Institute for Security Studies
SITUATION REPORT

CLIMATE FINANCE

Mobilising private sector finance for mitigation and adaptation

Despite the uncertainties surrounding the risks associated with climate change, it is indisputably one of the greatest challenges of our time. Climate finance supports various climate change mitigation and adaptation activities, as well as efforts to enable the transition towards low-carbon, climate-resilient development. This report focuses on private sector financing and how it can be more effectively mobilised, especially in developing countries. Political instability and financial flaws create barriers for private investors, and it is crucial to overcome these barriers to encourage an enabling environment for private investment. The report investigates the regulatory framework and the role of private sector financing; examines investment barriers; and makes policy recommendations aimed at greater climate resilience. Financial instruments to leverage private investment are outlined, with a focus on the Green Climate Fund.

According to the Intergovernmental Panel on Climate Change (IPCC), climate change can be defined as 'a change in the state of the climate that can be identified (e.g. by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings, or to persistent anthropogenic changes in the composition of the atmosphere or in land use'.[1]

The impacts of climate change on both developing and developed countries are stated in the IPCC's *Climate change 2007 synthesis report* (summary for policymakers), reproduced in the box on page 2. The *4th IPCC assessment report* (AR4) was published in 2007 and the next, the *5th IPCC assessment report* (AR5), is expected to be published in 2014. Although new evidence may have been generated in the meantime, in its *2007 synthesis report* (summary for policymakers), the IPCC made several (non-conclusive) statements on its key findings and uncertainties contained in contributions to AR4 (see box).

Despite the many uncertainties associated with the actual risks posed by climate change, there is no question that climate change is one of the greatest challenges society faces. This is not only inherent in the numerous international agreements on climate change, but has also been emphasised by various political,[3] religious[4] and economic[5] leaders, and heads of international organisations.[6]

Climate change can be addressed by two major policy approaches – adaptation and mitigation. Mitigation means 'implementing policies to reduce greenhouse gas emissions and enhance sinks'.[7] Climate mitigation therefore refers to actions taken to eliminate or reduce the long-term impact of global warming on society.

Climate adaptation, on the other hand, refers to 'initiatives and measures to reduce the vulnerability of natural and human systems against actual or expected climate change effects'.[8] Adaptation measures take various forms: anticipatory and reactive; private and public; and autonomous and planned.

Both mitigation and adaptation activities require high levels of financial support and innovative financial

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Climate change 2007 synthesis report (summary for policymakers)[2]

Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level.

Observational evidence from all continents and most oceans shows that many natural systems are being affected by regional climate changes, particularly temperature increases.

There is medium confidence that other effects of regional climate change on natural and human environments are emerging, although many are difficult to discern due to adaptation and non-climatic drivers.

Global GHG [greenhouse gas] emissions due to human activities have grown since pre-industrial times, with an increase of 70% between 1970 and 2004.

There is high agreement and much evidence that with current climate change mitigation policies and related sustainable development practices, global GHG emissions will continue to grow over the next few decades.

In Africa, by 2020, between 75 and 250 million people are projected to be exposed to increased water stress due to climate change. By 2020, in some countries, yields from rain-fed agriculture could be reduced by up to 50%. Agricultural production, including access to food, in many African countries is projected to be severely compromised. This would further adversely affect food security and exacerbate malnutrition. Towards the end of the 21st century, projected sea level rise will affect low-lying coastal areas with large populations. The cost of adaptation could amount to at least 5 to 10% of gross domestic product. By 2080, an increase of 5 to 8% of arid and semi-arid land in Africa is projected under a range of climate scenarios.

Anthropogenic warming could lead to some impacts that are abrupt or irreversible, depending upon the rate and magnitude of the climate change.

A wide array of adaptation options is available, but more extensive adaptation than is currently occurring is required to reduce vulnerability to climate change. There are barriers, limits and costs, which are not fully understood.

Adaptive capacity is intimately connected to social and economic development but is unevenly distributed across and within societies.

A wide variety of policies and instruments are available to governments to create the incentives for mitigation action. Their applicability depends on national circumstances and sectoral context.

Many options for reducing global GHG emissions through international cooperation exist. There is high agreement and much evidence that notable achievements of the UNFCCC [United Nations Framework Convention on Climate Change] and its Kyoto Protocol are the establishment of a global response to climate change, the stimulation of an array of national policies, and the creation of an international carbon market and new institutional mechanisms that may provide the foundation for future mitigation efforts. Progress has also been made in addressing adaptation within the UNFCCC and additional international initiatives have been suggested.

In several sectors, climate response options can be implemented to realise synergies and avoid conflicts with other dimensions of sustainable development. Decisions about macroeconomic and other non-climate policies can significantly affect emissions, adaptive capacity and vulnerability.

Determining what constitutes 'dangerous anthropogenic interference with the climate system' in relation to Article 2 of the UNFCCC involves value judgements. Science can support informed decisions on this issue, including by providing criteria for judging which vulnerabilities might be labelled 'key'.

There is high confidence that neither adaptation nor mitigation alone can avoid all climate change impacts; however, they can complement each other and together can significantly reduce the risks of climate change.

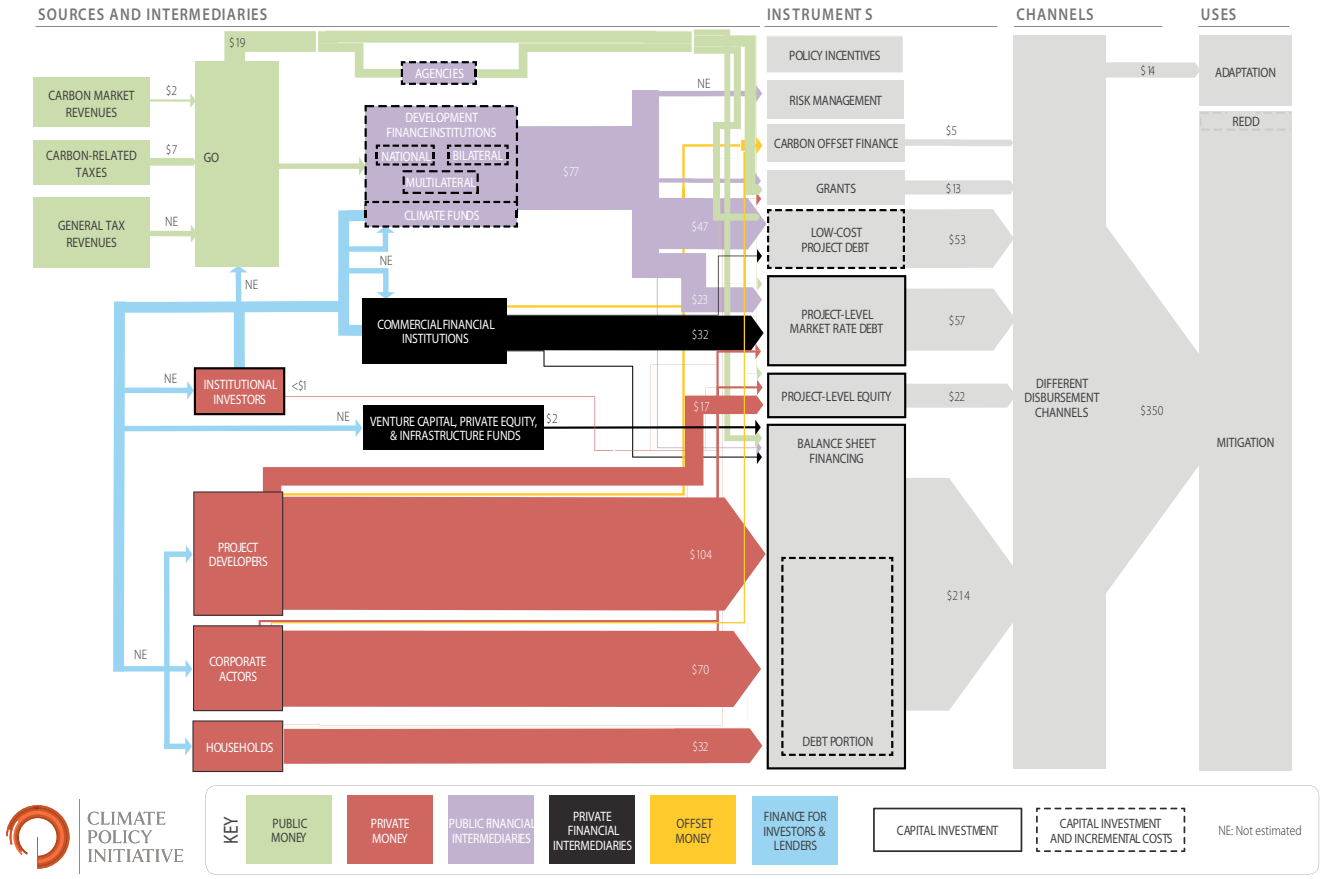
Many impacts can be reduced, delayed or avoided by mitigation. Mitigation efforts and investments over the next two to three decades will have a large impact on opportunities to achieve lower stabilisation levels. Delayed emission reductions significantly constrain the opportunities to achieve lower stabilisation levels and increase the risk of more severe climate change impacts.

mechanisms. The term 'climate finance' is commonly used in this context, although it has not been clearly defined. A succinct working definition, however, is that climate finance comprises financial support for mitigation and adaptation activities, including capacity building and research and development, as well as broader efforts to enable the transition towards a low-carbon, climate-resilient environment.[9]

Hitherto, only a very small share of climate finance has been allocated to adaptation efforts; the greatest quota is used for mitigation measures,[10] arguably because it is rational to invest more in mitigation while climate change can still be avoided.

The latest estimates of the total investment needed to tackle climate change give a clear picture of the challenge. The International Energy Agency (IEA) estimates that the total cost of investment to meet climate goals may amount to $220 billion per year between 2010 and 2020, and almost $1 trillion per year between 2020 and 2030.[11] With regard to the investment needed for adaptation, the World Bank's *World development report* estimates that it costs from $75 to $100 billion per year.[12] A UNFCCC review concluded that the 'additional investment and financial flows in 2030 to address climate change amount to 0,3 to 0,5% of global domestic product in 2030 and 1,1 to 1,7% of global investment in 2030'.[13]

Figure 1 2011 climate finance flows ($ billions)



Source: UNEP 2012, *Bilateral finance institutions and climate change: A mapping of 2011 climate finance flows to developing countries*, http://www.unep-fin.org/publications/unep-bfi-ccwg.html

The issue that needs to be addressed is how to generate sufficient funds to meet climate change-related challenges, and various suggestions have been made. Global funding for climate finance is derived from both the public and private sectors,[14] although the amount of private sector finance is almost three times greater than funding from the public sector.[15] The main methods for generating capital include international taxation and international carbon markets. Official development assistance (ODA) as a source of finance is unlikely to reach the scale necessary to meet high-level international commitments.[16] The UN secretary general's High Level Advisory Committee has therefore considered private finance necessary to meet the targets. However, doubts remain on how private sector financing can be effectively mobilised and channelled, especially for climate adaptation in developing countries.[17]

RECENT INTERNATIONAL DEVELOPMENTS

Since the 1990s, growing awareness of the climate change issues has exposed the topic of financing. The discussions and negotiations in the climate change debate have led to various climate finance instruments and mechanisms. Adjustments to old and the introduction of new climate-related funds have been regularly on the agenda. Following the decisions taken at the 16th Conference of the Parties to the UNFCCC in Cancún (COP 16), the international community embarked on the development of a new funding framework, stating that a new, scaled-up form of additional, predictable and adequate funding is envisaged.[18]

Looking at the Cancún summit agreement in greater detail, the developed countries committed to a fast-track funding of $30 billion for the period 2010–2012. This includes new and additional financial resources, and aims at a 'balanced allocation between adaptation and mitigation'.[19] For the most vulnerable developing countries, the commitment states that funding for adaptation is regarded as a priority. Besides this fast-track pledge, the Cancún agreement also contains a commitment by the developed country parties to a 'goal of mobilizing jointly $100 billion per year by 2020 to address the needs of developing countries'. In principle, this pledge by the international community is one of the largest development programmes undertaken in history.[20]

However, the international debate also acknowledged that there are 'no individual sources that can simultaneously deliver the $100 billion target and meet the full range of end-use requirements'.[21] Hence the Cancún agreement also reaffirmed that funding may derive from multiple sources, including public and private, multilateral and bilateral, as well as alternative sources. In this context, the

Cancún agreement acts on the specific financing provisions of the Bali Action Plan. These provisions call upon enhanced action on the provision of financial resources, including, inter alia, improved access to adequate, predictable and sustainable financial resources; the provision of new and additional resources; the mobilisation of public and private sector funding; and the facilitation of climate-friendly investment choices.[22] The ambitious $100 billion target will require that many of the envisaged funding sources are in place before 2020 'to allow for sufficient time to develop both the capacity to deliver and the capacity to use wisely the flow of funds made available'.[23]

Another important decision reached in the Cancún agreement is the establishment of the Green Climate Fund (GCF). This new financial instrument will channel both the initial $30 billion and a substantial portion of the envisaged $100 billion per year.[24] The Cancún agreement also provides that the GCF will be in charge of a significant share of new funding for adaptation.[25]

The implementation of the GCF, under the guidance of and accountable to the COP, with a balanced and comprehensive governing instrument as well as an intermediary process to get the fund up and running as quickly as possible, was one of the outcomes of the climate negotiations held in Durban, South Africa (COP 17).

Decisions taken at the 18th COP in Doha, Qatar ('the Doha Climate Gateway'), held in late 2012, emphasise the importance of financing mechanisms in the field of climate change. For example, it was decided to

> extend the work programme on long-term finance for one year to the end of 2013, with the aim of informing developed country Parties in their efforts to identify pathways for mobilizing the scaling up of climate finance to USD 100 billion per year by 2020 from public, private and alternative sources in the context of meaningful mitigation actions and transparency on implementation, and informing Parties in enhancing their enabling environments and policy frameworks to facilitate the mobilization and effective deployment of climate finance in developing countries.[26]

The agreement also encourages developed countries to increase efforts to provide finance between 2013 and 2015 at least to the average annual level at which they provided funds during the 2010–2012 fast-start finance period. This is to ensure there is no gap in finance support while efforts are otherwise scaled up. Furthermore, governments will continue a work programme on long-term finance during 2013 to contribute to the ongoing efforts to scale up mobilisation of climate finance and report to the next COP on pathways to reach that target. Germany, the United Kingdom (UK), France, Denmark, Sweden and the European Union (EU) Commission announced concrete finance pledges in Doha for the period up to 2015, totalling approximately $6 billion.

COP 18 has also taken note of the first annual report of the board of the GCF to the COP and endorsed the consensus decision of the GCF board to select Songdo, Incheon, South Korea, as the host of the GCF, on the basis of an open and transparent process.[27]

Meeting climate change targets depends very much on successfully mobilising private capital

Moreover, the UN Climate Change Secretariat and the World Economic Forum have launched an initiative called Momentum for Change: Innovative Financing for Climate-friendly Investment, aimed at recognising and highlighting creative financing models that enable adaptation and mitigation activities in developing countries.

CLIMATE FINANCE AND THE PRIVATE SECTOR

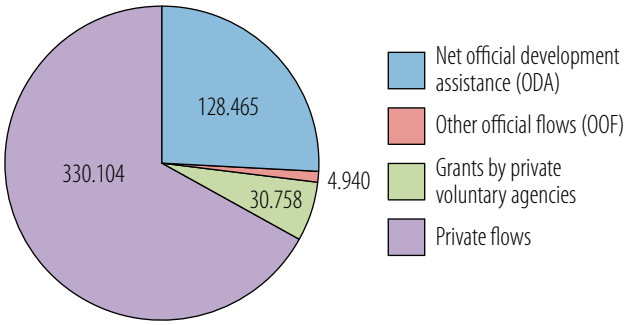
Before the Cancún COP, four groups of potential sources of finance were identified: public sources for grants and highly concessional loans (including, among others, carbon taxation, auctioning of emission allowances and removal of fossil fuel subsidies); development bank instruments; carbon-market finance; and private capital.[28] Accordingly, the Cancún agreements expressly include private investment as one of the sources of funds for developing countries.

The UN secretary general's High-Level Advisory Group on Climate Change Financing stated that private investment in 'mitigation and adaptation activities will depend on a mix of government policies, including regulation, standards, support for new technologies, implicit and/or explicit carbon pricing, [an] improved investment climate and the availability of risk-sharing instruments'.[29]

There are potentially large sources of investment originating in the private sector in general. In 2010, for example, private flows of development aid amounted to $300 billion, according to OECD figures (see Figure 2).

In the climate finance sector, private funding is in the form of debt investments and private equity. Further climate finance instruments include policy incentives, risk management facilities, carbon offset flows and grants.

Figure 2 Development assistance in 2010 ($ millions)



Figures from *Development: Key tables from OECD*, http://www.oecd-ilibrary.org/development/development-key-tables-from-oecd_20743866;jsessi%20onid=1ovg6qen403kx.delta

Innovative mechanisms to activate private capital need to be identified continuously. Ideas to tap private sources for climate finance have emerged, including guarantees, funds of funds, project aggregation mechanisms, climate bonds and public-private funds.[30] All these investment strategies require above all a reliable regulatory framework for attracting private sector capital to tackle climate change, particularly in developing countries. Political instabilities and financial flaws are major barriers for private investors. Nevertheless, the ambitious Cancún commitments and the estimates of international institutions concerning required climate-related investment necessitate a substantial increase in private sector capital. Meeting climate change targets – be it in terms of financial commitments or limiting further temperature increases – depends very much on successfully mobilising private capital. Therefore, it is imperative to overcome barriers and create an enabling environment for private-investor capital.

ROLE OF THE INVESTMENT CLIMATE

Addressing the impacts of climate change requires substantial investment in new technologies, processes and services. Global investment in clean energy is a good example of the relevance of a favourable investment climate for climate change. New investment in the sustainable-energy sector reached $117 billion in 2007, an increase of 41 per cent from 2006 and 400 per cent from 2004.[31] Given that the private sector is the major source of investment in renewable energy and energy efficiency worldwide, a favourable investment climate is essential for increased climate investment. Innovative solutions and technologies can, however, only be implemented if there are adequate conditions for inclusive climate investment, leveraging private sector resources and seizing opportunities for innovation.

A number of instruments to improve the investment climate have emerged at global, regional, national and sub-national levels. Various factors, including poor governance, institutional failures, macroeconomic policy imperfections and inadequate infrastructure, as well as rampant corruption, bureaucratic red tape, weak legal systems and a lack of transparency in government departments, all lead to an unfavourable investment climate. The World Bank's *Doing business* report is one of the instruments that can be used to rank the favourability of a state's business climate. It ranks economies on the basis of nine parameters – starting a business; dealing with construction permits; registering property; getting credit; protecting investors; paying taxes; trading across borders; enforcing contracts; and closing a business. In the past five years, about 85 per cent of the world's economies have made it easier for local entrepreneurs to operate by improving business regulation. The rankings for 185 countries in 2012,[32] however, reveal that of the 33 countries classified as low-income economies, only two fall within the rankings from 50 to 100 (Rwanda, 52nd, and the Kyrgyz Republic, 70th). Of these 33 low-income countries, 17 rank among the last 50 of the 185 countries.

Of the 50 lowest-ranking countries, 32 are in Africa, which is the continent most vulnerable to the effects of climate change. When comparing the World Bank's African Ease of Doing Business rankings of 2011 with the previous year, one can see that ten African countries were ranked the same as in 2010, 24 were downgraded and 17 obtained a higher rank as a result of policy reforms and initiatives that had a positive impact on the investment climate.

These figures correspond with those on foreign direct investment (FDI) in Africa contained in the UN Conference on Trade and Development's *World investment* report. Having reached a peak in 2008, FDI in Africa continued to decline, with divergent trends among subregions. According to the report, 'the fall in FDI flows to Africa seen in 2009 and 2010 continued into 2011, though at a much slower rate. The 2011 decline in flows to the continent was due largely to divestments from North Africa. In contrast, inflows to sub-Saharan Africa recovered to $37 billion, close to their historic peak.'[33] Although it remains difficult for Africa to attract foreign capital and mobilise adequate and sustained levels of domestic private investment, some African countries, including Mauritius, Botswana, Ghana and Tunisia, have made progress and could achieve higher levels of investment.[34]

INVESTMENT BARRIERS

Investment barriers have to be evaluated according to the specific environment of each individual country. Several attempts have been made to categorise investment barriers. A survey of those attempts reveals that the barriers are interrelated and, therefore, cannot be strictly divided into groups. However, certain features do allow for a degree of their categorisation into political/regulatory, project-related and financing barriers, bearing in mind that single risks are correlating and the financing-related risks in particular

are linked to the political and project-related barriers to a certain extent.[35]

With regard to the first category, key risks for private sector investors are linked to political and/or regulatory instabilities. This group of barriers includes political instability, insecurity of property rights, lack of knowledge of legal systems, currency risks and the instability and uncertainty of the regulatory and policy environment, including, for example, the longevity of incentive programmes.[36]

Another group of barriers is project-related. In this group, technology risks, such as limited performance track records or limited market penetration, play an important role.[37] Technology risks usually come with high initial costs for the developer. Other project-related risks include execution and unfamiliarity as a result of insecurity in terms of the capacities and experiences of local project developers. These are also often based on the lack of investor experience in what is an unknown field.[38]

The third group of barriers is related to financing risks. These partly result from regulatory and/or project-related barriers, and partly consist of original risks. This category, particularly, features technology cost gaps between high- and low-emission alternatives.[39] Although some renewable energy technologies are developing fast, they are still in their infancy in terms of their market performance. As with any new technology, project developers face high market volatility. Consequently, market entry entails intensive capital investment. In addition to this technology cost gap, the financial challenges are substantially increased by market distortions based on the market maturity of conventional high-emission technologies and subsidies for the fossil fuel sector, which fall under the first group of regulatory barriers and have to be addressed by the policymaker. Further financial risks include, but are not restricted to, debt availability, reasonable debt terms and equity availability.[40] Developing countries in particular often have undeveloped financial markets, which makes reliable estimates for risk-adjusted returns difficult and results in a lack of financial instruments to diversify risk over long-term projects.[41]

Overcoming investment barriers

Mobilising private sector engagement in climate change mitigation and adaptation requires political and financial programmes to overcome substantial barriers at various levels. A catalogue of coordinated and integrated measures must aim to develop a supportive and enabling environment for climate change-related investment. According to the different categories of barriers discussed above, support policies have to be addressed and implemented at different levels. While the design of strategies and programmes generally emanates from the policy level, project developers and private investors require concrete financial instruments to support their engagement in climate change-related activities.

At the policy level, an enabling investment environment requires governments to design and implement strategies and policies for low-emission development.[42] Strategies and policies for low-emission development include measures like reforms of fossil fuel subsidies, renewable-energy feed-in tariffs and energy efficiency programmes.

Governments need to design and implement strategies for low-emission development that include reforms of fossil fuel subsidies, renewable energy feed-in tariffs and energy efficiency programmes

The policymaker has to coordinate these measures and integrate them in a coherent policy framework. Without such government intervention, low-emission alternatives will not be competitive. Removing fossil fuel subsidies and pricing the carbon externality adequately will alleviate pricing distortions that currently work against renewable energies and energy efficiency, and will contribute to creating a level playing field in the market for energy sources.[43] However, the extent to which policy support measures can contribute to market transformation depends on the strength of national leadership and the reform programme itself.[44] Support measures will only reach maximum efficiency and vigour if the regulatory framework is strict and transforms markets according to climate change necessities. Only markets that provide a level playing field for energy sources will attract sufficient private investment. Regulatory measures therefore have to be applied market-wide, as opposed to being directed to single projects or technology solutions in particular.[45]

The need for integrated policy reform and a coherent regulatory framework poses great challenges for developing countries. Climate change programmes and strategies cannot be divorced from a country's broader economic and social development programmes, but have to be closely integrated with development strategies and investment plans.[46] Ambitious attempts to coordinate climate change and development strategies compound already existing financial constraints. In this context, financial assistance does not provide direct funding for private sector activities but goes into national government budget accounts to support policy reform.[47]

FINANCIAL INSTRUMENTS TO LEVERAGE PRIVATE INVESTMENT

For the design of any climate finance architecture, it remains crucial to ensure that scarce public funds are used to mobilise private sector investment.[48]

A number of financial tools and initiatives can be used to address investment risks and potential barriers. They follow different approaches, in that they leverage either debt or equity via direct public financing or by providing public guarantees. Such financial tools are designed to facilitate a flexible approach to the specific conditions of the project or the specific needs of the country in question. In general, these financial instruments aim to strengthen the role of the private sector as an investor and focus on providing new sources of capital for developing countries.[49]

Among the financial tools to alleviate debt, loan guarantees and policy risk insurances are most prominent. Both these tools protect private-capital investors against risks of default. By using loan guarantees, governments and/or other public finance institutions underwrite loans to projects, thereby ensuring that the loan will be repaid if the borrower is not able to pay.[50] Similar instruments that decrease risk of default for private investors are cash grants and concessional financing. Policy risk insurances are used for climate investments in developing countries to reduce political, currency-related and legal risks in order to ensure private investors gain adequate returns.[51] This financing instrument may involve conventional insurance that covers the risk of policy change – for example, the risk of abandoning or reducing an existing feed-in tariff supporting renewable-energy projects.[52] Policy risk insurances are able to reduce certain risks included in the regulatory framework and provide investors with a degree of certainty. However, this option may not be feasible for all developing countries. The insurance sector will factor the risks involved in every country so that this financing instrument will be 'most likely to succeed in countries with strong regulatory systems and institutions, and where certain policies are already in place or under development'.[53]

Equity-leveraging tools are either structured as funds that directly invest in companies and projects, or as funds of funds that invest in commercially managed funds, which then invest in concrete projects.[54] Pledge funds are one of the instruments used for leveraging private equity. In this model, governments or international financial institutions act as public finance sponsors, in that they provide an initial amount of equity to mobilise much larger amounts of private capital.[55] Pledge funds are an interesting financing option in cases where projects have difficulty accessing sufficient equity because capital investors are reluctant to invest as a result of geographic, country or execution risks.[56] They can also be used for projects that have a strong rate of return but limited access to equity because they are too small for private investors to consider.[57]

The fund of funds approach is an attractive solution for institutional investors, as it allows for diversification of risks and greater investment scales.[58] In this model, a public funder invests as a limited partner into a private fund, which, in turn, invests in other private investment funds.[59] The selection of the second-stage funds is supposed to offer different levels of risk profiles reflecting country or technology-sector specificities. If managed successfully, the fund of funds model offers investors access to countries or sectors that they might otherwise not have considered due to insufficient expertise to evaluate the risks of financial commitments.[60]

Another method of leveraging equity is the provision of so-called subordinated equity. In this model, public finance is used under the condition that private-equity investors have priority over public funds in the reimbursement. Therefore, subordinated-equity funds contribute to increasing the risk-adjusted returns of private-equity investors by ensuring that they have first claim on the distribution of profits.[61]

ROLE OF THE GCF IN PRIVATE SECTOR FINANCE

The climate change regime consists of several funding instruments. In addition to the general financing mechanism given in Article 11 of the UNFCCC, operated by the Global Environmental Facility, further funding instruments complement the financial regime. Although the Climate Investment Funds,[62] the Special Climate Change Fund and the Least Developed Countries Fund were established under the UNFCCC, the Adaptation Fund is not regulated by the Convention but by the Kyoto Protocol.[63] In addition to these funds, the Cancún agreements established a new funding instrument, the GCF. This fund is supposed to play a central role in the ambitious $100 billion funding target. Consequently, the GCF will also be an important player when it comes to mobilising private sector capital.

Current framework

The GCF was established within the UNFCCC. The purpose of the GCF is to contribute to achieving the ultimate objective of the UNFCCC. The GCF will be an operating entity of the financial mechanism under Article 11 of the UNFCCC, and will be governed and supervised by a board with full responsibility for funding decisions.[64] An interim secretariat runs the daily business for the board of the GCF, and as an interim trustee, the World Bank manages the fund's financial assets. The main task of the GCF is to support projects, programmes, policies and other activities

in developing countries relating to climate change by using thematic funding windows.[65]

According to the decision made at the Cancún summit, the GCF is supposed to channel a significant share of new multilateral funding for adaptation.[66] With regard to the substantial pledges made by the developed countries in the Cancún agreement, the GCF will play a central role in the climate change financing system. This role was highlighted at COP 17, when the GCF was officially launched and its governing instrument approved. According to the latter, the purpose of the GCF is to make a significant and ambitious contribution towards achieving the goals of the international community in fighting the climate change challenge.[67] The governing instrument of the GCF states that the GCF will receive financial inputs from developed country parties and is open to funding from a variety of other public and private sources.[68] In the long run, it is envisaged that the GCF will become 'the main global fund for climate change finance'.[69]

As a consequence of the ambitious targets set out for the GCF, its governing instrument provides for specific regulations concerning the integration of private financial resources. A private sector facility is in place to directly and indirectly finance private sector mitigation and adaptation activities at the national and international levels.[70] This facility will support in particular private sector actors engaging in developing countries.

The GCF governing instrument lists grants and concessional lending as financial instruments. Financing can also be provided by other modalities, instruments or facilities after approval by the board. According to the governing instrument, the financing of projects has to cover the identifiable additional costs of the investment that are regarded as necessary to make the project viable.[71]

Key issues

One of the main challenges of the GCF will be to find its place in the already diverse climate financing architecture. It will be interesting to follow how its relation to the other funding mechanisms mentioned above will develop. The GCF will only become the envisaged key financing mechanism if it manages to operate on a large scale. This depends on the level of public funds contributed by the developed states as well as the 'attractiveness of the vehicle, particularly as a catalyst for private sector investment'.[72]

With regard to the various barriers, the GCF will have several opportunities for engagement. The support for public sector projects and policy reform programmes through tools like budget support will be a crucial element for building a consistent and reliable enabling environment for private investment.[73] In addition to the support of enabling policy and regulatory environments, the GCF will also have to directly leverage public climate funds through risk-reduction instruments and new climate instruments to attract private investment.[74] Certain tools have been mentioned above and include risk guarantees and pledge funds or funds of funds. Correspondingly, it will be necessary that the design of the GCF incorporates ways of leveraging private capital in order to both make direct investments and support the necessary enabling frameworks in developing countries.[75]

Another key issue follows from the GCF's envisaged role in channelling a significant share of new adaptation funding. For the GCF, the task of strengthening adaptation activities will translate into specifically focusing on private sector engagement. It is developing countries with low country creditworthiness that are the most vulnerable and least able to attract private investment, as they require adaptation investments (e.g. water or agriculture), which are less attractive to private investors than mitigation activities, for which large investments in infrastructure are needed (e.g. energy and transport).[76]

This dilemma is illustrated by the fact that, in terms of pledges, mitigation receives ten times more resources globally than adaptation. Consequently, Africa receives the lowest level of funding, as mitigation finance is directed to fast-developing economies.[77] Given this, the GCF will need to break down the existing climate financing structures and make a strong case for adaptation.

As discussed, when introducing the Adaptation Fund, it remains crucial to develop secure, adequate and predictable funding streams to finance the adaptation needs of poorer, more vulnerable countries.[78] The GCF, therefore, needs to develop structures and methods that ensure that public funds are prioritised for adaptation costs, particularly in the most vulnerable countries.[79] However, it will also be mandatory for the GCF to substantially increase private sector engagement in adaptation activities. In order to attract private investment, it is necessary to understand the role that private sector finance can play in the most vulnerable countries.[80] If the GCF manages to prioritise public funds for adaptation and mobilise additional private investment on a substantial scale, it could make a strong case for adaptation. Accepting this role, it will still be a challenge for the GCF to complement and develop, rather than duplicate and impede, the functions and activities of the Adaptation Fund.

CONCLUSION

The IEA estimates that the investment needed to meet climate goals may amount to $220 billion per year between 2010 and 2020, and almost $1 trillion per year between 2020 and 2030. Mitigation and adaptation activities require a great deal of capital, innovative financial mechanisms and long-term commitment.

Considering that the amount of private finance is almost three times greater than funding from the public sector, it is imperative to continuously mobilise private sector finance

for mitigation and adaptation. To this end, it is pivotal to create a favourable investment climate for private sector investment in clean and climate-resilient technologies, and renewable energy. Only a stable and competitive risk-return profile of climate investments will mobilise private sector capital and contribute to achieving the significant investment levels required in international climate finance.

Mobilising private sector engagement in climate change mitigation and adaptation requires political and financial programmes to overcome substantial barriers on different levels. Ideas to tap private sources of climate finance have emerged, such as guarantees, funds of funds, project aggregation mechanisms, climate bonds and public-private funds. Further approaches for attracting private capital will need to be designed to meet climate change-related challenges. With regard to the most vulnerable regions in the world – the countries that are most affected by the detrimental effects of climate change – it will be important to address the disparity between the financial resources spent on mitigation measures and those spent on adaptation. It is hoped that the GCF will play a key part in channelling new, additional, adequate and predictable financial means from both public and private sources at both international and national levels.

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NOTES

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climate change framework, such as the Clean Development Mechanism, official development assistance (ODA) related to climate change projects and other national and international funding dedicated to climate change mitigation and adaptation. This attempt to classify climate finance also remains vague. Moreover, it adds to the already controversial debate on the relationship between climate funding and ODA. A useful classification of climate finance should emphasise that it consists of both public funds and private sector capital, and that it can be differentiated from ODA without losing an integrated perspective, which is particularly important for developing countries.

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