Climate Investment Funds

Joint CTF-SCF/16/3
May 26, 2016

Joint Meeting of the CTF and SCF Trust Fund Committees
Oaxaca, Mexico
June 15, 2016

Agenda Item 3

Strategic Directions for the Climate Investment Funds

PROPOSED DECISION

The joint meeting of the CTF and SCF Trust Fund Committees reviewed the document JOINT CTF-SCF/TFC.15/3, *Strategic Directions for the CIF*, and notes the detailed and focused gap analysis conducted on how the CIF fits within the climate finance architecture (including, inter alia, the Green Climate Fund). The joint meeting also notes that the analysis took into account future opportunities and explored roles each CIF program could play based on its comparative advantage and value added.

The joint meeting agrees on the need to support the continuity of climate finance flows at scale in the near term and support actions on the ground in developing countries. The joint meeting also agrees to continue monitoring the developments in the international climate finance architecture over the next [X] years to make a decision on the sunset clause and, in particular, as to if and when the Trustee should stop receiving new contributions for the Clean Technology Fund and the Strategic Climate Fund at a future joint meeting.

The joint meeting requests the CIF Administrative Unit to further explore ways to enhance cooperation with the other entities and mechanisms in the climate finance architecture, in particular the Green Climate Fund.

The joint meeting invites the CTF Trust Fund Committee to consider the analysis presented in the Strategic Directions paper and discuss the value proposition for a new business model for the CTF, including the new financing modalities.

The SCF Sub-Committees may consider the analysis presented the Strategic Directions paper on the specific context, lessons learned, and continued value proposition of these three programs (FIP, SREP and PPCR).

Contents

Executive Summary

1. In 2008, the Climate Investment Funds (CIF) were created as an interim solution prior to the establishment of a new international climate finance architecture to spearhead funding for mitigation and adaptation activities at scale while unlocking private investments, specially mitigation, and while doing so establish solid learning on new investments approaches at national and global levels. Since then, the CIF has developed a proven track record to deliver investments and results on the ground with USD 8.3 billion in concessional climate finance expected to mobilize at least an additional USD 58 billion in co-financing from other sources to over 300 projects in 72 developing countries. Given that the Green Climate Fund (GCF)—the embodiment of the new financial architecture—is now operational, it is appropriate to take stock of the place of the CIF within the evolving climate finance landscape, and its continued value addition.

I. It is a new world with major challenges

2. The year 2015 ushered in a new context and new imperatives for global development, with international leaders coming together on the Addis Ababa Action Agenda for financing development, new Sustainable Development Goals (SDGs), and the Paris Agreement that pledges to keep global warming to well below 2°C by 2100 and make best efforts to limit warming to 1.5°C. With the Paris Agreement, 189 countries submitted "Intended Nationally Determined Contributions" (INDCs) to reduce greenhouse gas emissions and make economies resilient. The multilateral development banks (MDBs) also committed to raising the level of their ambition and investment volumes to further scale up climate action.

3. These are exciting, hopeful times but the challenge is significant. The world faces an enormous task in aligning financing flows and mobilizing new financing to deliver the scale of investment required for sustainable infrastructure, achieve the SDGs, and fulfill the ambition of the Paris Agreement to make all financial flows compatible with low carbon, resilient development. Countries will require assistance to translate INDCs into concrete policies and actions.

4. Targeted climate finance is crucial to offset costs and risks associated with low carbon, climate resilient investments. Yet gaps are evident in the availability of resources and effective delivery mechanisms to meet the needs of developing countries and the ambition to reduce warming well below 2°C. These include:

- Lack of access to affordable long-term capital;
- High commercial risk for investments in renewable energy;
- High non-financial risks across sectors: lack of information, technical capacity, and climate-compatible policy and regulatory environments;
- Need for sustained access to concessional sources to support MDBs in testing, improving, and demonstrating the financial viability of climate investment; and

- Short supply of investment-friendly instruments that climate finance can help to develop and pilot.

5. **There is a need to continue the momentum that the CIF has created.** The CIF has played a pivotal role in helping to increase the volume of climate investment going to developing and emerging economies, and has been instrumental in financing projects that would not have otherwise taken place. Given the scale of the challenge and the urgency to promote action on the ground in the short and medium-terms, there is a real risk that without the CIF the momentum that has been created will be stalled, particularly for projects that are aimed at accelerating the penetration of new technologies or adoption of new and alternative business models, and undermining the achievement by MDBs of their new climate targets.

6. With the CIF, there is an opportunity to maintain those unique characteristics of its business model that have been instrumental to scaling up climate finance at a critical juncture, while exploring paths to strengthen private sector engagement, and enhancing partnered learning and coordination with the GCF and other climate funds to ensure complementarity and avoid duplication. After eight years on the job, the CIF is tried, tested, and trusted and highly sought by developing countries for these attributes:

- Largest source of concessional climate finance approved to date
- The most risk-bearing instruments of any existing concessional climate fund
- Flexible delivery of private sector-oriented finance
- MDB partnership providing varied skillsets and ability to leverage financing, mobilize other actors, and provide broader policy support
- Learning by doing to adapt programming
- Programmatic approach to strategically plan and implement a series of investments that mutually reinforce each other and link to other activities

II. Future operations of the CIF

7. Operational experience and lessons learned to date suggest several opportunities to enhance CIF programs based on their comparative advantage and value added within the climate finance landscape.

8. For the **Clean Technology Fund (CTF)**, there is an opportunity to expand investments into frontier areas, such as energy storage, distributed generation, sustainable transport, and residential and industrial energy efficiency, where an additional push through collective, scaled MDB support could accelerate market development.

9. The CTF is also well-positioned to introduce a financing structure capable of independently raising funds from institutional investors in the capital markets. This approach would not only place

greater financial self-sufficiency at the heart of the CTF model but also encourage better matching of the economic characteristics of funded activities with appropriate financing—calibrating the trade-off between self-sufficiency and concessionality according to policy objectives.

10. For the targeted programs of the Strategic Climate Fund (SCF) – the Forest Investment Program (FIP), Pilot Program for Climate Resilience (PPCR), and Scaling Up Renewable Energy in Low Income Countries Program (SREP) – there is demand to fund the implementation of programmatic investment plans in the new countries invited since 2014 to join the three programs. There are also opportunities to launch new private sector windows, learning from the experience of the earlier private sector set asides, to fill an immediate gap in concessional finance for private sector climate action, or to support strategic thematic programs targeting specific themes that are aligned with investment plans and INDCs.

1. Introduction

1. Since the Climate Investment Funds (CIF) were founded in 2008, the world has seen all too often the devastating effects of climate change, but also the opportunities that solutions present. Now more than ever before, the world is uniting on climate change, with international agreements and action commitments solidifying. Yet gaps are evident in the availability of resources and effective delivery mechanisms to meet the needs of developing countries and the ambition to reduce warming well below 2°C.

2. The CIF was conceived as an interim solution prior to the establishment of the new international climate finance architecture. The Governance Framework documents of the Clean Technology Fund (CTF) and Strategic Climate Fund (SCF) state that each fund "will take necessary steps to conclude its operations once a new financial architecture is effective." Alternately, the CTF and SCF Trust Fund Committees "may take necessary steps to continue the operations of the CTF [SCF], with modifications as appropriate."[1]

3. The CIF has since developed a proven track record to deliver investments and results on the ground and has played a critical role in helping increase the volume of climate investment going to developing and emerging economies. Given that the Green Climate Fund (GCF)—the embodiment of the new financial architecture—is now operational, it is appropriate to take stock of the place of the CIF within the climate finance landscape, and its continued value addition.

4. This paper responds to the request of joint meeting of the CTF and SCF Trust Fund Committees to consider a gap analysis of the climate finance landscape in conjunction with the discussion of the future of the CIF at its next meeting in June 2016. The culmination of many months of discussion, analysis, and collaboration (see Annex A), this paper presents findings in two parts:
    a) The first section draws on a separate gap analysis of the climate finance landscape and the role of the CIF conducted by Climate Policy Initiative (CPI).[2] It provides an overview of the changing climate finance landscape, its gaps, and the positions of key players, namely CIF partner countries and multilateral development banks (MDBs), the GCF, and the CIF.

    b) The second section then explores the roles each CIF program could play within this evolving landscape based on its comparative advantage. Each CIF program is examined individually within the climate finance context, with highlights on lessons learned and its continued value proposition. Suggestions and scenarios for future operations are proposed, including new opportunities in terms of financial instruments and delivery mechanisms, technologies, sectors, and sources of funding.

[1] Paragraphs 53-55 of CTF Governance Framework Document (adopted in November 2008 as amended in December 2011) and Paragraphs 56-58 of the SCF Governance Framework Document (adopted in November 2008 as amended in December 2011).
[2] Climate Policy Initiative 2016. "A gap analysis of the climate finance landscape and the role of the Climate Investment Funds" available as Joint CTF-SCF/TFC.16/Inf.4

2. The CIF within the changing climate finance landscape

2.1 It is a new world with major challenges

5. The year 2015 ushered in a new context and new imperatives for global development. In July, leaders endorsed the Addis Ababa Action Agenda, a global framework for financing development post-2015, moving from "billions" in official development assistance to "trillions" in development investments of all kinds: public and private, national and global. In September a new set of broader, more ambitious Sustainable Development Goals (SDGs) were agreed. And in December, 195 countries came together in Paris at the 21st session of the UNFCCC[3] Conference of the Parties (COP) to forge a climate change agreement that pledged to keep global warming to well below 2°C by 2100 and make best efforts to limit warming to 1.5°C. Adaptation also emerged as a global priority. These agendas are inextricably linked.

6. Delivering the Paris Agreement implies realizing net zero emissions around the middle of this century.[4] The Agreement also calls for aligning all financial flows with pathways to low carbon and climate resilient development. It is therefore important to see the implementation of the Agreement in the context of the SDGs and the broader development challenges. Following signature of the Paris Agreement by 175 Parties in April 2016, it becomes imperative to maintain and build momentum for its implementation.

[3] United Nations Framework Convention on Climate Change

[4] Article 4 of the Paris Agreement states that the world should "achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty." A report published by Climate Analytics estimates that global energy and industry CO_2 emissions would need to reach zero around 2060-2075 to keep warming below 2°C by 2100 with more than a 66 percent chance, and would need to reach zero by 2050 to return warming below 1.5°C by 2100 with more than a 50 percent chance. Rogelj, Joeri, Michiel Schaeffer, and Bill Hare, "Timetables for Zero Emissions and 2050 emissions reductions: State of the Science for the ADP Agreement," *Climate Analytics*, February 2015.

Box 1. Investing in a greener, more climate resilient future

The world faces an enormous task in aligning financing flows and mobilizing new financing to deliver the scale of investment required for sustainable infrastructure, achieve the SDGs, and fulfill the ambition of the Paris Agreement to make all financial flows compatible with low carbon, resilient development.

It is estimated that in the next 15 years, the world will need to invest around USD 90 trillion in sustainable infrastructure assets.[5] This includes investment in cities, transport systems, energy systems, water and sanitation, and telecommunications. As much as two-thirds of this investment – an estimated USD 3-4 trillion per year – will be concentrated in low- and middle-income countries. The scale and quality of investment in infrastructure that is socially, environmentally, and economically sustainable will be key both to delivering on the SDGs and ensuring long-lived infrastructure assets are consistent with a net zero emissions future world.[6] Building sustainable infrastructure is essential to both mitigating and adapting to climate change, but is also likely to increase upfront costs, even though it will be cost-effective in the longer run.[7] Failure to align the climate action and infrastructure investment agendas could lock-in technologies, planning models and businesses to a high carbon and low resilience pathway.

But sustainable infrastructure is only part of the climate and development solution. Carbon sinks need to be preserved and expanded to limit emissions and provide essential ecosystem services. Agricultural productivity and practices must be enhanced and made more resilient in order to feed 9 billion people by 2050 against a backdrop of increasing water scarcity. Populations need to be protected against natural disasters and climate-related diseases. There are indications that climate change has played a role in the current forced displacement crisis by exacerbating resource scarcity and land degradation, including in North Africa and the Middle East. The current crisis and the struggle to manage it provides a useful warning of what could happen if dangerous climate change triggers similar, or even larger, migration movements and conflicts over the next decades.

2.1.1 Countries are committed to act

7. With the Paris Agreement, 189 countries have submitted "Intended Nationally Determined Contributions" (INDCs) to reduce greenhouse gas emissions and make economies resilient.[8] INDCs are an important articulation of national interests and priorities in addressing climate change in line with development goals. Although the level of ambition and specificity of INDCs varies considerably across countries and sectors, INDCs generally represent a significant ramping up of national action

[5] Bhattacharya, Amar, Jeremy Oppenheim, and Nicholas Stern, "Driving Sustainable Development through Better Infrastructure: Key Elements of a Transformation Program," *The Brookings Institution Global Economy and Development Working Paper* 91, July 2015.

[6] Eleven of the 17 SDGs have first or second-order links to climate change. These are: # 2 No hunger, #5 Gender equality, #6 Clean water and sanitation, #7 Renewable energy, #8 Good jobs and economic growth, #9 Innovation and infrastructure, #11 Sustainable cities and communities, #13 Climate action, #14 Life below water, #15 Life on land, and #17 Partnerships for the goals.

[7] Bhattacharya et al. estimate that the incremental cost of making infrastructure cleaner, more efficient, and more resilient could amount to USD 4 trillion over the 15-year period. Upfront costs would be offset by longer-term savings as well as significant co-benefits.

[8] Intended Nationally Determined Contributions (INDCs) become Nationally Determined Contributions (NDCs) once a country ratifies the Paris Agreement. Note that the European Union submitted one INDC representing its 28 member countries.

for both mitigation and adaptation, and there is an expectation that INDCs will become more ambitious over time.

8. INDCs must be seen as the starting point, and not the solution, for ensuring that global warming stays below 2°C by 2100 and that climate vulnerabilities are adequately addressed. Analysis indicates that the aggregate result of INDCs and pledges announced in Paris would be a global mean temperature increase between 2.5-2.7°C. This is a marked improvement over current policies, which are projected to lead to warming of 3.3-3.8°C, but still far from where the world needs to be.[9]

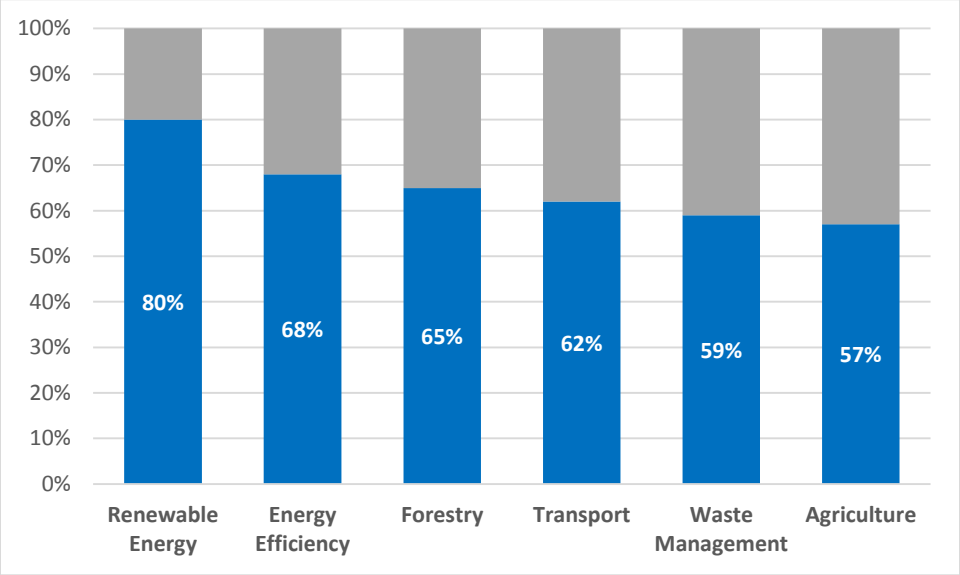
9. Seventy of the 72 countries receiving CIF support have submitted INDCs.[10] These 70 countries represent half of the global population and collectively account for nearly 80 percent of the greenhouse gas emissions (excluding land use-based emissions) produced by low and low-middle income countries.[11] Their INDCs include both unconditional actions, which a country will undertake on its own without external support, and conditional actions, which are dependent upon receiving external support, including capacity building, technology transfer, and financing. Not all countries have estimated the costs associated with implementing their INDCs. Among those CIF recipient countries that have, the total costs vary substantially from USD 161 million in Grenada to USD 2.5 trillion in India. For CIF recipient countries in Africa that have costed their INDCs, the aggregate financing requirement amounts to nearly USD 600 billion.[12]

10. **Countries will require assistance to translate INDCs into concrete policies and actions.** International support and technical assistance will be the bridge between national commitments and domestic action, as the majority of countries indicate that they cannot implement INDCs without external support. Critically, the broad articulation of priorities expressed in INDCs need to be translated into concrete investment plans of financeable programs and projects.

11. Figures 1 and 2 show the top priorities for mitigation and adaptation, respectively, for CIF recipient countries as included in INDCs. The priorities cited and the relative emphasis between adaptation and mitigation varies by region in accordance with the specific vulnerabilities of each region.

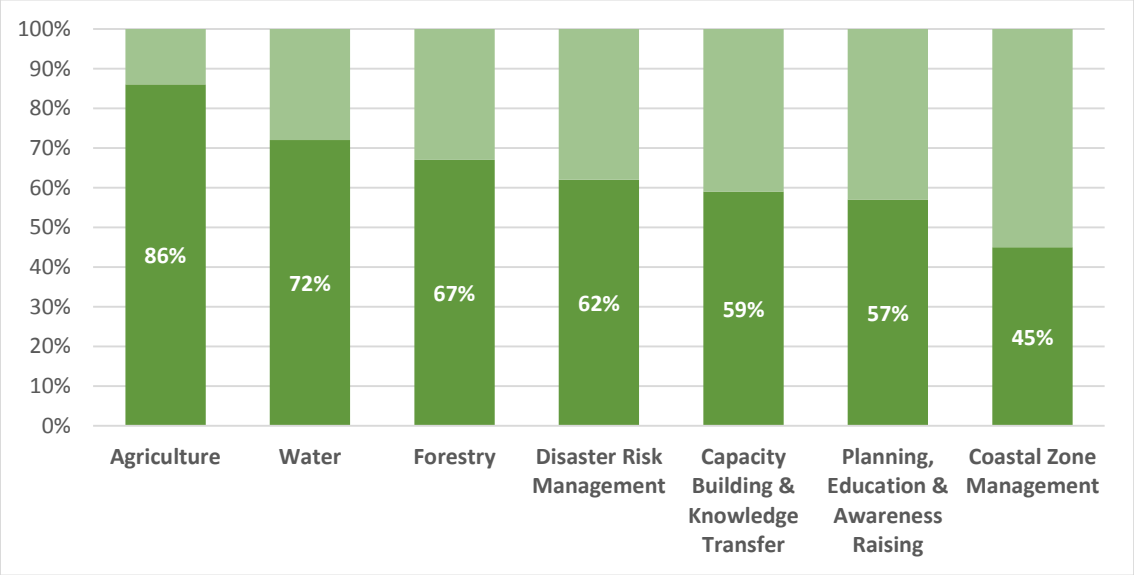
[9] Presentation by Fabio Sferra, Climate Analytics, New York, April 21, 2016.
[10] Libya and Nicaragua are the two CIF recipient countries that have not submitted INDCs. Libya is currently at war and Nicaragua officially sent a letter to the UN Secretary General that it will not sign the Paris Agreement and therefore will not submit an INDC.
[11] Analysis from Climate Analytics.
[12] The costing time period differs by country ranging from 2020 to 2050, though for the majority of the countries covered the time period is up to 2030.

Figure 1. Top priorities for mitigation among all CIF recipient countries



Source: Climate Analytics

Figure 2. Top priorities for adaptation among all CIF recipient countries



Source: Climate Analytics

2.1.2 MDBs are also committed to act

12. Targeted climate finance is crucial to offset costs and risks associated with low carbon, climate resilient investments. The MDBs, utilizing their own resources and stewarding climate finance, can play a pivotal role in catalyzing the transformation the world requires to eradicate poverty, boost prosperity, and avert dangerous climate change. As a partnership of five MDBs that implement

funding, [13] the CIF is designed to take full advantage of the MDBs' policy guidance, knowledge, technical assistance, project development expertise, and financial support delivered through a range of instruments, as well as their ability to leverage their capital to attract much larger volumes of finance from both public and private sources.

13. In the run-up to the Paris COP, the MDBs issued a joint statement "Delivering Climate Change Action at Scale: Our Commitment to Implementation" with aggressive climate change targets for their respective institutions (see Table 1). The MDBs also agreed to ensure that climate change implications are considered in everything they do, and identify and act on key areas of overlap with other development challenges, such as gender equality, protection of biodiversity, migration and others. Beyond increasing climate finance, the MDBs are supporting development pathways for client countries that are climate change compatible.

Table 1: Commitments made by MDBs to support climate actions

	Targets Announced for 2020	**Annual projected investment volume by 2020**
ADB	USD 6 billion (own resources only): USD 4 billion for mitigation, USD 2 billion for adaptation	In line with target.
AfDB	Tripling of climate financing to 40 percent of investments	USD 5 billion
EBRD	40 percent of annual business investment in green finance[14]	Over EUR 4 billion in green finance
IDB	Doubling of climate finance to 30 percent (internal + external resources)	Approximately USD 3.6 billion
WBG	28 percent of total commitments; USD 13 billion in co-finance	USD 16 billion own resources (of which USD 3.5 billion from IFC), plus USD 13 billion in private sector co-finance

14. An analysis of MDB climate change strategies and action plans[15] indicates that the MDBs are focusing their efforts on the few key sectors that best reflect the diverse and specific needs of the countries in which they operate. Over the period to 2020, MDBs' climate change strategies and

[13] The CIF MDB partners are the African Development Bank (AfDB), Asian Development Bank (ADB), European Development Bank for Reconstruction and Development (EBRD), Inter-American Development Bank (IDB), and World Bank Group, including the International Finance Corporation (IFC).

[14] The EBRD's Green Economy Transition (GET) target of 40 percent ABI/EUR18bn over five years refers to all green investments by the EBRD. This will thus comprise climate finance for both mitigation and adaptation as well as finance for projects with a positive environmental impact, e.g. environmental remediation. The Bank does not have separate targets for these categories. It is nevertheless expected that the bulk of the finance will be classified as climate finance under the joint MDB approach, in line with the current investment focus of the EBRD.

[15] Climate change strategies and/or action plans have been endorsed by the Boards of EBRD, IDB, and the World Bank Group.

action plans are aligned with global priorities identified in INDCs: renewable energy (mentioned in 76 percent of INDCs), water (75 percent), energy efficiency (71 percent), agriculture (69 percent) and transport (64 percent).[16] Table **Error! Reference source not found.**2 presents these priority sectors for each MDB, the INDCs, and estimated annual investment gaps for each sector. Importantly, MDBs will be expanding climate action into sectors or technologies they have not targeted in the past, or at the scale required.

Table 2: MDBs' priority areas of action to 2020; Priority sectors indicated in submitted INDCs; Estimated annual investment gaps per sector to 2020 or beyond (in USD billion per year).[17]

	Energy Systems		Cities		Climate-smart Land use	
	EE	RE	Sustainable Transport	Urban Dev't	LULUCF	Water
MDBs	√	√	√	√	√	√
INDCs	√	√	√	√	√	√
Additional investment required *(USD bn/p.a.)*	**350-500**	**540**	**730**	**400-1,100**	**>150-250**	**260-800**
- ***Developing***	*>200*	*295*	*50-470*	*n/a*	*n/a*	*>260*
- ***Developed***	*>100*	*245*	*n/a*	*n/a*	*n/a*	*n/a*

Source: Climate Policy Initiative

Key: Energy efficiency (EE); Renewable energy (RE); Land use, land use change and forestry (LULUC). Note: the investment estimates per sectors reported above rely on different methodological approaches and, hence cannot be aggregated due to the risk of double counting.

15. Closing the investment gap across these sectors will be challenging for a number of reasons, mainly:
    a) The majority of the need is in low to middle-income countries, each with their own unique barriers and challenges to address
    b) Large volumes of investment need to occur in sectors/technologies that are new to some regions or have been historically difficult to scale up[18]
    c) Investment needs to occur at a scale and speed that is an order of magnitude higher and faster than historic infrastructure investments[19]

16. In addition to responding to priorities articulated by countries through INDCs and other climate-related planning processes, the MDBs can also play an important role in nudging countries to pursue

[16] UNFCCC analysis of 119 NDCs (representing 147 Parties, both developed and developing countries) submitted as of October 2015 (UNFCCC, 2015a). The sector priorities also align with those of the 70 CIF recipient countries submitting INDCs.
[17] Sources: interviews with MDBs stakeholders; WBG (2016); Joint-MDBs (2016); ADB (2008), AfDB (2012), EBRD (2015a), and IDB (2015). The focus areas of INDCs are based on UNFCCC (2015a) and UNFCCC (2016). Investment needs estimates based on: SE4ALL (2014) and IEA (2015) for energy efficiency; IRENA (2016) and SE4ALL (2014) for renewable energy developing/developed split; Bielenberg et al. (2016) and UNCTAD (2014) for transport. CCFLA (2015) for urban; Delgado et al. (2015) for LULUCF (forestry); UNCTAD (2014) and Bielenberg et al. (2016) for water (including sanitation).
[18] E.g. energy efficiency, transport or land-use management, including forestry.
[19] The value of infrastructure required in cities in the next 15 years could be higher than the total value of city infrastructure today (CCFLA, 2015).

climate action in sectors and technologies with potentially high returns in terms of climate and other co-benefits, which countries may not necessarily prioritize themselves due to lack of awareness, expertise or difficulties in overcoming entrenched barriers.

2.1.3 Gaps and barriers to action

17. This new world is poised for scaled up action, but gaps are evident in the availability of resources and effective delivery mechanisms to meet the needs of developing countries and the ambition to reduce warming well below 2°C. The following are the main gaps and barriers to overcome within the international climate finance landscape.

18. **Lack of access to affordable long-term capital** is the main barrier to climate action and investment in mitigation and adaptation investments in developing and emerging economies.[20]

19. **High commercial risk** is a key barrier identified for investments in renewable energy. This refers to weak creditworthiness of power off-takers in many developing countries and currency and political risks, which constrain ability to attract private capital. Technology costs, risks and payback time associated with uncertain revenue streams are also barriers to the deployment of innovative technologies or approaches for both adaptation and mitigation.

20. **Non-financial risks such as information, capacity, or policy gaps** are also emphasized as key obstacles to investments in most sectors. Lack of technical capacity to assess the potential of investments in energy efficiency or climate-smart agriculture, and the confidence that they will pay-back, hinder investment in these measures. Sub-optimal policy and regulatory environments must also be addressed, for example to shift investments in agriculture and land-use from business as usual to climate compatible practices.

21. **Sustained access to concessional sources of climate finance**—extended at more generous terms and conditions than the market or conventional MDB lending can offer—will continue to be relevant to support MDBs in testing, improving, and demonstrating the financial viability of climate investment in the face of these key barriers facing climate-relevant investments. Concessional resources also support "softer" activities that are required to achieve system-wide impacts, including analytical work, policy dialogue, capacity development, and project preparation activities.

22. In 2013 and 2014, the MDBs invested alongside or in support of their operations an average of USD 1.8 to 2.3 billion in concessional climate finance from external providers, including the CIF, the Global Environmental Facility (GEF), and other multilateral and bilateral trust funds. The CIF was the top provider of external concessional climate finance for five MDBs, representing above 40 percent,

[20] This is derived from interviews of CIF and GCF recipients and analysis of the 124 proposals submitted by public and private actors to the Global Innovation Lab for Climate Finance ("The Lab") and the Finance for Resilience (FiRe) initiative in 2014 and 2015

an annual average of USD 1 billion, of the resources they collectively received in 2013-2014. At the sectoral level, the CIF was the top supporter of MDBs' public and private renewable energy projects, and of public climate-resilient energy, transport, other infrastructure and policy and institutional capacity.

23. For the MDBs to achieve their commitment to scale up their own climate financing from current levels (USD 18 billion) to around USD 36 billion per year by 2020, it is very likely that they will require a higher share of external concessional climate finance to total climate finance (currently at 9 percent of total MDB climate financing) because the sectors targeted to 2020 will likely be more difficult or costly to undertake than in the past, and the scale and need for climate investment may be higher as countries ramp up ambition in light of implementing their INDCs.[21] As the World Bank Group notes in its Climate Change Action Plan, the ability of the World Bank to meet its 2020 climate finance target is conditional on "sustained aggregate lending volumes, sustained access to [external] concessional finance, and sustained client demand."

24. **A number of financial instruments** are regarded by the "market" as having high potential to spur investment in priority sectors, but **are in short of supply**.[22] Table 3 summarizes the instruments required and the sectors in which they are needed. Providers of concessional climate finance can help financing institutions to develop, pilot, and support the provision of such instruments.

[21] The World Bank's Energy and Extractive Global Practice alone has estimated a need of USD 1 billion annually in concessional climate resources to meet the renewable and energy targets under its Climate Change Action Plan.
[22] Based on CPI's interviews and analysis.

Table 3. Instruments needed to spur investment in priority climate sectors[23]

Sectors	Barrier	Instrument
Renewable energy	Policy risks	Insurance mechanisms and guarantees
	Mismatch between local currency revenues and repayment obligations	Local currency lending or currency swaps with tenors aligned with contracts and payback periods
	Limited market liquidity	Early stage pre-construction and construction financing e.g. contingent grants or equity for high-risk investment; subordinated debt
	Gap between equity required by lenders and availability of equity from developers	Subordinated debt with concessional sources of finance taking on a portion of the first-loss position
	Limited institutional investment capital	Investment vehicles (securitization or bundling)
Energy efficiency	Lack of capacity to evaluate energy efficiency investments and develop adequate investment / financing approaches	Technical support and capacity building
	High risk perceptions / lack of confidence on financial viability	Insurance instruments, partial guarantees or performance-based financial incentives
	High upfront costs	Long-term debt capital and investment subsidies
	Insufficient regulatory frameworks, and misaligned incentives	Technical assistance and policy advise
Low carbon and climate-resilient cities	Unstable regulatory and tax policies	Technical assistance and policy support
	Risk of unilateral changes to concession agreements that may alter investors returns	Counterparty risk guarantee
	Lack of access to long term debt for infrastructure projects due to lack of creditworthiness and high default risk	Credit enhancement with concessional finance, technical support (e.g. to issue bonds)
	Inability to integrate climate considerations in investment planning and design	Grants to support pre-investment vulnerability assessment / project structuring
'Climate-smart' land use, including agriculture, and forestry	Gaps in regulatory frameworks	Policy dialogue and technical assistance
	Credit default risks associated with farmers' inadequate credit history and collateral	Risk management solutions
	Exposure to weather-related risks	Risk mitigation and transfer mechanisms such as parametric insurance
	Lack of business-relevant information on potential hazards, exposure, and climate vulnerability	Provision of business-relevant data, impact assessment tools
	Lack of equity capital to develop adaptation/resilience products and services	Seed private equity funds / patient capital and venture capital with lower expectations

Source: Climate Policy Initiative

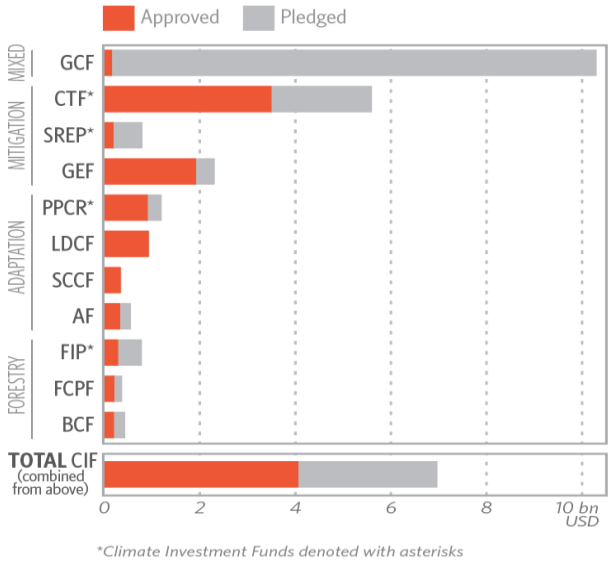
[23] Sources: Escalante (2015), Micale et al. (2014), WBG (2016), Greenfinancelab (2016), IEA (2012), Micale et al. (2015), Donnelly, D. (2015). Guislain, P. (2016), GCF (2015b), Trabacchi et. Al. (2015),Trabacchi et. Al. (2016).

2.2 In this new world, the CIF stands apart

25. While the CIF shares some features with other multilateral sources of concessional funds, there are a number of areas where the CIF is playing a unique role compared to other major multilateral sources of concessional climate finance.

26. **The CIF is the largest source of concessional climate finance approved to date**. Based on data from eight multilateral climate funds,[24] the CIF has approved approximately 60 percent of the aggregate approved funding provided by these funds in support of climate change activities, which represents both the majority of funding approved and more than any other fund on its own. As show in Figures 4 and 5, the CIF has also approved the most funding most efficiently across all its programs: Clean Technology Fund (CTF), Forest Investment Program (FIP), Pilot Program for Climate Resilience (PPCR), and Scaling Up Renewable Energy in Low Income Countries Program (SREP).

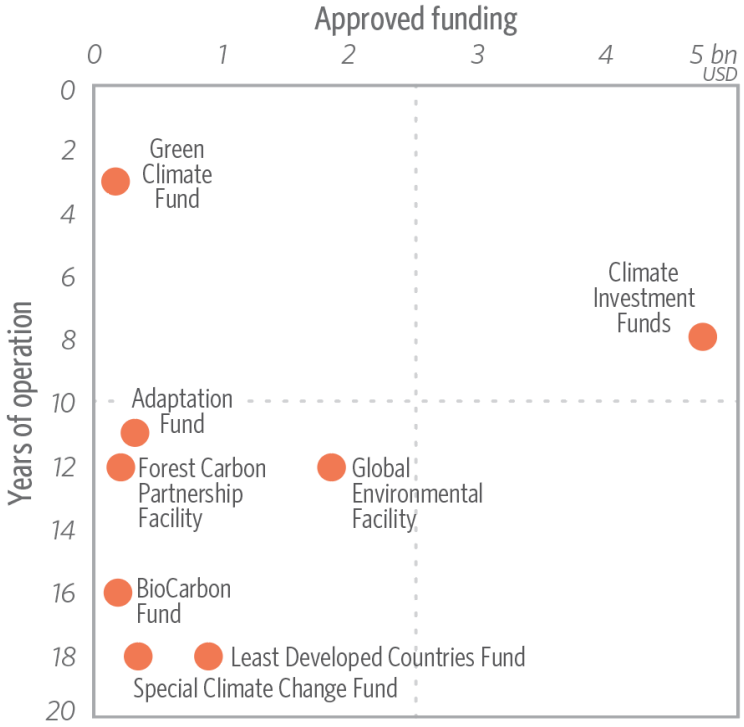
Figure 4: Pledged and approved funding per climate fund, reported as of December 2015



Source: Climate Policy Initiative

[24] These are: CIF, Adaptation Fund, GEF, Least Developed Countries Fund, Special Climate Change Fund, BioCarbon Fund, Forest Carbon Partnership Facility, and GCF.

Figure 5: Finance approved by selected multilateral climate funds based on years of operation



Source: Climate Policy Initiative

27. **The CIF offers the most risk-bearing instruments (guarantees, subordinated loans, contingency grants) of any existing concessional climate fund.**[25] The CIF is also the only fund that offers both non-reimbursable and reimbursable sources for adaptation and forestry (the GCF's provision of non-reimbursable funds for adaptation is to be determined).

28. **The CIF is the only climate fund to date to prioritize a programmatic approach** as its primary model of delivery. The GEF also offers a programmatic approach to supplement its project-based approach, but this has not been the primary focus of GEF funding to date and its programmatic approach is not implemented through a joint MDB model. The GCF is currently undertaking a competitive project-by-project approval process, but may choose to adopt a more programmatic approach in the future. The CIF programmatic approach has several notable features, such as:

    a) MDB coordination and collaboration at the planning and project levels, and inter-ministerial coordination and policy dialogue at the highest levels to enhance national impacts of climate investment;
    b) Multi-stakeholder consultation in the design and implementation of investment plans;
    c) Predictability of resource availability from the outset;

[25] At least 10 percent of the funding approved by the CTF Trust Fund Committee is delivered through higher risk instruments, including guarantees, subordinated loans, contingent recovery grants, or equity.

d) Linking of public and private sector investments;
e) Programmatic results measurement; and
f) Efforts to enhance knowledge and learning, as well as gender and social inclusion across countries' programs.

29. CIF recipient countries are able to apply the programmatic approach flexibly in accordance with national priorities by targeting, for example, specific technologies through multiple MDBs (e.g., concentrated solar power in South Africa), specific communities or vulnerable groups at the national level (e.g., combined FIP actions to support *ejidos* in Mexico), a specific geographic region (e.g., linked FIP investments in Brazil's Cerrado biome), or by piloting the same development approach through different MDB partners (such as the participatory adaptation programs implemented in Zambia by the AfDB and World Bank). Moreover, the CIF's approval process (starting with investment plan endorsement, which secures an indicative allocation of resources) provides a level of predictability and certainty to recipients and implementing partners, making the CIF unique in comparison to the more common project-by-project approval approach.[26]

30. The CIF is the **only multilateral climate fund to work with the MDBs exclusively and collectively**, bringing multiple banks together for coordinated action at both national and global levels. CIF recipients benefit from these banks' varied skillsets and ability to leverage financing, mobilize other actors, and provide broader policy support. This key feature of the CIF business model has also implied high levels of efficiency in the delivery of climate finance, unparalleled in the architecture by other funds.[27]

31. Conceived and designed by indigenous peoples and local communities, **the FIP's Dedicated Grant Mechanism for indigenous Peoples and Local Communities (DGM)** provides resources to these groups to strengthen their participation in the FIP and other sustainable forest programs and processes. This innovative mechanism is one of the comparative advantages of FIP among other forestry funds.

32. The CIF has made engagement with the private sector a top priority. The CIF created a **flexible delivery of private sector-oriented finance** through the SCF private sector set-asides (PSSAs) and the CTF's dedicated private sector programs (DPSP). Early wins have included private sector investments in geothermal power and solar photovoltaic power. Collectively, the CIF has allocated 28 percent of total financing (USD 2.3 billion) to direct private sector investment, the largest amount of any fund to date. By contrast, the GEF allocated USD 246 million for the private sector through GEF-4, 5 and 6 to support all of the GEF focal areas, beyond just climate change. The GCF is also

[26] Note that countries recently joining the FIP, PPCR, and SREP have not been afforded this certainty due to lack of resource availability beyond the investment plan stage.
[27] E.g., by relying on MDB implementation policies and policies; by including MDBs in decision-making processes to ensure policies are fit for purpose; through a streamlined two week decision-by-mail project approval process aligned with MDBs' project development cycles; through minimizing additional requirements to obtain CIF funding.

placing a strong emphasis on private sector engagement and has recently set aside USD 700 million for two pilot programs targeting the private sector.

33. The flexibility of the CIF design enables the CIF to learn by doing, course-correct, and adapt programs based on experiences and lessons learned. This flexibility provides the space, freedom, and capacity to test new methods/business models, assess effectiveness, and advance learning.

2.2.1 Comparison of the CIF and GCF

34. A key evolution in the international climate finance landscape has been the launch of the GCF. At the request of the Joint CTF-SCF Trust Fund Committee (TFC) given that the GCF is now operational a comparison of the CIF and GCF is presented below. There are several core differences between the CIF and GCF that fall into two broad categories:
    - Structural: those relating to the key design elements of the funds
    - Temporal: those relating to the start-up and implementation experience of the funds to date, which could potentially change with time

35. Both of these categories matter. While the structural differences demonstrate key design differences between the funds related to value addition and sustainability, the temporal differences also matter greatly given the urgency of the climate challenge, and the desire of developed and developing countries alike to maintain momentum and work towards the 1.5/2°C target through coordinated national climate planning and investment (see Table 4).

Table 4. Structural and temporal differences between the CIF and GCF

Structural Differences		
Issue	**CIF**	**GCF**
Implementation model	**MDB partnership model:** The CIF utilizes five MDBs as exclusive implementing agencies and includes these MDBs in policy decision-making processes to ensure that they are fit for purpose and delivery-focused.	**Accreditation model:** The GCF works with a broader array of implementing partners, enabling international access through multilateral, bilateral and private sector agencies as well as direct access through accredited regional and national entities. To date, 33 implementing entities are accredited; this number is expected to substantially increase over time to honor the GCF direct access objective. Implementing entities are not directly involved in policy decision-making processes.
Approach	**Programmatic, implemented through multiple MDBs:**	**Project-based and programmatic:**

	The CIF supports programmatic national investment plans, implemented with support from multiple MDBs. The strength of the CIF programmatic approach lies in the ability to harness the scale, leverage, and the expertise of the MDBs, including their strong safeguards, ability to link policy reforms with investment, and their capacity to execute large and complex projects, including infrastructure projects. At the country level, the CIF supports the establishment and operation of coordination and monitoring systems to track progress against programmatic objectives.	The governing instrument of the GCF includes scope for both project-based and programmatic approaches. To date, the GCF has taken a project-by-project approval approach. While it is not yet clear what a programmatic approach in the context of the GCF would look like, given its implementation model a GCF-supported programmatic approach would likely bring its own comparative advantages but is expected to be structurally different from that supported by the CIF.
Funding allocation	**Certainty on resource envelopes[28]:** CIF recipient countries are provided notional resource envelopes before embarking on investment plan development. This predictability allows MDBs and recipient countries to work in longer time horizons needed for complex or first-of-a-kind projects.	**Competitive allocation:** Funds are allocated competitively based on project submissions, with an overall target of equal allocation between adaptation and mitigation.
Relation to COP	**Independent:** The CIF operates independently of the COP.	**Operating entity of the UNFCCC:** The GCF, as an operating entity of the Financial Mechanism of the UNFCCC, is accountable to and operates under the guidance of the COP, in particular as it relates to the fund's programs, policies, and priorities.
Geographic allocation	**Limited access:** The CIF is targeted at a number of pre-selected countries (72 pilot countries) to provide greater scale of support to recipient countries. The aim is to achieve greater impact than would be possible if resources were spread more thinly.	**Broader access:** The GCF allows all developing country Parties to the UNFCCC to submit proposals, and is therefore taking a broader, more universal approach to programming.
Secretariat	**Light touch:** The CIF has opted for a "light touch" secretariat (fewer than 30 full-time staff) and	**Full service:** The GCF implementation model demands a larger secretariat function, and the GCF is

[28] This certainty has not been afforded to many of the new countries in the three SCF programs that are developing investment plans without guarantee of CIF resources for implementation.

	delegates authority to MDBs for portfolio supervision, quality control, fiduciary controls, safeguards, and accountability at the project level, while maintaining program management and reporting functions.	building a large secretariat (at least 120-150 full-time staff[29]) with an executive function that houses many of the functions that the CIF delegates to the MDBs.
Temporal Differences		
Experience	**Operational since 2008:** The CIF has rich experience and knowhow that has taken time to build.	**Operational since 2015:** The GCF is beginning project approval and implementation, and experience from the CIF and other funds demonstrates that it takes time for a fund to get up and running at scale.
Risk appetite	**Flexible toolbox of instruments:** The CIF has, over time, been able to offer guarantee instruments, subordinated debt and contingent grants, enabling more risk-taking and increasing the share of private sector investments.	**To be determined:** The risk appetite of the GCF is still to be defined and likely to initially be more conservative, particularly given that the GCF does not yet have the complete risk management framework in place, dedicated staff for managing risk at the portfolio level, or fully fledged investment guidelines.

2.2.2 The CIF can help maintain and scale-up momentum in delivery of climate finance

36. **There is broad agreement on the need to continue and scale-up the momentum in the delivery of climate finance.** The CIF is a tested mechanism with a proven track record, and its business model and experience are already addressing the gaps and barriers within the climate finance landscape (see Table 5). Given the scale of the challenge and the urgency to promote action on the ground in the short and medium-terms, there is a real risk that without the CIF the momentum that has been created will be stalled, particularly for projects that are aimed at accelerating the penetration of new technologies or adoption of new and alternative business models, and undermining the achievement by MDBs of their new climate targets. Stakeholders should carefully consider what the implications of a "no CIF" scenario would be in order to determine the best way forward.

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Table 5. The CIF has the structure and experience to bridge climate financing gaps

CIF business model	**Gaps in the climate finance landscape**
• Investment at scale • Programmatic approach • MDB partnership • Dedicated private sector programs • Adaptive programming • Flexibility • Promotion of risk-taking • Tried, tested, and trusted	• Lack of access to affordable long-term capital • High commercial risk • Information, capacity, and policy gaps • Short supply of investment-friendly instruments • Need for sustained access to concessional sources

37. Grounded in these findings, it is recommended to CIF Trust Fund Committee members, CIF MDB stakeholders, and the broader climate finance community to **continue the operations of the CIF in order to maintain and scale-up the momentum on climate action, bearing in mind the existing investment needs and the additional gaps that may arise in a "no-CIF" scenario.** The large-scale, programmatic, and predictable support needed to commercialize less mature technologies would have to come from other channels of support and other climate funds do not currently offer the same value added as the CIF. While the establishment of the GCF — a new and critical global institution within the climate finance landscape — is intended to further enhance the much needed scaled-up climate action in developing countries, questions remain regarding the extent to which the fund will be able to deliver the scale and type of support recipient countries need to achieve transformational change in the short to medium terms, a critical temporal juncture for global climate action.

3. Exploring paths for the future operations of the CIF

38. The following sections provide an assessment of the experience and key lessons learned from each of the CIF programs and explore roles each CIF program could play based on its comparative advantage and value added within the climate finance landscape.

3.1 Clean Technology Fund (CTF)

3.1.1 Context

39. The Clean Technology Fund (CTF) was established in 2008 to provide scaled-up financing to contribute to the demonstration, deployment, and transfer of low-carbon technologies with a significant potential for long-term greenhouse gas emission savings. The CTF was designed to ramp up the deployment of clean technologies within the energy, industry, transport, and building sectors, which together account for over 75 percent of global emissions.[30] In particular, the CTF was seen as a response to the need for upfront capital at concessional terms for clean energy investments not met through the flow of results-based payments via the Clean Development Mechanism. There was also urgency to unlock private investment, especially for mitigation activities with clear revenue streams.

40. The CTF has grown from an initial USD 4.5 billion in pledges supporting 12 country investment plans and one regional program to USD 5.6 billion in support of 15 country investment plans, one regional program for concentrated solar power in the Middle East and North Africa (MENA-CSP), and the Dedicated Private Sector Programs (DPSP). By design, the CTF differs from other mitigation-focused, multilateral climate instruments by focusing on larger transactions in a smaller number of countries. The CTF aims to drive down technology costs, stimulate private sector participation, and catalyse transformative change that can be replicated elsewhere. The average CTF investment size is five times greater than that of other mitigation-focused financing instruments.[31]

41. The private sector is a key player in the CTF, with nearly one-third of total CTF resources, or more than USD 1.9 billion, going to private sector projects and programs and approximately one-third of total co-financing mobilized from the private sector. In 2013, the CIF embarked on new financing paths that put greater emphasis on reducing barriers to private sector participation. The Dedicated Private Sector Programs (DPSP) under the CTF were created to finance operations that can deliver scale and speed while maintaining country priorities. The DPSP are currently in their second phase and have allocated a total of USD 508.5 million to eight programs reaching countries as diverse as Chile, Colombia, Indonesia, Mexico, Turkey, Haiti, Honduras, and four countries in the MENA region – Jordan, Egypt, Tunisia, and Morocco.

[30] Intergovernmental Panel on Climate Change 2014. "Fifth Assessment Report (AR5) Synthesis Report."
[31] CIF 2014. Learning by Doing: The CIF's Contribution to Climate Finance.

42. As of December 31, 2015, more than USD 4.5 billion had been approved by the CTF Trust Fund Committee for 92 projects and programs. The remaining CTF resources are expected to be approved by the end of 2016. Delivery has picked up significantly during the last two years, in terms of funding approvals, disbursements, and actual results measured against CTF core indicators, including GHG emissions reduction, co-financing, installed renewable energy capacity, and energy savings.

43. As reported in the 2015 CTF Results Report,[32] CTF projects have resulted already in annual greenhouse gas emission reductions of 5.5 million tCO_2e, 4 GWh in energy savings annually, installation of close to 3 GW in renewable capacity, and mobilization of over USD 11 billion in co-financing so far. Overall, the CTF has been delivering what it was set to achieve, working closely with the MDBs, partner countries, and other stakeholders. With a proven track record to deliver investments and results on the ground, and the capacity to adapt in response to evidence of gaps, the CTF is well positioned to ramp up deployment of low-carbon technologies with a significant potential for long-term greenhouse emissions savings.

3.1.2 Lessons learned

44. To follow are some salient lessons from CTF's operational experience from design through implementation, in the context of exploring future directions of the fund.

45. **Providing resources at scale** has proven to be critical to mobilize countries and MDBs to initiate and achieve transformation. When their country investment plans were endorsed, CTF countries typically received a resource allocation of USD 200-500 million per country. DPSP funding, totaling USD 509 million, was also significant for MDBs to program a number of thematic/technology-focused programs, including geothermal.

46. A strong example of CTF's ability to invest at scale is global CSP development. USD 750 million was allocated to the MENA-CSP program, with most of that funding eventually approved for CSP projects in Morocco. In total, CTF funding for CSP worldwide amounts to USD 900 million, leveraging an additional USD 6 billion in co-financing from the MDBs, governments, private sector, and other sources. CIF and associated investments are expected to lead to 1 GW of new CSP installed capacity, which is about a quarter of the current total CSP capacity worldwide. Concessional resources from the CTF have contributed to cost reduction of CSP. For example, in Morocco, CTF led to a reduction of 25 percent in costs for Noor I and an additional 10 percent for Noor II and III, and in the process, helped reduce the government subsidy required to bridge the affordability gap for CSP.

47. By placing an **emphasis on private sector engagement and backing that up with significant funds**, the CTF has demonstrated that mobilizing private sector investments for mitigation projects can be

[32] CIF 2015. CTF 2015 Results Report

done and can prove transformative. For example, in Thailand, a CTF concessional loan of USD 4 million blended with IFC's own resources provided crucial early stage support to one of the country's first solar power developers to bring 12 MW of solar photovoltaic capacity over the finish line. Six years later, Solar Power Generation Company (SPGC) has raised more than USD 800 million, installed more than 260 MW solar PV, and is aiming for 500 MW by 2020.

48. The ability to bring to the market a suite of **financial instruments that can be tailored** to project needs and specific project barriers **and bear significant risk** (such as local currency lending, mezzanine products, first loss structures, among others) has been key to mobilizing a significant level of private sector investment. Although the CTF portfolio has been dominated by loans, the type of financial instruments employed by the MDBs has become more diversified over time and the use of higher risk financing instruments more prevalent as important policy changes were introduced based on past experience.

49. The MDB partnership is demonstrating the **flexibility of the CIF programmatic approach** by supporting countries and each other in developing CTF investment plans and the DPSP. This collaboration has improved coordination with key stakeholders at the country level, generated synergies through complementary actions, and facilitated large-scale financing in key technology areas.

3.1.3 Value proposition going forward[33]

50. The world needs to invest USD 90 trillion by 2030 in sustainable urban, energy, transport, water, and other infrastructure assets, as much of two-thirds of which will be in low and middle income countries. It is not simply enough to maintain current momentum to achieve this target. Ambition and action must increase by an order of magnitude to avoid locking in long-lived infrastructure assets that are incompatible with a net zero emissions pathway and will yield neither climate not development goals. A diversity of approaches is required, including of tried, tested, and trusted mechanisms like the CTF.

51. Since its inception the CTF has adapted and responded to market demand in a dynamic manner. Moving forward, a new CTF should build on past experiences to capture new opportunities. The key elements of the new proposed CTF entails:
    a) Adopting an enhanced programmatic approach
    b) Engaging in priority investment areas and new frontiers
    c) Exploring new financing modalities

[33] Proposed CTF new financing modalities are elaborated in more detail in the paper CTF/TFC.17/4 *Future Strategic Direction for the Clean Technology Fund*.

3.1.3.1 Enhanced programmatic approach

52. Moving forward, it is proposed that an enhanced programmatic approach be adopted, drawing on the benefits of both country-led investment plans that focus on strategic areas prioritized by the countries and thematic and technology-based programs across countries and regions, as exemplified by DPSP. An enhanced programmatic approach can harness the benefits and scale of the MDB partnership in support of priority investment areas and new frontiers, while providing agility to move quickly and adapt when needed.

3.1.3.2 Investment priorities and new frontiers

53. As stated above over the next 15 years the global economy needs around USD 5-6 trillion annually to be invested in infrastructure assets, of which around USD 2 trillion can be marked to developed countries while the rest to low and middle income countries[34]. These investment needs spread across sectors ranging from energy and transport systems, cities, water and sanitation and telecommunication. Even if the share of renewable energy in the world's energy mix has been growing steadily in the last 15 years (solar power as a percentage of total energy generation capacity has doubled seven times, while wind generation has doubled four times) renewable energy still has significant untapped potential, a potential that needs to harnessed if we are to meet the Paris Agreement targets. Moreover even though the costs of many clean technologies have declined, the barriers remaining that impede their deployment at scale are largely related to the availability and affordability of financing and the business models to sustain them.

54. While there is a continued role for CTF support in certain persistent high-risk markets, the new CTF should push the boundaries of its engagement to emerging sectors that have potential to deliver high impact. Frontier areas for CTF support could include, but are not limited to, the following themes:

a) Energy storage

55. Energy storage is emerging as a viable solution to manage the intermittent and distributed nature of renewable energy and improve grid efficiency. The focus on storage is relevant for a number of reasons. First, increased penetration of intermittent renewable energy sources causes imbalances in the grid that must be managed by increasingly expensive peaker plants. Second, aging transmission and distribution networks create bottlenecks that prevent cost-effective sources of energy from reaching the areas where it is needed most; moreover, the costs of laying down new lines are extremely high. Third, excess energy produced that cannot be absorbed by the grid is wasted, while

[34] Bhattacharya, Amar, Jeremy Oppenheim, and Nicholas Stern, "Driving Sustainable Development through Better Infrastructure: Key Elements of a Transformation Program," *The Brookings Institution Global Economy and Development Working Paper* 91, July 2015

at the same time there are reliability issues related to the existing sources of supply. These challenges can be addressed by pairing renewable energy sources with energy storage.

56. Energy storage is at the threshold of becoming economically viable, similar to the PV industry status 7-8 years ago. It is emerging from niche applications (such as mini-grids) to economic viability in mainstream settings (such as frequency regulation) mainly due to falling cost of components, growing demand to manage the intermittent and distributed nature of renewables, and to improve grid efficiency. Despite the demand, there are barriers to widespread deployment including: a) cost of technology and payback time; b) lack of regulatory clarity; c) uncertain revenue streams; and, d) access to commercial finance. Concessional sources of financing can facilitate the penetration and scaling-up through interventions that help bridge the gap to commercial project viability, mitigate real and perceived business risks, finance first of its kind projects and support technical assistance (TA) work to promote regulatory framework convergence, establish testing and certification standards to ensure quality and reliability etc.

b) Energy efficiency in the buildings sector

57. Cities consume around 66 percent of the world's energy and account for 70 percent of GHG emissions, with buildings accounting for about one-third of global energy use and related GHG emissions. If the right investment choices are not made today, we will be locking in high-cost, high-carbon urban infrastructure for the next 40-70 years. With short payback periods between two to eight years, every additional dollar invested in energy efficiency measures can potentially generate three dollars in future fuel savings by 2050. However, barriers still remain, such as: a) higher costs, up to 12% higher than traditional buildings; b) lack of a market entity to absorb these costs, as immediate affordability outweighs future energy and water savings; c) lack of a system to validate savings that hinders flow of capital to the sector; d) lack of information in the market, among others.

58. While many admit that green buildings may present a financially sound proposition, no party is willing to take the risk of higher upfront cost combined with unknown pattern of returns. This is where concessional finance can be critical, either absorbing incremental cost, associated with 'greening' a building or providing performance assurances. The latter can be achieved by either setting up financial structures that can protect the overall investment returns or by establishing a standardized certification process that would guarantee certain minimal level of performance. With more experience and market penetration, the benefits of green buildings will become thoroughly understood, the market demand will pick up, and fully commercial financing will follow.

c) Sustainable transport

59. Transport accounts for 23 percent of global (non-agricultural) CO_2 emissions and business-as-usual (BAU) projections suggest that by 2030, transport emissions will rise by roughly 70 percent, mostly from emerging economies. Not only is it possible to change the trajectory for transport emissions, but doing so would generate significant co-benefits such as reduced congestion, pollution and

accidents, improved health, quality of life, enhanced productivity and economic growth. In many cases, switching to a lower carbon transport system requires a transformation that is complex and capital intensive. Though investments generate economic co-benefits, revenue generating ability is often limited by affordability concerns; even operational cost recovery is often a challenge, making it difficult to attract private sector funds at scale.

60. Technical assistance and policy support is needed to put in place stable regulatory and tax policies, to integrate transport and urban development policies, and to integrate low carbon and climate-resilient projects into planning decisions. Counterparty risk guarantees for transport concession agreements, credit enhancement, innovative land-use and building fee or tax mechanisms, and transport bonds could also be used as potential instruments to facilitate access to long-term debt, and concessional finance has a role to play to pilot and scale them up. The MDB-collective model is an optimal vehicle for delivering the desired results. First, because MDBs are critical to managing the governance and risks that are common to complex, sub-national transport investments that involve environmental, social, and inter-governmental, and public-private issues. Second, because MDBs bring trusted long-term relationships that allow them to work effectively with sub-national, municipal, national, and private sector actors. And finally because a programmatic (vs a project-by-project) approach is required for the types of 'transformative' investments that will be required—whether with sub-national interventions or for private sector-led initiatives.

d) Global distributed energy capacity additions

61. Two primary forces will drive the growth of distributed generation in coming years: rising peak energy demands through localized energy solutions (peak shaving), and access to the 1.1 billion people who still lack basic energy services. Distributed generation assets are modular and adaptable to a variety of applications and hence are best suited to address both these needs.

62. Despite the significant demand and relevance of these investments they offer insufficient risk-reward to private sector investors and to lenders for the following reasons: a) regulatory risks, given a lack of specific policies for such project due to lack of experience; b) higher cost, when compared to the alternative fossil fuel choices; c) lack of access to long-term financing, due to absence of a revenue model; and, d) complex stakeholder interests, in the form of competing priorities, steep learning curve etc. As in the case of energy efficiency investments, Energy Service Companies (ESCOs) and other third party players have the potential of significantly scaling up distributed generation, but they face barriers in accessing adequate finance. Concessional finance that allows for a much higher degree of risk mitigation compared to on-grid RE financing, will be needed to get a lot of these projects off the ground. Concessional finance can support (a) lending for much longer tenors than MDBs to improve the project economics over business-as-usual diesel or other fossil fuel based distributed generation, (b) provision of subordinated loans to help establish viable business models and develop track records for fully commercial investors, and (c) provision of early stage equity to help new/start-up ventures off the ground.

63. Concessional financing from the CTF has the potential to reduce barriers and initiate scale up in each of these frontier areas.

3.1.3.3 New financing modalities

64. In a recent study[35], the Climate Policy Initiative (CPI) highlighted some of the comparative advantages of the CIF, including programmatic approach with scale of funding, *"flexible toolbox of instruments,"* and private sector engagement, in delivering climate finance and addressing barriers to the deployment and scaling-up of low-carbon technologies. Given CTF's financial and operational strength, experience, investment focus and unique "MDB-collective" business model, CTF is in a position to increase the scale and broaden the range of the capital it engages. In addition to the advantages highlighted above, CTF's cost-effectiveness is also noteworthy. When compared, in terms of customary financial indicators, to other multilateral financing vehicles, CTF has proven to be quite efficient in deploying scarce public resources. As a financing vehicle, CTF's leverage is minimal, liquidity is good and it has shown a positive (though small) return on equity[36].

65. The CIF Administrative Unit in collaboration with the MDBs has further explored the new financing modalities with respect to use of reflows and need for new contributions. The outcomes of that work is outlined in the paper CTF/TFC.17/4 *Future Strategic Direction for the Clean Technology Fund* to be considered by the CTF Trust Fund Committee in June 2016.

[35] Chiara Trabacchi, Jessica Brown, Rodney Boyd, David Wang, James Falzon, "The Climate Finance Landscape and the Role of the Climate Investment Funds", May 2016.
[36] *New Financing Modalities for the Clean Technology Fund* (November 2015).

3.2 Strategic Climate Fund

66. The Strategic Climate Fund (SCF) serves as an overarching framework to support three targeted programs: the Forest Investment Program (FIP), Pilot Program for Climate Resilience (PPCR), and the Scaling up Renewable Energy in Low Income Countries Program (SREP). Each program has dedicated funding to pilot new approaches with potential for scaled-up, transformational action aimed at a specific climate change challenge or sectoral response. Through these targeted programs, the SCF is designed to:
    a) Provide experience and lessons through learning-by-doing
    b) Channel new and additional financing for climate change mitigation and adaptation
    c) Provide incentives for scaled-up and transformational action in the context of poverty reduction
    d) Provide incentives to maintain, restore and enhance carbon-rich natural ecosystems, and maximize the co-benefits of sustainable development

67. While the specific context, lessons learned, and continued value proposition of the three targeted programs vary, the SCF programs share many characteristics. These cross-cutting policy and operational considerations should be taken into account when considering the continued value proposition of, and potential additional contributions to, these programs:

    a) **Funding support is required for the implementation of investment plans and strategic programs for climate resilience (SPCRs) in the new countries** invited since 2014 to join the three SCF programs. To deliver on the momentum that has been generated and the expectations that have been created at the country level through the process of developing investment plans and SPCRs, any new funding should support activities identified in these documents. Although countries were advised to develop their investment plans and SPCRs in a manner that would attract support from other sources, it remains unclear to what extent they will be able to attract funding from sources beyond the CIF.

    b) Experience from the first phase of SCF countries indicates that **a sizeable funding envelope is an important factor/incentive mechanism**. It is required to attract and sustain country interest, initiate pipeline development among multiple MDBs, and support projects of a sufficient scale to achieve ambitions expressed in investment plans and SPCRs and initiate transformational change. Should additional funding be provided for investment plans and SPCR implementation, the allocation of funding to countries should be guided by this experience.

    c) **The private sector set-asides of the FIP, PPCR, and SREP have generated valuable lessons** for mobilizing private sector investment through these programs. In May 2015, the SCF Trust Fund Committee considered a proposal for a Strategic Climate Fund Private Sector Facility, and respective Sub-Committees also considered recommendations emerging from the independent assessment of the set-asides. Building on these discussions, the PPCR Sub-Committee decided

on a new set of procedures to expand the flexibility and enhance the operational efficiency of any future set-aside. This decision could guide the development of future set-aside/private sector windows under all three SCF programs. To provide the certainty that the MDBs require to engage with private sector clients towards developing a robust pipeline of investments, a minimum funding envelope of sufficient scale should be secured before launching any new set-aside round.

d) Taking into account the comparative advantage of each SCF program in the near term within the climate finance landscape, **special themes or new initiatives have been proposed under each program**, which also reflect the priorities identified by CIF recipient countries in their INDCs. These thematic programs vary by fund but all base their design concept on the CTF DPSP to support key cross-cutting themes across IPs/INDCs while complementing country investment plans. These programs could be operationalized to provide targeted funding to countries where thematic opportunities exist within 12 to 18 months.

e) Given that many countries are now participating in two or more SCF programs, recipient **countries and MDBs should exploit possible synergies and economic efficiencies** in the development of new investment plans and SPCRs and the implementation of ongoing CIF-funded activities.

3.3 Forest Investment Program (FIP)

3.3.1 Context

68. Beginning a decade ago, increased attention was placed on the carbon-content potential of forests and forest landscapes. Forests have the potential to absorb about one-tenth of global carbon emissions projected for the first half of this century into their biomass, soils, and products and store them, in principle, in perpetuity. At the same time, deforestation and forest degradation account for over 20 percent of global greenhouse gas emissions. To fully realize the potential of reducing emissions from deforestation and forest degradation and promote sustainable forest management (REDD+), several financing initiatives were launched in a short time frame to support the different phases of REDD+: readiness, investment, and results-based payments. These included the FIP, the World Bank's Forest Carbon Partnership Facility (FCPF), the UN-REDD Programme, as well as bilateral initiatives.

69. Established in 2008, the FIP supports developing countries' REDD+ efforts, providing up-front bridge financing for readiness reforms and public and private investments to help them adapt to the impacts of climate change on forests and to contribute to multiple benefits such as biodiversity conservation, protection of the rights of indigenous peoples and local communities, poverty reduction and rural livelihoods enhancements. To deliver on these objectives, the FIP funds activities such as institutional capacity building, forest governance and information; investments in forest mitigation measures, including forest ecosystem services; and investments outside the forest sector necessary to reduce the pressure on forests, such as support to agro-forestry activities.

70. The FIP, with USD 771 million in pledges and contributions to date, was and remains the only forestry fund focused on REDD+ investment and implementation activities. By initially focusing on a limited number of pilot countries, the FIP was able to offer envelopes that are large relative to other forest funds (ranging from USD 30 to 70 million per country), allowing for impactful investments at scale. This approach, and heavy attention to policy support and capacity distinguishes the FIP positively from other climate and forest funds.

71. The FIP is also unique for its USD 80 million Dedicated Grant Mechanisms for Indigenous Peoples and Local Communities (DGM), a one-of-a-kind program designed and led by indigenous peoples and local communities. It provides these groups direct access to funding to enhance their capacity to engage in the FIP and other forest-related dialogues and actions. To further engage the private sector in FIP countries, the FIP Private Sector Set-Aside (PSSA) was created in 2012.

72. The FIP portfolio includes a wide variety of interventions focusing on individual country needs to address the drivers of deforestation and forest degradation. The initial eight FIP pilot countries all have endorsed investment plans. These are beginning to come to fruition with the development of 27 projects of which 14 have received MDB Board approval and have moved into implementation. Fifteen new FIP countries, invited to join the program in 2015, are at the earliest stages of investment plan development. Within this group, six countries are developing plans within a total

resource envelope of USD 145 million (USD 24 million each), while nine are being supported to develop investment plans without additional investment funds.

73. The landscape into which the FIP and other funds were founded has evolved and thinking on forests has shifted. Originally international action focused on supporting developing countries in building capacity and preparing for forest carbon programs under the scheme of payment for results. As a result, there was a strong focus of forest finance on carbon-rich forest countries, but insufficient attention paid to the role of forests as contributors to national economic development, and as a key sector bridging climate change mitigation and adaptation efforts.

74. There is today an increasing understanding among forest practitioners that many countries still require significant capacity building and investment, and that progression through the three phases of REDD+ is neither necessarily linear nor sustainable as originally designed. The complexity of issues related to forests, such as land tenure, benefit sharing, safeguards, and corruption risks remain important challenges to tackle in the effort towards scaled, sustainable investment, especially private sector investment, in forests. The FIP program has identified increased private sector investment in forests as a necessary input to effect the desired change in forests at scale.

75. The past decade has seen successes by a small number of countries to reduce deforestation and forest degradation, but globally the loss and degradation of forests remain stubbornly high. Responses have broadened beyond forests into the wider landscape to address the key drivers of deforestation and seek now to employ the productive functions of forests as a means to secure both their economic contributions to countries and their maintenance. However, the pressures on forests are set to increase through population growth, the demand for deforestation-linked global commodities, and the impacts of climate change. Forests face mounting challenges and the range of products, benefits, and ecosystem services they provide at local, national, and global levels remain vulnerable without resources for robust policy and implementation.

76. The finance architecture for forests has changed with the initiation of the GCF and the increase of bilateral funding from countries such as Norway and the United Kingdom. Other multilateral REDD+ players, namely, UN-REDD and FCPF, have expanded their involvement in more countries. UN-REDD focuses on the development of readiness activities in 64 partner countries through a funding envelope of USD 281 million. The FCPF has 47 country participants and its Readiness Fund supports readiness activities with funding of USD 373 million. The FCPF's Carbon Fund is designed to pilot performance-based payments from REDD+ programs in a small number of countries through a funding envelope of USD 456 million.

77. The gap between readiness and performance-based REDD+ payments is still apparent and investments are still necessary in the enabling framework to build the foundations of good forest governance, enhance and use capacity for REDD+, and encourage sustainable private sector investments. Opportunities exist for expanding the use of performance-based support for non-carbon results on an incremental or step-wise basis as part of REDD+ progress.

78. Forests rank high as a priority for both mitigation and adaptation in CIF recipient countries' INDCs, and all FIP countries include forests in their INDC (see Figures 1 and 2). The opportunity of the INDC and SDG processes must be grasped immediately as countries are currently planning their next steps on both of these initiatives. Without continued support to keep forests center stage, the lack of capacity and political standing of forest ministries risks forests being excluded from both climate and development processes. Countries need to be encouraged to mainstream forests as part of their development planning and look to the wider landscape to address the drivers of deforestation and degradation.

3.3.2 Lessons learned

79. The FIP experience has yielded a number of important lessons, which can be instructive as countries, MDBs, and other partners seek new opportunities to harness the potential of forests for mitigating and adapting to climate change through the implementation of INDCs, while supporting economic growth and achieving poverty reduction.

80. The FIP experience reveals the **challenges that governments and MDBs face in prioritizing the forest sector for large scale investment.** Challenges related to valuation of the full range of forest benefits hamper the MDBs' ability to present robust analyses of the potential costs and benefits of forest sector investments. Additionally, the relatively small scale of forest investments and the potential safeguard issues further reduce appetite within the MDBs. Although there are encouraging developments in a small number of countries, the overall outlook for forest investment remains limited.

81. Analysis of the FIP portfolio identifies that **almost half of FIP investments are for capacity building efforts.** While this may appear at odds with the FIP's REDD+ investment role, it reflects that, in many cases, forest sectors have been underfunded and under-capacitated for long periods. Basic elements of forest governance and stewardship may be weak or absent on the ground. The FIP has therefore provided "no regrets" investments in the foundations of forest management that promote and facilitate all aspects of forests, particularly a strengthened policy and institutional environment that is a prerequisite for building more complex forest resource investment opportunities or programs.

82. **The FIP programmatic approach** to national investment planning demonstrates how bringing together various government ministries, MDBs, indigenous peoples' groups and civil society actors can foster the development of an integrated sectoral approach that is country-driven. The development of national investment plans has **facilitated an overdue strategic dialogue** among various ministries in many recipient countries and helps illustrate the scale of investments now required in the foundational elements of sustainable forest management.

83. In Brazil, for example, the FIP investment plan brings together the Ministries of Environment; Agriculture, Livestock and Food Supply; and Science, Technology and Innovation to implement a

series of linked investments to improve the sustainability and efficiency of forest resource management and land use in the Cerrado biome. In Mexico the FIP investment plan harnesses the strengths of its MDB partners to bring to bear a suite of REDD+ instruments plus innovative financial mechanisms delivered through local financial institutions to improve land and forest management by *ejidos.* In other countries, the FIP brought attention to the forestry sectors where this was previously not the case, enabling dialogue on forests that spans ministerial and sectoral divides, particularly between forests and agriculture.

84. The FIP experience illustrates that **putting in place the building blocks for investment and moving to implementation takes time.** As more projects advance through the project cycle, the implementation pace is improving, but there are still few projects reporting results in the FIP portfolio. Moreover, enhanced coordination between the FIP and the other multilateral forest trust funds (the FCPF, BioCarbon Fund, UN-REDD) could have avoided duplication at the country level, particularly in parallel negotiation and implementation tracks.

85. The FIP's USD 80 million **DGM**, conceived and designed by indigenous peoples and local communities, provides **a model for engaging with and empowering forest-dependent indigenous peoples** to strengthen their participation in forestry and other REDD+ processes. The DGM is unique within the forestry landscape and is recognized as one of the most transformative features of REDD+ finance.

86. The FIP has generated lessons on engaging the private sector in sustainable forestry investments. The FIP PSSA was an attempt to increase the flow of FIP private sector investments. While generating some initial momentum, the **FIP PSSA design structure did not align well with the business needs of the MDBs or the private sector**, and was unable to catalyze a significant amount of new private sector investments. The MDBs were challenged by the limited flexibility of the PSSA, which required working within strict confines of the original concept notes, the submission timeline, and geographic eligibility for projects and programs. This was compounded by the inherent difficulties of undertaking private sector forestry projects in developing markets.

3.3.3 Value proposition going forward

87. The FIP is, and can continue to be, a key player in the global forest finance architecture. It possesses a **growing portfolio of active programs and projects** that address forest sector issues at locally, nationally, and globally, within a governance context of accountability and stakeholder engagement. With 23 partner countries, the FIP is able to present **experience from a wide range of forest types and situations**. This involves interventions within the public sector and governance, private enterprise, as well as the livelihood perspectives of forest dependent communities and indigenous peoples. The FIP **partnership with MDBs** offers the opportunity to gather insight from the range of support mechanisms and tools being deployed at scale through the MDBs' investment portfolios in

both public and private sectors, including those already in use within forests, as well as new approaches that can be transferred from other sectors to the forest arena.

88. This combination allows the FIP to greatly advance the dialogue necessary to reposition forests as a positive contributor to sustainable development and economic growth. The FIP has the unique opportunity to **draw from its partnership knowledge bank and use its convening power** to lead dialogue and help decision makers to understand the importance of the forestry sector to national and local economies, and to assist them in analysis towards informed investment decisions.

89. The future role of the FIP depends upon the availability of additional funding in the near-to-medium term, as existing FIP pledges and contributions are fully allocated. The implications of two funding scenarios are presented for FIP in the near term:
    a) The FIP receives no new funds and operations begin to wind down
    b) The FIP receives additional funds and is able to support the implementation of new investment plans, and/or pursue a new private sector window or new thematic areas

3.3.3.1 Scenario 1: No new funds are provided to the FIP

90. Within the existing resource envelope the original eight FIP pilot countries will continue to implement their investment plans without any enhancements.

91. The six new pilot countries will continue to advance with the preparation of their investment plans with the modest allocations provided. The funding envelopes for these countries were limited relative to the FIP's intention to provide significant scaled up investments.

92. These six countries present an opportunity to develop processes within the FIP and GCF to facilitate co-financing of FIP investment plans by both funds. This would allow maximum experiential learning and demonstrate continuity between the two funds. However, at present there is no clear signal as to how or whether the GCF would consider FIP investment plans for funding. If these countries are not able to obtain additional resources from the GCF or other sources, there will be a missed opportunity to drive for more impactful investments that a larger funding envelope would offer.

93. While it is expected that most or all of the nine additional countries without secured FIP resources for implementation will continue to develop their investment plans, there are legitimate questions as to the level of commitment the countries will place in these. While FIP investment plans are being developed at the same time as INDC implementation plans, without confirmed finance from the FIP or other sources, the opportunity for these countries to use forests to contribute to the global climate goals in the short to medium term may be at risk.

94. While DGM activities will continue in the current 14 countries, without additional resources there will be no expansion of the DGM into the nine additional countries, forfeiting the opportunity to develop capacity among indigenous peoples and local communities in a process aligned with the

investment plan development trajectory. Similarly, there would be no revision of the PSSA without additional resources.

3.3.3.2 Scenario 2: New funds are provided for the FIP

95. With the provision of additional resources, the FIP can drive the uptake of forests as a key part of countries' response to climate change and as an important sector for sustainable development in rural areas. **Funding would be extended to the nine additional pilot countries** to provide average investment resources in line with the ambitions of the INDCs. With the provision of **additional resources for each of the six new pilot countries**, the opportunity would be taken to revise grant/loan levels, particularly for debt stressed countries. Together, these would be important to maximize the MDBs' opportunities to address real and perceived risks of the forest and wider landscape sector within their organizations and provide support to make the case with client countries for investments in the forest sector to achieve both climate change and development benefits.

96. It is important that the DGM continues to put project design and funding decisions in the hands of indigenous peoples and local communities by giving them the power to set priorities and implement programs aimed at conserving their natural environment. **The expansion of the DGM** to the nine additional pilot countries is therefore a key part of the continuation of the FIP as a whole and an integral part of the new countries' investment planning processes.

97. As the DGM develops, there is a desire for greater involvement among DGM groups in implementing forest management. Topics of particular interest for the group include participatory monitoring and mapping, addressing risks and conflict mitigation (particularly around land conflict), capacity building with local executing agencies, and methods of ensuring continued knowledge sharing. There is also **potential to share experiences between the FIP and PPCR programs** around natural resources management and the forest-agricultural interface and to take into consideration and share adaptation and resilience experiences through the DGM.

98. Bringing private investment into the forest sector is vital to demonstrating the case of forests as a dynamic opportunity for climate-smart development. This could be achieved through **capitalization of a new private sector window.** Taking into account lessons learned from the previous FIP PSSA, a redesigned private sector window should be sufficiently flexible and swift to respond to private sector demand as it arises to ensure compatibility with firm-level business cycles. Funds would be available for private sector projects with the objectives consistent with the FIP on an on-going "first come, first served" basis with project and program concepts to be submitted to the Sub-Committee on a rolling basis (without a call for proposals and expert group review), as well as allowing grant funds to be used alongside concessional finance in more challenging markets.

99. Finally, with additional resources, the FIP has the opportunity to **provide horizontal support for global forest challenges through strategic thematic programs**. While the design and

implementation of FIP investment plans should remain country-driven processes that reflect national priorities, it is acknowledged that many countries face common themes that are both national issues and global challenges. Much like the CTF's DPSP from which many lessons have been drawn, the strategic program approach would create a focused path through which funds can be more specifically channeled to key forest sector investments.

100. The strategic thematic approach would have the objective of financing projects that can deliver FIP results and impact at scale and mobilize private sector investment, while at the same time maintaining a strong link to country priorities and FIP program objectives. Strategic programs would also develop a community of practice, generate knowledge, and enhance south-south learning, particularly through partnerships with other relevant organizations and initiatives.

101. The thematic programs would also allow the MDBs to make use of the full range of financing instruments currently utilized under the FIP, as well as performance-based approaches, and, when conditions allow, more innovative finance tools that are still largely unknown within the forest sector. The goal is for the MDBs to bring a mixed pipeline of public and private projects under the thematic area for consideration by the Sub-Committee within 12 to18 months.

102. To begin, two thematic areas are identified as national forest-related priorities in FIP countries' INDCs with high potential benefits for both climate change and development objectives (see Annex B for more detailed concept notes):

a) **Forest landscape restoration**: At scale, restoration can be a key component of the least-cost path to achieve global climate stabilization goals through both accumulation of carbon stocks and alleviating deforestation pressures. It is also an important component of efforts to improve food security by placing land back into productive use, as well as a mechanism to strengthen rural income and maintain natural capital. The FIP can offer both the financial resources and the partner skillset needed to implement plans at scale and leverage the necessary private sector investment.
b) **Addressing deforestation from agricultural commodity expansion**: Agricultural expansion drives approximately 80 percent of deforestation worldwide and is responsible for almost half of the annual deforestation of primary tropical forests. Improving the way many widely-used consumer products are produced can secure benefits that promote low-carbon, sustainable development for producing countries. The FIP offers the ability to support public sector governance in a coordinated effort with private sector production to reduce pressure on forests and help increase commodity yields in existing production systems.

3.4 Pilot Program for Climate Resilience (PPCR)

3.4.1 Context

103. The PPCR was established in 2008 to support countries in mainstreaming climate risk and resilience into core development planning, while building on National Adaptation Programs of Action and other relevant country studies and strategies. At that time, barely one-tenth of available multilateral climate finance targeted the area of climate adaptation[37], and only the Adaptation Fund was mandated to exclusively finance adaptation activities. The PPCR introduced scale to the adaptation finance landscape, providing countries with resource envelopes of up to USD 110 million. By contrast, the Adaptation Fund caps funding at USD 10 million per country, and the Least Developed Countries Fund (LDCF) recently increased funding caps to USD 40 million per country.

104. The PPCR was the first fund to provide reimbursable resources, in the form of near zero interest loans with 40-year repayment periods, for adaptation investments. It saw high demand from countries to access these resources, predominantly for public sector investments.[38] Recognizing the need to provide specific support for private sector adaptation activities in vulnerable countries, the PPCR was also the first fund to launch a dedicated financing window for private sector adaptation projects in 2012 with the creation of the PPCR Private Sector Set-Aside (PSSA).

105. The PPCR is unique for its programmatic approach to planning and implementing activities in a comprehensive manner. Even as the climate finance landscape has evolved, the PPCR remains the only funding mechanism that both encourages and provides the significant resources needed to help countries develop and implement a strategic program for climate resilience (SPCR) with support from multiple MDBs. The PPCR extends resources of up to USD 1.5 million for a programming phase to enable countries to undertake necessary assessments, diagnostics, outreach, and capacity development activities to ensure that investments identified for PPCR funding are based on a solid analytical and participatory process and will enable mainstreaming and scale up of climate resilient investments. For the majority of the first group of PPCR countries, the PPCR programming phase set the foundation for the development of the SPCR, facilitated its timely completion, and improved their overall readiness to implement the program of investments and supporting activities.

106. To date, the PPCR has received pledges of USD 1.2 billion, making it the largest operational adaptation fund in the world. An original group of nine PPCR pilot countries and two regional programs, which include nine small island developing states, has successfully completed their SPCRs, and they are now implementing investments. In May 2015, an additional ten countries were invited to prepare SPCRs, but no PPCR resources are available to fund investments in these countries.

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[37] The Global Canopy Program. (2009). The Little Climate Finance Book. The Global Canopy Program: Oxford, UK. Available at: http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/5640.pdf

[38] PPCR non-grant resources have a 75 percent grant element (calculated according to IDA methodology).

107. Worldwide, adaptation finance grew from an estimated USD 14 billion in total public and private climate finance flows in 2011 (out of USD 364 billion total) to an estimated USD 25 billion in 2014 (out of USD 391 billion total).[39] MDB funding for adaptation, including funding from external sources, rose by about 15 percent in absolute terms from USD 4.3 billion in 2011 to USD 4.9 billion in 2014, but was nearly flat in terms of the percentage of total climate finance commitments, rising from just 20 percent to 21 percent in the same period.[40]

108. Today, adaptation finance makes up roughly one-quarter of total climate finance resources approved by multilateral funds.[41] The GCF targets a 50/50 split between adaptation and mitigation, which based on its current pledges, translates to more than USD 5 billion available for financing of adaptation activities.

109. The MDB climate change targets and action plans announced since October 2015 include significant scaling up of commitments toward adaptation and resilience. The ADB, for example, includes an annual target by 2020 of USD 2 billion of its own resources, or one-third of its target climate finance commitment. The World Bank Group's Climate Change Action Plan (2016) pledges a rebalancing of its portfolio towards a greater focus on adaptation and resilience. Its Africa Climate Business Plan embraces resilience as its core objective, aiming to deliver by 2020 USD 16 billion in climate finance to Africa, of which two-thirds will directly support adaptation and resilience. While the MDBs' concessional windows are expected to ramp up support for resilience, additional climate finance will be needed to develop and test new instruments, provide technical assistance, support project development, and to support the incremental cost of incorporating resilience into development investments, including sustainable infrastructure.

110. The INDCs are an important source of information on countries' policy directions in this area. An analysis by the World Resources Institute (WRI) Institute finds that 88 percent of countries submitting INDCs included adaptation components.[42] Although INDCs are mixed in terms of the quality of adaptation components (given limited awareness in some countries of climate vulnerabilities and adaptation options), the very fact that adaptation components were included by so many countries signals a greater profile for adaptation at the national and global levels.

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[39] Buchner, et al., *Global Landscape of Climate Finance.* Climate Policy Initiative, 2012; and Buchner, et al., *Global Landscape of Climate Finance.* Climate Policy Initiative, 2015.
[40] Source *Joint Reports on Multilateral Development Banks' Climate Finance* for 2011 and 2014. These figures exclude finance provided by the European Investment Bank, which is not a CIF implementing agency,
[41] Climate Funds Update. Accessed 7 April 2016. Available at: http://www.climatefundsupdate.org/themes
[42] http://cait.wri.org/indc/#/. Accessed 7 May 2016.

3.4.2 Lessons Learned

111. The PPCR has learned important lessons on mainstreaming resilience in development planning and investment, and stands to generate significantly more learning as projects advance through implementation. A summary of some of the key lessons from the PPCR experience follows.[43]

112. **Coordination across multiple sectors supported with leadership** from the highest levels of government (often from ministries of finance or planning) helped to shape a program of resilience investments, and is promising for implementation effectiveness and anticipated scaling up. In many countries, the PPCR supported the establishment or strengthening of inter-ministerial coordination units, which have become effective platforms for national level coordination well beyond the remit of the PPCR. For example, Zambia's Interim National Climate Change Secretariat launched with support from the PPCR and is now coordinating all of the country's climate change actions. In Tajikistan, the PPCR secretariat is the first example of a cross-sectoral coordination platform in the country.

113. **The expectation of linked and leveraged funds at scale** through formal MDB collaboration and an envelope of investment financing in the form of grants and concessional loans was **pivotal for country buy-in**. Planning grants alone would have been insufficient to catalyze country action. Both linked investments (linked to other MDB operations) and leveraged financing (from MDBs, bilateral, and other sources) were instrumental in advancing countries' resilience pathways and are generating potentially transformational impacts, e.g. through spurring and testing policy reforms. In Mozambique, for example, PPCR support for technical assistance and investments is complemented by a programmatic Development Policy Lending series implemented by the World Bank which supports national level reforms that build resilience into development planning and investment in seven sectors.

114. **Mandatory and documented stakeholder engagement built ownership and support** for the SPCR design and implementation process. A number of countries have sustained stakeholder involvement in SPCR implementation through the programmatic monitoring and reporting process, e.g., through including different stakeholder groups in annual scoring workshops to measure progress against PPCR core indicators.

115. **The PPCR's ability to evolve and be responsive to country** capacities, political structures, and overall development regimes was pivotal for acceptance. The flexibility of the PPCR enabled countries to develop strategic plans and investments that aligned with specific national

[43] These lessons have been adapted from *The World Bank Group (2015). Key Lessons from the Pilot Program for Climate Resilience. Available at:* https://www-cif.climateinvestmentfunds.org/sites/default/files/WB_Climate_Guidance_Note_0.pdf

vulnerabilities.[44] Moreover, the PPCR has supported the evidence base and strengthened capacity for further adaptation action through analyses and capacity building targeting different stakeholder groups.

116. The PPCR has not been able to achieve the level of private sector engagement desired by many stakeholders. The PPCR PSSA was created in response to the low level of private sector mobilization obtained through SPCRs. While the PPCR PSSA did yield some notable successes (including Tajikistan's CLIMADAPT, a first-of-a-kind financing facility for resilience investments by households and SMEs, implemented through the EBRD), **the PPCR PSSA faced many challenges due to structural mismatches with MDB private sector operations**. In response, the PPCR Sub-Committee in May 2015 approved adjustments to the operational framework for a private sector window under the PPCR that is expected to better support the market and fill the private sector climate resilience financing gap. However, no funds are currently available to support this initiative.

3.4.3 Value proposition going forward

117. Recognizing the anticipated increase in multilateral funding for adaptation and resilience within the evolving climate finance landscape, the PPCR retains several comparative advantages vis-à-vis other funds.

118. The PPCR remains the only major multilateral fund to support countries in implementing a programmatic approach linking planning and investment across sectors, which is critical for strengthening resilience given the cross-cutting impacts of climate change. Providing climate finance across a national program helps to develop a robust framework for mainstreaming climate resilience and monitor the process through a set of cogent indicators as well as advance resilience through a set of priority, targeted investments that can subsequently be scaled up.

119. The PPCR is one of the few funds **providing direct support through the MDBs for private sector investments with sufficient risk-taking capacity** to deploy a range of instruments. These instruments are targeting risks associated with new technologies, first-of-a-kind investments, and the lack of an obvious payback mechanism for some adaptation projects, as well as risks associated with gaps in information, policy, and knowhow. Given their ability to mobilize significant private sector investment, while also laying the groundwork for further market growth through technical assistance and advisory services, CIF-partner MDBs can play a pivotal role in helping the private sector overcome barriers and take on climate adaptation projects at scale across developing countries.

[44] An exception to this is the private sector where the PPCR model was not sufficiently agile to respond to emerging private sector needs.

120. **The PPCR leverages the strengths and capabilities of the MDBs** that are uniquely capable of supporting countries to climate-proof critical infrastructure, given their deep experience in developing and financing large-scale and complex infrastructure projects and their robust safeguards policies. In turn, **the PPCR has helped strengthen the MDBs'** capacity to support countries in building resilience by **enabling them to test new business models and pilot new products utilizing PPCR resources,** such as the CLIMADAPT resilience financing facility or the application of climate resilience measures to the hydropower sector as demonstrated in Tajikistan.

121. As with the other SCF programs, the ability of the PPCR to continue to deliver on its comparative advantages is contingent on the availability of additional funding, as existing PPCR resources are fully allocated. The implications of two funding scenarios are presented for the PPCR in the near term:

a) The PPCR receives no new funds
b) The PPCR receives additional funds and is able to support the implementation of new investment plans, and/or pursue a new private sector window or new thematic areas

3.4.3.1 Scenario 1: No new funds are provided to the PPCR

122. Within the existing resource envelop the original 18 PPCR pilot countries will continue to implement their investment plans without any further enhancements.

123. The 10 new pilot countries will continue to advance with the preparation of their SPCRs. They are benefiting from the lessons and experience of the first group of PPCR pilot countries and the MDBs, and are moving swiftly to prepare their SPCRs. Several SPCRs are expected to be submitted for endorsement by the PPCR Sub-Committee in 2016. Per its decision in May 2015, the PPCR Sub-Committee has requested the 10 new countries to prepare their SPCRs in a manner that attracts funding from other sources. However, limited resource availability in other multilateral funds that prioritize adaptation (including the LDCF, Special Climate Change Fund (SCCF), GEF, and Adaptation Fund) and uncertainties around feasibility of access to funding from GCF may hinder the ability of countries to attract funding for their SPCRs.

124. A clear lesson from the first phase of pilot countries was that the assurance of funding at the design phase was instrumental in shaping the design and the institutional commitment at the highest level (including ministries of finance and planning) for the overall programmatic effort. The absence of a "signal" of core resources for the program, following the planning stage, could undermine the design, commitment and delivery of the program at the strategic and scaled-up level. Further concern is that while countries will make best efforts to mobilize resources from a diverse set of funds and financing opportunities, this could have the perverse effect of fragmenting the overall coherence of the program at its nascent stage in an effort to meet a set of diverse requirements imposed by different funders. Many countries have expressed through their INDCs the aims to

improve development planning and scale their ability to adapt to the adverse impacts of climate change and foster climate resilience, which is precisely the support the PPCR has been able to deliver to the existing 18 pilot countries.

125. No additional private sector investment would be possible. Moreover, the lack of certainty on the availability of concessional resources from the PPCR or other sources is currently constraining MDBs' pipeline development for private sector adaptation deals, creating a lag that will reduce deployment in the near term as many of these deals take many months or years to bring to close.

3.4.3.2 Scenario 2: New funds are provided in the near to medium term

126. With the provision of additional resources, the PPCR can ensure that resilience investments, including those included in adaptation components of INDCs, are implemented through a programmatic approach, and that countries are able to build on the PPCR experience to enhance the breadth and depth of adaptation components of future INDCs. Depending on the amount of new resources available, **funding could be extended to some or all of the 10 new PPCR pilot countries** to provide an envelope of resources for SPCR implementation at a sufficient scale in line with the ambitions of INDCs.

127. **A new PPCR private sector window could be launched**, consistent with the enhanced framework for a future dedicated private sector allocation to which the PPCR Sub-Committee agreed in May 2015.[45]This new framework increases the flexibility of private sector operations under the PPCR and improves the MDBs' ability to quickly respond to market demands for innovative climate resilience projects. The potential to generate a model and extend markets for private sector investment in adaptation, as has been done by the CTF on the mitigation side, is challenging but important in order to meet the scale of adaptation needs globally. The CIF and PPCR are well-positioned, through the private sector arms of the MDBs, to undertake this work.

128. As of April 2016, the MDBs have generated a pipeline of private sector projects that could utilize a significant amount of concessional resources, for total investment of well over USD 1 billion, across a range of sectors, including climate resilient infrastructure, agribusiness, industry, and financial services. The MDBs have developed additional concepts for projects in numerous CIF countries that have yet to be fully costed as the lack of available concessional funds has effectively stalled many projects. The MDBs have further indicated that if funds were made available on a consistent basis,

[45] http://www-cif.climateinvestmentfunds.org/sites/default/files/events/files/ppcr_co_chairs_summary_final_5_28_2015_0.pdf

this pipeline would be even larger, as deal teams would have more certainty to undertake adaptation investments that they would not likely consider otherwise.[46]

129. Finally, with additional resources, the PPCR has the opportunity to **provide horizontal support for global adaptation challenges through strategic thematic programs**. While the design and implementation of SPCRs remain country-driven processes that reflect national priorities, it is acknowledged that many countries face common themes that are both national issues and global challenges. Much like the CTF's DPSP from which many lessons have been drawn, the PPCR strategic program approach would create a focused path through which funds can be more specifically channeled to key adaptation investments.

130. The MDB partnership model enables the PPCR to respond to the "pull" of recipient country needs and demands. There is also potential to provide a critical "push" to specific sectors, technologies, or thematic areas through collective MDBs action and scale. Although the PPCR has not yet opted to pursue such an approach, it has the possibility to do so following the model of the thematic programs supported through the CTF's DPSP.

131. Dialogue with the MDBs indicated that one such area could be health, which roughly half of PPCR countries included as an adaptation priority in their INDCs, but which countries have not yet prioritized in their engagement on climate action with the MDBs.

132. The World Health Organization estimates that the direct damage cost of climate change to health is estimated at USD 2-4 billion/year by 2030.[47] Countries with weaker health infrastructure are unable to adjust to the increased demands on their health systems resulting from declining health indicators as a result of the environmental and social impact of a changing climate. Public investments in the health sector face significant competition due to conflicting priorities and limited resources in developing countries. Concessional resources are needed in order to design and test pivotal approaches to mitigate and build resilience to the health impacts of climate change. A brief concept for a potential health thematic area is provided in Annex C.

[46] This is based on information provided by MDBs to Vivid Economics for inclusion in a report on private sector adaptation finance commissioned by the CIF Administrative Unit.
[47] http://www.who.int/mediacentre/factsheets/fs266/en/

3.5 Scaling up Renewable Energy in Low Income Countries Program (SREP)

3.5.1 Context

133. Established in 2010, the SREP aims to demonstrate the economic, social, and environmental viability of low-carbon development pathways in the energy sector by creating new economic opportunities and increasing energy access through the use of renewable energy. While the global climate finance architecture has evolved considerably, the SREP remains the only major program dedicated to the global delivery of climate finance at scale to support the deployment of renewable energy for energy access.

134. By design, the SREP aims to tackle very challenging development issues in the most challenging countries:
    a) It targets the poorest countries in the world, namely, the IDA-only countries or the equivalents of the regional development banks.[48]
    b) By focusing on expanding energy access as its primary objective, it aims to address what has long been an intractable challenge closely linked with poverty reduction and economic development.
    c) It aims to assist countries to initiate transformative change to low-carbon development pathways by adopting renewable energy technologies, which are still relatively new and less affordable to these countries.
    d) From the private sector point of view, doing business in these countries is also particularly challenging due to the lack of legal and regulatory frameworks and other gaps in the enabling environment for private sector operations, including country risk.

135. The SREP started with approximately USD 300 million in pledges and contributions and an original group of six countries. In 2012, five new countries and one regional program (encompassing Solomon Islands and Vanuatu) were added, and in 2014, the SREP Sub-Committee selected another 14 countries to participate. The SREP now consists of 27 pilot countries, while total pledges and contributions to SREP have increased to about USD 800 million.

136. To date, the SREP Sub-Committee has endorsed investment plans for 18 pilot countries totaling USD 715 million in SREP funding. In addition, seven project concepts under the SREP Private Sector Set-Aide (PSSA) were endorsed in 2013 and 2014, with an indicative allocation of USD 92.4 million.

137. Given that the pilot countries joined the SREP over time and some had their investment plans endorsed only recently, progress of implementation varies among the countries. Also, a number of SREP countries have also experienced unexpected shocks in recent years: devastating earthquakes

[48] IDA is the International Development Association of the World Bank, which offers concessional loans and grants to the world's poorest countries. Other MDBs have similar funds.

in Nepal, a cyclone in Vanuatu, Ebola outbreak in Liberia and Sierra Leone, political crisis in Mali, and civil war in Yemen. These events have significantly disrupted and delayed SREP implementation in these countries. Overall, about 30 percent of the funding[49] under the endorsed investment plans and SREP PSSA has been approved by the SREP Sub-Committee, with countries that joined earlier reaching a higher approval rate than those that joined later.

138. On the global scene, the last six years have seen considerable progress in supplying modern energy to the world's poorest countries, but there is a still a long way to go. Today, 1.1 billion people worldwide still do not have access to electricity, and 2.9 billion people rely on inefficient, highly polluting sources of energy to meet their basic energy needs. Recognizing the importance of access to modern energy in ending poverty and boosting economic development, one of the SDGs adopted in 2015 is to ensure affordable, reliable, sustainable and modern energy for all by 2030. To reach this goal, renewable energy will play an essential and indispensable role, and scaling up investments in the deployment of renewable energy in low income countries has never been more pressing.

139. Rapid technological advancements, market expansions, and cost reductions, make renewable energy an unprecedented opportunity to countries that are in dire need of access to modern energy services. Global investments in renewable energy, particularly solar and wind, have surged in recent years, reaching USD 270 billion in 2014. In the meantime, the costs of renewable energy technologies continue to fall, making them among the most cost-competitive options for both on-grid and off-grid power generation.

140. Both the AfDB and the World Bank Group include improving energy access as one of their priority areas for intervention for delivering their 2020 targets for climate action. Securing concessional finance, both IDA and non-IDA funding, will be essential for the MDBs to meet their climate targets and to mobilize private sector participation. The SREP has enabled the MDBs to finance energy access operations that otherwise would not have been possible, given the limited availability of IDA resources and the flexible grant, non-grant and risk bearing instruments that SREP can offer.

3.5.2 Lessons Learned

141. Despite uneven progress, the SREP experience has yielded a number of important lessons that can be instructive as countries, MDBs, and other partners seek new opportunities to harness the potential of renewable energy to increase energy access and improve the livelihoods of the world's poor.

142. **SREP funding has been instrumental in de-risking renewable energy investments** and lowering the cost of capital for renewable energy projects. For example, the Ethiopia Geothermal Sector Development Project (with World Bank) is using SREP grants and IDA credits to help to finance

[49] As of December 31, 2015, USD 226 million was approved by the Sub-Committee for 21 projects and programs.

production drilling and testing activities. This will help to establish the economic viability of the geothermal resources for the construction of a 70 MW geothermal power plant to be financed by a bilateral agency. By covering the upstream drilling risks of geothermal projects, the SREP fills a funding gap to break down barriers that other sources are not willing or in a position to address. In Honduras, SREP resources (with IDB) are providing equity for renewable energy development, removing one of the main financial barriers to the increased penetration of renewables.

143. The SREP has **encouraged the MDBs and countries to engage in dialogues on energy access** that otherwise would not have taken place. In Uganda, where water and agriculture have received high priority, the SREP helped the AfDB bring the energy sector into strategic dialogues with the country. Similarly, in Cambodia, the SREP served as an impetus for the ADB to engage the government on energy access, which had not been a focus of the ADB's Country Partnership Strategy with Cambodia.

144. At the operational level, **the lack of predictability of SREP resources has made it very difficult to plan ahead in a strategic manner.** Incremental expansion of the SREP has sometimes led to ad hoc and even inconsistent decisions, especially vis-à-vis distribution of grant and non-grant resources to the countries. There is a shortage of grant resources in countries that have experienced sovereign debt distress. There is also often a reluctance on the part of the governments to allocate SREP non-grant allocations to the private sector arms of the MDBs. The small envelopes together with multiple MDB engagements exacerbate pressures that make it less appealing for recipient governments to allocate SREP resources for private sector operations.

145. **The resource envelope has been small for multiple MDB engagement, especially in large SREP countries.** The typical SREP allocation is between USD 30-50 million per country, while the size of these countries varies a great deal, from a population of just over a quarter million in Vanuatu to about 100 million in Ethiopia and nearly 160 million in Bangladesh. For larger countries like Ethiopia, the level of SREP resources poses issues related to lack of economies of scale and is insufficient to lead to transformational impact. Even for smaller countries, there are high transaction costs for multiple MDBs to engage in the investment planning process, and the funding is usually not sufficient to enable all or, in some cases, even more than one MDB to develop investments.

146. For public sector operations, **the MDBs often do not have sufficient, if any, IDA resources allocated for SREP operations.** In some SREP countries, energy access is not considered a national priority in their engagement with the MDBs, and consequently there is no renewable energy or energy access strategy or project pipeline. Even for countries that have considered allocating IDA

resources to co-finance SREP operations, competing priorities and changing circumstances have sometimes led to re-prioritization of IDA funding to other sectors.[50]

147. With respect to private sector engagement through the PSSA, it was recognized that **the PSSA model had placed many constraints for programming**, which reduced its effectiveness considerably. Aside from its small resource envelope, the PSSA restricted country eligibility to only the initial six pilot countries and to prescribed times associated with calls for proposals. As a result, not many high-quality proposals were submitted for consideration.

148. Renewable energy markets, including those in SREP countries, are very dynamic. **A more flexible approach for SREP programming is essential in order to capture market opportunities,** especially for private sector engagement. The current investment planning process has its value for strategic engagement with the countries; however, the process tends to be lengthy, and it is difficult to adapt to evolving market conditions when the resource envelope and project selection have been fixed in the endorsed investment plans.

3.5.3 Value proposition going forward

149. Nine of the 27 pilot countries under the SREP have yet to submit their investment plans for endorsement.[51] Some of them are at advanced stages and expect to complete and submit their investment plans for endorsement in June and November 2016. Given the current SREP pipeline and the level of over-programming, it is important to consider the way forward for the remaining pilot countries once their investment plans are ready for endorsement.

150. Access to modern energy is quite low in these nine countries. The percentage of the population with access to electricity ranges from just 10 percent or so in Madagascar, Malawi, and Sierra Leone to about 50 percent in Kiribati and Yemen, with Lesotho and Zambia just over 20 percent and Benin and Cambodia between 30 and 40 percent. All nine countries have considered renewable energy as a priority strategy to deliver their INDCs and meet their national development goals.

151. Based on prior decisions of the SREP Sub-Committee, the indicative allocations for the remaining nine SREP countries amount to USD 325 million. Applying 30 percent over programming, about USD 250 million of SREP resources would be needed to enable the projects and programs from these nine countries to enter the SREP pipeline.

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[50] A case in point is Liberia with the World Bank. During the investment planning stage, USD 8 million IDA resources were envisioned to co-finance SREP operations. Then Ebola hit the country and took priority for IDA resources. Subsequently, when the SREP project was ready to proceed, only USD 2 million IDA funding was available.

[51] The nine countries are Benin, Cambodia, Kiribati, Lesotho, Madagascar, Malawi, Sierra Leone, Yemen, and Zambia.

152. Recognizing the keen interest and high expectations that most of these countries have in participating in the SREP and the efforts that have been made by the MDBs in engaging in these countries to develop SREP investment plans, it is imperative to keep the momentum of the MDBs and to sustain their engagement with these countries. It is extremely unlikely these countries will secure funding from other sources of climate finance to support their SREP investment plans in the foreseeable future.

153. If additional resources are available to capitalize the SREP, it is **proposed that an Enhanced Private Sector Program for Energy Access be established** to respond to rapid market growth and high country demand for SREP support. [52] Market opportunities for renewable energy have been growing rapidly, especially for the private sector to provide decentralized renewable solutions, but effective intervention will often require dedicated concessional resources like the SREP to realize the market potential. An enhanced program private sector program open to all SREP-eligible countries will provide more flexibility to the MDBs to capture potential opportunities from a wide range of markets while addressing energy access in low-income countries.

154. It is expected that solar energy technology will be featured prominently, although all new renewable energy technologies as previously defined by SREP are eligible. In terms of applications, the scope of the Program would be open to lighting, cooking, heating, and productive uses by schools, clinics, communities, and businesses with significant development co-benefits, including gender impact. See Annex D for a more complete concept proposal of an enhanced private sector program under the SREP.

[52] The proposed Enhance Private Sector Program for Energy Access is intended to supplement the current programmatic approach of country investment planning. Should the SREP Sub-Committee decide to select more pilot countries under the SREP, these countries can be invited to develop country investment plans.

Annex A: Background to the preparation of this paper

Decisions by the joint meeting of the CTF and SCF Trust Fund Committees

June 2014

155. The joint meeting of the CTF and SCF Trust Fund Committees reviewed the *Action Plan in Response to the Independent Evaluation of the CIF* (CTF-SCF/TFC.12/9) and invited the CIF Administrative Unit and the MDBs, working with the Trustee, to prepare a technical paper for consideration in November 2014 exploring issues, options and possible models for the future operations of the CIF, including in-depth considerations of the operational, financial and legal issues which may be associated with the CIF sunset clause.

November 2014

156. In November 2014 the joint meeting, having discussed *Models for the Future Operations of the CIF* (CTF-SCF/TFC.13/3), agreed on a set of principles to serve as the guiding framework for the discussion of the future operations of the CIF, namely:

a) Supporting the continuity of climate finance flows and action on the ground and reducing funding gaps in the CIF operations in the near term;
b) Progressively taking measures to strengthen complementarity, coordination and cooperation within the climate finance architecture;
c) Focusing on knowledge management and sharing of lessons learned;
d) Enhancing the programmatic approach and leverage of funds; and
e) Continuing to deliver strong value for money in terms of economy, efficiency and effectiveness of CIF operations and investments on the ground.

157. The joint meeting also agreed to continue monitoring the developments in the international climate finance architecture over the next two years to make a decision at a future joint meeting as to if and when the Trustee should stop receiving new contributions, taking into consideration:

a) The developments relating to the international climate finance architecture;
b) The need to reduce fragmentation but maintain diversity of financing options; and
c) The role and value of the CIF in the design and implementation of pilot approaches and lessons learned for delivering climate finance at scale.[53]

[53] http://www-cif.climateinvestmentfunds.org/sites/default/files/events/files/joint_ctf_scf_summary_of_co-chairs_3-12-2014_0.pdf

May 2015

158. At its next meeting in May 2015, the joint meeting requested[54] a paper on strategic issues relating to the CIF to be presented in November 2015, including:

a) A reflection on the strategic objectives of the CIF and an assessment of their accomplishments;
b) Transformational impact of its investments and lessons learned; and
c) The additionality of the CIF in the climate financing architecture.

November 2015

159. The joint meeting discussed this paper in November 2015 and recognized the unique features of the CIF business model to pilot approaches and learn lessons for delivering climate finance at scale in developing countries through the MDBs, notably through programmatic approaches seeking to mainstream low carbon development or climate resilience at the planning, policy and strategic levels to achieve transformative results in developing countries. The joint meeting also reaffirmed the principles agreed at its meeting in November 2014, which would serve as the guiding framework for the discussion of the future operations of the CIF.

160. In the context of "models for the future operations of the CIF," the joint meeting requested[55] a more detailed and focused gap analysis covering how the CIF fits within the climate finance architecture (including, *inter alia*, the Green Climate Fund), taking into account future opportunities, and starting to explore roles each CIF program could play based on its comparative advantage and value added. This analysis should draw on a rigorous assessment of how the CIF programs have and could continue to deliver wider transformational and systematic change, including in relation to institutions, policies, markets, technologies and behavior change, as well as how the CIF may need to evolve over time to fulfill that role.

161. While considering different developing country national circumstances, such as climate impacts, capacity, and relative impact of funding compared to country size, this analysis should include:

a) Exploration of new opportunities, in terms of financial instruments and delivery mechanisms, technologies, sectors, and sources of funding; and
b) Exploration of institutional and governance reforms necessary for the CIF to realize its potential role in an efficient and effective manner.

[54]http://www-cif.climateinvestmentfunds.org/sites/default/files/events/files/joint_ctf_scf_summary_of_co-chairs_final_0.pdf
[55] http://www-cif.climateinvestmentfunds.org/sites/default/files/events/files/joint_ctf_scf_co-chairs_summary_nov_2015_.pdf

This paper responds to the request of the joint meeting to consider the gap analysis in conjunction with the discussion of the future of the CIF at its next meeting in May 2016.

Outreach conducted in the preparation of this paper

a) The CIF Administrative Unit, as per the instructions of the Joint and CTF Trust Fund Committees, constituted two working groups of trust fund committee members (CIF strategic directions and CTF new financing modalities) who commented on the terms of reference and draft content.
b) The CIF Administrative Unit commissioned an independent gap analysis carried out by Climate Policy Initiative.
c) The CIF Administrative Unit convened brainstorming sessions (February 16-19, 2016) among MDBs and other stakeholders to take stock of the experiences and lessons learned, and seek potential new directions for CIF programs.
d) The CIF Administrative Unit hosted a retreat of working group members (March 30-April 1, 2016) with the objectives to: a) understand and clearly articulate the gaps in the climate finance landscape and the potential comparative advantage of the CIF in supporting the MDBs to fill those gaps; b) based on the above, collectively shape new proposals for the future of the CIF programs; and c) identify the actions needed before June 2016 to achieve a decision in June on the future of the CIF. Participants included representatives from CIF contributor countries (Denmark, France, Germany, the Netherlands, Norway, Sweden, UK, US), recipient countries (Brazil, Mexico, Jamaica, and South Africa), and MDBs.

Annex B: Concept notes for FIP strategic thematic programs

A. Support for landscape restoration at scale

162. The Global Partnership on Forest and Landscape Restoration has identified more than 2 billion hectares of deforested and degraded landscapes worldwide with opportunities for forest and landscape restoration. Business as usual will continue the downward spiral of degradation to eventual loss of forests and the range of ecosystem services they provide. Interventions need to fit local conditions, but restoration through a combination of sustainable climate-resilient agro-forestry, agro-pastoral activities, improved agriculture, and assisted or natural reforestation, as well as maintaining and improssving remnant forest resources, will revive landscapes and ensure their rehabilitation leads to long-term economic, social and environmental benefits.

163. At scale, restoration can be a key component of the least-cost path to achieve global climate stabilization goals through both accumulation of carbon stocks and alleviating deforestation pressures. It is also an important component of efforts to improve food security by placing land back into productive use, as well as a mechanism to strengthen rural income and maintain natural capital. The FIP can offer both the financial resources and the partner skillset needed to implement plans at scale and leverage the necessary private sector investment.

164. Almost all FIP countries mention the importance of restoration in their INDCs and 10 countries provide a target for restoration up to 2030. In combination, these identify the target of over 19 million hectares of forest restoration. Using conservative sequestration rates, this could result in sequestration of over 900 million tCO_2eq by 2030 in addition to a range of economic, livelihood and ecosystem service benefits that would be a constituent part of restoration at this scale.

165. Through a strategic program, the FIP would support efforts to rehabilitate degraded and underperforming lands in order to reduce pressure to expand agriculture into forested areas. The FIP would seek to capture synergies, provide a wider array of tools and resources to national efforts, and leverage key partnerships to yield cost savings and realize greater impact than possible under a fragmented, project-by-project approach. The program would make a significant global contribution to restoring ecosystem function and improve livelihoods through the restoration of priority degraded and deforested landscapes.

166. The program would support a range of national restoration initiatives along with global learning and capacity building to develop and disseminate best-practices and tools, catalyze investment in restoration, expand the scope of actors engaged in forest and landscape restoration, and realize benefits at scale. Attracting private sector investment for restoration efforts is of critical importance for achieving scale and the program would identify and use innovative financial tools to address the key barriers to private investment in restoration.

B. Addressing deforestation-linked commodity production

167. Agricultural expansion drives approximately 80 percent of deforestation worldwide and is responsible for almost half of the annual deforestation of primary tropical forests. Globally traded commodities such as palm oil, soy, beef, cocoa, and pulp are important local and national economic drivers, and deforestation pressures are set to rise as population growth, income, and consumption patterns increase for commodities. Examples include the following:

    a) Growing global demand for meat and dairy products has contributed to the doubling of soy production over the last two decades. Soy is primarily used in animal feed, although significant amounts are also used to produce vegetable oil and biodiesel.
    b) Palm oil is used in many processed foods and personal care products, as well as biofuels and vegetable oil. Initially produced largely in Southeast Asia, new nodes of production are now being seen in Africa and South America.
    c) Recent research suggests that beef ranching is the most deforestation-intensive commodity of all. Cattle rearing is often extensive and low yielding as expansion is the easiest means of increasing output. More than just beef, cattle are often used as a means to claim ownership of land.

168. These commodities are found in many widely-used consumer products. Improving the way they are produced can secure benefits that promote low-carbon, sustainable development for producing countries. FIP pilot countries include existing key areas for deforestation-linked commodity production and new commodity production frontiers in West Africa and South America. Progress depends on finding ways that countries can continue to develop these sectors to achieve economic targets that are not predicated on further deforestation. There are many initiatives that are focusing on commodity-driven deforestation. However, experience is showing that comprehensive, combined public and private sector approaches at scale are necessary to move from business-as-usual expansion modalities. The FIP partnership offers the ability to support public sector governance in a coordinated effort with private sector production to reduce pressure on forests and help increase commodity yields in existing production systems.

169. The strategic program would target support both public and private interventions that address the deforestation and forest degradation caused by agricultural commodity expansion. This would include the improvement of enabling conditions through governance interventions as well as support for the adoption of better management practices at the production level. The role of private sector finance to encourage and support better practice is an important line of influence that has yet to be maximized. Because of the role of smallholders in many commodity supply chains, particular attention would be given to ensuring inclusive solutions. This strategic program would provide scaled capacity support and finance through the MDBs to achieve complementarities with ongoing interventions, such as the Tropical Forest Alliance 2020, and the GEF Integrated Approach Pilot on Taking Deforestation out of Commodity Production, among others.

Annex C: Concept note for PPCR strategic thematic program: Building Resilience to the Health Impacts of Climate Change

170. The World Health Organization estimates that the direct damage cost of climate change to health is estimated at USD 2-4 billion/year by 2030[56]. Countries with weaker health infrastructure are unable to adjust to the increased demands on their health systems resulting from declining health indicators as a result of the environmental and social impact of a changing climate. Public investments in the health sector face significant competition due to conflicting priorities and limited resources in developing countries.

171. A regional analysis of the INDC submissions indicate that health ranks among top adaptation priorities identified across regions (13 of the 28 PPCR countries prioritized health), indicating that there is high demand for interventions in this area. Concessional resources are needed in order to design and test pivotal approaches to mitigate and build resilience to the health impacts of climate change.

172. There is potential for the PPCR to contribute significantly to this important climate resilience agenda by investing in the following areas:

a) Vulnerability mapping: Vulnerability mapping would increase understanding of the current and potential future risks of climate change impacts on health. For example, focusing on a specific vector-based disease, such as dengue, vulnerability mapping would provide empirical data on the geographic distribution of the disease and how it could evolve at the local, national and regional level and to identify where special measures would be required.

b) Early warning systems: Early warning systems can enhance the preparation of key decision makers and vulnerable populations based on prior knowledge of identified risk and vulnerabilities. For example, Early Warning Systems for heat waves could provide timely and preventive measures to vulnerable populations. This could complement current PPCR activities, as USD 190 million (17 percent) of PPCR resources are allocated to climate services and disaster risk reduction activities.

c) Protection of key infrastructure for health and sanitation: The climate proofing of critical health infrastructure, including hospitals and emergency facilities, would help to ensure the functioning of these facilities during extreme climatic events. Support could also be

[56] http://www.who.int/mediacentre/factsheets/fs266/en/

provided for auxiliary infrastructure such as water storage and access, as water is critical for health and sanitation and water is one of the resources most affected by climate change.

d) Migration dynamics and effect on health indicators: Larger flows of displaced households as a result of water scarcity, rising sea levels and natural disasters could destabilize the social structure of countries and urban cities and increase pressure on infrastructure, including health facilities. An analysis of these trends in PPCR countries and targeted investments could support ongoing effort by the public and private sector in this regard.

e) Impact on fisheries and protein intake: In the tropics where it is estimated that a decline in fish production will have far reaching implications for the intake of protein and micronutrients important for human growth and development[57], the PPCR could support measures that increase the resilience of fisheries and aquaculture.

[57] World Bank (2013) FISH TO 2030 - Prospects for Fisheries and Aquaculture

Annex D: Proposal for SREP enhanced private sector program for energy access

173. Ensuring clean, affordable energy for all has been endorsed by world leaders as an integral part of the SDGs. The SREP is the only dedicated program in the climate finance landscape to deliver investments at scale in partnership with the MDBs who value the SREP for its highly concessional resources, flexible financing instruments, and operational efficiency to deliver climate finance for energy access in the challenging countries and markets.

174. The opportunities for the SREP are driven by both demand from countries and rapid growth of the renewable energy markets. Demand for SREP resources from the countries has been very strong. In 2014, more than 40 countries responded to the SREP's call for expression of interest (in addition to the 13 then existing SREP pilot countries); 14 new pilot countries were selected, while others, including some that did not have an opportunity to submit an expression of interest in 2014, are still eager to benefit from the SREP. From the current pilot countries with endorsed investment plans, some have included a second phase for funding by the SREP or other sources of climate finance.

175. Market opportunities have been growing rapidly, especially for the private sector to provide decentralized renewable solutions, but effective intervention will often require dedicated concessional resources like SREP to realize the market potential. Distributed solar PV, for example, is a USD 50 billion market in industrial and commercial sources. The market for off-grid solar home systems is estimated to approach 100 million households by 2020, or one-third of the households without access to the electricity grid. In Sub-Saharan Africa alone, USD 250 million has been invested in the last two years, and the financing needs are expected to double in the next two to three years.

176. It is proposed that the proposed Program would allow for participation from all countries meeting SREP eligibility, namely, IDA-only countries or equivalents of the regional development banks.[58] There are a total of 68 SREP-eligible countries. By opening it up to all SREP-eligible countries, the Program would provide more flexibility to the MDBs to capture potential opportunities from a wide range of markets while addressing energy access in low-income countries. In addition, local currency lending may be an option for consideration if there is demand for such an instrument.

177. The Program would seek complementarities with other global, regional, and bilateral initiatives that aim to address energy access challenges. Sustainable Energy for All (SE4ALL), for example, has assisted its partner countries to engage in Rapid Assessment and Gap Analysis of the specific national contexts and to develop action agendas and investment prospectuses. The International Renewable Energy Agency (IRENA) has also supported its member countries to undertake Renewables Readiness Assessments (RRAs). Bilateral initiatives, such as Power Africa and Energy Africa, also target energy access through partnership with the governments, private sector, and other stakeholders.

178. The proposed Program would engage the countries through the MDBs to deliver renewable energy investments. Countries would not be required to develop an SREP investment plan for endorsement; instead, project proposals can be drawn from existing assessments and plans aligned with the countries' development objectives and sectoral strategies (e.g., SE4ALL action agendas and INDCs). Such an approach would also provide countries and MDBs more flexibility and a nimbler process to capture market opportunities as they arise.

179. The Program would aim to develop renewable energy markets for energy access with particular emphasis on mobilizing private sector participation to provide decentralized renewable energy solutions. It is expected that solar energy technology would be featured prominently, although all new renewable energy technologies as previously defined by SREP would be eligible. In terms of applications, the scope of the Program would be open to lighting, cooking, heating, and productive uses by schools, clinics, communities, and businesses with significant development co-benefits, including gender impact.

180. New areas of intervention that could be supported by the proposed Program include the following:

a) Scale-up of off-grid solar home systems that will provide power from basic lighting to advanced electronic devices and electrical appliances, taking benefit of new storage and mobile technologies
b) Production and dissemination of clean, efficient biomass cookstoves
c) Installation of rooftop solar for commercial, industrial, and residential customers
d) Support of distributed energy service companies to remove financing barriers
e) Support of innovative business models and technologies to deliver power to local community through mini-grids
f) Support of schemes to address weak creditworthiness of power off-takers to attach attract private capital
g) Support of critical enabling infrastructure, such as transmission and smart grids, to help lower transaction costs and allow higher penetration of renewable energy
h) Targeted technical assistance and advisory services to create and strengthen the enabling environments for the private sector to participate in the renewable markets