G20 Climate Finance Study Group

Report to the Finance Ministers

September, 2014

Executive Summary

The CFSG was established by Finance Ministers, in April 2012, and was welcomed by Leaders in the Los Cabos Summit, in June 2012, with a view "*to consider ways to effectively mobilize resources taking into account the objectives, provisions and principles of the UNFCCC*". In November 2012, Finance Ministers agreed to "*continue working towards building a better understanding of the underlying issues among G20 members taking into account the objectives, provisions and principles of the UNFCCC*", and also recognized that the "*UNFCCC is the forum for climate change negotiations and decision making at the international level*".

Following the mandate of the group, and building on the CFSG 2013 Report, the Group identified four areas to be studied in 2014, namely: (a) Financing for adaptation; (b) Alternative sources and approaches to enhance climate finance and its effectiveness; (c) Enabling environments, in developing and developed countries, to facilitate the mobilization and effective deployment of climate finance; (d) Examining the role of relevant financial institutions and MDBs in mobilizing climate finance. This report aims to present to the G20 Finance Ministers and Leaders a range of non-exhaustive policy options ("toolbox") for voluntary consideration, related to these four areas, and to suggest further work on other important issues on climate finance.

It is also important to note that the work done in 2014 covers some important matters related to the challenge of mobilizing climate finance, while many other issues were not studied. **This toolbox, which was prepared based on the various initiatives G20 countries are pursuing, simply provide examples of policies, approaches and instruments with the potential to contribute to enhancing the mobilization and effectiveness of climate finance, for respective governments to consider in light of their national circumstances, and taking into account the objectives, provisions and principles of the UNFCCC**.

It is highlighted that there is no "one-size fits all" policy and that country ownership is a key element to guide the enhancement of climate finance. It is hoped that such a toolbox is considered useful and used as a basis for further consideration, taking into account national circumstances and priorities. In addition, it is also important to emphasize that, when considering the adoption of such instruments, countries should conduct proper and specific analysis in order to understand the risks involved and also to design their policies and tools to address potential unintended impacts on development, including equity issues.

As next steps for 2015, if so requested by the Finance Ministers and Leaders, the CFSG could look further into the following areas:

- Consider the fragmented structure of current climate finance and improve collaboration, dialogue and cooperation between funds;
- Adaptation finance, including concrete examples of mobilization of public finance and especially to support the most vulnerable;
- Exploring the effectiveness of policy options identified in this Report, the identification of further barriers to their deployment, and consider potential collaboration and private sector engagement;
- Share past experience on approaches for the mobilization of public sector finance.

Policy options identified by the CFSG in 2014

1. Financing for adaptation	
	1.1 Public sector actions and incentivizing private sector to incorporate climate risks and adaptation costs in planning, financing and investment decisions
	Provide public finance for adaptation, for example in the activities that support those most vulnerable to climate change
	Develop and disseminate **reliable information on climate risk projections** and, when possible, **guidance on how best to factor these risks and impacts into public and private investment**
	Promote **capacity building**, education and knowledge sharing about climate risks
	Identify and **raise awareness on investment opportunities** associated with adaptation, focusing on the country or sector level
	Engage and support **early dialogue and knowledge-sharing** between a broad audience of stakeholders, including the private sector
	Support the development of a credible and **strong pipeline of high quality investments to facilitate private investment, especially in infrastructure and SMEs**
	1.2 Identify and support risk management instruments
	Regional insurance mechanisms – multi-country risk pools
	Support for insurance market development in agriculture, fisheries, etc.
	Credit lines and microfinance, with a special focus on local SMEs and MSMEs
	Project preparation funds and development tools and capacity building, in particular for assessing risks and impacts
	Technical assistance –directed towards investment readiness for private sector entities
	Partnership approaches e.g. long-term public-private contracts to provide public services and spread investment, or communities of practice

2. Alternative sources and approaches to enhance climate finance and its effectiveness	
	Promoting alternative and effective financial instruments to enhance climate finance and stimulate climate-friendly private investments
	Risk-sharing tools to overcome barriers for investment, deepen markets and speed up transformation
	Climate change **credit lines/funds**, especially working with **local financial institutions**
	Enhancing financing in local currency
	Developing Public-Private Partnerships to support investments in energy efficiency, clean energy technologies, transport, and other areas
	Use climate finance to provide **risk capital to support climate investments** (e.g., through **equity funds**)

	Using **project-preparation funds or facilities** to help prepare high-quality and viable projects for financing from public and private sources.
	Further developing the market for green or climate bonds, for instance by promoting standardization
	Develop alternative instruments to generate resources to support sustainable development, while addressing the potential unintended impacts on development, including equity issues

3. Enabling Environments, in developing and developed countries, to facilitate the mobilization and effective deployment of climate finance	
	3.1 Importance of building on national strategies for the mobilization and deployment of climate finance
	Aligning climate finance investments with **recipient countries' priorities**
	Supporting **Nationally Appropriate Mitigation Actions** (**NAMAs**), linking climate finance and integrated national strategies
	Support and develop sound and stable domestic policy frameworks, which are key to boost low-emission and climate-resilient investments and attract climate finance
	Encourage the provision of **capacity building and technology transfers** in particular from developed countries to developing countries
	3.2 Instruments for promoting efficiency in cleaner technology deployment
	Promote competition so as to *inter alia* enhance cost efficiency and decrease costs associated with the adoption of clean technologies
	Support and develop specific policies and instruments such as **performance standards** (e.g. for efficient use of energy and resources, and building codes), recognizing that these policies should be WTO-consistent
	Support and develop instruments such as **emissions reduction funds** to source and fund low-cost emissions reductions or provide **results-based payments**
	Consider as a temporary measure, where WTO-consistent, **the use of feed-in tariffs to boost alternative technology deployment**
	Competitive bidding processes can help reduce prices of clean technologies
	Provide appropriate support for technology transfers to developing countries
	3.3 GHG emission pricing approaches
	Consider the implementation of **emissions trading systems** (ETS)
	Consider the development of domestic **emissions/carbon taxes**
	Rationalize and phase out inefficient fossil fuel subsidies that encourage wasteful consumption
	Consider the development of carbon offset projects

4. Examining the role of relevant financial institutions and MDBs in mobilizing climate finance

	4.1 Recognize the respective roles of dedicated climate funds as well as relevant IFIs and MDBs
	Support MDBs and other relevant IFIs in playing an important role in helping client countries adapt to climate change and implement low-emission strategies
	Strengthen the GCF as a central mechanism to deploy climate finance towards developing countries
	Use other **climate-dedicated funds** to channel complementary climate finance to help combat climate change
	Encourage close collaboration and cooperation across the different relevant institutions
	4.2 Link MDBs and relevant IFIs' climate activities with countries' strategies
	Use Country Partnership Strategies to bring climate and environmental issues into sharper focus and embed them in the general development strategy, while reflecting the **diverse needs of individual countries**
	Encourage the use of programmatic approaches as an organizing framework for the activities of actors across institutions, stakeholder groups and sectors, depending on specific circumstances
	Support relevant financial institutions and MDBs in playing an important role in mobilizing climate finance, with the understanding that the priority of MDBs is development and poverty reduction

Contents

I - Context and purpose of the work of the G20 CFSG

The CFSG was established by Finance Ministers, in April 2012, and was welcomed by Leaders in the Los Cabos Summit, in June 2012, with a view "*to consider ways to effectively mobilize resources taking into account the objectives, provisions and principles of the UNFCCC*". In November 2012, Finance Ministers agreed to "*continue working towards building a better understanding of the underlying issues among G20 members taking into account the objectives, provisions and principles of the UNFCCC*", and also recognized that the "*UNFCCC is the forum for climate change negotiations and decision making at the international level*".

In 2013, consistent with the Los Cabos mandate, the work of the Climate Finance Study Group was mainly focused on experience-sharing. Thanks to this work, the report of the Climate Finance Study Group was welcomed at the Saint-Petersburg Summit on September 6th:

"*We welcome the report of the G20 Climate Finance Study Group on G20 countries' experiences on ways to effectively mobilize climate finance taking into account the objectives, provisions, and principles of the UNFCCC. For the purpose of elaborating on the issues and identifying approaches to climate finance, we ask our Finance Ministers to continue the work building on the working group report and report back to us in one year*."

G20 countries are dedicated to reducing poverty and promoting sustainable development and global economic prosperity. In 2014, G20 Finance Ministers and Central Bank Governors committed to developing new measures with the aim of raising economic growth and employment. Effective actions, including those related to climate finance, to address climate change can be considered in this context, in terms of risks /opportunities for sustained growth and improved livelihoods, with specific attention given to the needs of developing countries for sustainable development and poverty eradication.

The CFSG worked throughout 2014 to fulfill its mandate, building on its 2013 Climate Finance Study Group report, which proposed that the Group worked towards *"providing the Ministers and Leaders with a better understanding of climate finance issues and a range of policy options - on the different issues identified as key by the group, including effective ways to mobilize resources for climate finance, consistent with UNFCCC principles and ensuring that there is no duplication with UNFCCC processes"*. The 2013 report had also identified inter alia four broad areas of work to focus on:

- ***Financing for adaptation**, with a focus on the barriers in scaling up private sector involvement and investment and the possible ways to overcome them, notwithstanding the fact that public finance will continue to be a key financing source for adaptation;*
- ***Alternative sources and approaches** to enhance climate finance and its effectiveness, with a focus on best practices in risk allocation between the public and private sector, taking into account the objectives, provisions and principles of UNFCCC;*

- ***Enabling environments**, in developing and developed countries, to facilitate the mobilization and effective deployment of climate finance, including from developed to developing countries and also domestic activities;*

- ***Examining the role of relevant financial institutions and MDBs** in mobilizing climate finance, with the understanding that the priority of MDBs is development.*

The CFSG recognized the potential contribution that the mobilization of private sector finance and alternative resources can provide for climate action, while recognizing that public finance will remain key in the fight against climate change. Several G20 members emphasized that, given the UNFCCC principles and provisions, public finance from developed countries to developing countries should be a key issue considered in the analysis. Several members noted that the G20 had no legitimacy to intervene in UNFCCC discussions and thus cannot provide guidance over commitments taken in such fora.

II – Principles and modalities of work

Principles. The CFSG reaffirms that all its work and discussions held are respectful of the principles, provisions and objectives of the United Nations Framework Convention on Climate Change – UNFCCC.

The CFSG has chosen to pursue in 2014 the sharing of national experiences between G20 countries, with a focus on initiatives that countries are undertaking, recognizing and distinguishing between:

- International financing dialogue, based on the voluntary sharing of national experiences, exchange of knowledge and lessons learned, including on how developed countries deliver on their financial commitments under the UNFCCC to provide new and additional climate finance to developing countries; and

- Domestic climate financing to support climate action at the national level, carried out in accordance with national and domestic circumstances of each country member in its sustainable development efforts.

Modalities. The CFSG has held two meetings this year, the first in Korea in May and the second in Brazil, in September. The present report builds on discussions held during these meetings as well as answers provided by the members on a voluntarily-based questionnaire circulated by the co-chairs on the four key areas highlighted above and other inputs provided by members.

Following the mandate of the group, recognizing that there is no "one-size fits all" policy and that country ownership is a key element to guide the enhancement of climate finance, this report aims to present to the G20 Finance Ministers and Leaders a range of **non-exhaustive policy options** ("toolbox") for consideration and suggest further work on other important issues on climate finance. **Therefore, this toolbox, which was prepared based on the various initiatives G20 countries are pursuing, simply provides examples of policies, approaches and instruments with potential to contribute to enhancing the mobilization and effectiveness of**

climate finance, for respective governments to consider in light of their national circumstances.

The policy options are organized along the four broad areas proposed in the 2013 CFSG report to the Leaders. Within these areas, the non-exhaustive policy options are grouped together in most possible homogenous subcategories corresponding to the main topics brought forward by the members in their exchanges. This categorization does not aim at reflecting an overall balanced picture of climate finance stakes and does not prejudge any equilibrium of discussion in other fora, and in particular within the UNFCCC. In particular, while lots of options discuss the possible avenues to foster mobilization of private finance, this reflects the chosen areas of focus of this report without downplaying in any way the importance and role of public finance.

Each group of policy options is introduced by a summary of the topics and issues brought forward by the members in their exchanges, and illustrated by quotations from the members' written inputs included in the annex.

III –Summary of exchanges and policy options identified

1. Financing for adaptation

1.1 Public sector actions and incentivizing private sector to incorporate climate risks and adaptation costs in planning, financing and investment decisions

1.1.1 Topics and issues highlighted by members

- **Public finance is expected to continue to play a key role in adaptation financing, for example in the activities that support those most vulnerable to climate change.**

- Appropriate public sector intervention and financing can help leverage complementary and vitally needed resources from the private sector, which often faces barriers and lack of incentives to invest sufficiently.

- Barriers to private sector involvement can include: the quality of information on projections of climate risk for private investments and businesses, lack of understanding of the stakes involved, reliable information and capacity on how to factor these risks into investment planning, lack of incentives and perceived opportunities; and the nature of short-term business motives such as the risk/reward profile and general lack of awareness of existing potential incentives.

- Climate change causes uncertainty and unpredictability, which often affects or delays private actors' decision making, particularly when considering the long term issue of adaptation to climate change (as opposed to mitigation issues). Businesses need adequate information to understand what types of impacts to prepare for, and how and when to respond.

- Resilience may also offer private sector opportunities. Opportunities to scale up public-private collaboration on building resilience (the ability to withstand or recover

quickly from difficult conditions) are largely untapped, partially because resilience is often viewed as the sole responsibility of the public sector. However, successful businesses are those which best adapt in a continually changing market; there is, therefore, an avenue to build resilience to direct and indirect risks, whilst seizing market opportunities to sell new products and services that build the resilience of others.

- It is important to consider the very local and context-specific nature of adaptation needs.

- There is a need to take a long-term structural approach and engage all stakeholders at the earliest possible stage, in order to gradually build the market for climate related investments, and it is important that public effort helps to build the corresponding enabling framework.

1.1.2 Range of possible policy options tackling the different issues highlighted by members

- **Provide public finance for adaptation**, for example in the activities that support those most vulnerable to climate change.

- Develop and disseminate **reliable information on climate risk projections** and, when possible, **guidance on how best to factor these risks and impacts into public and private investment.**

- **Promote capacity building, education and knowledge sharing about climate risks,** including by engaging small and medium enterprises, the financial sector and insurance companies.

- **Identify and raise awareness on investment opportunities** associated with adaptation – focusing on the country or sector level – as it will be key to incentivize private sector financing for adaptation. Adaptation efforts can provide opportunities to **reduce vulnerability, improve livelihoods and promote sustainable development.**

- Engage and support **early dialogue and knowledge-sharing** between a broad audience of stakeholders, including the private sector.

- Support the development of a credible and **strong pipeline of high quality investments to facilitate private investment, especially in infrastructure and SMEs**. Private sector appetite for investment is influenced by domestic regulations, financial returns and investment risk.

1.2 Identify and support risk management instruments

1.2.1 Topics and Issues highlighted by members

- Various mechanisms already exist and are used to provide a framework for the private sector to manage risks and overcome the barriers identified above (information, uncertainty, early planning strategies, etc.).

- Insurance mechanisms could be further explored in various forms, including through regional insurance mechanisms and support for the expansion of rural insurance.

- The relevance of other instruments should be highlighted, such as supported credit lines, capacity building and project development tools. Support for the preparation of projects (e.g., through project preparation funds and technical support) can also help to engage the private sector in adaptation, mobilize actors, increase interest and awareness of opportunities.

1.2.2 Range of possible policy options tackling the different issues highlighted by members

- Supporting one or several of the following mechanisms may promote greater private sector engagement through helping mitigate risk of adaptation projects and programmes :

    - **Regional insurance mechanisms** – multi-country risk pools;

    - **Support for insurance market development** in agriculture, fisheries, etc.;

    - **Credit lines and microfinance** – with a special focus on local SMEs and MSMEs;

    - **Project preparation funds and development tools and capacity building**, in particular for assessing risks and impacts, are important to increase private sector involvement;

    - **Technical assistance -** directed towards investment readiness for private sector entities;

    - **Partnership approaches** e.g. long-term public-private contracts to provide public services and spread investment or communities of practice.

2. Alternative sources and approaches to enhance climate finance and its effectiveness

2.1 Promoting alternative and effective financial instruments to enhance climate finance and stimulate climate-friendly private investments

2.1.1 Topics and issues highlighted by members

- A key issue is the **appropriate allocation of risk between public and private sector**.

- Climate change related investments may need appropriate incentives or support such as risk-sharing measures in order to help overcome financial and non-financial barriers to investment, deepen the markets and speed transformational effect in electricity, building, transport and waste sectors, as well as industry, forestry and agriculture.

- Alternative instruments have been developed to support long-term investment and to operate in cooperation with local financial institutions. Different instruments can be effective and have been used, such as risk mitigation tools, partial credit guarantees,

risk sharing instruments and guarantee funds or products that mutualize resources and provide high leverage effect on private investment flows. Combining those instruments according to the country specific needs of the private or financial sector (e.g., combining technical assistance for local financial institutions with refinancing) has also proved to be very effective.

- Public support, including climate finance from developed countries, (e.g. through financing, guarantees or non financial actions), when targeted appropriately, can leverage and catalyze larger amounts of public and private resources. Such public support can be necessary to help cover costs of implementation of alternative financial instruments.

- Lack of financing in local currency, in the form of concessional loans, investments or contracts, is a significant impediment for developing countries to access climate finance and engage the private sector beyond traditional MDB clients.

- Alternative instruments can be built to simultaneously target several objectives (e.g., financial, GHG, development). The use of market based approaches (such as a cap and trade approach, carbon tax or other carbon offset schemes), encourages private sector investment and can generate significant revenues that can create budgetary space to support scaled-up climate action, for instance through increased climate finance, including from developed countries to developing countries.

2.1.2 Range of possible policy options tackling the different issues highlighted by members

- Supporting one or several of the following instruments/approaches, when feasible and desired, can assist in catalyzing large private resources with targeted public support, noting that such mechanisms are most effective if embedded in adequate enabling environments:

    - **Risk-sharing tools** to overcome barriers for investment, deepen markets and speed up transformation.

    - Climate change **credit lines/funds**, especially working with **local financial institutions**.

    - **Enhancing financing in local currency**.

    - **Developing Public-Private Partnerships** to support investments in energy efficiency, clean energy technologies, transport, and other areas.

    - Use climate finance to provide risk capital to support climate investments (e.g., through **equity funds**).

    - Using **project-preparation funds or facilities** to help prepare high-quality and viable projects for financing from public and private sources.

- **Further developing the market for green or climate bonds**, for instance by promoting standardization, can help in raising significant amounts of finance for climate change solutions from institutional or other private investors.

- **Develop alternative instruments to generate resources to support sustainable development.** Such instruments should be designed with a view to address potential unintended impacts on development, including equity issues.

3. Enabling environments, in developing and developed countries, to facilitate the mobilization and effective deployment of climate finance

3.1 Importance of building on national strategies for the mobilization and deployment of climate finance

3.1.1 Topics and issues highlighted by members

- The purpose of international climate finance is to help implement low GHG emission development and climate resilient actions on the ground in developing countries. If these actions are to deliver outcomes that both developed and developing countries want to see, **a focus on concrete objectives** is crucial. These issues may be addressed through the **design and implementation of national strategies rooted in country priorities and needs.**

- Demonstration of results is becoming increasingly important for many governments to make the case nationally that climate action should be a priority and to promote low-emission investment.

- **The delivery of climate finance** can be more effective in addressing the actual needs of developing countries if the use of resources is **driven and coordinated by a clear** country-owned and country-specific **national strategy,** providing policy certainty and long term frameworks**.**

- **Climate finance tracking and the building of a climate finance knowledge base** could be a useful part of such a national strategy.

- **Public climate finance and other forms of public support** have an important role to play to assist in the establishment of such policy frameworks, including, when necessary, regulatory and price signal environments, with the aim to attract low-emission and climate-resilient investment.

- **Country ownership** is essential for establishing enabling environments, providing an opportunity to enhance sustainable development. This effort should be driven by countries' needs, preferences and circumstances. It is essential to make climate change an integral part of the development strategy of a country.

3.1.2 Range of possible policy options tackling the different issues highlighted by members

- **Aligning climate finance with recipient countries' priorities,** as such alignment with national-level planning increases the ability to leverage complementary domestic action.

- Climate finance from developed countries can, for example, be directed at **supporting Nationally Appropriate Mitigation Actions** (NAMAs), linking climate finance and integrated national strategies.

- **Support and develop sound and stable domestic policy frameworks**, which are key to boost low-emission and climate-resilient investments and attract climate finance. Social, economic and environmental impacts should be considered in the design of these policy frameworks.

- **Encourage the provision of appropriate capacity building and technology transfers in particular from developed countries to developing countries**, which can be key to facilitate the establishment of policy frameworks for boosting low-emissions investments and attracting climate finance.

3.2 Instruments for promoting efficiency in cleaner technology deployment

3.2.1 Issues highlighted by members

- Supporting, when required, regulatory and institutional reforms at the national level to encourage competition and innovation can be a useful approach, depending on country circumstances.

- A wide range of national regulatory and economic tools can help foster low emission investments, in a range of sectors, including energy, transportation, agriculture, land-use and buildings.

- Technology and innovation can be important to maximize the benefits from investments, but technology can be lacking in developing country markets, where it would help countries leap-frog dirty solutions towards the use of cleaner technologies. There are many barriers to a comprehensive and smooth transfer of technology linked to conditions in both recipient and exporting countries.

3.2.2 Range of possible policy options tackling the different issues highlighted by members

- **Promote competition** so as to *inter alia* enhance cost efficiency and decrease costs associated with the adoption of clean technologies, for example through regulated auctions in the energy sector or PPPs in transport sector.

- **Support and develop specific policies and instruments such as performance standards**, (e.g., for efficient use of energy and resources, and building codes), recognizing that these policies should be WTO-consistent.

- **Support and develop instruments such as emissions reduction funds** to source and fund low-cost emissions reductions or provide **results-based payments.**

- Consider as a temporary measure, where WTO-consistent, **the use of feed-in tariffs to boost alternative technology deployment** such as renewable energy.

- **Competitive bidding processes** can help reduce prices of clean technologies.

- **Provide appropriate support for technology transfers to developing countries.**

3.3 GHG emission pricing approaches

3.3.1 Topics and issues highlighted by members

- Achieving a sound framework for emissions/carbon pricing may provide adequate economic incentives to facilitate mitigation and adaptation efforts. Depending on each country's different circumstances and priorities, various domestic instruments can be used to promote cost-effective mitigation of GHGs, and these approaches have relative benefits and disadvantages.

- Carbon taxes work by pricing emissions directly; while emission trading schemes (ETSs) operate by setting a cap on the level of emissions allowed. Taxes provide certainty with respect to price, but less certainty with regard to emissions reductions. An ETS, however, provides certainty of the emissions reduction levels to be achieved, but not of the resulting price.

- Emission pricing can provide revenues to support climate action, either through an emissions/carbon tax or the auction of allowances in an ETS. The decision on the appropriate use of funds is the prerogative of each country that chooses to adopt emission pricing, such as providing climate finance from developed to developing countries, supporting domestic climate efforts and/or allocating resources to the national budget.

3.3.2 Range of possible policy options tackling the different issues highlighted by members

- **Consider the implementation of emissions trading systems** (ETS), which use the market to stimulate reductions in GHG emissions.

- **Consider the development of domestic emissions/carbon taxes**: these taxes could cover one or more GHG, reflect the emission content of the fuel, and countries can choose to use some of the revenues generated to support climate actions.

- **Rationalize and phase out inefficient fossil fuel subsidies that encourage wasteful consumption** over the medium term, while being conscious of the necessity to provide targeted support for the poorest.

- **Consider the development of carbon offset projects**, which can potentially generate considerable sustainable development benefits; while noting that these projects need

to take place in an appropriate framework for measurement, reporting and verification.

4. Examining the role of relevant financial institutions and MDBs in mobilizing climate finance

4.1 Recognize the respective roles of dedicated climate funds as well as relevant IFIs and MDBs

4.1.1 Issues highlighted by members

- It is well noted that MDBs should not divert resources meant to fulfill their development role and mandate. Climate change entails a serious risk to poverty reduction and has the potential to threaten development in many countries; therefore, in the same way that sustainable development encompasses environmental, social and economic aspects, climate change considerations are relevant within the mandate of MDBs, who concentrate on sustainable development and poverty eradication, and, in EBRD's case, transition. Implications in terms of differentiated financing terms need to be factored in the wide-ranging spectrum of MDBs' financial instruments.

- MDBs have considerable expertise, knowledge, technical and financial assistance to offer and are well placed to help their client countries adapt to climate change impacts and implement a lower-emission development strategy.

- MDBs can contribute to tackling climate change and to learning and sharing successful experiences in climate finance, particularly through cooperation and collaboration with local financial institutions and national development banks: MDB have relevant role and expertise in catalyzing other sources of finance. Climate dedicated funds and MDBs should operate in a complementary way.

- The GCF was established as a financial mechanism of the UNFCCC with the expectation that a significant share of multilateral funding for mitigation and adaptation would flow through it. The operationalization of the GCF will provide a mechanism with a strong mandate for the deployment of climate finance towards developing countries, working under the guidance of the COP.

4.1.2 Range of possible policy options tackling the different issues highlighted by members

- **Support MDBs and other relevant IFIs in playing an important role in helping client countries** adapt to climate change and implement low-emission strategies, including through provision of knowledge and technical assistance, and helping to mobilize private investment and other sources of climate finance, including through implementing relevant instruments.

- **Strengthen the GCF** as a central mechanism to deploy climate finance towards developing countries, with the expectation it becomes over time the main multilateral global fund for climate change finance.

- Use other **climate-dedicated funds** to channel complementary climate finance to help combat climate change.

- **Encourage close collaboration and cooperation across the different relevant institutions** so as to (i) foster efficiency and cost-effectiveness of actions, (ii) stimulate experience-sharing and dissemination of lessons learned and (iii) reinforce the chances that financing provided has a catalytic and transformational effect.

4.2 Link MDBs and relevant IFIs' climate activities with countries' strategies

4.2.1 Topics and issues highlighted by members

- It is crucial that relevant financial institutions' programs are country-led and responsive to the client countries' own sustainable development needs, challenges and national strategy.

- Climate finance investments that simultaneously address climate and development objectives are likely to receive a greater level of in-country support and uptake, increasing effectiveness and sustainability. Therefore, it is crucial to have full coherence between all MDB-supported climate investments and national priorities and strategies.

- Low-emission development and climate change resilience can help enhance development impacts; conversely, climate change threatens development progress achieved. Support for adaptation efforts should be targeted to contribute to improving the livelihoods of the most vulnerable.

- The MDBs have an important role to play to help countries tackle climate change, which is closely embedded in their mandates, considering the important links with poverty eradication and sustainable development.

- The MDBs should aim to complement other sources of climate finance, leverage private finance and effectively address funding gaps, without crowding out other sources.

- Mainstreaming environmental sustainability into MDBs' activities may be considered in the context of governance reforms to improve the voice of developing countries on MDBs decision-making bodies.

4.2.2 Range of possible policy options tackling the different issues highlighted by members

- Use Country Partnership Strategies to bring climate and environmental issues into sharper focus and embed them in the general development strategy, while reflecting the **diverse needs of individual countries.**

- **Encourage the use of programmatic approaches** as an organizing framework for the activities of actors across institutions, stakeholder groups and sectors, depending on specific circumstances.

- **Support relevant financial institutions and MDBs in playing an important role in mobilizing climate finance**, with the understanding that the priority of MDBs is development and poverty reduction.

IV –Conclusions and next steps

The policy options emerging from the exchanges of the Group and the national experiences of the members, listed in the Report, provide a toolbox for each government to consider. It is hoped that such a toolbox, although non-exhaustive, be considered useful and used as a basis for further consideration, taking into account national circumstances and priorities and taking into account the objectives, provisions and principles of the UNFCCC.

As next steps for 2015, if so requested by the Finance Ministers and Leaders, the CFSG could look further into the following areas:

- Consider the fragmented structure of current climate finance and improve collaboration, dialogue and cooperation between funds;
- Adaptation finance, including concrete examples of mobilization of public finance and especially to support the most vulnerable;
- Exploring the effectiveness of policy options identified in this Report, the identification of further barriers to their deployment, and considering potential collaboration and private sector engagement;
- Share past experience on approaches for the mobilization of public sector finance.

Annex – Member inputs

G20 members provided written inputs for the elaboration of this Report, presenting examples of initiatives on climate finance and their views on the four key areas identified in the 2013 CFSG Report and on other areas of climate finance. The co-chairs prepared a questionnaire in order to provide members with an organized format to provide their inputs – the use of the questionnaire was voluntary.

1. Financing for adaptation

1.1 Public sector actions and incentivizing private sector to incorporate climate risks and adaptation costs in planning, financing and investment decisions

Australia: The Department of the Environment has partnered with the Infrastructure Sustainability Council of Australia (ISCA) to develop an **Infrastructure Sustainability Rating Tool** and to update the Climate Risk Management Credit component of the tool, which promotes best practice adaptation to climate risks and seeks to improve the sustainability and resilience of Australia's infrastructure stock.

Brazil: Financial incentives alone are not sufficient to adequately engage private sector agents in adaptation and mitigation investments. Lack of technical and management capacity in the private sector may be very important gaps for implementation, requiring public support in capacity-building and training. On a more fundamental basis, the continued support from the government to the transformation of practices in the agriculture sector is needed to provide stability to the private sector, which will make long-term investment decisions based on the mix of incentives and regulations in place.

Canada: The Department of Natural Resources has created a Climate Change Adaptation Platform, where private sector financial contributions are pooled with others to **develop knowledge and tools that address shared risks**.

China: Mobilizing private sector finance should not dilute the financial obligations of the public finance of the developed countries and shift the responsibility to developing countries.

France: The short experience of international adaptation efforts shows a critical need for **context-specific measures**: factors affecting vulnerability and adaptive capacity are extremely local. Adaptation remains a territory-specific process of decision-making and intervention, involving a variety of actors, e.g. local officials and politicians, donors, landowners and farmers, scientists, insurers, individuals, etc., who evolve within a given context, marked by its own opportunities and threats. Implementing effective adaptation requires a strategic vision of each country's needs.

Germany: The **Public-Private-Partnership** (PPP) "Adaptation to climate change for smallholders of coffee and tea" (AdapCC) **supports coffee and tea farmers in developing strategies to cope with the risks and impacts of climate change**. The pilot initiative was implemented (2007-2010) as a Public-Private Partnership by the British company Cafédirect, whose economic interest lies in strengthening producers' capacities to secure fair trade coffee

and tea production, and the GIZ focusing on sustainable development by strengthening smallholders and creating examples for adaptation strategies.

India: Private sector has serious limitations in terms of predictability and adequacy of flows. It is absolutely clear that it will not deliver on the hardest things: equity, public goods, and adaptation such as climate resiliency in agriculture or off -grid distributed renewables for poor regions. Private sector does not provide merit goods that meet the basic lifeline levels of access to essentials by the poor in order to raise their adaptive capacity. Private sector instead is useful for market-led goods and services for the better off, such as grid-based solar and wind power, where public subsidies in one form or another are demanded.

Korea: With such a national plan for climate change adaptation, the Korean government tries to create adaptation-related industries and markets **and improve national industrial fundamentals in a gradual and systematic way** by setting up short and long term strategies.

It is necessary to create the **demand and the market** in order to effectively mobilize private finance. However it has a lot of challenges to vitalize the adaptation industry because most adaptation projects lack profitability and are required long-term investment. Furthermore, private sector doesn't recognize enough seriousness of damages from climate change. Extensive and sufficient supports are required to mobilize private finance in adaptation area, and it is necessary to take **an approach based on the areas**.

Spain: "Initiative - ADAPTA", aims to progress together with private sector towards the integration of adaptation to climate change in the strategic planning and business management, beginning with the **development of an analysis vulnerability of key business assets** of various organizations.

Turkey: The main barriers to more active private sector involvement include **Capacity Barriers** (SMEs' weak capacity to prepare and implement bankable adaptation projects; limited budget and staff to manage climate risks) and **Financial Barriers** (lack of financial resources and proper lending facilities; local banks' limited interest in small-scale adaptation investments; and complexity for providing insurance products against weather-related risks, especially drought).

United Kingdom: Businesses need **trustworthy and credible sources of information** on which decisions can be based. Information also needs to be specific and relevant, both to the business sector and to the geographical location of the company's operations. Moreover, even when good information is available, many companies find it a challenge to translate information from academic climate models into direct impacts on their assets, operations and financials.

United States: In 2010, the Securities and Exchange Commission provided guidance on when **consideration of climate change may trigger disclosure requirements**, such as when climate change may impact a company's risk factors, legal proceedings and other areas.

1.2 Identify and support risk management instruments

Argentina: The main barriers are related to the lack of climatic and environmental information in order to create appropriate insurance tools that will fit different types of producers. The main measure to overcome this barrier is the creation of joint ventures between the national government (in this case represented by the Ministry of Agriculture) and the private sector.

Brazil: Expand and consolidate a **private rural insurance market**, through economic subventions to the rural insurance premium. Support aims to overcome barriers to the use of insurance, gain scale, build capacities in the private sector and create a track-record.

France: AFD is currently developing a methodology to more systematically **include the analysis of the expected impacts of climate change in the project preparation cycle**. The aim is to more accurately characterize issues relating to vulnerability to climate change and to identify, where necessary, relevant adaptation options for some projects with significant risks.

Germany: An insurance company has been recently founded, the **African Risk Capacity Insurance Company Ltd**., that is offering drought insurance to African member states. It has been capitalized (March 2014) with a contribution of approximately 100 Mio. USD by the German government through KfW and DFID. To leverage the outreach of ARC insurance and to increase its financial resilience ARC IC is working with private re-insurance companies to lay off some of the risk that the company is taking on.

In the context of the project "Inventory of Methods for Climate Change Adaptation" follow-up finance to a public investment in public goods such as climate **information and methods and tools** for decision-making from private sector is currently being explored with support from the European "Climate KIC" (Knowledge Information Community). The idea is to explore business models for an ongoing maintenance of climate information platforms with support from the private sector.

Korea: The Korean government introduced the **Agriculture and Fishery Disaster Insurance Act**. Under this Act, *Nonghyup*, a specialized financial institution on agriculture, has provided Agriculture Disaster Insurances, while *Suhyup*, a specialized financial institution on fishery, has offered Fishery Disaster Insurance. The insurers will cover damages by climate change, which exceed a deductible. The policyholders, farmers and fishermen, get support on premium, 50% from central and 20~30% from local government. Within a range of loss, *Nonghyup* or *Suhyup* bear a quarter of loss while *Korean-Re*, a Korean reinsurance company, takes three quarters. However if the loss ratio exceeds a pre-set ceiling, the government covers the excess loss from Agriculture and Fishery Disaster Insurance Fund.

United States: An example of successful public-private partnerships is **insurance mechanisms** such as the Caribbean Catastrophe Risk Insurance Facility (CCRIF). CCRIF is the world's first multi-country risk pool. It is a regional catastrophic event fund to mitigate the effect of events including hurricanes and earthquakes. This facility, also supported by **Canada**, is now in the process of being expanded through a new partnership with Central America.

2. Alternative sources and approaches to enhance climate finance and its effectiveness

Promoting alternative and effective financial instruments to enhance climate finance and stimulate climate-friendly private investments

Brazil: In the case of Brazil, **royalties from oil and natural gas extraction** represent an important source for mobilizing resources for domestic action. A Social Fund (Fundo Social) was established to create a reserve for revenues from royalties, with a view to support programs and projects that contribute to combat poverty and towards development, including initiatives for mitigation and adaptation to climate change. Revenues from oil extraction have also been used to capitalize the National Climate Change Fund (Fundo Clima).

Mechanisms for local currency lending (using the MDBs, for instance) could expand the reach of climate finance, allowing engagement beyond traditional MDB clients. Additionally, if only hard currency loans are made available for projects, only large companies would be able to access climate finance, and MDBs would have to limit their engagement to very limited number of traditional clients, missing out on relevant opportunities to support adaptation and mitigation activities.

Canada: An innovative feature of some of the Climate Funds supported by Canada (created at the IDB and the ADB) is the possibility to **provide unhedged concessional financing in the currency of the local country**. This practice may encourage the investment of local companies by protecting them from unexpected borrowing costs that might result from fluctuations in the value of the U.S. dollar relative to the local currency. This responds directly to a key need identified in developing countries and addresses a real barrier to scaled up investment in a cost effective manner.

China: Mobilizing alternative resources should not dilute the financial obligations of the public finance of the developed countries and shift the responsibility to developing countries.

European Union: The NER300 is one of the largest funding programmes for carbon capture and storage demonstration projects and innovative renewable energy technologies. It is funded through the sale of EU ETS allowances and jointly managed by the European Commission, the European Investment Bank, and Member States. The European Investment Bank (EIB) acts as an agent, appraising projects that seek funding from NER300. The EIB has monetised 300 million EU allowances and raised more than EUR 2 billion for projects across the EU.

France: Develop **blending mechanisms** in order to help tackle market failure and externalities. Such mix-mechanisms provide financial operators with complementary resources in order **to finance subsidized programs, incremental costs, concessional loans, or any other insurance, guarantee or investment mechanism**. This flexibility is well suited to the diversity of programs and actions as well as to their different levels of profitability. Example: Climate change credit lines (AFD).

Germany: As many climate mitigation and adaptation projects are high in capital intensity, require substantial upfront investments and benefit from low, usually predictable and stable operating costs with the initial investment only be repaid over some years, the German Government has set up the Global Climate Partnership Fund (GCPF) to overcome this challenge. GCPF is an innovative **public-private partnership focusing on financing energy efficiency and renewable energy projects** primarily in cooperation with local financial institutions, thereby creating a positive impact on the local environment and economy.

Current investors from the German side include the BMUB, KfW and Deutsche Bank. GCPF's share structure follows a waterfall principle and allows investments into senior, mezzanine and junior /first loss tranches. Each tranche has a fixed target return, with the senior and mezzanine tranches allowing for additional dividends, subject to the profitability of the Fund. GCPF was at the end of the year 2012 successful in mobilizing its first private institutional investor: the Ärzteversorgung Westfalen-Lippe (a German pension fund for medical practitioners) signed notes for the amount of US$ 30 million.

India: The practical efficacy of any financial instrument and/or structure has to be seen within the context of a specific country. However, it is categorically stressed that all financial instruments and structures must ensure genuine risk sharing among private and public financiers and it should not happen that all risks are simply carried by the host sovereign/institution providing the public funds to leverage private flows.

Korea: *Korea EXIM Bank* successfully issued USD 500 million of **global green bonds** in 2013. The proceeds from green bonds are earmarked for the projects to address the transition to a low- carbon and climate-resilient growth. It provides loans with low interest rate. USD 323 million was used for the green investment, mostly by the renewable energy industry.

Spain: The recently launched "**Spanish Nationally Appropriate Mitigation Actions (NAMA) Platform**" aims to strengthen public-private partnership through the connection of the opportunities that the implementation of nationally appropriate mitigation actions in developing countries (NAMAs) offers for low carbon development with the Spanish official financial mechanisms for technological cooperation and with the overall solutions, technologies and services offered by the private sector. Through this platform ICEX Spain Trade and Investment (Ministry of Economy and Competitiveness) is working in cooperation with other Spanish and international institutions to catalyze the implementation of NAMAs and private sector engagement.

United Kingdom: Public finance expenditure needs to focus on where it can add most value, including through unlocking private sector financing. This includes **overcoming market failures** – for example, through playing a coordination and information provision role, providing loans where capital markets are not fully functioning, providing debt/equity to catalyse private finance into particular sectors, and the provision of subsidies linked to output to enable low carbon technologies to become cost competitive with fossil fuel alternatives in the long term.

The Climate Public Private Partnership (CP3) is an innovative new partnership between the public and private sector, aimed at scaling up green investment in developing countries. It

catalyses new sources of finance, specifically institutional investors (e.g., pension and sovereign wealth funds). The UK takes the role of anchor investor in two **commercial private equity funds**. The funds both directly invest in projects but also create a track record of sub-funds **to support investments in energy efficiency, renewable energy, and clean tech inventions**. The funds run on a strict commercial basis by professional fund managers.

The **Global Innovation Lab** is a new initiative that brings together a small number of senior private and public sector actors to identify, design, and support the piloting of new climate finance instruments. The aim is unlocking billions of dollars of private investment for climate change mitigation and adaption in developing countries. Several G20 members participate in the Lab, which is made up of representatives from a wide range of public and private institutions located in developed and developing countries. In May there was a call for ideas for innovative climate finance instruments, which received over 80 proposals. In June at the inaugural meeting, 7 proposals were shortlisted for further development and analysis.

Get Fit supports the development and completion of small-scale on-grid renewable energy projects in Uganda. It does this through topping up the existing Feed-in-Tariff for renewables and providing capacity building support to the Ugandan Energy Regulatory Authority. The project will also facilitate World Bank guarantees to project developers. Get Fit aims to demonstrate to private sector developers that investment in renewable energy in Uganda is financially attractive, despite currently being regarded as high risk. The project also aims to demonstrate to developing countries that an effective regulatory regime and cost-reflective tariffs will bring in investment in renewables. GetFit represents a partnership between the governments of the UK, Germany and Norway.

United States: **The Africa Clean Energy Finance** demonstrates how a very limited amount of targeted public resources – when surgically applied – can **catalyze a much larger pool of finance that can bring climate projects to fruition at scale.**

3. Enabling environments, in developing and developed countries, to facilitate the mobilization and effective deployment of climate finance

3.1 Importance of building on national strategies for the mobilization and deployment of climate finance

Australia: Scaled up **climate finance investments should be aligned with recipient country priorities**. Harmonization with national-level planning increases the ability to leverage complementary domestic action. It is hoped that **a more conducive general investment environment** may reduce the barriers (whether they are **real or perceived**) to investment. This may be achieved by supporting regulatory and institutional reforms to encourage competition and innovation, supporting institutional capacity building, public investment in catalytic infrastructure, increased communication between the public and private sectors, and improving the flow and quality of information.

Brazil: **The delivery of climate finance can be more effective** in addressing the actual needs of developing countries and assessing cost-effective investment opportunities **if the use of resources is driven by a clear national strategy**, that considers long-term impacts and opportunities, regional differences and is embedded in the public policy framework. National strategies and NAMAs can also provide a framework for engaging relevant national institutions, such as national development banks and other financial entities, allowing for climate finance to be complemented by resources available domestically.

Canada: The focus of G20 discussions on climate finance should be, among other issues, on i**mplementing effective economic and environmental policies** that create enabling environments for climate friendly growth, including **robust product and capital markets** in relevant sectors, and policy coordination in this regards as appropriate

European Union: Conducive policy can include inter alia: clear national goals and targets for mitigation and adaptation; carbon pricing measures; mainstreaming of climate change concerns into sectoral planning; sound regulatory frameworks and compliance systems; product and building standards; etc.

Enabling environments in developed countries can also be important for mobilizing climate finance, including from the private sector in developing countries. The EU and its Member States are exploring how enabling environments in developed countries can facilitate the mobilization of climate finance for developing countries, for instance through product standards that can lead to global technology cost reductions.

France: **Comprehensive national climate policies** are highly desirable in recipient countries to efficiently reach green goals while maintaining attractiveness (sustainability, predictability) for private investments. It is essential for any successful strategy to achieve low-carbon transformation of developing economies in the long-term. Clear long-term objectives in terms of climate policies are necessary to the private sector to make long-term climate-related investments. First and foremost is the right policy environment, conducive to private sector more generally, and to climate-related activity in particular. Fossil fuel subsidies deteriorate the economics of low-carbon and therefore government interventions are required to **create a level playing field** between energy sources. Moreover, other policy and regulatory incentives, such as appliance standards, energy efficiencies policies need to be put in place to incentivize low-carbon growth.

Germany: Non-conducive **domestic regulatory and price signal environments** as barrier: for example through fossil fuel subsidies, legal insecurity, price instability etc. So what we need is an appropriate domestic policy framework and enabling environment, with transparency, longevity, and certainty ("TLC") of policy at its heart. This includes a functioning domestic financial sector, a system of land titles / deeds, appropriate price signals, the rule of law through the courts, etc. The essential requirements for enhancing the impact of climate finance efforts resemble very much well known lessons of development effectiveness – country leadership and ownership, coordinated and harmonized efforts, the importance strengthening and working with local systems for results and accountability. **Countries need to**

have their national priorities clearly defined - both in terms of strategy, policy, project pipelines as well as institutionally. This is vital for effective spending of funds.

India: It is not fair to place onerous expectations from developing countries' unstable and weak financial markets to mobilize resources for meeting climate goals. **Persistent macroeconomic instability, weak collateral regimes, limited resource base, absence of key players and institutional infrastructure, and underdeveloped regulatory regimes act as barriers to the deepening and diversifying financial systems**. Addressing such barriers is an essential element of the development process – great challenges. Any additional domestic resource mobilization, where feasible in the developing world, would fall short of even what is needed for basic development.

Indonesia: common bottlenecks that could be addressed or better managed include: legal difficulties associated with unclear land ownership; licensing and permitting delays; the need for lengthy stakeholder consultation and capacity building processes; delays owing to activities being first of a kind demonstration projects which involve learning-by-doing; complex and challenging regulations and administrative requirements; difficulty applying safeguards (both Indonesia's and those of partners); and slow approval processes.

Italy: To attract private investment funding and effectively deliver climate finance as well, both in developed and developing countries, it is critical to improve the business environment and ensure sound macroeconomic policies, whereby **the content of those terms largely depends on the specific situation**, i.e. the policy issues to be addressed, of each country.

South Africa: Policy certainty is particularly important to incentivize private climate finance. Development and implementation of a climate change strategy is important to unlock long term climate resilient investment.

United Kingdom: An **early and ongoing managed dialogue** with institutional investors and the local and international private sector should be set up. A clear, long term, and coherent policy and regulatory framework should be implemented.

United States: When attempting to build a domestic market for renewable energy, energy efficiency or other types of projects, **consistent and clear market signals are critical.** A stable regulatory environment and policy framework is necessary to fully scale-up and take advantage of the economic benefits of these industries.

3.2 Instruments for promoting efficiency in cleaner technology deployment

Argentina: one relevant factor is the availability of specific regulations. In this regard, as an example, Argentina counts with a set of laws aimed at deploying renewable energies. One of the most important is the Law 2.6190 (Promotion of Renewable Energy consumption) that establishes a set of incentives for the renewable energy deployment. Another important policy is PROBIOMASA, started in 2013 that aims to boost production, management and sustainable use of biomass for energy purposes.

One program to mobilize investment in renewable energies is the GENREN, which seeks to promote the development of electricity generation from renewable sources. The GENREN program, initiated in 2009, called for state utility *Energía Argentina Sociedad Anónima* (ENARSA) to contract at least 1GW of renewable energy capacity, to be sold into the grid at fixed rates for a period of 15 years, which provides a framework of predictability for long term investment from both domestic and international capital flows.

Australia: **Emissions Reduction Fund** to source and fund low-cost emissions reductions, providing incentives for emissions reduction activities across the Australian economy. The Government will use reverse auctions to purchase emissions reductions that are additional to normal business practice.

Brazil: Reforms have been implemented in the energy sector in order to introduce competition mechanisms in the generation of energy and simultaneously provide for the diversification of the Brazilian energy matrix. New generation projects are based in **long-term energy sale contracts resulting from auctions**, and the certainty of long-term payments facilitates obtaining funding for investments.

China: In order to improve the role of the climate finance and mobilize different sectors to participate in the efforts to tackle climate change, the MOF has been also actively innovating the new operation mechanism, such as **implementing incentive mechanism of replacing the subsidies with rewards**. In line with the principle of benefiting those conserving energy and reducing emission while punishing those who produce high energy consuming and high emission, the MOF has formulated the relevant tax policies, and given full play to the function of tax policies in term of regulating the resources cost, promoting energy saving and environmental protection.

European Union: The EU is one of the largest issuers of green bonds in the world through the EIB's Climate Awareness Bonds. The Climate Awareness Bonds catalyze the involvement of investors in climate finance by offering innovative bond instruments that provide a transparent link to investments in climate action. The revenues from this bond are segregated from other finance in a dedicated liquidity portfolio, before allocation to eligible lending for renewable energy and energy efficiency. The Climate Awareness Bonds due November 2019 had a size of EUR 2.6 billion in May 2014. It is the largest green bond outstanding in any currency. In a separate financing initiative, called "Project Bond Initiative", the EIB improves the credit standing of projects in the field of power interconnection/grids through a risk-sharing program with the European Commission. The EIB provides a subordinated tranche of the debt to enhance the credit quality of the senior bonds.

Germany: The introduction of the Renewable Energy Sources Act (EEG) in 2000 with feed-in tariffs for renewable power has led to a massive increase in investments and employment in many regions in Germany. While being a climate policy in the first place, this measure has also led to a significant drop in energy imports in Germany. On the other hand, the energy cost burden to private consumers has increased, due to significantly rising EEG-surcharges in recent years. In order to enhance cost efficiency and limit the increase of electricity bills to consumers, Germany adopted a proposal for a fundamental reform of the Renewable Energy

Sources Act in 2014. A stronger focus on **market integration, the introduction of auction mechanisms and a continuous degression of feed-in tariffs** build the cornerstones of this reform.

As the IPPC mentioned, there are various of forms of policy interventions that can be effective, ranging from information instruments (e.g., capacity building or labelling), over market-based instruments (e.g., taxation, concessionary lending) to regulation (e.g. building standards). Instruments need to be **targeted to the given context and often combined** in order to achieve the greatest impact and mobilize the largest amount of private investments.

Italy: A feed-in support scheme was introduced in 2005. The scheme is now regulated by the Ministerial Decree of 5 July 2012. Under the scheme, PV plants with a minimum capacity of 1 kW and connected to the grid may benefit from a feed-in tariff, which is based on the electricity produced. The tariff differs depending on the capacity and type of plant and is granted over a period of 20 years. The feed-in scheme has favored a sizeable increase in investment on renewable electricity production which has allowed Italy to reduce energy dependency and improve the energy trade balance while cutting CO2 emissions.

In 2013 the "*Conto Termico*" was introduced to incentivize thermal energy production from renewable sources (biomass heating, heat pumps, thermal solar and solar cooling) and encourage projects to upgrade government buildings through a system of incentives which is simple and effective both for citizens and public administrations. These subsidies are consistent with the National Energy Strategy and will contribute to achieving EU energy and environmental objectives for 2020.

South Africa: **Renewable Energy Independent Power Producers Procurement Programme** (REIPPPP) has been an effective model to attract climate finance on the pathway to decarbonise electricity generation in South Africa. This IPP Procurement Programme has been designed so as to contribute towards socio-economic and environmentally sustainable growth, and to start and stimulate the renewable industry in South Africa. In terms of this IPP Procurement Programme, the Bidders will be required to bid on tariff and the identified socio-economic development objectives of the Department. The tariff will be payable by the Buyer pursuant to the PPA to be entered into between the Buyer and the Project Company of a Preferred Bidder.

Spain: With the launch of the Carbon Fund for a Sustainable Economy (FES-CO2) the Government of Spain has provided itself with an efficient climate finance tool grounded on **result based payments** to catalyze the transformation of the Spanish production system. FES-CO2, based on the experience of international carbon markets, aims to boost the activity of Spanish companies in the so-called "diffuse sectors" (not subject to the EU ETS) by purchasing verified emissions reductions resulting from the development of emission reduction projects in the country, "Climate Projects".

United States: Government is a key player in setting regulations that can stimulate investment (such as energy performance standards), providing favorable tax treatment in the form of tax credits, funding basic research which has significant spillover effects, providing information to

and convening private sector actors, and providing targeted financing instruments, particularly concessional finance and risk mitigation tools, to address incremental costs of clean technologies.

3.3 GHG emission pricing approaches

France: **Carbon pricing instruments** are a means to minimize the cost of domestic climate change mitigation strategies compared to traditional policy "mixes", which most commonly combine standards and subsidies. The widespread use of market-based mechanisms would then pave the way for cross-country and cross-regional linking of carbon markets, thereby deepening market liquidity and allowing for economies of scale.

European Union: EU Member States raise revenues from the auction of allowances from the EU emissions trading system. All EU Member States should spend part of these revenues on climate change mitigation and adaption, including climate finance for third countries.

Germany: Non-conducive domestic regulatory and price signal environments as barrier: for example through **fossil fuel subsidies, legal insecurity, price instability** etc. So what we need is an appropriate domestic policy framework and enabling environment, with transparency, longevity, and certainty of policy at its heart.

Italy: it is worth stressing the role of **carbon pricing mechanisms,** such as the EU ETS, as they can both drive appropriate mitigation policies and represent and new source of finance. In Italy, 50% of revenue generated by the auctioning of UE ETS permits is earmarked to sustain climate change and environment related measures.

Korea: The Korean government is now planning to introduce **Emission Trading System** in 2015. The revenue from this system is expected to be used to support installing reduction equipment, and developing green technologies. **Low carbon car support scheme** has also been being considered to encourage consumption of low carbon cars. The charge imposed to high carbon car buyers will be used for the source of subsidies to low carbon car buyers.

South Africa: The key domestic environmental instrument is the proposed carbon tax. As a part of the **carbon tax policy package**, the revenue generated will be recycled to provide transitional assistance in a transition to a low carbon economy. An important complement to the carbon tax will be a carbon offsets scheme, which will enable entities to cost effectively lower their carbon tax liability. Carbon offset projects can potentially generate considerable sustainable development benefits within South Africa, including channeling finance to climate change projects, including rural development projects, creating employment, restoring landscapes, reducing land degradation, protecting biodiversity, encouraging energy efficiency and investments in renewable energy projects.

Spain: 10% of the estimated revenues from the auctioning of GHG emission allowances, up to a maximum of 50 million euros, is earmarked to the climate change policy.

United Kingdom: Price signals in the market should support the deployment of low carbon alternatives **ensuring that any social costs associated** with a transition are well managed.

4. Examining the role of relevant financial institutions and MDBs in mobilizing climate finance

4.1 Recognize the respective roles of dedicated climate funds as well as relevant IFIs and MDBs

Argentina: One of the key challenges is to consider developing countries views in the MBDs approaches. In this sense, it is important to consider climate change within a development frame. In this regard, MBDs should also play a bridging role between developing countries needs and potentialities and developed countries compromises, under the principles of the UNFCCC.

Brazil: MDBs could provide support for the use of innovative mechanisms for local currency lending and for other types of mechanisms, in order to **test new approaches** for climate finance and build capacity in developing countries. As an example, the World Bank is developing a proposal for a pay-for-performance auction facility for climate mitigation and methane.

Canada: Infrastructure projects with climate benefits often require MDB financing to address risk and economic viability. Local banks are generally unwilling to take technology risk and to provide financing support at longer tenors required to assure economic viability, and international banks are unwilling to take non-technology project risks. Concessional climate finance provided alongside MDB financing can help overcome – **specific risks that MDBs are unable to assume through their regular programming**.

We could work with the MDBs and relevant facilities to achieve a more consistent approach to mitigating risk in private sector projects. This could include considering whether the **risk-inclination of donor funds** is sufficient as a whole and looking at whether **local currency** financing might be more readily made available for projects in developing countries.

China: Climate finance should be **new and additional**. When mobilizing the finance from IFIs and MDBs to support developing countries addressing climate change, the major roles of the above organizations in term of the poverty eradication and development should not be affected.

European Union: In 2010, *Climate Change Windows* were established in the EU's regional investment facilities with the aim to improve the project design, so that low carbon and climate resilience considerations are incorporated in areas such as transport, energy and environment. Through the facilities EU grants are used to leverage loan and equity financing for infrastructure and private sector development (e.g. SME access to finance). The EU has set up blending mechanisms within its development policies for different regions (Africa, EU Neighbourhood, Western Balkans, Latin America, Central Asia, Asia, Pacific and Caribbean). Since 2007, EU grant contributions of around €480 million have been combined with almost €6 billion of loans from European public finance institutions and from multilateral development

banks. This lead to total project financing of more €14 billion benefiting both low and middle income countries and to more than 200 climate-relevant initiatives.

The Global Energy Efficiency and Renewable Energy Fund (GEEREF) is a Public Private Partnership that has been initiated by the European Commission as an equity fund-of-funds to accelerate the transfer, development and use of environmentally sound technologies for emerging markets, helping to bring secure, clean, efficient and affordable energy to local people. It is set up as an innovative global equity/risk capital fund that will use limited public money to mobilise private investment in small-scale energy efficiency and renewable energy projects. Up to € 9.5 billion could be mobilised through the funds in which GEEREF participates and the final projects in which these funds invest.

France: New instruments should be mobilized as much as possible using the existing headroom of MDBs resources. A combination of MDBs resources with climate-specific funds' ones (such the GCF's when operational) could help to develop such instruments. We strongly believe that **teamwork between bilateral and multilateral financial institutions** will be a key factor of success if we want to maximize impact of financial resources provided. Stronger coordination to pool sources to be more efficient and also to be able to deliver support beyond the project-level will be key.

Germany: The major criteria for legitimacy will be the mandate of an institution. Hence, when it comes to this issue a mandate on climate change and mobilization of private sector fund seems at the heart. An example with a **strong mandate is the GCF**. As with regard to effectiveness, one would argue that this is concerned with operations that again connect to a mandate. Hence, here to mandate the respective operational structures and modalities seems to be of importance.

India: Diversion of MDB's resources which are meant to support poverty eradication and growth in developing countries to address climate change will not be acceptable. Diversion of these resources would affect the primary objective of poverty eradication in developing countries. Moreover, the **magnitude of resources required to address climate change are huge as compared to the resources that can be made available by MDBs**.

Financing climate change through MDBs at the country level, therefore, urgently requires a substantial increase in **coordination and harmonization** in financing approaches and channels at the global level, especially through the Green Climate Fund. This needs to be done in a manner that enhances inter-sectorality and country focus, while strengthening recipient **country leadership and ownership**, bringing in more **transparency and accountability**.

Italy: the MDBs can play a relevant role, as climate finance is a necessary complement to the MDBs' mandate given the **link with poverty reduction and development promotion**, and the fact that the least developed countries would be hit the most by climate change. MDBs can help developing countries to build an **enabling environment** by undertaking readiness activities designed to put in place the conditions that attract scaled-up investment and enabling a transformation toward low-carbon energy development pathways. In addition to finance, development banks can exercise a substantial leverage, which goes beyond the purely

financial domain, through providing technical assistance as well as financial and sector expertise. They can also play a **catalytic role** to channel funds from public and private origin to important investment projects.

Korea: Since COP set a goal of mobilizing jointly USD 100 billion per year by 2020 for long-term finance in 2010, the **GCF has been regarded as the main mechanism for long-term finance**. Therefore, it is a clear mandate of the GCF that it should mobilize and deploy climate finance in the most effective way. PSF, a specialized unit for private finance in the GCF, is expected to effectively attract private investment into climate change activities.

Indonesia: First and foremost, MDBs need to set a good example on how **they increase their green portfolio and reduce significantly their brown portfolio**. At present, green financing from MDBs is increasing but financing for brown industries remain high. MDBs need to cover large-scale projects considered as **frontier business**, for instance projects involving high and yet less mature technology (e.g. off-shore wind power). Create financing models for **large-scale adaptation projects** which showcase how climate proofed infrastructure development should be carried out.

Turkey: The MDBs, with their core mission to promote **sustainable economic growth** and poverty reduction, are well-positioned to help their client countries (i) to adapt to climate change and strengthen their climate resiliency; and (ii) to move to a lower carbon trajectory in their development process, via financial and technical support.

United Kingdom: The MDBs have **a leadership role** in helping developing countries work towards a low carbon climate resilience development. In addition to their financial resources, MDBs can also promote low carbon climate resilient development through their knowledge and evidence base.

4.2 Link MDBs and relevant IFIs' climate activities with countries' strategies

Argentina: MDBs should support actions aimed at mobilizing financial resources for climate change in developing countries. Mitigation and especially adaptation actions to climate change in developing countries are an intrinsic component of their development strategies. In this regard, it is important that the role of MDBs support funding approaches of climate change in the broader context of sustainable development, implementing the necessary reforms to improve the voice and vote of the emerging countries.

On the other hand, it is important to note that an excessive amount of human and financial resources is required in the different stages of the projects. Therefore, it is necessary to simplify MDBs procedures in order to optimize resources and facilitate implementation of the projects.

Australia: Australia's view is that the **current approach** to addressing climate issues at the MDB-client level, in a framework of best promoting human development which gives appropriate consideration to climate issues in the context of other challenges faced by individual client countries, is appropriate.

Brazil: Supporting **NAMA**s is a relevant approach for linking national strategies and public policies with climate-related action, supported by a robust system for MRV following the guidelines of the UNFCCC. Another relevant approach to embed the efforts of MDBs in countries' climate change strategy is through the engagement with **national development banks**.

MDBs are increasingly recognizing climate change not simply as an environmental issue, but most importantly, as **an important development issue.** A clear signal of that is the incorporation of environmental concerns as core elements of MDBs broad sustainable development agendas, as reflected in their long term strategies.

Mainstreaming environmental sustainability into MDBs' activities should go **hand-in-hand with the implementation of reforms to improve the voice of developing countries** on MDBs decision-making bodies, and is necessary to provide more balance to these institutions. These reforms should both consider the voice and participation unbalance in these institutions, the common-but-differentiated principle and the responsibility of developed countries to provide climate finance.

Canada: Canada expects relevant financial institutions as well as MDBs to play a significant role in mobilizing private climate finance, with the MDB's role consistent with their development and sustainable economic growth mandates. These institutions can play an important role in **addressing market failures, improving enabling environments, supporting innovation that promotes climate benefits, and in ensuring investments** across developing countries.

Along these lines, we could consider whether MDBs could **further strengthen the mainstreaming of climate change mitigation and adaptation** into their programming, including understanding what incremental costs that this might imply, if any.

European Union: Climate action is a horizontal public policy goal for both the EIB and the EBRD, backed by a substantial portfolio of projects in climate-relevant sectors. The EIB introduced a formal overall lending target for climate action in 2010, currently set at 25% of the overall expenditure. The target has been met, as the EIB's support to climate action projects inside and outside Europe has expanded considerably over recent years, almost doubling between 2008 and 2010, and amounting to €80 billion in total over the four-year period 2008 to 2012.

France: We entirely agree that **climate investments should be country-driven** and the projects and programmes they support **embedded into the national strategies and plans**. Where these strategies and plans don't exist, these development institutions can help the countries build plans and strategies adapted to their needs and priorities.

For a lot of developing countries, adaptive and mitigative capacities are low and development aid can help to reduce their vulnerability to climate change. It can also help to reduce their emissions growth while addressing energy-security and energy-access problems. If embedded in the approach these institutions take**, low-carbon development will therefore help**

enhancing the development impact of the funding provided by benefiting, inter alia, local biodiversity and environment, health and livelihoods.

India: With the expanding roles of MDBs to pursue globally agreed goals, it is imperative to ensure that these roles should be based upon the cardinal principles of "**Nationally Appropriate Policies and actions" and "Country Ownership**". From the perspective of developing countries, it is the country itself which knows what the best pathway for sustainable development is. Hence utilizing the resources of MDBs, on the national sectors and projects should be a sovereign decision.

International financial institutions are important actors in the global economic governance. World Bank, IMF and other international financial institutions **need to seek more effective ways and means of addressing developmental challenges**. In this context, they should have more efficient decision-making mechanisms, considering the conditions, responsibilities, needs and the capacity of the developing countries, particularly in addressing the needs of the poorest countries and their most vulnerable populations. For this, the governance structure of these institutions needs to undergo changes giving equal voice to developing countries.

Indonesia has been designing funding framework, regulatory framework, institutional framework that is used as a mechanism to strengthen the economic aspects (infrastructure, innovation, resilience) and the environment aspects (management of natural resources and biodiversity, mitigation of climate change adaptation) to promote sustainable development. The National Action Plan on GHG Emissions Reduction outlines targets in numbers and sectors/activities to be part of the plan. **The plan is an important tool to guide where investment from MDBs and other financing institutions should be directed**.

Italy: Strengthening national ownership enables countries to develop expertise, build local institutions able to use climate finance effectively and exercise leadership in implementing projects. These are necessary conditions to produce sustainable results in the long-term. **MDBs need to ensure that country strategies and investment programs are aligned and consistent with the national priorities**. This can be done primarily through coordination with the country designated authorities and focal points, where countries review projects that are considered inconsistent with national priorities.

South Africa: The mandate of MDBs is on development and poverty reduction. The work done by MDBs must be consistent with this mandate. However, MDBs might **play an important role in mobilizing climate finance**. MDBs can act as an implementing agency for developed countries that want to channel funds to MDBs for climate change projects.

The reform of the governance of MDBs is critical for improving the credibility of these institutions. This is because despite the significant advisory and financial resources that MDBs such as the World Bank have, many developing countries remain skeptical of their ability to be neutral of climate finance politics (such as definition of 'additionality') of climate finance that must be sorted out by member countries. The reform of the governance of the MDBs should, however, be seen as the first step in **a set of reforms that these institutions need to undertake to be able to play a meaningful role in international climate finance**.

Spain: MDBs cannot impose changes in government strategies; they can only convince them of the need of integrating climate change in their global development strategies. They need to be perceived as non-biased institutions that represent, with fairness, all groups of countries. We have been **supporting reforms in MDBs and shall continue to do so in order to reinforce their legitimacy and effectiveness**.

Climate change must be identified as a national priority when **governments and MDBs elaborate together the multiannual development plans**. Climate change must be considered a cross sector element in the development strategy and has to be taken into account in every sector plan.

Turkey: The MDBs technical and financial support to their client countries is normally provided within the framework of their individual country strategies (e.g. the World Bank Group's Country Partnership Strategy - CPS). These strategies are supposed to be based on the client countries' own policy priorities and national strategies; this is essential to **ensure that the MDB programs are country-led and hence responsive to the client countries' own sustainable development needs & challenges**.

It is crucial that the MDBs should not only finance mitigation and adaptation investments, but also **mainstream climate change considerations in their other operations**.

The governance reforms mainly aim to enhance the voice and representation of the developing countries; hence, **these reforms could potentially make the MDBs more responsive to their clients' needs and result in a more systematic inclusion of mitigation and adaptation actions in their overall strategies**. With a more balanced representation structure, the MDBs' legitimacy within the climate finance architecture would also be enhanced.

United Kingdom: Given **the risks posed by climate change to growth, development and poverty reduction** in developing countries it should therefore be a core consideration to the MDB's overall mandate for sustainable economic growth and poverty reduction.