, business capacity building, value chain development activities etc.).

The rationale for using hybrid approach that combines different elements of previous analyses is as follows. Direct donor support to the private sector currently provides the best data on which to base a top down assessment of donor private sector engagement for climate change, however, such an analysis would underestimate bilateral donor efforts in this area due to gaps in the coverage of climate-related development finance data reported by bilateral DFIs. In addition, such an approach would fail to capture several private sector engagement activities supported by bilateral agencies, development banks, and multilateral development banks, which are implemented by the public sector or CSOs.

Approach used to estimate private sector engagement

The estimates given in this paper are based on climate-relevant development finance statistics from the OECD DAC statistical system. The analysis is bounded by the following parameters:

- The estimates given in the paper are for one year only i.e. 2013. This is due to the availability of data on multilateral climate-related development finance when this analysis was initiated (this analysis was completed between September and November 2015).

- The analysis includes DAC member countries (Australia, Greece, Austria, Portugal, Belgium, Ireland, Canada, Italy, Japan, Spain, Denmark, Korea, Sweden, European Union, Luxembourg, Switzerland, Finland, The Netherlands, United Kingdom, France, New Zealand, United States, Germany and Norway), six multilateral development banks (African Development Bank (AfDB), Asian Development Bank (AsDB), European Investment Bank (EIB), European Bank for Reconstruction and Development (EBRD), Inter-American Development Bank[1] (IDB) and the World Bank Group), and five multilateral climate funds (Adaptation Fund (AF), Climate Investment Funds (CIF), Global Environment Facility (GEF), International Fund for Agricultural Development (IFAD) and Nordic Development Fund (NDF)).

Direct donor support to the private sector

Direct donor support to the private sector was estimated by identifying a) climate-related development finance flows provided by bilateral DFIs and private sector projects of bilateral development banks and b) climate-related development finance from MDBs that went to private recipients (as identified through a search of online MDB project databases), through dedicated private sector operations/departments. The definition of what constitutes the private sector differs across DFIs and MDBs, and is not always in line with the working definition provided in this paper (see Box 2.1). As a result, individual projects were screened out in order to identify direct support to the private sector according to the definition adopted in this paper.

For bilateral flows, agencies that provide direct financing to the private sector (i.e. bilateral DFIs) were identified for each DAC member country, and their climate-relevant activities were identified using Rio Markers for climate change mitigation and adaptation. The agencies considered and coverage of data on bilateral climate-related development finance flows from DAC members are shown in Table A.1.

Table A.1. Availability of data in bilateral DFIs and inclusion in the analysis

Country	Agency	Availability of activity level data in the OECD DAC CRS	Availability of Rio Marker data	Coverage in this analysis
Austria	OeEB	Partial*	Yes	Included
Belgium	BIO	Yes	No	Excluded
Denmark	IFU	Yes	No	Excluded
European Union	EIB	Yes	No	Excluded
Finland	Finnfund	Yes	Yes	Included
France	AFD	Yes	Yes	Included
	Proparco	Yes	No	Excluded
Germany	KfW	Yes	Yes	Included
	DEG	No, data is available as aggregates	No	Excluded
Italy	SIMEST	No, data is available as aggregates	No	Excluded
Japan	JBIC	No, data is available as aggregates	No	Excluded

[1] This includes activities now under the Inter-American Investment Corporation.

Country	Agency	Availability of activity level data in the OECD DAC CRS	Availability of Rio Marker data	Coverage in this analysis
Korea	KEXIM	Yes	Partially (no data available for Other Official Flows)	Included
Netherlands	FMO	No, partial data is available as aggregates	Partially (no data available for FMO outflows)	Included
Norway	Norfund	Yes	Yes	Included
Portugal	SOFID	Yes	No	Excluded
Spain	COFIDES	No	No	Excluded
Sweden	Swedfund	Yes	Yes	Included
Switzerland	SIFEM	Yes	Yes	Included
UK	CDC	Data is available as aggregates	No	Excluded
US	OPIC	Yes	No	Excluded

Note: OeEB outflows are available as aggregates, while outflows of government programs through OeEB are available at an activity level.

Source: OECD DAC statistical system.

For multilateral flows, operations providing direct support to the private sector were identified using the project databases available on the websites of the multilateral development banks and climate funds, and annual reports for 2013. The project level information gathered was used to identify which activities within the OECD DAC database on climate-related development finance could be counted as direct donor support to the private sector. As the definition of the private sector varies by agency, projects were further screened to align with the definition of the private sector adopted in this paper. For example, projects that supported state owned companies directly were not counted under direct support, but were considered as part of the next section i.e. donor support to governments and CSOs that is 'likely to engage' the private sector. The operations considered and sources of data used are given in Table A.2.

Table A.2. Data sources and approach used to identify multilateral direct support to the private sector

Institution	Dedicated private sector department/ agency and/or programs	Identification of activities directly targeting the private sector
African Development Bank	Private Sector Department	'Non-sovereign' projects identified using AfDB project database
Asian Development Bank	Private Sector Operations Department, Trade Finance Program	'Non-sovereign' projects identified using AsDB project database
European Bank for Reconstruction and Development	Several programs	'Private' projects identified using EBRD project database, support to state owned companies individually screened out
European Investment Bank	Several programs	Identified manually from OECD DAC database
International Finance Corporation	n/a	All projects considered private

Institution	Dedicated private sector department/ agency and/or programs	Identification of activities directly targeting the private sector
Inter-American Development Bank[2]	Structured and Corporate Finance Department (SCF); Inter-American Investment Corporation (IIC); Multilateral Investment Fund	'Private Sector Investment' projects identified using IDB project database; MIF projects identified using agency code
Climate Investment Funds	Dedicated Private Sector Programs	Private' projects identified using CIF project database

Donor support likely to engage the private sector

The estimates of direct donor support were augmented with estimates of donor support to public sector and non-governmental recipients that were classified as 'likely to engage' the private sector. Such activities were isolated using a keyword search of project descriptions, followed by a manual review to validate the findings of the keyword search. Support to state-owned enterprises were also included within this category, where they could be identified using the keyword search.

Limitations

While using this approach does allow for a discussion of a wider range of donor approaches to private sector engagement, some limitations should be noted.

Data availability and coverage

The main limitation of this approach is the coverage of Rio Marker data for bilateral DFIs, which lowers the overall estimates of direct donor support used in this analysis. Some of the biggest DFIs (by size of portfolio), including DEG (Germany), Proparco (France), OPIC (US), currently do not report activity level information on Rio Markers and FMO (Netherlands) does not report on its activities to the OECD DAC statistical system at all. As a result these agencies have been excluded from the analysis, which biases comparisons between types of providers towards multilateral providers.

Further, data on development finance targeting other environmental issues, such as biodiversity and desertification, is currently only available for bilateral providers. As a result the analysis in the paper covers development finance targeting climate change only.

Finally, as data on multilateral climate-related development finance was not available for multiple years when this analysis was completed the estimates given in this paper are for one year only i.e. 2013 which does not allow for an analysis of trends over time.

[2] Subsequent to the analysis in this paper, IDB has undergone a restructuring, with all private sector loans being moved to IIC. The IDB group has a number of public programs with final beneficiary being private business and scaling up private programs through its public loans – including financial intermediation with national development banks and capital markets development through its capital markets and Financial Institutions Division (IFD/CMF), promotion of value Chains and innovations in private sector through its Competitiveness and Innovation Division (IFD/CTI) or its department to promote economic integration (exports) (INT), Climate Change and Sustainability Division (CCS/CSD) among others.

Identifying PSE activities

In addition, currently there is no simple way of identifying activities targeting private sector engagement within the OECD DAC statistical system. As a result a keyword search of project descriptions has been used. The limitation of this approach is the lack of consistency and gaps in reporting on the project descriptions in the CRS, which means some activities that engage the private sector may not be identified using a word search and are therefore not included in the analysis. Work is under way to improve the way private sector instruments are categorised and tracked within the system, so tracking such efforts in the future will be easier.

Measuring PSE vs. measuring private sector development (PSD) more broadly

While the methodology described here allows for a discussion on how development finance providers are working actively with the private sector, it does not necessarily cover all activities that would be included under private sector development in its broadest sense (e.g. investment climate reform, business environment reform etc.), as not all private sector development activities are conducted with active private sector engagement. As a result the analysis of development finance statistics does not align strictly with the description of private sector engagement (PSE) used in Chapter 2, which considers private sector development a subset of PSE. This is partly due to the inherent difficulties in measuring donor support for PSD through the DAC statistical system, due to the multipurpose nature of PSD programmes and difficulties relating to the applicability of different purpose codes in the CRS[3]. Miyamoto and Chiofalo (2017) have made a first attempt to measure PSD in its' entirety by first developing a detailed analytical framework to describe what would and would not be included under PSD, and then by applying this framework to the DAC statistics on development.

[3] Some purpose codes such as 25010 'Business Support Services and Institutions' and 15110 'Public sector Policy and administrative Management" cover many different elements of what would be covered under PSD such as business development services, financial services, and technical assistance for regulatory reforms.

REFERENCES

AATIF (2014), "Increasing Income. Improving Food Security. AATIF Annual Report 2014", Africa Agriculture and Trade Investment Fund, Luxembourg, report, www.aatif.lu/tl_files/downloads/annual_reports/AATIF_AR_2014.pdf.

Agrawala, S., et al. (2011), "Private Sector Engagement in Adaptation to Climate Change: Approaches to Managing Climate Risks", *OECD Environment Working Papers*, No. 39, OECD Publishing, Paris, http://dx.doi.org/10.1787/5kg221jkf1g7-en.

Alliance Development Works/UNU-EHS (2016), *World Risk Report*, report by Bündnis Entwicklung Hilft (Alliance Development Works) and United Nations University, Institute for Environment and Human Security in collaboration by Stuttgart University , http://collections.unu.edu/eserv/UNU:5763/WorldRiskReport2016_small.pdf.

Benn, J. et al. (2016), "Amounts Mobilised from the Private Sector by Official Development Finance Interventions: Guarantees, Syndicated loans and Shares in Collective Investment Vehicles", *OECD Development Co-operation Working Papers*, No. 26, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jm3xh459n37-en.

Biagini, B. and A. Miller (2013), "Engaging the Private Sector in Adaptation to Climate Change in Developing Countries: Importance, Status and Challenges", *Climate and Development,* Vol.5, Issue 3, pp. 242-252, http://reliefweb.int/sites/reliefweb.int/files/resources/Biagini+and+Miller+Engaging+the+Private+Sector+in+Adaptation+to+Climate+Change[1].pdf.

Brown, J. and D. Wang (2015), "Estimating mobilized private finance for adaptation: exploring data and method", A CPI Report in collaboration with the OECD, November, Climate Policy Initiative, http://climatepolicyinitiative.org/publication/estimating-mobilized-private-finance-for-adaptation-exploring-data-and-methods/.

Buchner, B. et al. (2015), "Global Landscape of Climate Finance 2015", A CPI Report, Climate Policy Initiative, November, http://climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2015/.

Business and Sustainable Development Commission (n.d.), website, http://businesscommission.org/ (accessed 26 September 2016).

CAO (2014), "Monitoring of IFC's response to: CAO Audit of a Sample of IFC Investments in Third-Party Financial Intermediaries", report C-I-R9-Y10-F135, Compliance Advisor Ombudsman, http://www.cao-ombudsman.org/documents/CAOFIAuditMonitoringReport_October102014.pdf.

CAFOD/Oxfam/ActionAid UK/Eurodad/WWF/BOND (2015), "Delivering sustainable development: A principled approach to public-private finance", paper, www.oxfam.org/en/research/delivering-sustainable-development-principled-approach-public-private-finance.

Carney, M. (2015), "Breaking the Tragedy of the Horizon – Climate Change and Financial Stability", speech, Lloyd's of London, 29 September, www.bankofengland.co.uk/publications/Documents/speeches/2015/speech844.pdf.

Caruso, R. and R. Jachnik (2014), "Exploring Potential Data Sources for Estimating Private Climate Finance", *OECD Environment Working Papers*, No. 69, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jz15qwz4hs1-en.

Cochran, I. et al. (2014), "Public Financial Institutions and the Low-carbon Transition: Five Case Studies on Low-Carbon Infrastructure and Project Investment", *OECD Environment Working Papers*, No. 72, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jxt3rhpgn9t-en.

Convergence (2015), "Case study: Africa Agriculture and Trade Investment", case study, November, https//convergence.finance/knowledge-detail/1ooKOJJFKwwSu68gI8ESYI.

COP 21 (2015), "L'appel de Paris", press release, 16 December, www.cop21.gouv.fr/lappel-de-paris-paris-pledge-for-action/.

Corfee-Morlot, J. et al. (2012), "Towards a Green Investment Policy Framework: The Case of Low-Carbon, Climate-Resilient Infrastructure", *OECD Environment Working Papers*, No. 48, OECD Publishing, Paris, http://dx.doi.org/10.1787/5k8zth7s6s6d-en.

Dalberg (2010), "The Growing Role of the Development Finance Institutions in International Development Policy", report, Dalberg Global Development Advisors, Copenhagen, September.

Di Bella, J. et al. (2013), "Mapping Private Sector Engagements in Development Cooperation", research report, North-South Institute, September, www.nsi-ins.ca/wp-content/uploads/2013/09/Mapping-PS-Engagment-in-Development-Cooperation-Final.pdf.

DCED (2014), "Green Growth and Private Sector Development: Stocktaking of DCED experiences", report for the Donor Committee for Enterprise Development Green Growth Working Group, November, Donor Committee for Enterprise Development, www.enterprise-development.org/page/download?id=2516.

Deutsche Bank (2016), "Deutsche Bank submits Sustainable Energy for Africa proposal to Green Climate Fund", press release, 28 September, www.db.com/newsroom_news/2016/medien/deutsche-bank-submits-sustainable-energy-for-africa-proposal-to-green-climate-fund-en-11700.htm.

FAO (2013), *Trends and impacts of foreign investment in developing country agriculture: Evidence from case studies*, Food and Agriculture Organization, Rome, www.fao.org/economic/est/publications/trends/en/.

FAO/FiBL (2015), "FAO-FiBL Workshop: A Knowledge Exchange Forum for the Development of Green Food Value Chains", workshop background document, 27-28 November 2014, FAO headquarters, Rome, Food and Agriculture Organization and Research Institute of Organic Agriculture, www.fao.org/fileadmin/user_upload/rust/docs/Report%20GFVC-FAO.pdf.

Garside, B. et al. (2016), "Aid and Business for Sustainable Development: Emerging lessons from effective aid–business partnerships in the era of the SDGs", *IIED Issue Paper*, IIED, London, http://pubs.iied.org/16607IIED.html.

GEF (2013), "Time for Transformational Change : The role of the GEF", Global Environmental Facility, Vision Statement by Dr. Naoko Ishii, GEF CEO and Chairperson, www.thegef.org/sites/default/files/publications/GEF-vision-Ishii_0.pdf.

GIZ (2017), "Climate Expert", website, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), www.climate-expert.org/en/home/.

GIZ (2016), "Establishment of a National Competence Centre for Climate Change Mitigation and Adaptation in Morocco (4C Maroc)", January, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), www2.giz.de/wbf/4tDx9kw63gma/F5_Establishment_of_a_National_Competence_Centre.pdf.

GIZ (2015a), "Promotion of Green Economic Development (ProGED) Approach: Reference Document", reference document, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), October, http://greeneconomy.ph/wp-content/uploads/2016/02/ProGED_Reference_for_WEB.pdf.

GIZ (2015b), "Private Sector Adaptation to Climate Change (PSACC): Factsheet Global Programme PSACC", factsheet, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), March, www.giz.de/expertise/downloads/giz2015-en-private-sector-adaptation.pdf.

GIZ (n.d. a), "Support for Scaling up Wind Power in Viet Nam", webpage, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), www.giz.de/en/worldwide/28291.html (accessed 21 November 2016).

GIZ (n.d. b), "Macroeconomic Reforms/ Green Growth Programme in Viet Nam", webpage, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), www.giz.de/en/worldwide/18779.html (accessed 21 November 2016).

Grupo Español para el Crecimiento Verde (n.d.), "¿Qué es el GECV?", webpage, http://grupocrecimientoverde.org/que-es-gecv/quienes-somos/ (accessed 29 September 2016).

Haščič, I. et al. (2015), "Public Interventions and Private Climate Finance Flows: Empirical Evidence from Renewable Energy Financing", *OECD Environment Working Papers*, No. 80, OECD Publishing, Paris, http://dx.doi.org/10.1787/5js6b1r9lfd4-en.

Heinrich, M. (2013), "Donor Partnerships with Business for Private Sector Development: What can we Learn from Experience?", working paper, Donor Committee for Enterprise Development, March, www.enterprise-development.org/wp-content/uploads/DCEDWorkingPaper_PartnershipsforPSDLearningFromExperience_26Mar2013.pdf.

IDH (n.d.), website, www.idhsustainabletrade.com/about-idh/ (accessed 10 October 2016).

IEA (2015), "Accelerating Energy Efficiency in Small and Medium-sized Enterprises: Powering SMEs to catalyse economic growth", Policy Pathway series, OECD/IEA, Paris, www.iea.org/publications/freepublications/publication/SME_2015.pdf.

IFC (2011), "International Finance Institutions and Development Through the Private Sector", a joint report of 31 multilateral and bilateral development finance institutions, International Finance Corporation, Washington, D.C., www.eib.org/attachments/ifi_report-9-13-11.pdf.

Irwin, D. and D. Porteous (2005), "Financial Deepening Challenge Fund Strategic Project Review", report funded by the UK Department for International Development (DfID) and the Bill and Melinda Gates Foundation, Irwin Grayson Associates, Stocksfield, December.

Jachnik, R., R. Caruso and A. Srivastava (2015), "Estimating mobilised private climate finance: methodological approaches, options and trade-offs", *OECD Environment Working Papers*, No. 83, OECD Publishing, Paris, http://dx.doi.org/10.1787/5js4x001rqf8-en.

Johansson de Silva, S., A. Kokko and H. Norberg (2015), *Now pen for business: joint development initiatives between the private and public sectors in development cooperation*, Expertgruppen för biståndsanalys (EBA) (Swedish Expert Group for Aid Studies), Elanders Sverige AB, Stockholm, http://eba.se/en/collaboration-with-the-private-sector-in-swedens-development-cooperation/.

KfW (2015), "Fresh wind, clean energy – Vietnam", project information sheet, Kreditanstalt für Wiederaufbau, www.kfw-entwicklungsbank.de/PDF/Entwicklungsfinanzierung/L%C3%A4nder-und-Programme/Asien/Projekt-Vietnam-Energie-2014_en.pdf.

Kindornay, S. and F. Reilly-King (2013), "Investing in the Business of Development: Bilateral donor approaches to engaging the private sector", report, The North-South Institute and Canadian Council for International Co-operation, Canada, www.nsi-ins.ca/publications/investing-in-the-business-of-development/.

McKinsey (2016), "Bridging Global Infrastructure Gaps", McKinsey Global Institute, June, http://www.mckinsey.com/industries/capital-projects-and-infrastructure/our-insights/bridging-global-infrastructure-gaps.

Miyamoto, K. and K. Biousse (2014), "Official Support for Private Sector Participation in Developing Country Infrastructure", *OECD Development Co-operation Working Papers*, No. 19, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jz14cd40nf0-en.

Miyamoto, K. and E. Chiofalo (2017), "Development Co-operation for Private Sector Development", *OECD Development Co-operation Working Papers*, OECD Publishing, Paris.

Miyamoto, K. and E. Chiofalo (2015), "Official Development Finance for Infrastructure: Support by Multilateral and Bilateral Development Partners", *OECD Development Co-operation Working Papers*, No. 25, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jrs3sbcrvzx-en.

Nakhooda, S., and M. Norman, (2014), Climate finance: is it making a difference? A review of the effectiveness of Multilateral Climate Funds, report, Overseas Development Finance Institute, London.

NCE (2016), *The Sustainable Infrastructure Imperative: Financing for Better Growth and Development*, report, New Climate Economy, the Global Commission on the Economy and Climate, http://newclimateeconomy.report/2016/.

NCE (2014), *Better Growth, Better Climate: The New Climate Economy Report*, report, New Climate Economy, the Global Commission on the Economy and Climate, http://newclimateeconomy.report/2014/.

NYU Stern (2017), "Historical (compounded annual) growth rate in net income and revenues- last 5 years", database, January, www.stern.nyu.edu/~adamodar/New_Home_Page/data.html.

OECD (forthcoming), *Investment Policy Review of Viet Nam*, OECD Publishing, Paris.

OECD (2016a), *Private Sector Engagement for Sustainable Development: Lessons from the Development Assistance Committee*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264266889-en.

OECD (2016b), *Development Co-operation Report 2016: The Sustainable Development Goals as Business Opportunities*, OECD Publishing, Paris, http://dx.doi.org/10.1787/dcr-2016-en.

OECD (2016c), "Africa Enterprise Challenge Fund (AECF), Alliance for Green Revolution in Africa", Private Sector Peer Learning: Mechanism Profiles, OECD, Paris, www.oecd.org/dac/peer-reviews/Africa-Enterprise-Challenge-Fund.pdf.

OECD (2015a), *Policy Guidance for Investment in Clean Energy Infrastructure: Expanding Access to Clean Energy for Green Growth and Development*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264212664-en.

OECD (2015b), *Mapping Channels to Mobilise Institutional Investment in Sustainable Energy*, Green Finance and Investment, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264224582-en.

OECD (2015c), *Climate finance in 2013-14 and the USD 100 billion goal*, a report by the OECD in collaboration with Climate Policy Initiative, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264249424-en.

OECD (2015d), *Social Impact Investment: Building the Evidence Base*, OECD Publishing, Paris http://dx.doi.org/10.1787/9789264233430-en.

OECD (2014a), *Pension markets in focus: 2014,* OECD Publishing, Paris, www.oecd.org/daf/fin/private-pensions/Pension-Markets-in-Focus-2014.pdf.

OECD (2014b), "The growing development potential of other official flows", in *Development Co-operation Report 2014: Mobilising Resources for Sustainable Development*, OECD Publishing, Paris, http://dx.doi.org/10.1787/dcr-2014-8-en.

OECD (2014c), "Using financial instruments to mobilise private investment for development", in *Development Co-operation Report 2014: Mobilising Resources for Sustainable Development*, OECD Publishing, Paris, http://dx.doi.org/10.1787/dcr-2014-15-en.

OECD (n.d. a), "Research collaborative: Tracking private climate finance", webpage, OECD, Paris, www.oecd.org/env/researchcollaborative/.

OECD (n.d. b), "Amounts mobilised from private sector for development", OECD, Paris, webpage,www.oecd.org/development/stats/mobilisation.htm

OECD/WEF (2015), "Blended Finance Vol. 1: A Primer for Development Finance and Philanthropic Funders: An overview of the strategic use of development finance and philanthropic funds to mobilize private capital for development",

Oxfam (2015), "The suffering of others: The human cost of the International Finance Corporation's lending through financial intermediaries", Oxfam issue briefing, April, www.oxfam.org/sites/www.oxfam.org/files/file_attachments/ib-suffering-of-others-international-finance-corporation-020415-en.pdf.

Pereira, J. (2012), "Cashing in on climate change? Assessing whether private funds can be leveraged to help the poorest countries respond to climate challenges", report, Eurodad, Brussels, April, www.eurodad.org/Entries/view/1345788/2012/04/18/Cashing-in-on-climate-change-Assessing-whether-private-funds-can-be-leveraged-to-help-the-poorest-countries-respond-to-climate-challenges.

Pompa, C. (2013), *Understanding challenge funds*, report, Overseas Development Institute, London, October, www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9086.pdf.

PwC (2010), "Business leadership on climate change adaptation: Encouraging engagement and action", report in collaboration with the United Nations Framework Convention on Climate Change (UNFCCC) and the UK Department for International Development (DFID) and the World Council for Sustainable Development (WBCSD), PricewaterhouseCoopers, London, December, www.pwc.co.uk/services/sustainability-climate-change/insights/adapting-to-climate-change.html.

Sanyal, S. and F. Eisenger (2016), "Enabling SME access to finance for sustainable consumption and production in Asia: an overview of finance trends and barriers in India", report, Adelphi/SwtichAsia, February, http://www.switch-asia.eu/fileadmin/user_upload/Publications/2016/Green_Finance_Study_-_2016_-_India.pdf

Sida (2015), "Financing for Development: Swedish Leadership for Sustainable Development", webpage, www.sida.se/English/how-we-work/approaches-and-methods/funding/financing-for-development/swedish-leadership-for-sustainable-development/ (accessed 10 October 2016).

Science Based Targets (n.d.), website, http://sciencebasedtargets.org/ (accessed 26 September 2016).

Trabacchi, C. and F. Mazza (2015), "Emerging solutions to drive private investment in climate resilience", CPI working paper, Climate Policy Initiative, http://climatepolicyinitiative.org/wp-content/uploads/2015/06/Finance-for-Climate-Resilience.pdf.

UN (2015), *Addis Ababa Action Agenda of the Third International Conference on Financing for Development*, 13-16 July, Addis Ababa, Ethiopia, United Nations, www.un.org/esa/ffd/wp-content/uploads/2015/08/AAAA_Outcome.pdf.

UNDP (2016), "Strengthening Capacity and Institutional Reform for Green Growth and Sustainable Development in Viet Nam", webpage, United Nations Development Programme, www.vn.undp.org/content/vietnam/en/home/operations/projects/environment_climatechange/green_growth_and_sustainable_development_project.html.

UNEP (2016), "Demystifying adaptation finance for the private sector", November, in collaboration with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the Federal Ministry for Economic Cooperation and Development (BMZ), the Frankfurt School-UNEP Collaborating Centre and the UNEP Finance Initiative, www.unepfi.org/wordpress/wp-content/uploads/2016/11/DEMYSITIFYING-ADAPTATION-FINANCE-FOR-THE-PRIVATE-SECTOR-AW-FULL-REPORT.pdf.

UNFCCC (2015), *Adoption of the Paris Agreement*, Decision 1/CP.21, 21st Conference of the Parties, Paris, United Nations Framework Convention on Climate Change, http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf.

UN Global Compact/Accenture (2015), "The United Nations Global Compact- Accenture CEO Study Special Edition: A Call to Climate Action", report, www.unglobalcompact.org//docs/issues_doc/Environment/climate/UN-Global-Compact-Accenture-CEO-Study-A-Call-to-Climate-Action.pdf.

USAID (2015), "Partnering for impact: USAID and the private sector 2014-15", report, United States Agency for International Development, www.usaid.gov/sites/default/files/documents/15396/usaid_partnership%20report_FINAL3.pdf.

Vaes, S. and H. Huyse (2015), "Mobilising Private Resources for Development: Agendas, Actors and Instruments", working paper, HIVA - KU Leuven, Leuven, http://lirias.kuleuven.be/handle/123456789/506810.

Venugopal, S. et al. (2012), "Public Financing Instruments to Leverage Private Capital for Climate-Relevant Investment: Focus on Multilateral Agencies", working paper, World Resources Institute, Washington, DC., www.wri.org/publication/public-financing-instruments-leverage-private-capital-climate-relevant-investment.

Whitley, S., E. Chiofalo and S. Barnard (2014), "The role of multilateral climate funds in mobilising private investment: A review of the CTF, GEF, SREP, PPCR and GEEREF", *ODI Working Papers*, No. 398, Overseas Development Institute, London, June, www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9038.pdf.

Whitley, S. (2013), "Five early lessons from donors' use of climate finance to mobilise the private sector', article, 11 February, Overseas Development Institute, www.odi.org/comment/7268-climate-finance-private-sector-donor-lessons.

World Bank (2017), "Enterprise surveys", database, www.enterprisesurveys.org.

World Bank/MPI (2016), *Vietnam 2035 : Toward Prosperity, Creativity, Equity, and Democracy*, World Bank and Ministry of Planning and Investment of Vietnam, World Bank Publishing, Washington, DC.

World Bank (2014), "Designing Credit Lines for Energy Efficiency", Livewire, 88185, https://openknowledge.worldbank.org/bitstream/handle/10986/18410/881850BRI0Live00Box385205B00PUBLIC0.pdf.

OECD

BETTER POLICIES FOR BETTER LIVES