EXPLAINER

THE ROLES OF THE PRIVATE SECTOR IN CLIMATE CHANGE ADAPTATION – AN INTRODUCTION

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KEY MESSAGES

Climate change is set to become one of the most significant – if not *the* most significant – challenges for economies and societies within the next decades. Adapting to its impacts will be crucial for human wellbeing. While the role and responsibilities of the public sector for supporting adaptation and building resilience have been in focus for a long time, awareness for the need to **address and engage the private sector** has steadily grown.

This brief shows that the private sector can play three different roles in and for adaptation. More specifically, it can:

1. **adapt** to climate change;
2. **finance** adaptation of others; and
3. **support** others through products and services for resilience.

By 1. adapting its own operations and assets to climate change the private sector can ensure business continuity and protect those who depend on private jobs or infrastructures. Through this, and by providing 2. funding and 3. products and services for resilience, private entities contribute to achieving the **Sustainable Development Goals (SDGs)** and the targets laid out in existing **Nationally Determined Contributions (NDCs)**.

Yet, the "private sector" is not a homogenous group: **different types of private entities** can and should have different stakes in implementing, financing and supporting adaptation:

- **Small-scale, local companies, entrepreneurs and farmers** have to focus, first and foremost, on their own adaptation.
- **Larger companies, especially if active in multiple countries**, have great potential for playing all three roles – from protecting their own immediate assets to financially and otherwise supporting the wide range of stakeholders in their supply chains.
- **Private associations, cooperatives and multipliers** work, above all, to support the thriving of their members and stakeholders.
- **Banks and investors** should finance both private and public adaptation. However, adapting their portfolios to a warming world and helping clients shape more resilient projects also present crucial levers for reducing vulnerability of the financial and real economy.
- **Insurance companies** can finance public and private entities' reaction to climate change but can also support them in reducing their vulnerability.

A growing body of literature indicates that various challenges affect how private entities approach these roles. **Further research on the specific hurdles for each role** could inform the design of interventions to leverage the full potential of the private sector. In a similar vein, donors could benefit from further insights into **potential entry points to increase involvement of private entities** in adaptation-related activities and projects.

Explaining the "explainer"

Why focus on adaptation?
The line between mitigation and adaptation is becoming increasingly blurred as the synergies and potential co-benefits of adaptation and mitigation actions are better understood. There is a need to communicate mitigation and adaptation measures as interlinked and mutually reinforcing (Global NDC Conference Berlin 2019). At the same time, both mitigation and adaptation are elements of broader risk management in the private sector. Framing them as such is helpful when collaborating with companies for resilience.

Nevertheless, this short explainer focuses specifically on "*adaptation*" as it is based on a previous analysis of adaptation-related projects of the International Climate Initiative (IKI) and their efforts for collaborating with private sector entities. The lessons of this explainer should be used to design interventions that address resilience in a holistic manner.

Why limit the private sector's contribution to three roles?
The three roles were derived from the results of an analysis of real adaptation projects and serve as basis for a better understanding and targeted discussions of the private sector in adaptation.

However, most private entities engage in several roles at the same time. Support programmes to foster private engagement in climate change adaptation can thus rather not be shaped specifically to one role without taking the others into consideration.

FOCUSSING ON THE PRIVATE SECTOR

The debate around climate change has for a long time focused on the role and responsibilities of the public sector. However, as **evidence** on the future extent of climate change and related costs becomes stronger, awareness for the **need to address and engage the private sector** has grown (Schaer and Kuruppu 2018). While efforts have been taken to leverage the role of the private sector, further work in this regard is required.

Morgado and Lasfargues (2017) define the private sector as "organisations that engage in **profit-seeking activities** and have a **majority private ownership** [...]. This term includes financial institutions and intermediaries, multinational companies, micro, small and medium-sized enterprises, co-operatives, individual entrepreneurs, and farmers who operate in the formal and informal sectors. It excludes actors with a non-profit focus, such as private foundations and civil society organisations".

Several **initiatives and facilities** have been established at **global, regional or national level** in order to involve private firms in (financing) low-carbon and climate-resilient development in line with the Paris Agreement and the 2030 Agenda. Examples include the UNFCCC's Adaptation Private Sector Initiative (PSI), the Green Climate Fund's Private Sector Facility and the SEED Partnership for Promoting Entrepreneurship for Sustainable Development.

Development finance institutions increasingly mobilise and catalyse private sector financing in a number of ways, including through co-financing schemes and risk mitigation mechanisms that help build confidence (EBRD 2017). **Development cooperation agencies, NGOs and foundations**, in turn, provide technical assistance, such as in the form of awareness raising, capacity building, fostering of knowledge exchange, advisory for policy framework design, etc. (DCED 2016).

The **private sector** itself has also started taking action. UNFCCC's PSI currently lists over 100 private sector initiatives. Furthermore, companies are increasingly disclosing their climate change risks (Goldstein et al 2019) and are working to seize opportunities of climate change. The Global Adaptation and Resilience Investment Working Group (GARI), for instance, brings together nearly 200 private and public sector stakeholders to discuss critical issues regarding climate adaptation, resilience and investment.

Yet, how exactly can the private sector contribute to climate change adaptation?

THREE ROLES OF THE PRIVATE SECTOR FOR ADAPTATION

The private sector can play three roles in and for adaptation:

1 The private sector adapts to climate change

Climate change **poses a threat** not only to individuals, households and the public sector, but also to the private sector, both in developed and in developing countries (Goldstein et al. 2018). **Slow onset** climate change (e.g. temperature increase and sea level rise) and **extreme weather** events (such as increasingly intense and frequent storms or heat waves) can:

- **directly affect** companies, e.g. by damaging their buildings, disturbing production processes and reducing the productivity of their employees; and
- **indirectly affect** companies, e.g. if critical transport infrastructure is destroyed, a government issues a new regulation to reduce vulnerability of its citizens, or if (financial) markets change.

The private sector will be affected by the **physical, transitional and liability risks** of climate change.

Physical risks: More frequent or severe weather events and slow-onset changes physically affect nature, people and infrastructures. Businesses which depend directly on their natural and built environment will be hit hardest – from farmers to the many small-scale enterprises of the informal sector.

Transitional risks: A transformation towards a less polluting, greener economy could mean that some sectors of the economy face big shifts in asset values or higher costs of doing business. Changes in regulation, technology and market dynamics can affect any business.

Liability risks: Liability risks come from people or businesses seeking compensation for losses they may have suffered from the physical or transitional risks from climate change. This risk is particularly high for companies that emit significant amounts of greenhouse gases – and, if they have liability cover, their insurers.

(CICERO 2017, Bank of England (n.d.))

Against this background, it is important that private entities adapt to climate change simply to **ensure their survival** (Biagini and Miller 2013, Frei-Oldenburg et al. 2018).

Adapting operations and business models to climate change can also be an **opportunity** for companies – it can make them more resilient to shocks than their competitors and allow them to tap new markets for adaptation products and services (Frei-Oldenburg et al. 2018, GIZ 2013). Hence, **adaptation is also a driver of business growth**.

What is more, private sector adaptation also has wider effects for societies and economies. The private sector is a key contributor to **job creation, economic growth and poverty reduction**. In some countries, more than 80 % of **critical infrastructures** (e.g. energy, water, transport, food supply, etc.) are delivered by private actors (Schneider 2014). By investing in its own adaptation, the private sector can increase resilience of its stakeholders, including employees, clients, surrounding communities and local governments (Schaer and Kuruppu 2018).

2 The private sector finances adaptation of others

Private financial institutions and investors such as banks, pension funds, insurance companies or impact investors can **invest in resilience** or **provide funding** for adaptation of others, e.g. through (micro-) loans, bonds or venture capital (Druce et al. 2016).

Increasing awareness and disclosure of the **risks of climate change** already today incentivises financial institutions to **shift investments *away* from companies and activities which are vulnerable** to the physical, transitional and liability risks of climate change, towards those that have a sound business case under changing climatic conditions (S&P Global Ratings 2017).

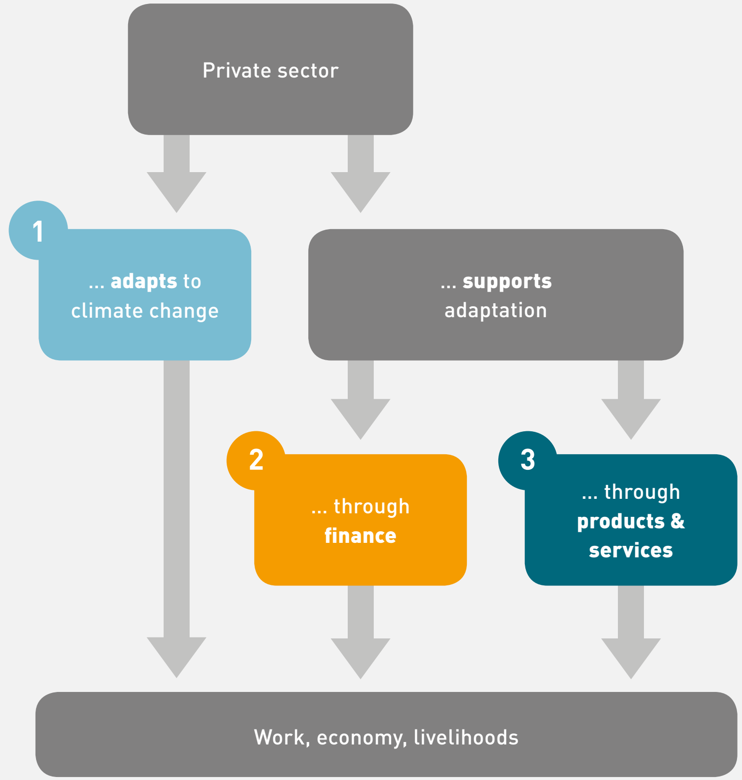
While conceptual and practical issues make it difficult to track how much the private sector already invests in adaptation today, it is clear that significantly more finance from the private sector is needed in order to meet the financing needs for adaptation (UNEP 2016, UNEP 2018, Oliver at al. 2018).

3 Private entities support others through products and services for resilience

Besides critical infrastructure, jobs and financing, private entities can **develop and provide specific products or services** that help others become more resilient and cope with the risks of climate change (Biagini and Miller 2013). For example, in agricultural value chains this may include providing micro irrigation and heat-resistant crop species to small-scale farmers.

FIGURE 1

Three key functions of the private sector in adaptation (adapted from Byiers and Rosengren 2012)



Essentially, the private sector fulfils three tasks regarding adaptation – but who does and should do what? TABLE 1 proposes **potential** different roles of different actors and summarises which of the three roles each type of company / private player **could focus** on in order to lever its strength for resilience building. The pie charts are used to illustrate the suggested focus of efforts and support discussion around the roles of the private sector for adaptation. They are not based on specific numbers.

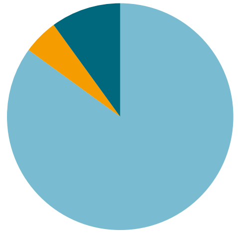
TABLE 1

Overview of roles and activities of the private sector for adaptation, divided by type of entity (authors' own depiction)

1 Adapt to climate change
2 Provide finance
3 Offer products & services

Farmers, entrepreneurs, micro, small-and medium-sized enterprises (MSMEs)

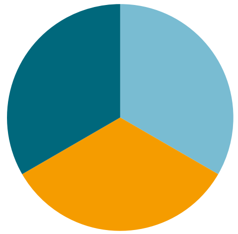
Activities	Examples	Possible focus of adaptation efforts
Implementing adaptation measures to protect own assets and operations	Tyre manufacturer improves water efficiency of production process Several food stall owners jointly invest in installation of sunblinds to protect themselves from direct sunlight	**Small-scale, local private entities** have to focus, first and foremost, on protecting their immediate operations and assets (Schaer and Kuruppu 2018). Given low financial resources, financing adaptation of others does not seem to be a priority for these actors. Yet, considering how difficult it is for many of the smaller, informal companies, to access funding from financial institutions (IFC 2010), their role in financing each other's adaptation through peer-to-peer lending might have to be reconsidered. Adaptation products and services can open up new opportunities for those who have the resources and flexibility to adapt their business models accordingly (Wilson 2018).
Providing small-scale financing for business partners	Roaster pays in advance to allow coffee farmer to purchase irrigation equipment	
Offering products or services that can help clients adapt	Gardening company builds green spaces in urban heat trapped areas Individual business development consultant integrates resilience into advisory for agricultural processing companies	



Possible focus of adaptation efforts by farmers, entrepreneurs and MSMEs

Large enterprises and multinational corporations[1]

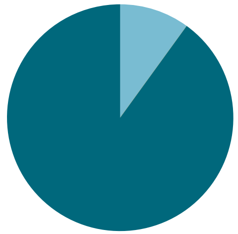
Activities	Examples	Possible focus of adaptation efforts
Implementing adaptation measures to protect own assets and operations	Car manufacturer improves storm resistance of headquarter offices	**Large and multinational companies** need to make their own operations and assets resilient but should also support their suppliers and business partners – financially and through other inputs, e.g. organisational help for local adaptation – in order to avoid business interruption (Averchenkova et al. 2015, Bancilhon et al. 2018). Adaptation can potentially be a large business opportunity for companies that already have clients who are increasingly vulnerable or that want to access new markets (see, for example, UN Global Compact and UNEP 2012).
Providing finance for adaptation of companies in the value chain	Food company pays higher per-unit price to finance adaptation of small-scale farmers who supply raw goods	
Otherwise supporting adaptation of suppliers or business partners	Textile company helps organise local adaptation round tables with companies and government	
Offering products or services that can help clients adapt	Solar panel manufacturer sells solar panels to improve access to energy Large rating agency develops rating methodology for adaptation bonds	



Possible focus of adaptation efforts by large and multinational companies

Associations, cooperatives, multipliers

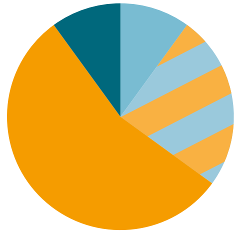
Activities	Examples	Possible focus of adaptation efforts
Informing, advising and supporting the represented actors on adaptation and related topics	Business association organises workshop series to identify climate change vulnerability of its members Private university offers online course on adaptation for start-ups	**Private associations and multipliers** should support their members and stakeholders to ensure their thriving (Frei-Oldenburg et al. 2018). Of course, adapting their operations and assets is also necessary.



Possible focus of adaptation efforts by associations and multipliers

Banks and investors

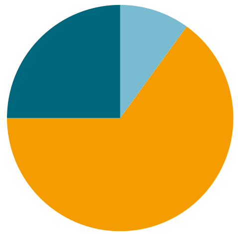
Activities	Examples	Possible focus of adaptation efforts
Implementing adaptation measures to protect own assets and operations	Bank replaces old cooling systems in bank branches	**Banks and investors** will have to finance both private and public adaptation (Druce et al. 2016, UNSG 2015). At the same time, they should also adapt to climate change. For financial institutions with a considerable share of greenhouse gas intensive and/or vulnerable clients in their portfolio, shifting capital towards more climate-friendly and resilient purposes is by itself a crucial adaptation measure (Sullivan 2014). In the pie chart, the segment coloured in blue and orange illustrates this overlap between financing adaptation of others and own adaptation of financial portfolios. Finally, financial institutions could and should use their central position to also technically support adaptation of their borrowers / investees (those remaining after divestment). The importance and potential of this last role might have to be discussed, given financial institutions natural focus on financial rather than technical expertise.
Implementing adaptation and providing finance for resilience by assessing and addressing climate risks in the portfolio	Bank requires borrower to provide adaptation plan as part of credit risk assessment Pension fund shifts investment from oil company to other industries	
Banks and micro finance institutions (MFIs)[2]: Providing loans for bankable/investable[3] adaptation measures or (more) climate-resilient activities	Bank provides loan for purchase and installation of flood defence gates	
Institutional investors[4]: Providing debt or equity for adaptation or (more) climate-resilient activities / companies	Pension fund invests in high-grade corporate bond whose proceeds are used for making operations more resilient	
Impact investors[5]: Providing debt or equity for adaptation or (more) climate-resilient activities / companies	Impact investor invests in funds that provide debt to business or households at a concessional interest rate	
Venture capital investors / business angels:Providing debt or equity for start-up companies or businesses with adaptation solution	Venture capital firm buys shares of start-up developing tools for the dissemination of weather information via mobile phones	
Supporting borrowers / investment objects in shaping (more) resilient activities / business models	Bank provides list of energy- and water-efficient technologies for which companies can obtain cheaper loans	



Possible focus of adaptation efforts by banks and investors

(Re-) Insurance companies

Activities	Examples	Possible focus of adaptation efforts
Implementing adaptation measures to protect own assets and operations	Insurance adapts premia based on more accurate climate models	**(Re-)Insurance companies** provide funding for adaptation in the broader sense, i. e. not preventing climate hazard from affecting people in the first place but contributing to the affected people's coping capacity (EU 2018). Their motivation to technically support adaptation (prior to climate hazards taking place) might be even bigger than that of banks because their profits are more directly linked to such hazards *not* happening. Finally, they also adapt to climate change, e. g. by constantly refining their climate models to be able to assess risks more accurately (Surminski and Hankinson 2018).
Providing (re-)insurance	Insurance company provides insurance for storm damages to private enterprises	
Supporting risk management and adaptation of insurance takers	Re-insurance company provides advisory services to support establishment of local insurance schemes	



Possible focus of adaptation efforts by (re-) insurance companies

CHALLENGES AND FURTHER RESEARCH

The private sector can potentially play different roles in and for adaptation. All **roles should be leveraged** in order to mobilise available resources for successful adaptation to a changing climate. While it feels natural to concentrate on certain roles for certain types of private entities – e.g. adaptation by small enterprises, adaptation finance by financial institutions – it could be helpful to also **foster such roles that are currently less in focus**. For example, smaller and medium-sized companies could play a part in co-financing adaptation of others through peer-to-peer lending; financial institutions could adapt to climate change by supporting their clients in shaping more resilient projects; and/or insurance companies could technically support adaptation to make insurance scheme more manageable.

A number of **challenges affect the possibilities** of private entities to engage in adaptation as described above. A wide range of publications discusses hurdles for different segments of the private sector. For example, Schaer and Kuruppu (2018) have recently edited an extensive collection of perspectives on the role of micro-, small- and medium-sized enterprises in adaptation and challenges therefore; Seville and Gannon (2015) present the outcomes of a survey on the development of and hurdles for corporate adaptation; and Druce et al. (2016) present a systematic overview of barriers to private adaptation finance derived from an analysis of eight publications.

Water pump powered by solar cell at plantation

Such publications, however, do not shed much light on the **different roles** that each type of private entity can play and **how the challenges vary between these roles**. It should thus be considered to conduct further research in order to determine which role comes with which specific barriers and how to address them. A **nuanced understanding** of these challenges may be useful to develop targeted strategies for the engagement or mobilisation of different actors. In a similar vein, donors can benefit from further insights about **potential entry points to increase involvement of private entities** in adaptation-related activities and projects. These may be aimed at supporting partner governments in their engagement with private entities, or address them directly.

Finally, it remains to be said that it is crucial to raise the overall ambition with which the private sector is approached and to move from theory to practice.

ENDNOTES

1 Multinational corporations (MNCs) are defined as "any corporation that is registered and operates in more than one country at a time" (Encyclopaedia Britannica). Such companies have offices and/or factories in different countries.

2 Micro finance institutions typically differ from commercial banks by a number of factors, above all the target group (low income households or groups of people) and collateral, i. e. the asset that serves as security for the lender (not required; greater risk of credit default addressed by higher interest rates).

3 An important pre-condition for projects to be bankable / investable is that they meet the risk-return appetite of banks or investors.

4 Investment funds, insurance companies and pension funds focus on market-rate financial return.

5 Focus on below or at market rate financial return and impact.

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Pictures
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Layout and design
Sebastian Vollmar – vividshapes.com

Publisher
adelphi research gemeinnützige GmbH
Alt-Moabit 9, 10559 Berlin
P +49 (0)30-89 000 68-0
F +49 (0)30-89 000 68-10
office@adelphi.de | www.adelphi.de

Suggested citation
Cochu, Annica; Tobias Hausotter and Mikael Henzler (2019): The Roles of the Private Sector in Climate Change Adaptation – an Introduction. Berlin: adelphi.

DISCLAIMER

This paper is part of the Support Project for the Implementation of the Paris Agreement (SPA), implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and funded by the International Climate Initiative (IKI) of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

INTERNATIONAL CLIMATE INITIATIVE (IKI)

Supported by:

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

based on a decision of the German Bundestag