Background Note
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Germany's private climate finance support: Mobilising private sector engagement in climate compatible development

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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; AGF, 2010).

This paper maps some of the different ways in which German public finance is mobilising private investment in climate compatible development, and identifies some early emerging trends. It does not comment on the extent to which Germany 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 climate change-related contributions from the private sector. The paper concludes by drawing out lessons from the early mobilisation of German finance that are relevant to climate compatible development.

Germany has financed a number of interventions that support private sector action on climate change. The majority of these involve multiple German public sector entities, and a significant number involve a portfolio of activities (as opposed to individual projects), either through loan facilities or funds. As a result, the identification of the specific countries and technologies supported is a challenge, although the majority of finance appears to be supporting mitigation in upper middle-income countries, primarily in Europe and Central Asia (with a focus on Turkey) and with the emphasis on renewable energy.

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 private sources, will be guided to some degree by the considerations 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 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). 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 of finance 'flows' (Figure 1):

1. Flow 1: developed country public flows to the private sector in developing countries[2]
2. Flow 2: developed country private flows to the private sector in developing countries, mobilised as a result of developed country intervention
3. Flow 3: developed country private flows to the public sector in developing countries, mobilised as a result of developed country intervention.

Our review did not consider:[3]

4. Flow 4: developing country private flows mobilised as the result of developed country public sector intervention.
5. Flow 5: developed country private sector flows that are independent of direct public sector intervention from developed countries (including those flowing more indirectly 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 needs to be considered, as they help to identify useful lessons that are relevant to the consideration of long-term funding.[4]

Review of Germany's support for private climate finance

This paper considers the commitments made by German government entities that are active in supporting the private sector in developing countries (see Table 1). The paper reviews interventions by the Federal Ministry of Economic Cooperation and Development (BMZ) and by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) under its International Climate Initiative (ICI).[5] BMZ and BMU have been key actors in Germany's pledge

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**

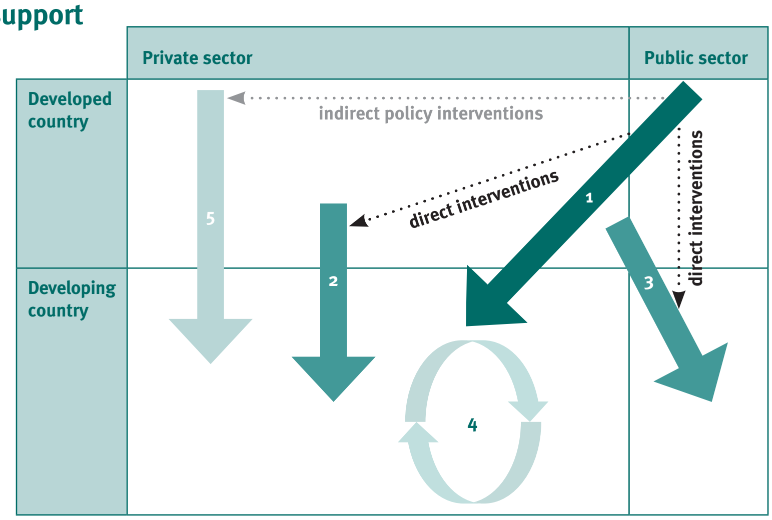

Table 1: Main actors in Germany's Private Climate Finance Support (PCFS) between 2010 and 30 September 2012 (see Annex 1 for disaggregated figures)

Entity	Role	Number of activities identified	Aggregate PCFS (million $)
KfW Entwicklungsbank (including funding that is provided on behalf of BMU and BMZ)	KfW Entwicklungsbank is a member of KfW Bank Group[6], and provides financing to governments, public enterprises and commercial banks engaged in microfinance and small and medium enterprise (SME) promotion in developing countries. More than 60% of the new commitments made by KfW Entwicklungsbank in 2011 were for environment and climate-relevant projects.	6	500
BMZ The Federal Ministry of Economic Cooperation and Development	BMZ works to encourage economic development within Germany and in other countries through international cooperation and partnerships, and cooperates with BMU in the deployment of Germany's fast-start funds for international action on climate change.	1	148
KfW IPEX Bank	KfW IPEX Bank is the largest subsidiary of KfW Bank Group and is responsible for international project and export finance. The objective of KfW IPEX-Bank is to 'preserve and enhance the competitiveness and internationalisation of German and European export enterprises'. In 2011 KfW IPEX Bank granted loans totalling over $2 billion[7] to environmental and climate protection projects.	1	105
DEG German Investment Corporation (including funding that is provided on behalf of BMU and BMZ)	DEG is a member of KfW Bank Group and is one of Europe's largest development finance institutions, financing investments of private companies in developing and emerging economies. DEG has established a 'climate partnerships with the private sector' programme within the framework of Germany's International Climate Initiative (ICI).	5	85
BMU Federal Ministry for the Environment, Nature Conservation and Nuclear Safety	BMU is responsible for the environmental policy of the German Government, and cooperates with BMZ in the deployment of Germany's fast-start funds for international action on climate change.	1	4
Cross-entity interventions	See interventions 1, 3, 4, 7 and 11 in Annex 1. These interventions all involve KfW Entwicklungsbank in partnership with BMU, Landesbanken (see Box 1), or one of the entities listed above.	5	1,032
Total		19	1,876

to invest $1.6 billion in fast-start funds for international action on climate change in the period 2010–2012. Other actors include the KfW Bank Group, the German government-owned development bank, and in particular its subsidiaries: KfW Entwicklungsbank, KfW IPEX Bank, and DEG (the German Investment Corporation). Germany has also made significant contributions to private sector participation in climate compatible development through multilateral channels (including the Climate Investment Funds and the European Union). However, the scope of this paper is limited to a review of its bilateral PCFS.

An analysis of activities of the actors highlighted in Table 1 from 2010 until the end of September 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 to CCD could be linked explicitly to German public flows. The full list of interventions and associated levels of funding is presented in Annex 1, and identifies just over $1.9 billion in PCFS. The results provide insights into the way Germany is working with the private sector toward low carbon development, and reveals trends that may be relevant as countries seek to meet commitments to deliver long term finance through 2020.

Table 2: Summary statistics – Germany's Private Climate Finance Support (PCFS) (as of September 30, 2012)

Metric	Values
Total PCFS identified (see Annex 1 for specific interventions)	$1,876 million
PCFS provided by:	
Public sector (Flow 1)	86%
Private sector (Flows 2 and 3)	14%
PCFS by German financial instruments:	
Loan	71%
Multiple instruments (loan and export credit insurance)	9%
Equity	11%
Multiple instruments (loan and grant)	9%
Grant	<1%
PCFS by level of development of recipient:	
Upper middle-income countries (UMICs)	62%
Lower middle-income countries (LMICs)	30%
Low-income countries (LICs)	6%
Global (developing countries)	2%
PCFS by recipient region, excluding high-income countries (HICs):	
Europe and Central Asia (of which Turkey accounts for 93%)	42%
Asia	22%
Sub-Saharan Africa	17%
Middle East and North Africa	9%
Latin America and the Caribbean	4%
Global	6%
PCFS by sector:	
Mixed renewable energy (RE) and efficient fossil fuel power	30%
Wind	19%
Solar	17%
Mixed RE	15%
Mixed RE and energy efficiency (EE)	12%
Public transport/rail	2%
Geothermal	4%
Waste heat for power	1%
Agriculture	<1%
PCFS destination:	
Privately-owned recipient	62%
Mix of public, private and not-for-profit	24%
Public	14%

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

Considerations for climate finance	Implications for Private Climate Finance Support
(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 14% of the German PCFS identified, and includes private participants in interventions 1, 3, 5, 6, 7, 11 and 12 as shown in Annex 1. The following contributions were identified, but excluded from the calculation of German PCFS as per Figure 1: • Private funding from developing country actors: flow 4 (see interventions 1, 4, 9, 12, 15 and 17) • Co-financing from other public sources – as this would not be attributed to Germany (see interventions 1, 3, 5, 7, 8, 9, 11, 12, 13, 15, 16 and 17)
(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. All of the interventions reviewed, however, involved German PCFS targeted toward developing countries. Reviewing the interventions with specific country level mandates, Germany's PCFS is found to be directed primarily to UMICs (62%), then toward LMICs (30%), and finally to LICs (6%). We could not identify the specific recipient countries (and relevant income levels) for the 2% of PCFS channelled through the Interact Climate Change Facility (ICCF) (intervention 13), which has a global mandate.
(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, the majority of German PCFS (>99%) appears to support mitigation activities.[8] We were only able to identify a single adaptation activity linked to private sector actors or funding.

Financing through private intermediaries

While the majority of Germany's PCFS is deployed through project finance loans and facilities, 18% of German PCFS is channelled through private intermediaries (see Table 4), including private funds that provide loans to local financial institutions for on-lending to renewable energy (RE) and energy efficiency (EE) projects, and private equity (PE) funds that will invest directly in companies and projects. There are different levels of publicly available information for each of these approaches, linked to the commercial terms and disclosure policies of each fund.

KfW Entwicklungsbank has an equity stake in two funds that support local financial institutions (and, to a lesser extent, energy service companies (ESCOs) and small and medium enterprises (SMEs)) in developing countries to on-lend to RE and EE projects (see Annex 1, interventions 7 and 11). The Global Climate Partnership Fund (GCPF) works across the developing world and was established in partnership with BMU, while the Green for Growth Fund (GGF) is focussed on South-east Europe and, in part, channels funds from BMZ. To date, the GCPF has invested in financial institutions in Ecuador, Turkey, Ukraine and Viet Nam, and its additional target countries include Brazil, Chile, China, India, Indonesia, Mexico, Morocco, the Philippines, South Africa, and Tunisia. The GGF currently invests in Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, Serbia and Turkey. Both funds include technical assistance facilities, and are highly transparent in terms of their institutional structure, shareholder structure, investors and donors, investment portfolio of financial institutions, and approach for impact monitoring.

The GCPF tracks and reports annually on the following indicators across all the financial institutions in which it invests: number of sub-loans (within the loan facility), sub-loan volume, average sub-loan size, sector (residential, SME, industry), country, MWh saved, tonnes of CO2 saved, average percentage of CO2 savings, and the average efficiency of investment (lifetime) as $/tCO2. To support the assessment of expected energy and greenhouse gas (GHG) emission savings, Deutsche Bank (the fund's investment manager) has developed a web application called 'Carboncurve', which is to be used by recipient financial institutions. The tool provides a streamlined approach for calculating the expected carbon savings from a series of standardised projects based on information that is readily available. It seeks to help reduce the high costs of performing energy audits for many small projects.

Under the GGF, all loans and sub-loans are assessed and monitored in terms of energy savings and GHG emissions. To support loan officers within recipient financial institutions with calculations, monitoring and reporting, the GGF uses the online 'eSave' tool. The tool can be customised to suit national or local requirements including currency, language, climate conditions and bank-specific needs, and follows the EU directive 2006/32/EC on energy end-use efficiency and energy services.

Table 4: Profile of recipients and intermediaries (see Annex 1 for additional information on interventions)

Metric	Values	Intervention(s) (see Annex 1)
PCFS through intermediaries. Of which:	18%	
HIC	76%	GCPF (7), GGF (11), Interact Climate Change Facility (ICCF) (13) and Renewable Energy Asia Fund (REAF) (16)
UMIC	14%	Cerro de Hula Wind Farm (9) and Clean Energy Transition Fund (CETF) (15)
LMIC	10%	Cerro de Hula Wind Farm
Private	80%	GCPF, GGF, ICCF, CETF, and REAF
Public	20%	Cerro de Hula Wind Farm
PCFS involving German firm / technology	19%	Karaburun Wind Farm (4), Tongyuan Wind Farm (6), and Olkaria I expansion and Olkaria IV (8)
PCFS where end recipient is owned by an actor outside of the beneficiary country. Of which:	34%	
HIC	95%	EnerjiSA portfolio in Turkey (1) (Austria), Khi Solar One in South Africa (5) (Spain), Tongyuan Wind Farm in Taiwan (6) (Germany), and Cerro de Hula Wind Farm (9) (Jersey)
LMIC	5%	Kenyan and Ugandan railway expansion (12) (Egypt)

Box 1: Public flows vs. private flows – the case of Germany

One of the challenges in attributing Private Climate Finance Support (PCFS) to a given country is in confirming that the provider(s) of the loan, grant, equity, or guarantee (See Flow 1 in Figure 1) are public entities, and that the provider(s) of co-finance or additional support (See Flows 2 and 3 in Figure 1) are private entities. This requires an understanding of the ownership structures of all of the entities involved in PCFS interventions.

There is a high level of public sector participation in the German banking system, which includes 441 public sector credit institutions (IMF, 2011). In addition to having an ownership share in commercial banks, Germany also has a number of development banks. The Federal level development bank (KfW) exists alongside Länder (state) level development banks. The Landesbanken (LB) are mostly owned by regional savings banks associations (Sparkassen) and federal states (IMF, 2011). The LB are, primarily, active domestically and unlike KfW do not channel Official Development Assistance (ODA). The traditional roles of the LB were to act as central institutions for the savings banks and pursue the interests of the State in regional business development. However, this role has decreased in importance over time and the LB operate increasingly in ways that resemble private commercial banks on an international scale (Hüfner, 2010).

While this Background Note does not review the PCFS provided independently by LB, it does consider interventions where LB have provided co-financing alongside KfW (see Annex 1, interventions 3 and 6), and includes this as public PCFS (Flow 1).

Conversely, the official export credit guarantee scheme of the German Government is managed by private companies Euler Hermes Deutschland AG (a subsidiary of Allianz Group) and Pricewaterhouse-Coopers (PwC). So, although Euler Hermes is a private company, the guarantees it provides (see Annex 1, intervention 4) are included as public PCFS (Flow 1).

There is, however, far less information available on PE fund investment (see Annex 1, interventions 13, 15 and 17) that is meant to mobilise significant private capital. Private fund managers do not provide information on private contributions, on the companies and projects that receive investment, or on climate impact. Assessing the climate compatible development benefits for these investments may be challenging, particularly where they have broad mandates that include, for example, funding 'climate friendly projects' and a lack of clarity on the types of activities that are eligible under this mandate (see Annex 1, intervention 13).

Insurance products to support small businesses

Through the Ghana Agricultural Insurance Programme (GAIP), Germany's International Climate Initiative (ICI) has supported the introduction of the first drought index insurance product for maize in northern Ghana (see Annex 1, intervention 18). This initiative sits within the Innovative Insurance Products for the Adaptation to Climate Change Project (IIPACC). The project involves cooperation between the National Insurance Commission, Ghana Insurers Association, Ghana Re and Swiss Re. For the crop season in 2011, two local banks used this financial product to cover weather-related financial risks across their aggregate loan portfolio, thereby insuring 1,073 farmers (GIZ, 2011). In addition, Innovations for Poverty Action (IPA) provided insurance to a number of farmers as part of a research project examining the potential for insurance to address under-investment in farms in the region (Kiessel, 2012). Over the longer term, it is anticipated that IIPACC will support GAIP in expanding crop insurance products to other regions, and also cover crops other than maize.

In addition to the Ghana insurance product, which has mobilised the private sector directly and is, therefore, included as PCFS, the ICI is reviewing and piloting insurance tools to support the resilience of small businesses in a wide range of countries, including:

- funding for the Munich Climate Insurance Initiative (MCII) in partnership with Munich Re, the Caribbean Catastrophe Risk Insurance Facility

(CCRIF) and MicroEnsure, which will pilot three different insurance products in the Caribbean (Munich Re, 2011)
- providing technical assistance (through GIZ[9]) around the dissemination of insurance policies that will protect small-scale farmers in the event of crop failure in Bangladesh, Cambodia, India, Indonesia, Peru, the Philippines, Thailand and Viet Nam. Private sector participants include Allianz Reinsurance and La Positiva Seguros (GIZ, 2012a) and (GIZ, 2012)
- supporting the Chinese insurance sector to develop weather insurance schemes, through a trial in two pilot regions. The project is being completed in cooperation with the China Insurance Regulatory Commission (CIRC), the China Meteorological Administration (CMA) and Chinese and international insurance companies (BMU, 2012).

GIZ is also advancing research on the competitive advantage that the private sector can achieve through investment in adaptation and climate resilience. This includes a 2012 report and workshop on 'Adaptation to Climate Change - A Case for Business', which highlighted examples of: payment for ecosystem services in the Kenyan flower sector; use of drought-resistant crops by an East African brewery; and the use of renewable energy for drying within the Indian waste-processing sector (to replace outdoor drying) (Bonn Perspectives, 2012; GIZ, 2012b).

Beyond PCFS: Fostering private investment through demonstration

In addition to the initiatives that mobilise private sector participation in CCD directly, and that are, therefore, categorised here as PCFS, Germany also supports demonstration activities to help businesses build the track records required to attract private investment – often with a focus on SMEs.

The ICI and the KfW Carbon Fund have been active in supporting standards, innovative mechanisms and project approaches within the carbon markets, with the aim of mobilising private investment. This includes funding to establish a Programme of Activities (PoA)[10] Support Centre; to overcome impediments in the trade of Gold Standard[11] certificates under the Clean Development Mechanism (CDM); and to purchase carbon credits from projects, including those developed under the Gold Standard or as a PoA. A number of the carbon projects identified for investment (or carbon purchases) by the KfW Carbon Fund have resulted from DEG's support for energy audits under its 'climate partnerships with the private sector' programme (see Annex 1, intervention 14) (DEG, 2010).

The ICI is supporting partnerships between domestic SMEs in developing countries with German companies to facilitate the dissemination of new technologies such as biogas power plants in Brazil, India, the Philippines and Turkey, and of climate-friendly air-conditioning and refrigeration technologies in Brazil, China, India, South Africa and Swaziland (BMU, 2012). German companies seeking to expand their businesses overseas are also able to receive support through Germany Trade and Invest (GTAI), which has targeted assistance for climate and environmental protection and waste management. Other Bottom-of-the-Pyramid (BoP) climate compatible business models supported through DEG's 'develoPPP.de' (public-private partnerships) programme include the sale and purchase of renewable energy in Senegal through rechargeable chip cards, and the training of retailers and technicians for solar home systems in Mexico, Mozambique and South Africa (DEG, GIZ, and BMZ, 2010).

To expand the geographic reach of Germany's existing efforts to support local financial institutions and SMEs (see Annex 1, interventions 7 and 11), BMU is developing the End-User Finance for Access to Clean Energy Technologies in South and Southeast Asia (FACET) project with the United Nations Environment Programme (UNEP). The goal of the project is to use concessional finance and guarantees to incentivise local financial institution to lend such technologies to end-users in Indonesia, the Philippines and Viet Nam (UNEP, 2012).

Finally, Germany is also supporting local business investment by providing information that is necessary for the RE project planning and development phase (e.g. wind and solar measurement, technical-economic feasibility studies, etc.). It is also taking on some of the up-front barriers to further investment: for example, KfW is providing finance to the Indonesian Government for exploratory geothermal drilling in northern Sumatra; addressing these exploration risks could facilitate private sector investment in this low-carbon power source (KfW, 2011).

Conclusions

Germany has initiated a variety 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 all actors deploying PCFS face, as their stakeholders seek to achieve both private financial and public 'goods' goals of addressing climate change. At COP 18 in Doha in 2012, parties to the UNFCCC adopted a common template format that includes tables for reporting for different forms of climate finance. Table 8 on 'Provision of technology development and transfer support' allows parties to report on private finance contributions (UNFCCC, 2012). However, as common definitions and methodologies for tracking and reporting have yet to be agreed, it remains to be seen if the framework will allow for more complete, comparable and transparent assessment of the provision of climate finance. Some countries, such as Japan, have already included private finance in their climate finance reporting.

This initial analysis highlighted the following trends in the PCFS provided by Germany, 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 (members of KfW Bank Group) have a history of working with the private sector. There may be additional private sector flows that have been mobilised, for which information was not publicly available. Where information is available on the mix of public and private finance in German interventions, we find that the share of developed country private investment linked to PCFS is, on average, 14% of the German PCFS identified.
- A portion (18%) of the PCFS from Germany is channelled through private intermediaries (see Table 4), including PE funds that will invest in projects, and private funds that provide loans to local financial institutions for on-lending to RE and EE projects. This may offer some benefits in terms of crowding in co-financing by other public sector actors, with the majority of funds involving other donors. However, it is difficult to identify the level of private sector participation in many of these funds, with most of private actors identified engaging as investment managers/advisors (in return for a 2% ownership stake).
- There is inconsistent disclosure across private intermediaries. As examples of best practice, the Global Climate Partnership Fund (GCPF) and the Green for Growth Fund (GGF) are highly transparent in terms of disclosing their fund's institutional structure, shareholder structure, investors and donors, investment portfolio of financial institutions, and the approach for (and data from) impact monitoring. PE funds, however, provide very little information, and it may be difficult, therefore, to understand the impact of PCFS channelled through these entities.
- In the case of provision of project finance loans, export credit insurance and grants, there is information that is publicly available on the companies and projects that are the recipients of German PCFS, which allows identification of some trends in the country's activities. Support is balanced across technologies (wind, solar, energy efficiency, transport, geothermal, etc.) and countries / regions. However, 62% of PCFS is concentrated in upper middle-income countries, the majority of it directed toward Turkey. This may be a result of the greater opportunities that exist to invest in mitigation in these countries, as a result of policy and regulatory environments that foster private investment. This initial trend may evolve over time, and should be monitored as programme implementation proceeds and evolves.
- German intermediaries are working to pilot and demonstrate adaptation interventions. However, Germany's PCFS does tend to target, primarily, mitigation programmes and projects. We could identify only one adaptation-focused intervention involving direct mobilisation of the private sector. It is unclear at what level (global, donor, recipient, or flow) the balance between adaptation and 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 (including through the development of Nationally Adaptation Programmes of Action – NAPAs). As these initiatives progress, private sector investments in adaptation are likely to be better understood and more easily identified.

These insights from our review of German PCFS are complemented by insights from ODI's earlier reviews of PCFS provided by Japan, the UK and the US.

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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, developing countries includes all upper middle-income, lower middle-income and low-income countries as defined by the World Bank.
3. For the purpose of this research, PCFS for a given country also excludes all co-financing by other public sector actors (other countries).
4. Future research will look more closely at the nature of these various flows.
5. A portion of the funds channelled through the ICI are from the German Special Fund for Climate and Energy, launched in 2011, which is supported through the auctioning of emission allowances under the European Emission Trading Scheme (EU-ETS).
6. KfW banking group is a German Government-owned development bank, based in Frankfurt. In 2011 KfW founded the network International Development Finance Club (IDFC) with 18 other national and sub-regional development banks. The aim of the IDFC is to represent the positions of the bilateral development banks in global development and climate change policy, ‘national and sub-regional development banks now play an important role in green financing, primarily for developing and industrialising countries…and we are developing new, innovative financing instruments, which can be used to leverage additional private funds.’
7. Eur/US exchange rate used throughout paper: 24/10/12 – 1.29
8. 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.
9. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is a federal enterprise that supports the German Government in achieving its objectives in the field of international cooperation for sustainable development.
10. Programme of Activities (PoA) is a modality under the Clean Development Mechanism (CDM) of the United Nations Framework Convention on Climate Change (UNFCCC) through which it is possible to register a voluntary coordinated action that leads to emission reduction, and to add, once it is registered, an unlimited number of component activities (CPAs).
11. The Gold Standard is an independent standard for certifying emission reductions projects that make measurable contributions to sustainable development.

Annex 1: Germany's Private Climate Finance Support (PCFS) identified for 2010 – September 30 2012

			Included in PCFS calculations			Not included in PCFS calculations					
No.	**Intervention (and location)**	**End recipients and intermediaries (where relevant)**	**Public sector funder(s) - from Germany (Flow 1)**	**Financial instrument(s) (Flow 1)**	**Private sector funder(s) / owners from developed countries (Flows 2 and 3)**	**Public sector funder(s) - bilateral and multilateral**	**Public sector funder(s) from developing countries**	**Private sector funder(s) / owners from developing countries (Flow 4)**	**Year initiated**	**Target fund size / total initiative cost ($ million)**	**German PCFS ($ million)**
1	1,045 MW power plant portfolio (high-efficient gas and steam power plant, two hydropower plants and a wind farm), Turkey	EnerjiSA (Enerjisa Enerji Üretim A.S.) - joint venture of Verbund AG (Austria) and Haci Omer Sabanci Holding AS (Turkey)	KfW IPEX-Bank **$71 million** and WestLB AG **$339 million** - committed	Loan	UniCredit Corporate and Investment Banking and Verbund AG ($496 million) - **portion attributable to Germany: $158 million**	IFC ($83.9 million) and Proparco ($58.1 million)	TSKB (Industrial Development Bank of Turkey) ($83.9 million)	Joint venture between Verbund AG (Austria) and Haci Omer Sabanci Holding AS (Turkey)	2011	1,290	**567**
2	Innovative solar and wind energy projects, India	Indian Renewable Energy Development Agency Ltd. (IREDA) (India)	KfW Entwicklungsbank **$258 million** - committed	Loan (line of credit)	n/a	n/a	n/a	n/a	2011	258	**258**
3	Construction of a Solar Power Plant in Ouarzazate (Phase 1 160 MW), Morocco	Moroccan Agency for Solar Energy (MASEN) public-private venture (Morocco)	KfW Entwicklungsbank and BMZ **$123 million** loan and KfW Entwicklungsbank and BMU ICI **$19 million** grant - committed	Loan and Grant	Public Private Partnership (PPP) consortium to be determined ($253 million) - **portion attributable to Germany: $25 million**	WB and AfDB (Clean Technology Fund) $197 million, AfDB ($245 million), EIB ($307 million), AFD ($123 million), and European Commission (Neighborhood Investment Facility) ($37 million)	MASEN/ Morroccan Government ($126 million)	n/a	2011	1,430	**167**
4	120 MW Karaburun wind farm near Izmir, Turkey	Alto Holding A.S. (Turkey)	KfW IPEX-Bank and Landesbank Baden-Württemberg (LBBW) **$165 million** - committed	Loan and export credit insurance (by Euler-Hermes on behalf of Germany)	n/a	n/a	n/a	Alto Holding A.S. (Turkey)	2012	227	**165**
5	Khi Solar One (50 MW) solar tower project, South Africa	Abengoa (Spain)	BMZ **($97 million)** - committed	Loan	For the Khi project, the shareholders will be will be Son Revieren (Pty) Ltd. (SR) - a subsidiary of Abengoa (holding 51%), IDC (holding 29%) and a respective community trust backed by BBBEE funders (holding 20%) ($227m) - **portion attributable to Germany: $51 million**	An IFC A Loan of up to ZAR 600m (approximately $75 million); An IFC C Loan of up to ZAR $125 million (approximately $15 million); and mobilisation of a senior or subordinated loan from the Clean Technology Fund (up to $15 million)	n/a	n/a	2011	445	**148**
6	52.9MW Tongyuan Wind Farm, Taiwan	InfraVest GmbH and Wpd AG (Germany)	KfW IPEX-Bank ($86 million) - committed	Loan	infraVest GmbH and Wpd AG of Bremen (**$19 million**)	n/a	n/a	n/a	2012	105	**105**
7	Global Climate Partnership Fund (GCPF) - supporting local financial institutions in developing countries to invest in renewable energy and energy efficiency, Global	The Global Climate Partnership Fund S.A. (Luxemboug) - intermediary	KfW Entwicklungsbank (37%) and BMU (20%) (**$77 million**) - disbursed	Equity (GCPF provides loans and technical assistance)	Deutsche Bank (2% -management fee - $2.7 million) - **portion attributable to Germany: $1.5 million**	IFC (37%) and Ministry of Foreign Affairs Denmark (4%)	n/a	n/a	2010	500	**78**
8	Expansion of the Olkaria geothermal plant I and construction of plant IV, Kenya	KenGen (Kenya) (Majority state owned - 70%)	KfW Entwicklungsbank (**$77 million**) - committed	Loan	n/a	EIB ($154 million or 11.8% of total cost), AFD ($101 million), JICA ($387 million) and WB (IDA) ($330 million)	Kenyan Government ($465 million or 36% of total cost)	n/a	2011	1,514	**77**
9	Cerro de Hula Wind Farm, Honduras	Globeleq Mesoamerica Energy (located in Costa Rica) owned by Globeleq (Jersey company) via the Central American Bank for Economic Integration (CABEI) - intermediary	KfW Entwicklungsbank (**$65 million**) - committed	Loan	n/a	US ExIm Bank ($159 million)	n/a	Ficohsa (Honduras) - 30%	2010	290	**65**
10	Green Energy Efficiency Fund - support to renewable energy and energy efficiency projects, South Africa	Industrial Development Corporation (IDC) (South Africa)	KfW Entwicklungsbank (**$62 million**) - committed	Loan	n/a	n/a	n/a	n/a	2011	62	**62**

			Included in PCFS calculations			Not included in PCFS calculations					
No.	**Intervention (and location)**	**End recipients and intermediaries (where relevant)**	**Public sector funder(s) - from Germany (Flow 1)**	**Financial instrument(s) (Flow 1)**	**Private sector funder(s) / owners from developed countries (Flows 2 and 3)**	**Public sector funder(s) - bilateral and multilateral**	**Public sector funder(s) from developing countries**	**Private sector funder(s) / owners from developing countries (Flow 4)**	**Year initiated**	**Target fund size / total initiative cost ($ million)**	**German PCFS ($ million)**
11	Green for Growth Fund (GGF) - support to local financial institutions for investment in renewable energy and energy efficiency, Eastern Europe and Turkey	The Green for Growth Fund, Southeast Europe (Luxembourg) - intermediary	KfW Entwicklungsbank (as trustee for BMZ) (33%) KfW Entwicklungsbank (4.5%) (**$54 million**) - disbursed	Equity	Oppenheim Asset Management Services S.à r.l. (Germany) and Finance in Motion (Germany) (2% - management fee) - **portion attributable to Germany: $0.4 million**	EIF (47%) IFC, EIB and EBRD (13.5%)	n/a	n/a	2010	400	**54**
12	Expansion of existing railway network, Kenya and Uganda	Rift Valley Railways International (RVRI) - owned by Citadel Capital (publicly listed in Egypt), TransCentury Limited (Kenya) and Bomi Holdings Ltd. (Uganda)	KfW Entwicklungsbank (**$32 million**) - committed	Loan	Cordiant's Infrastructure Crisis Fund ($20m) - **portion attributable to Germany: $2.2 million**	IFC ($42 million) including a loan of $32 million, and an additional $10 million in equity to be committed. AfDB ($40 million), FMO ($20 million), and the BIO ($10 million)	n/a	Citadel Capital (CCAP.CA on the Egyptian Stock Exchange) - 51% TransCentury Limited (Kenya) -34% and Bomi Holdings Ltd. (Uganda) - 15%	2011	287	**34**
13	Interract Climate Change Facility (ICCF) - support to climate-friendly private sector projects in developing countries, Global	Interact Climate Change Facility S.A. (Luxembourg) - intermediary	DEG (as part of EDFI) (**$30 million**) - committed	Equity	n/a	CDC Group ($30 million), AFD Cotonou Investment Facility (up to $120 million), EIB (up to $60 million), other European Development Finance Institutions (EDFI) members: BIO, FMO, COFIDES, FINNFUND, Norfund, OeEB, PROPARCO, SIFEM and SWEDFUND (up to $120 million)	n/a	n/a	2011	360	**30**
14	Two plants generating energy from industrial waste heat, China	Xi'an TCH Energy Technology Co., Ltd. (Xi'an TCH) - owned by China Recycling Energy Corp. (NASDAQ listed)	DEG (**$18 million**) - committed	Loan (subordinated)	n/a	n/a	n/a	n/a	2010	18	**18**
15	Clean Energy Transition Fund LP - support to wind, hydro, biomass, geothermal and solar projects, and equipment and service providers, Turkey, Eastern Europe and Central Asia	Crescent Capital Advisory Ltd. (Turkey) - intermediary	DEG (**$13 million**) - committed	Equity	n/a	FMO, EBRD, and EIB	n/a	Istanbul Venture Capital Initiative	2011	200	**13**
16	Renewable Energy Asia Fund - support to development stage renewable energy projects and technologies, India, Sri Lanka, Philippines, Thailand and Vietnam	Berkeley Partners LLP (UK) - intermediary	DEG (**$13 million**) - committed	Equity	Calvert Investments (US), Robeco (Holland), and Sarona Asset Management (Canada) - **contributions not identified**	CDC Group Plc. ($6 million), ADB ($20 million), GEEREF (Global Energy Efficiency and Renewable Energy Fund - EU ($15 million), FMO ($12 million), BIO ($7.2 million), OPIC (guarantee up to $62 million)	n/a	n/a	2011	n/a	**13**
17	26 MW wind farm in Karnataka, India	Bhoruka Power Corporation Ltd. (India)	DEG (**$11 million**) - committed	Loan	n/a	Proparco ($9 million)	n/a	Indian Axis Bank	2010	26	**11**
18	Ghana Agricultural Insurance Programme (GAIP)	Local banks (Ghana)	BMU (**$6 million**) - committed	Grant	Swiss Re - **contributions not identified**	n/a	National Insurance Commission and Ghana Insurers Association	Ghana Re	2010	6	**6**
19	1MW solar system on the roofs and parking spaces of the state energy supplier Electrosul in Florianópolis, Brazil	Electrosul (Brazil) (Majority state owned - 51%)	KfW Entwicklungsbank (**$4 million**) - committed	Loan	n/a	n/a	n/a	n/a	2011	4	**4**

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