Overseas Development Institute

Background Note

August 2012

The United States' private climate finance support: mobilising private sector engagement in climate compatible development

By Shelagh Whitley and Rohan Mohanty

At the UN Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in Copenhagen in 2009 (COP15), developed countries committed to mobilise long-term climate finance to address the needs of developing countries until 2020. The Copenhagen Accord suggested that this 'funding will come from a wide variety of sources, public and private'. The High Level Advisory Group on Climate Change Financing (AGF) to the UNFCCC (among others) has since emphasised the need to mobilise private sector finance – a response, in part, to the scarcity of public resources (UNFCCC, 2010 and AGF, 2010). This Background Note maps some of the different ways in which public finance from the United States is mobilising private investment in climate compatible development, and identifies some early emerging trends.

The Background Note does not comment on the extent to which the US is meeting its commitments under the UNFCCC. Instead, it highlights some considerations that need to be addressed if developed countries intend to report private finance as part of their overall climate finance commitments over time. While we have aimed to be comprehensive in our review, this paper is based on desk research and information that is publicly available on activities that mobilise the private sector and support climate compatible development. This breadth of sources is essential as there is, at present, no formal requirement for developed countries to report contributions that come from the private sector. The paper concludes by drawing out lessons from the early mobilisation of US funding that are relevant to climate compatible development.

It finds that the US has a number of interventions through which it is supporting private sector action on climate change. However, information about the role of private sector co-financiers is limited. Even where it may be possible to determine that there was a private sector contribution to climate compatible development (CCD), there is no information on who provided it or how much was provided. Most of the private climate finance support (PCFS) identified is channelled towards one kind of technology (solar power) and one country (India) with very little finance directed toward mobilising the private sector in adaptation activities.

What is private climate finance support?

Guidance on what may be considered as long-term climate finance under the UNFCCC can be found in a review of the wording of the Copenhagen Accord (and the subsequent Cancun Agreements) (Stadelmann et al., 2011). This suggests that such finance should be:

a. mobilised by developed countries
b. provided to developing country parties, taking into account the urgent and immediate needs of those that are particularly vulnerable to the adverse effects of climate change
c. balanced in allocation between adaptation and mitigation
d. committed in the context of transparency on implementation, and
e. scaled up, new and additional, predictable and adequate

These provisions are, of course, subject to further negotiation and agreement by Parties to the UNFCCC. It is reasonable to expect, however, that future decisions on long-term finance, including on finance from

The Overseas Development Institute is the UK's leading independent think tank on international development and humanitarian issues. **ODI Background Notes** provide a summary or snapshot of an issue or of an area of ODI work in progress. This and other ODI Background Notes are available from www.odi.org.uk

private sources, will be guided to some degree by the considerations (a) to (e), listed above. The purpose of this Background Note is to help build a more common understanding of the implications of these considerations for the mobilisation of private sector finance, and seeks to review Private Climate Finance Support (PCFS), which we define as *finance resulting from developed country interventions to mobilise private sector participation*[1] *in climate compatible development* (CCD) (Figure 1). For the purpose of reviewing developed country contributions of PCFS, we consider only criteria (a) to (c), as there is less clarity on how to interpret criteria (d) and (e).
The paper reviews PCFS within the following contexts:

1. developed country public flows to the private sector in developing countries
2. developed country private flows to the private sector in developing countries mobilised as a result of developed country intervention
3. developed country private flows to the public sector in developing countries that are mobilised as a result of developed country intervention.

Our review did not consider:[2]

4. developing country private flows mobilised as the result of developed country public sector intervention
5. developed country private sector flows to developing countries independent of direct developed country public sector intervention (including those that may be more indirect as a result of policy level interventions).

The exclusion of flows 4 and 5 allows for ease of attribution of the impact of PCFS, however we acknowledge that a focus on PCFS that can be linked directly to particular developed country interventions provides only part of the picture. There may, for example, be demonstration effects (and others) as a result of flows 1 to 3 that are not so attributable, directly, to a given contributor country. Finance may also be provided to support the enactment of enabling policies that drive investment in climate compatible development, which will also be critical in mobilising flows 4 and 5 at scale.

We also recognise that the five categories of financial flows that we have identified may be difficult to apply rigidly, given the global nature of a financial sector where developed and developing country-based actors are partnering, increasingly, on interventions. Nevertheless, these categories are helpful in understanding the range of different public and private finance flows that need to be considered, as they help to identify useful lessons that are relevant to the consideration of long-term funding.[3]

Review of the US support for private climate finance

One of the challenges in identifying the extent of PCFS from the US for 2010 through early 2012 is that the country has been very comprehensive in reporting its climate finance activities. The US Department of State's website on 'Meeting the Fast-Start Commitment' contains 237 separate fact sheets, one for each country and each fiscal year (2010 and 2011). Unpicking the activities that target the private sector specifically from this extensive list of activities requires significant time and resources. To address this challenge, and to support the work of the broad climate finance research community, the Overseas Development Institute and

Figure 1: Private climate finance support

Private climate finance support:

1. developed country public flows to the private sector in developing countries
2. developed country private flows to the private sector in developing countries mobilised as a result of developed country intervention
3. developed country private flows to the public sector in developing countries that are mobilised as a result of developed country intervention

Excluded:

4. developing country private flows mobilised as the result of developed country public sector intervention
5. developed country private sector flows to developing countries independent of direct developed country public sector intervention (including those that may be more indirect as a result of policy level interventions)

***also excludes other public co-financing**

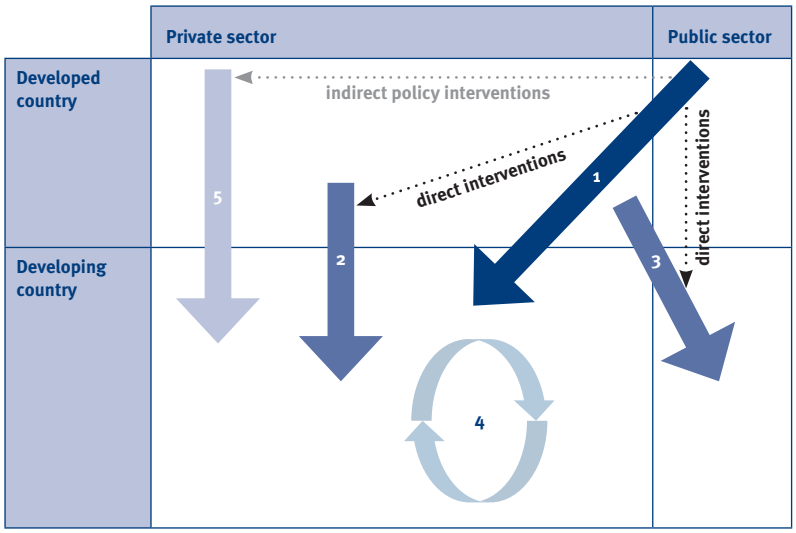

Table 1: Main actors in the US's Private Climate Finance Support (PCFS) (between 2010 and 31 March 2012 - see Annex 1 for disaggregated figures)

Entity	Role	Number of interventions identified	Aggregate PCFS (million US$)
Overseas Private Investment Corporation (OPIC)	OPIC is the US Government's development finance institution. Its mandate is to mobilise private capital to help solve world challenges and, in doing so, advance US foreign policy. OPIC provides loans, guarantees, political risk insurance, and support for private equity investment funds. OPIC requires that any recipients of support be at least 25% US owned. OPIC has committed to reducing greenhouse gas (GHG) emissions in its investment portfolio by 30% against a 2008 baseline by 2018, and 50% by 2023.	19	1,530
Export-Import Bank of the United States (Ex-Im Bank)	The Ex-Im Bank is the US Government's official export credit agency, operating at no current cost to US tax payers. Its mission is to create and sustain US jobs by financing sales of US exports to international buyers. The Bank provides a variety of financing mechanisms, including working capital guarantees, export-credit insurance and financing. It avoids competition with private sector lenders by providing support for transactions that would not otherwise take place because commercial lenders would be unable or unwilling to accept the associated political or commercial risks. The Bank established a Carbon Policy in 2009 that has targets for financing renewable energy and end-use energy efficiency exports.	8	340
US Agency for International Development (USAID)	USAID is the principal US federal government agency extending assistance to countries recovering from disaster, trying to escape poverty, and engaging in democratic reforms. In early 2012, USAID released a Climate Change and Development Strategy (CCDS) to enable countries to accelerate their transition to climate resilient, low emissions development and, thereby, promote sustainable economic growth. Within the CCDS, USAID's investments will seek to leverage private investment in low emission development through innovative partnerships and investor matchmaking.	1	4
Total		**28**	**1,874**

the World Resources Institute have collaborated to compile this wealth of fact sheets into a single data set and have published a recent review of the country's Fast Start Finance (FSF) contribution. This information will be made available online, including on the Climate Funds Update website (Fransen et al., 2012).

The US Government also notes that 'country fact sheets do not represent the totality of our international climate finance programs'. We also reviewed, therefore, all information available on the entities that the US FSF reports consider to play an important role in PCFS. This included the bilateral and regional activities of the United States Overseas Private Investment Corporation (OPIC), the United States Export-Import Bank (Ex-Im Bank), and the United States Agency for International Development (USAID). While the US has also made significant contributions to private sector participation in mitigation and adaptation in developing countries through multilateral channels, this report is limited to a review of PCFS through bilateral channels.

Analysis of the activities of the actors highlighted in Table 1 over the period of 2010, 2011 and early 2012 identified a number of interventions to mobilise the private sector that prioritise climate compatible development. Information was reviewed to determine the developed country private finance flows mobilised, wherever any private sector flows could be linked explicitly to public flows. The full list of projects and programmes and associated levels of funding are presented in Annex 1, and identifies just over $1.8 billion in PCFS. The results provide insights into the way

Table 2: Summary statistics – the US's Private Climate Finance Support (PCFS) (as of March 31, 2012)

Metric	Values
Total PCFS identified (see Annex 1 for specific interventions)	$1,874 million
PCFS provided by: Public sector Private sector	 100% <1%
PCFS by US financial instrument: Loan (corporate and project) Guarantee Political risk insurance Grant	 64% 34% 2% <1%
PCFS to Private Equity (PE) Funds (through Loans and Guarantees)	27%
PCFS by level of development of recipient: Upper middle-income countries (UMICs) Lower middle-income countries (LMICs) Low-income countries (LICs)	 28% 51% 21%
PCFS by recipient region Asia Sub-Saharan Africa Latin America and the Caribbean Europe and Eurasia Middle East and North Africa	 60% 21% 16% 3% <1%
PCFS by targeted climate activity or technology: Solar Mix Geothermal Wind Biomass Co-generation Hydro Forestry	 40% 27% 12% 9% 5% 4% 3% <1%
Ownership of recipients (including PE Funds) as a percentage of PCFS: US ownership Other foreign ownership Local ownership	 49% 34% 17%

Table 3: The US's PCFS measured against the UNFCCC considerations for climate finance

Considerations for climate finance	Implications for PCFS
(a) Mobilised by developed countries	There is, as yet, no definition of the term 'mobilised' under the UNFCCC agreement. We have, however, attempted to review public flows to the private sector, and the resulting private flows that can be attributed most directly to those public flows. The distinction between private sector actors and flows as 'developed' vs. 'developing' is not straightforward, as the country of origin for a private sector actor could be determined by any number of factors including: country of incorporation / registration, location of headquarters, or primary stock exchange listing. For the purpose of this study we have used the country of location of primary headquarters. Private sector co-financing represents less than 1% of the PCFS identified, and comprises Sarona Asset Management's (Flow 2) contribution to the South Asia Clean Energy Fund (see Annex 1, intervention 11). The following contributions to low carbon development have also been identified, but were excluded from the calculation of PCFS as per Figure 1: • Co-financing from other public sources includes funding of up to $124 million from the Asian Development Bank (ADB), up to $201 million from the International Finance Corporation (IFC), $65 million from the German Development Bank (KfW), $15 million from the European Union, $10 million from the Japanese Bank for International Cooperation (JBIC), $6 million from the CDC Group (UK), and $5 million from the Belgian Development Bank (BIO) (see Annex 1, interventions 3, 4, 5, 6, 8, 11, and 17). • Private funding from developing country actors (Flow 4) includes $50 million from Maybank (Malaysia), and $35 million from Reliance Power (India) (see Annex 1, interventions 4 and 10).
(b) Provided to developing country parties, taking into account the urgent and immediate needs of those that are particularly vulnerable to the adverse effects of climate change	The definition of those countries 'particularly vulnerable to the adverse effects of climate change' has not been agreed under the UNFCCC. It is anticipated, however, that all of the recipients of the US's PCFS will be located in developing countries. Using the World Bank Income Lending Group classification, the US's PCFS is found to be directed primarily toward LMICs (51%), UMICs (28%), and finally to LICs (21%). At the country level, 44% of PCFS is channelled to companies and projects in India.
(c) Balanced in allocation between adaptation and mitigation	The concept of 'balanced in allocation' has not been defined under the UNFCCC agreements, and it is not clear if this balance should be achieved at the global level, at the donor or recipient country level, or across specific types of finance (for example public vs private finance). However, all US PCFS (100%) is targeted toward mitigation[4] with no specific adaptation activities identified that are linked to private sector actors or funding. An estimated 40% of the identified PCFS is directed toward solar projects, most of them in India. It was not possible to identify the specific technology financed for 27% of PCFS, given the channelling of PCFS through private equity funds that go on to finance a range of clean energy and low carbon projects.

the US is working with the private sector toward low carbon and climate resilient development, and reveals trends that may be relevant as countries seek to meet their long-term finance commitments until 2020.

Working through existing channels

The majority of the PCFS from the US is channelled through OPIC, its development finance institution, and Ex-Im Bank, its export credit agency. Both institutions have extensive experience in the use of public money to mobilise private investment through loans, guarantees and insurance for clean energy projects (US Department of State, 2011a). These institutions are undertaking parallel low carbon investments in High Income Countries (HICs), and in more high-risk developing countries. For example, First Solar, a US company that benefits from the PCFS provided by OPIC and the Ex-Im Bank in India, is also supported by Ex-Im Bank loans to project developers in Ontario, Canada (First Solar, 2011).

The finance provided by these entities often supports US companies, either through direct funding to American projects and companies, or to foreign entities that purchase US goods and services. In the case of OPIC, all recipients must be at least 25% US owned, while for the Ex-Im Bank, all transactions must involve the sale of US goods. Despite these US content requirements, these entities are funding a wide variety of activities where the recipients are foreign companies (34%) or locally owned companies (17%) in the developing country where the intervention is taking place. This was emphasised in a statement by the current president of the Ex-Im Bank, Fred Hochber, in reference to the Cerro de Hula Wind Farm in Honduras that uses Gamesa wind turbines manufactured in the US (see Annex 1, intervention 3). 'We're about creating US jobs, and it doesn't matter whether the company is American-owned or Spanish-owned. It's not that easy for a Central American power company to get an 18-year loan on its own, and by our guaranteeing it, we make that transaction happen.' (The Costa Rica News, 2011)

As can be seen in Annex 1 and Table 2, there is public information available about the specific projects, companies and technologies that are receiving support from OPIC and the Ex-Im Bank when loans, insurance and guarantees are being provided, together with the details of public sector providers of co-financing. However, information about the role of private sector co-financiers in PCFS is more limited. The US Government states that in the 2011 fiscal year, OPIC's provision of $1.3 billion in support (across all sectors) mobilised an additional

$2.3 billion of private investment (US Department of State, 2011a). Though available in aggregate, this information is not available at the project level. In terms of the PCFS interventions outlined in Annex 1, even where it may be possible to determine that there was a private sector contribution, there is no information on who provided it or how much was provided. Recognising the restrictions on OPIC and the Ex-Im Bank in terms of commercial confidentiality, disclosure of this information (on an anonymous or aggregate basis) would be very useful to determine the effectiveness of their PCFS Flow 1 in mobilising Flows 2 and 3 (Figure 1).

Funding through private equity funds

At COP16 in Cancun in 2010, OPIC announced that it would provide at least $300 million in financing for new private equity (PE) funds that could, ultimately, invest more than $1 billion in renewable resources projects in emerging markets. This followed on from a challenge by President Obama, calling on the US 'to take bold action to increase investment in renewable energy and clean technology, both at home and abroad.'

A number of these PE funds are supporting activities that would qualify as PCFS (see Annex 1, interventions 4, 6, 8 and 11). These PE funds are meant to mobilise significant additional private capital, but the private fund managers do not provide any information on private contributions or on the underlying projects and companies and projects that receive investment. There is less transparency for PE funds than there is in the case of direct OPIC loans and guarantees. Assessing the climate compatible development benefits for these investments may be challenging, particularly where they have broad mandates such as for funding 'environmental and socially sustainable companies', or narrow mandates that include specific funding for new fossil fuel fired power plants (see Annex 1, intervention 6 and 8).

In addition to the support provided by OPIC through PE funds that accounts for 27% of the PCFS from the US, USAID is also working to support low carbon development through private sector actors. Though the majority of USAID's work is carried out through policy-focussed interventions (see below) it also provides support to private sector actors that undertake corporate philanthropy or corporate social responsibility activities in the clean energy space in developing countries (see Annex 1, intervention 25). For example, USAID's experience on the Alliance for Mindanao Off-Grid Renewable Energy (AMORE) Project (see Annex 1, Intervention 25) is significant, as recent reports on climate finance have highlighted the potential role for non-traditional sources of finance that include corporate social responsibility activities and private foundations in the mobilisation of additional capital for low carbon development (World Bank Group, 2011 and Buchner et. al., 2011).

Focus on solar power in India

One of the significant benefits of the comprehensive reporting approach adopted by the US through its FSF fact sheets is that, beyond the activities of private equity funds, it is clear which specific projects and activities are the end recipients of PCFS. This highlights an interesting trend whereby over 44% of the PCFS from the US is identified as going to India, approximately half of which is channelled toward solar power projects. Funding to a number of these projects aims to support the export of US solar technologies, or of US solar equipment manufactured by foreign companies within the US as a result of the remits of OPIC and the Ex-IM Bank, and several US companies are benefiting from multiple sources of support. For example, First Solar is exporting solar modules to three different Indian project developers that have each received Ex-Im Bank support (See Annex 1, interventions 10, 19 and 21). Similarly, Azure Power has received a loan from OPIC for construction, and a loan for the purchase of solar modules from the Ex-Im Bank, for the same five megawatt (MW) project in Rajasthan (See Annex 1, interventions 21 and 22).

The provision of PCFS from the US to solar projects in India may be linked to the Indian Government's National Solar Mission (NSM) and incentives at the state level to promote solar energy in the country, a major initiative under the country's National Action Plan on Climate Change to establish India as a global leader in solar energy (Panchabuta, 2011). Under the NSM, the country's national and state governments have sought to create the necessary policy conditions and incentives for the rapid diffusion of solar power, including rules to promote local manufacture. It is of interest to see the US supporting the solar industry in India, as in China the US has recently announced tariffs of up to 4.73% on Chinese manufacturers of solar panel cells, judging that they have benefited from unfair export subsidies under Chinese national policies (*Financial Times*, 2012).

Piloting new approaches and technologies

The United States Trade and Development Agency (USTDA) is an additional channel for piloting new technologies and supporting US job creation through the export of low carbon goods and services beyond Ex-Im and OPIC. Two of its key sectors are renewable energy and the environment, and these are promoted

through the funding of project planning activities, pilot projects, and reverse trade missions. It is not clear if the USTDA is funding primarily the public or private sector, so we have not included these activities as part of the PCFS from the US. However, we highlight them here as they form an important link between US initiatives to support low carbon policy development, and the direct PCFS support provided to projects and companies.

In 2010 and 2011 the USDTA funded smart grid technology feasibility studies in the more developed markets. Such as Brazil, China and India to explore the role that US smart grid technologies could play in these countries. For technologies such as concentrated solar power (CSP), USTDA is working in lower middle-income countries (LMICs) such as Morocco, where it is supporting a US company to provide technical assistance to the Moroccan Agency for Solar Energy to implement a new photovoltaic solar park that could use CSP technology from the US. The USTDA has also been involved in supporting solar power in India, alongside OPIC and the Ex-Im Bank, under the US-India Partnership to Advance Clean Energy, which seeks to improve access to energy and promotes low-carbon growth through the research and deployment of clean energy technologies (US Department of State, 2011b). In low-income countries (LICs) such as Malawi, USTDA is focussed on reverse trade missions that cover the entire energy sector and include both conventional and low carbon sources.

Enabling policy environment for private sector investment

In addition to the initiatives that target the private sector directly and that are, therefore, categorised here as PCFS, the US also supports a number of programmes to assist policy-makers in developing countries. These activities seek to strengthen the overarching investment climate within developing countries, and facilitate the establishment of policies and regulations to support low carbon investments and to transform markets as necessary to attract private investment (See Figure 1 – indirect policy interventions leading to mobilisation of flow 5).

USAID and the Millennium Challenge Corporation (MCC) lead this policy work. Under USAID's new climate strategy (Table 1) it is mandated to seek private sector partners and opportunities, and to build on or mobilise other public funding channelled through multilateral development banks, the Ex-Im Bank, and OPIC.

In the energy sector, USAID is supporting developing countries in the implementation of reforms to enhance energy security and make energy efficiency and clean energy investments more viable. In Jordan, for example, USAID supports energy regulators and utility companies to improve their capacity to manage energy demand to reduce greenhouse gas emissions. In West Africa, USAID has worked to develop a regional centre to conduct satellite solar and wind mapping research, specifically to encourage private sector investment in renewable energy generation. In Africa and the Caribbean, USAID is also supporting the resilience of small to medium enterprises to climate change is such sectors as agriculture and ecotourism. In the forestry sector, USAID is developing strategies to promote readiness to participate in Reducing Emissions from Deforestation and Forest Degradation (REDD+) projects in Latin America and Indonesia, with the ambition to mobilise private sector investment in the sector.

On a cross-sector level, USAID supports the integration Low Emissions Development Strategies[5] within national policy frameworks in Colombia, Georgia, the Philippines, and a number of countries in Southern Africa.

The MCC is a bilateral agency, separate from the US State Department and USAID, which applies a new approach to US aid based on the principles of: competitive selection (of countries); country-led solutions; and country-led implementation.[6] In Indonesia, additional US work on low carbon strategies is led by the MCC through its $600 million compact, which includes the Green Prosperity Project (GPP) to support low-carbon economic growth by expanding renewable energy and improving the management of natural resources.

Many of these low carbon policy initiatives are still in their early stages. It will be useful to monitor and examine, over the longer term, whether these government interventions are able to magnify the impact of PCFS in recipient countries.

Conclusions

The US has initiated a number of important programmes to support private sector action on climate change. This Background Note presents an early effort to synthesise information on these initiatives, in order to advance global understanding of the different ways in which public finance is being used to mobilise private sector action on climate change.

Achieving the delicate balance between commercial confidentiality and the disclosure required of public funds is a challenge that will face all actors deploying PCFS, as their stakeholders seek to achieve both private financial and public 'goods' goals of addressing climate change. Parties to the UNFCCC have yet to adopt a common reporting framework for climate finance, and the adoption of such a framework might allow more complete, comparable, and transparent assessment of the provision of climate finance. If progress is made in agreeing such a frame-

work, there is likely to be a need to consider whether and how private finance should be included, given that some countries, such as Japan, already include private finance in their climate finance reporting.

This initial analysis has highlighted the following trends from the PCFS provided by the US, with some general lessons and implications for international climate finance:

- Most recipients of PCFS are developed country private sector entities, and the primary providers of finance (OPIC and Ex-Im Bank) have a history of mobilising private sector funding. There may be additional private sector flows that have been mobilised, for which information was not made publicly available. Where information is available on the mix of public and private finance in US interventions, we find that the share of developed country private investment linked to PCFS is, in fact, quite small (amounting to less than 1% of the US PCFS identified).
- A significant portion of the PCFS from the US is being channelled toward private equity funds. This may offer some benefits in terms of crowding in co-financing by other public and private sector actors and has the potential to create local ownership and capacity development. However, private equity firms have tended to disclose relatively little information to the public on the particular projects and recipients that they are financing, for a variety of reasons that relate to both business confidentiality and regulatory restrictions. It may, therefore, be difficult to understand the impact of PCFS channelled through these entities.
- In the case of provisions of loans, guarantees and insurance, there is information that is publicly available on the companies and projects that are the recipients of US PCFS, which allows us to identify some trends in the US's activities. The majority of funding is focused on a single technology (solar – 40%) and a single country (India – 44%), with only 21% spent on activities in LICs. This focus on India, and on other lower or upper middle-income countries may well be a result of the greater opportunities that exist to invest in mitigation in these countries, the existence of a policy and regulatory environment that fosters private investment more easily, and a reasonable level of readiness to absorb finance. This initial trend may evolve over time, and should be monitored as programme implementation proceeds and evolves.
- The PCFS from the US is targeted toward mitigation programmes and projects, with less than 1% directed specifically to adaptation activities. It is unclear at what level (global, donor, recipient, or flow) the balance between mitigation should be achieved under the UNFCCC agreements, but this early review suggests that PCFS flows to adaptation activities may be limited at present. The reasons for this could include the current challenges in defining what constitutes adaptation interventions and the implications this has for an understanding of the specific contributions that can be made by the private sector. Similarly, many countries are still at the relatively early stage of identifying and incorporating climate-related risks and vulnerabilities into their national planning processes. As these progress private sector investments in adaptation are likely to be better understood.

Further reviews of the PCFS interventions of Japan, the UK, and Germany seek to provide further evidence relevant to the issues and questions that have emerged in the context of this review of the UK's PCFS.

Written by Shelagh Whitley, ODI Research Fellow (s.whitley@odi.org.uk), and Rohan Mohanty (rohan@mohanty.co.uk). The authors are grateful for support and advice from Neil Bird and Smita Nakhooda of ODI, and Shally Venugopal of the World Resources Institute. ODI gratefully acknowledges the support of DFID in the production of this Background Note.

References and endnotes

References

Buchner, C., Falconer, A., Herve-Mignucci, M., Trabacchi, C., Brinkman, M. (2011) *The Landscape of Climate Finance*. Venice: Climate Policy Initiative.

Climate Funds Update (2012) http://www.climatefundsupdate.org/

The Costa Rica News (2011) *Wind energy catches on throughout Central America*. San Jose, 13 November. http://thecostaricanews.com/wind-energy-catches-on-throughout-central-america/8642

Financial Times (2012) *US sets tariffs for Chinese solar cells*. London, 20 March. http://www.ft.com/cms/s/0/9a79548a-72cb-11e1-ae73-00144feab49a.html#axzz1qEh4Q1SB

First Solar (2011) *Ex-Im Bank Announces Over $455 Million in Project Financing for First Solar's Exports to Canada*. Tempe, AZ, 2 September. http://investor.firstsolar.com/releasedetail.cfm?releaseid=603219

Fransen, T., Stasio, K. and Nakhooda, S. (2012) *The U.S. Fast-Start Finance Contribution*. Washington, DC and London: World Resources Institute and Overseas Development Institute.

High Level Advisory Group on Climate Change Financing (AGF) (2010) *Work Stream 7 Paper: Public Interventions to Stimulate Private Investment in Adaptation and Mitigation*. New York: United Nations.

International Finance Corporation (IFC) (2010). *GEF SACEF: Summary of Proposed Investment*. Washington DC, 11 June. http://www.ifc.org/ifcext/spiwebsite1.nsf/ProjectDisplay/SPI_DP28444

Stadelmann, M., Castro, P., and Michaelowa, A. (2011) *Mobilizing Private Finance for Low Carbon Development: Tackling Barriers to Investments in Developing Countries and Accounting of Private Climate Finance Flows*. Cambridge: Climate Strategies.

References and endnotes cont.

UNFCCC (2010) *Report of the Conference of the Parties on its fifteenth session, held in Copenhagen from 7 to 19 December 2009*. http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf

USAID (2012) *Alliance for Mindanao Off-Grid Renewable Energy (AMORE) Project*. Washington DC, 27 March. http://philippines.usaid.gov/programs/energy-environment/alliance-mindanao-off-grid-renewable-energy

US Department of State (2011a) *Meeting the Fast Start Commitment: US Climate Funding in Fiscal Year 2011*. Washington DC. http://www.state.gov/e/oes/climate/faststart/c48618.htm

US Department of State (2011b) *US - India Partnership to Advance Clean Energy, Energy Security and Climate Change*. Washington DC, 19 July. http://www.state.gov/r/pa/prs/ps/2011/07/168743.htm

World Bank Group (2011) *Mobilizing Climate Finance: a paper prepared at the request of G20 Finance Ministers*. Washington DC, 6 October. http://www.imf.org/external/np/g20/pdf/110411c.pdf

Endnotes

1. Within the definition of PCFS, 'private sector participation' includes both private sector investment and private sector provision of goods and services
2. For the purpose of this research PCFS for a given country also excludes all co-financing by other public sector actors (other countries).
3. Future research will look more closely at the nature of these various flows.
4. The lack of an agreed UNFCCC definition of what constitutes climate finance for either mitigation or adaptation further complicates any accurate assessment of whether PCFS is meeting these broad UNFCCC criteria.
5. LEDs often have public-private partnerships and private sector investment as key components.
6. This approach could be seen as a precursor to current discussions on direct access for climate finance.

Annex 1: US's Private Climate Finance Support (PCFS) Identified for 2010 – March 31 2012

No.	US public sector funder (and PCFS committed)	Financial instrument (from US entity)	Developed country private sector funder(s) / supporter(s) (and PCFS provided)	Other public sector / not for profit funder(s)	Year of US investment/ commitment (within FSF period) and country of intervention	Sector / technology	Recipient entities / intermediaries (country of ownership and financial instrument used by intermediary)	Other beneficiaries (countries)	Total investment /target fund size	US PCFS
1	OPIC (up to $250 m to support a revolving construction bridge financing facility)	Guarantee	Unclear source of additional finance.	n/a	2011, Thailand	50 solar PV plants	SunEdison Thailand, a subsidiary of MEMC Electronic Materials, Inc. (US)	n/a	1,500	250
2	OPIC ($225 m, includes $165 m to finance 36 MW expansion, and a $60 m stand-by facility for optional 16MW expansion, excludes re-financing tranche of $85 m)	Loan	Unclear source of additional finance.	n/a	2011, Kenya	Phase 3 of the Olkaria geothermal plant	Ormat Technologies, Inc. (US)	n/a	n/a	225
3	Ex-Im Bank ($159 m to cover sale of wind turbines manufactured in the US)	Loan	Unclear source of additional finance (this is also a CDM project).	German Development Bank (KfW) $65 m	2010, Honduras	Cerro de Hula Wind Farm (first utility scale wind farm project in Honduras)	Globeleq Mesoamerica Energy (Jersey)	Gamesa's US subsidiary in Philadelphia (Spanish), and Iberdrola (Spain)	300	159
4	OPIC ($150 m co-financing vehicle)	Loan	Targetting institutional investors.	Asian Development Bank (ADB) up to $20 m and International Finance Corporation (IFC) up to $25 m	2011, China, India, Indonesia, Malaysia, Thailand, the Philippines, Viet Nam, Cambodia and Laos	Wind, solar, geothermal, small hydroelectric, biomass, biofuels and energy efficiency projects	Intermediary: Maybank MEACP Clean Energy Master Fund (MMCEF) - Maybank MEACP Pte. Ltd. (Cayman Islands). Equity.	n/a	350	150
5	OPIC ($150 m)	Loan	Bessemer Venture Partners (US), Capricorn Investment Group (US) - contributions not identified	IFC $21 m	2011, India	Supplement cellular towers' diesel-powered generators with solar hybrid energy systems	Applied Solar Technologies (AST) (US)	n/a	n/a	150
6	OPIC (up to $136 m)	Guarantee	Targetting institutional investors.	ADB up to $20 m and IFC up to $25 m	2011, India and Southeast Asia (80% in India and China)	Growing environmental and socially sustainable companies	Intermediary: Aloe Environment Fund III - Aloe Private Equity SAS (Mauritius). Equity.	n/a	n/a	136
7	OPIC (up to $123 m)	Guarantee	Assured Guaranty Municipal Corp. (US) - contribution not identified	n/a	2011, Peru	Two 20 MW solar PV power plants	Grupo T–Solar Global S.A. (Spain)	Applied Materials Inc. (US) for 'SunFab' solar panel technology	n/a	123

Annex 1: cont'd

No.	US public sector funder (and PCFS committed)	Financial instrument (from US entity)	Developed country private sector funder(s) / supporter(s) (and PCFS provided)	Other public sector / not for profit funder(s)	Year of US investment/ commitment (within FSF period) and country of intervention	Sector / technology	Recipient entities / intermediaries (country of ownership and financial instrument used by intermediary)	Other beneficiaries (countries)	Total investment /target fund size	US PCFS
8	OPIC ($100 m)	Loan	Sarona Asset Management (Canada) $1.5m	ADB up to $20 m, IFC up to $20 m, Japanese Bank for International Cooperation (JBIC) $10 m, Belgian Investment Company for Developing Countries (BIO) $5 m	2010, India, Bangladesh, Sri Lanka, Pakistan and Nepal	Solar, wind, hydropower, advanced biofuels and natural gas projects	Intermediary: South Asia Clean Energy Fund, L.P. -GEF Management Corporation (US). Equity.	n/a	300	101.5
9	OPIC ($90 m)	Loan	n/a	n/a	2011, Liberia	Expansion of biomass fuel production	Buchanan Renewables Fuel, Inc. (Switzerland)	n/a	n/a	90
10	Ex-Im Bank ($84.3 m)	Loan	n/a	ADB $44 m	2011, India	40 MW solar PV power plant in Rajasthan	Reliance Power (India)	First Solar (US)	n/a	84.3
11	OPIC (up to $62 m)	Guarantee	Calvert Investments (US) and Sarona Asset Management (Canada) - contributions not identified	CDC Group Plc. (UK Development Bank) $6 m, ADB $20 m, GEEREF (Global Energy Efficiency and Renewable Energy Fund - EU) $15 m, Dutch Development Bank (FMO) $12 m, BIO $7.2 m, and German Investment and Development Company (DEG).	2011, India, Sri Lanka, Thailand and Viet Nam	Development stage renewable energy projects and technologies	Intermediary: Renewable Energy Asia Fund - Berkeley Partners LLP (UK). Equity.	n/a	n/a	62
12	OPIC ($58 m)	Loan	Firebird Avrora Fund, Ltd, Firebird Republics Fund, Ltd., and Bank of New York Mellon Corporation - contributions not identified.	n/a	2011, Georgia	46 MW hydropower plant	JSC Caucasus Energy and Infrastructure (CEI) (Georgia)	n/a	n/a	58
13	OPIC (up to $50m)	Guarantee	Indochina Capital Corporation (Cayman Islands) - contribution not identified	n/a	2011, Viet Nam, Cambodia and Laos	Environmental services and infrastructure, renewable energy, and energy efficiency	Intermediary: Mekong Renewable Resources Fund - Indochina Capital Corporation (Viet Nam). Equity.	n/a	n/a	50
14	OPIC (on a $37.8 m equity investment)	Political risk insurance	ContourGlobal (US) - contribution not identified	n/a	2010, Nigeria	4 MW, 1.2 MW, and 3.6-MW combined heat and power generation (co-generation) plants	ContourGlobal (US)	Nigeria Bottling Company, an affiliate of Coca-Cola Hellenic Bottling Company (Nigeria)	n/a	37.8
15	OPIC ($32 m out of a facility of up to $250 m)	Loan	ContourGlobal (US) - contribution not identified	n/a	2010, Nigeria	5 MW, 1.2 MW, and 3.6-MW combined heat and power generation (co-generation) plants	ContourGlobal (US)	Nigeria Bottling Company, an affiliate of Coca-Cola Hellenic Bottling Company (Nigeria)	n/a	32
16	Ex-Im Bank ($30 m)	Loan	n/a	n/a	2011, India	10 MW thermal solar project in Rajasthan	Dalmia Solar Power Pvt. Ltd. (India)	Infinia Corporation (US)	n/a	30
17	OPIC ($26.8 m)	Loan	Helion Venture Partners (Mauritius) substantially owned by US persons, and Foundation Capital (US) - specific contributions not identified	IFC $10 m	2010, India	Three 5 MW solar PV projects in Gujarat a 2 MW project in Haryana	Azure Power Haryana Private Limited (US)	n/a	36.2	26.8

Annex 1: cont'd

No.	US public sector funder (and PCFS committed)	Financial instrument (from US entity)	Developed country private sector funder(s) / supporter(s) (and PCFS provided)	Other public sector / not for profit funder(s)	Year of US investment/ commitment (within FSF period) and country of intervention	Sector / technology	Recipient entities / intermediaries (country of ownership and financial instrument used by intermediary)	Other beneficiaries (countries)	Total investment /target fund size	US PCFS
18	Ex-Im Bank ($18.9 m)	Loan	n/a	n/a	2011, India	5 MW solar PV project in Gujarat	Tatith Energies Gujarat Private Ltd., asubsidiary of MSM Energy Holdings (US)	Solarworld Industries America, LP (US)	n/a	18.9
19	Ex-Im Bank ($19 m)	Guarantee	n/a	State Bank of India (SBI) - specific contribution not identified	2011, India	15 MW solar PV project in Gujarat	PNC Bank (US)	ACME Solar Technology Pvt. Ltd. (India) and First Solar (US)	n/a	19
20	OPIC ($16.1 m)	Loan	Unclear source of additional finance.	n/a	2011, St. Kitts and Nevis	5.4MW Belle Vue Wind Farm	North Star St. Kitts Ltd. (St. Kitts)	n/a	n/a	16.1
21	Ex-Im Bank ($15.8 m)	Loan	Helion Venture Partners (Mauritius) substantially owned by US persons, and Foundation Capital (US) - specific contributions not identified	n/a	2011, India	5 MW solar PV project in Rajasthan	Azure Power (US)	First Solar (US)	n/a	15.8
22	OPIC ($13 m)	Loan	Helion Venture Partners (Mauritius) substantially owned by US persons, and Foundation Capital (US) - specific contributions not identified	n/a	2010, India	5 MW solar PV project in Rajasthan	Azure Power (US)	n/a	n/a	10
23	Ex-Im Bank ($9.2 m)	Loan	n/a	n/a	2011, India	5 MW solar PV project in Rajasthan	Punj Lloyd Solar Power Ltd. (India)	Abound Solar Inc. (US)	n/a	9.2
24	OPIC ($7.7 m)	Loan	Helion Venture Partners (Mauritius) substantially owned by US persons, and Foundation Capital (US) - specific contributions not identified	n/a	2010, India	3 MW solar PV project in Punjab	Azure Power (US)	n/a	11.5	7.7
25	USAID ($4 m)	Grant	Mirant (US) and SunPower Corporation (US), through their corporate social responsibility activities - specific contribution not identified.	n/a	2010, Philippines	Off-grid solar, micro-hydropower, and biomass in Mindanao	Intermediary: Mirant Philippines (US) and SunPower Corporation (US). Corporate philanthropy.	n/a	n/a	4
26	Ex-Im Bank ($3.7 m)	Loan	n/a	n/a	2010, India	2 MW solar PV project in Gujarat	Universal Solar System (US)	MiaSol (US)	n/a	3.7
27	OPIC ($3 m)	Guarantee	n/a	n/a	2010, Jordan	Large scale solar water heating, large scale solar space heating, and solar cooling.	Millennium Energy Industries (Jordan)	n/a	5.4	3
28	OPIC ($1 m)	Political risk insurance	Terra Global Capital (US) - contribution not identified	n/a	2011, Cambodia	Reduced Emissions from Deforestation and Degradation (REDD+) project	Terra Global Capital (US)	n/a	n/a	1

Annex sources:

Abound Solar (2011) *Ex-Im Bank Announces $9.2 Million Loan to Support Abound Solar Inc. Exports to Punj Lloyd Power Project in India*. Delhi, 18 July. http://www.abound.com/news/ex-im-bank-announces-92-million-loan-support-abound-solar-inc-exports-punj-lloyd-power-project

Asian Development Bank (ADB) (2011) *Report and Recommendation of the President to the Board of Directors - Proposed Equity Investments: Climatech Venture Capital Funds, Aloe Environment Fund III (Regional), Keytone Ventures II (People's Republic of China), VenturEast Life Fund III (India)*. Manila: ADB. http://www2.adb.org/Documents/RRPs/REG/44945-01-reg-rrp.pdf

Asian Development Bank (ADB) (2008) *ADB to Promote Clean Energy through Private Equity Funds*. Manila: ADB, 17 April. http://beta.adb.org/news/adb-promote-clean-energy-through-private-equity-funds

Berkley Energy (2012) *Renewable Energy Asia Fund*. London, 27 March. http://www.berkeley-energy.com/index.php?page=reaf

BIO Development Through Investment (2012) *South Asia Clean Energy Fund*. Brussels, 27 March. http://www.bio-invest.be/en/portfolio/asia/details/83.html?mn=4

Buchanan Renewables (2011) *Buchanan Renewables Fact Sheet: September 2011*. Monrovia. http://www.buchananrenewables.com/assets/pdf/BR-FactSheet-Sept2011.pdf

Chanchani, M. (2009) *Azure Power May Get $10M From IFC*. Delhi, 8 December. http://www.vccircle.com/500/news/azure-power-may-get-10m-from-ifc

CleanTechnica (2011) *US Ex-Im Bank approves $86 million loan for Indian solar PV project*, 12 September . http://cleantechnica.com/2011/09/12/us-ex-im-bank-approves-86-million-loan-for-indian-solar-pv-project/

Das, A. (2011) *IFC May Invest up to $25M In Aloe Environment Fund III*, 24 November. http://www.vccircle.com/500/news/ifc-may-invest-upto-25m-in-aloe-environment-fund-iii

EQ International (2011) *EQ International Nov/Dec 2011 : Intersolar India Special Edition*. Pages 58 and 59. http://issuu.com/eqinternational/docs/eq_nov_dec_2011_inter_solar_special

Export-Import Bank of the United States (2012) P*ress Releases 2010, 2011 and 2012*. Washington DC, 27 March. http://www.exim.gov/pressreleases.cfm

Export-Import Bank of the United States (2011) E*nergy Efficiency and End-Use Energy Efficiency Exports*. Washington DC, 30 June. http://www.exim.gov/products/policies/environment/enduseefficiency.cfm

Ng, S. (2011) *Banking on dollars, sense and profitability*. Green Purchasing Asia. http://www.greenpurchasingasia.com/content/banking-dollars-sense-and-profitability

Grossmann, C., Karlin, A., Feigenbaum, D., Akande, A., and Aguenza, J. (2011) *International Finance Institutions and Development Through the Private Sector*. Washington DC: International Finance Corporation.

International Finance Corporation (IFC) (2011). *Maybank MEACP Clean Energy Fund: Summary of Proposed Investment*. Washington DC, 2 June. http://www.ifc.org/ifcext/spiwebsite1.nsf/ProjectDisplay/SPI_DP30176

International Finance Corporation (IFC) (2012). *Aloe III: Summary of Proposed Investment*. Washington DC, 9 February. http://www.ifc.org/ifcext/spiwebsite1.nsf/vwAllDocumentsByUNID_NL/2F7DEBA0542EEF4385257951005B2A22?opendocument

Morgan, J., and Cameron, E. (2011) *Reflections on COP 17 in Durban*. Washington DC: World Resources Institute, 16 December. http://insights.wri.org/news/2011/12/reflections-cop-17-durban

Ormat (2011) *Ormat Signed 20-Year Power Purchase Agreement for 36MW expansion of Olkaria III Complex in Kenya*. Reno, NV, 4 April. http://www.ormat.com/news/latest-items/ormat-signed-20-year-power-purchase-agreement-36mw-expansion-olkaria-iii-complex-k

Overseas Private Investment Corporation (OPIC) (2012) *Project Profiles and Descriptions*. Washington DC, 27 March. http://www.opic.gov/projects and http://www.opic.gov/projects/non-board

Overseas Private Investment Corporation (OPIC) (2012) *Press Releases 2012, 2011 and 2010*. Washington DC, 27 March. http://www.opic.gov/press-releases

Overseas Private Investment Corporation (OPIC) (2011) *Fund Manager Contact List for Investment Funds*. Washington DC, 30 September. http://www.opic.gov/sites/default/files/fundlist.pdf

Overseas Private Investment Corporation (OPIC) (2010) *OPIC Environmental and Social Policy Statement*. Washington DC, 15 October. http://www.opic.gov/sites/default/files/consolidated_esps.pdf

Panchabuta - Renewable Energy and Clean Tech India (2011) *Tatith Energies Gujarat gets $19 million loan from US Ex-Im to buy SolarWorld Panels*, 2 October. http://panchabuta.com/2011/10/02/tatith-energies-gujarat-gets-19-million-loan-from-us-ex-im-to-buy-solarworld-panels/

Panchabuta - Renewable Energy and Clean Tech India (2011) *Ex-Im Bank Finances about $49mn for Dalmia and ACME Solar Power Projects in India*, 1 April. http://panchabuta.com/2011/04/01/ex-im-bank-finances-about-49mn-for-dalmia-and-acme-solar-power-projects-in-india/

PR News Wire (2011) *MiaSole and U.S. Ex-Im Bank Sign Agreement for Indian Solar Project*. Santa Clara, CA, 7 December. http://www.prnewswire.com/news-releases/miasole-and-us-ex-im-bank-sign-agreement-for-indian-solar-project-135167278.html

Sciaudone, C. (2011) *North Star secures $16.5m US funding for St Kitts wind project*. Oslo: Recharge New, 4 October. http://www.rechargenews.com/energy/wind/article281891.ece

Whitmore, C. (2011) *Export-Import Bank loan to help Indian developer buy SolarWorld panels*. PV Tech, London, October 3. http://www.pv-tech.org/news/export_import_bank_loan_to_help_indian_developer_buy_solarworld_panels

Whitmore, C. (2011) *Azure Power secures Ex-Im Bank loan for Rajasthan solar project*. London: PV Tech, 18 July. http://www.pv-tech.org/news/export_import_bank_loan_to_help_indian_developer_buy_solarworld_panels

Wong, W. (2011) *Maybank launches clean energy fund*. The Star: Kuala Lumpur, 16 November. http://biz.thestar.com.my/news/story.asp?file=/2011/11/16/business/9911607&sec=business

This Background Note has been funded by UK aid from the UK Government, however the views expressed do not necessarily reflect the UK Government's official policies.

Overseas Development Institute, 111 Westminster Bridge Road, London SE1 7JD, Tel: +44 (0)20 7922 0300, Email: publications@odi.org.uk. This and other ODI Background Notes are available from www.odi.org.uk.

 ISSN 1756-7610.