



Bilateral Finance Institutions and Climate Change: A Mapping of Climate Portfolios

Aaron Atteridge, Clarisse Kehler Siebert, Richard J. T. Klein,
Carmen Butler and Patricia Tella

Bilateral Finance Institutions and Climate Change: A Mapping of Climate Portfolios

**Prepared by the Stockholm Environment Institute for the Climate
Change Working Group for Bilateral Finance Institutions**

**Submitted to the United Nations Environment Programme (UNEP) and
the Agence Française de Développement (AFD)**

Aaron Atteridge, Clarisse Kehler Siebert*, Richard J. T. Klein, Carmen Butler
and Patricia Tella

*Coordinating author: clarisse.kehler.siebert@sei.se

Stockholm Environment Institute
Kräftriket 2B
SE 106 91 Stockholm
Sweden

Tel: +46 8 674 7070
Fax: +46 8 674 7020
Web: www.sei-international.org

Head of Communications: Robert Watt
Publications Manager: Erik Willis
Layout: Ewan Main

Cover Photo: © Aaron Atteridge

This publication may be reproduced in whole or in part and in any form for educational or non-profit purposes, without special permission from the copyright holder(s) provided acknowledgement of the source is made. No use of this publication may be made for resale or other commercial purpose, without the written permission of the copyright holder(s).

Copyright © November 2009 by Stockholm Environment Institute



ISBN 978-91-86125-20-2

CONTENTS

Preamble	iv
List of abbreviations	v
Executive Summary	vii
Quantitative findings: BFI support for climate change mitigation and adaptation	vii
Qualitative findings: Bilateral financing beyond COP 15	ix
1 Introduction to the Mapping of Bilateral Finance Institutions' Climate Activities	1
1.1 Background to the mapping exercise and the Climate Change Working Group for Bilateral Finance Institutions	1
1.2 Participating institutions	2
1.3 Objectives of the mapping exercise	2
1.4 Mapping methodology and report structure	3
2 Overview of climate change activity among finance institutions	3
2.1 Multilateral finance institutions	5
2.2 Bilateral finance institutions	6
2.3 Private finance institutions	7
2.4 Supporting role for other institutions	8
3 Mapping of climate change activities among Bilateral Finance Institutions	10
3.1 Overall finance picture	10
3.2 Financial instruments	13
3.3 Regional distribution of finance	16
3.4 Sectoral distribution of finance	19
3.5 Carbon finance	21
3.6 Climate risk assessment and climate proofing of all investment	23
4 Measuring effectiveness	24
4.1 Difficulties and barriers	24
4.2 Tools for measuring the effectiveness of climate financing	25
5 Future Expectations and Opportunities for BFIs	26
5.1 Key messages	26
5.2 Future activities of the BFI Working Group	27
References	29
Appendix A: Institutional finance supporting climate change outcomes	31
Regional distribution	31
Sectoral distribution	32

PREAMBLE

This working paper presents a mapping of Bilateral Finance Institutions' financial commitments for climate change mitigation and adaptation. It has been prepared for the United Nations Environment Program (UNEP) and the Agence Française de Développement (AFD) as the first deliverable of the Climate Change Working Group for Bilateral Finance Institutions – a Working Group born out of a workshop convened in January 2009.

Five finance institutions have participated in this mapping exercise. Three of these are bilateral institutions, namely AFD, the German Development Bank (KfW) and the Japan International Cooperation Agency (JICA). The other two are multilateral institutions (MFIs), being the Nordic Environment Finance Corporation (NEFCO) and the European Investment Bank (EIB). The financial data reported and analysed in this working paper has been provided by the participating finance institutions through surveys and interviews.

LIST OF ABBREVIATIONS

AAU	Assigned amount unit
AFB	Adaptation Fund Board
AFD	French Development Agency
AWG-KP	Ad-Hoc Working Group on the Kyoto Protocol
AWG-LCA	Ad-Hoc Working Group on Long-term Cooperative Action
BAP	Bali Action Plan
BMU	Federal Ministry for the Environment (Germany)
BMZ	Federal Ministry for Economic Cooperation and Development (Germany)
CCCFL	China Climate Change Framework Loan (of EIB)
CCPL	Climate Change Program Loan (of AFD and JICA)
CCTAF	Climate Change Technical Advisory Facility
CDM	Clean Development Mechanism
CER	Certified emission reductions
COP	Conference of the Parties (to the UNFCCC)
DAC	Development Assistance Committee (of the OECD)
EIB	European Investment Bank
ERU	Emission Reduction Unit
EU ETS	European Union Emission Trading Scheme
FDI	Foreign direct investment
FGEF	French Global Environment Facility (of AFD)
GEEREF	Global Energy Efficiency and Renewable Energy Fund (advised by EIB)
GEF	Global Environment Facility
ICI	International Climate Initiative
IKLU	Initiative for Climate and Environment Protection (of BMZ)
IPCC AR4	Intergovernmental Panel on Climate Change, Fourth Assessment Report
JBIC	Japan Bank for International Cooperation
JI	Joint Implementation
JICA	Japan International Cooperation Agency
KfW	KfW Development Bank (Germany)
LDC	Least Developed Countries
LDCF	Least Developed Countries Fund
MDG	Millennium Development Goals
MRV	Measurable, reportable, and verifiable
NAPA	National Adaptation Programme of Action
NCF	Nordic Climate Facility
NeCF	NEFCO Carbon Fund
NEFCO	Nordic Environment Finance Corporation
NGO	Non-governmental organisation
NMF	Nordic Environmental Development Fund (of NEFCO)
ODA	Official development assistance
OECD	Organisation for Economic Co-operation and Development
PCF	Prototype Carbon Fund (of World Bank and JICA)
SCCF	Special Climate Change Fund
SIDS	Small Island Developing States
SME	Small and Medium Enterprise
TGF	Baltic Sea Testing Ground Facility (of NEFCO)
UNCCD	United Nations Convention to Combat Desertification
UNCDB	United Nations Convention on Biological Diversity

UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States dollars
WG-BFI	Climate Change Working Group for Bilateral Finance Institutions

EXECUTIVE SUMMARY

A new global financial architecture for responding to climate change is in development, anticipated as a key outcome from the fifteenth Conference of the Parties (COP 15) of the United Nations Framework Convention on Climate Change (UNFCCC) in Copenhagen in December 2009, and subsequent negotiations. The *Bali Action Plan* of 2007 already contains the principle that industrialised countries will enact financial transfers to support the efforts of developing countries to both reduce greenhouse gas emissions and reduce their climate risks through adaptation. In the lead up to COP15, industrialised and developing countries are in the process of negotiating both the scale of future flows and the mechanisms and governance arrangements by which this finance will be made available.

Presently, finance to support activities aimed at addressing climate change in developing countries is generated and delivered by an array of different agents, including the Global Environment Facility (for the UNFCCC), multilateral and bilateral development banks (or “finance institutions”), bilateral development cooperation agencies and the private sector. While much public focus to date has been on the contributions made through the UNFCCC and the multilateral finance institutions, rather less attention has been paid to financial flows emanating from the bilateral finance institutions. However, these institutions have a long history in financing development activities and, more recently, have also generated sizeable flows in support of mitigation and adaptation.

This paper pulls together a picture of the overall contribution that five institutions – three bilateral finance institutions (AFD, JICA and KfW) and two European-based multilateral finance institutions with close links to the bilaterals (EIB and NEFCO) – are making to climate change finance, with a particular focus on finance delivered to developing countries and other non-Annex I countries. It is, in essence, a mapping of the role that these institutions currently play in channelling international climate finance – here defined broadly as finance for mitigation and adaptation activities in developing countries.

The paper draws heavily on first hand data provided by the institutions themselves to:

- present comparable data on financing of climate change mitigation and adaptation measures, broken down into Official Development Assistance (ODA) and non-ODA financing, and illustrate the scale and type of investment in particular sectors and regions;
- illuminate the BFIs’ collective share of global financing for climate change mitigation and adaptation;
- describe the various financial instruments available to BFIs for supporting climate change outcomes, and the types of funds and facilities that are used for channelling finance to recipients;
- identify future opportunities for the institutions to coordinate and harmonise their activities, including opportunities for potential future cooperation with supporting international institutions.

For climate change negotiators and national governments, the working paper provides an inventory and explanation of BFI finance for climate change mitigation and adaptation which can inform the discussion of financial flows under a future climate change financing architecture.

Quantitative findings: BFI support for climate change mitigation and adaptation

In 2008, total climate change-related finance disbursed by the three BFIs was approximately € 7 345 million. These figures are a combination of ODA and non-ODA finance. When the climate-related finance directed by EIB to non-Annex I countries is included, the four institutions collectively made available € 8 090 million.¹

¹ Comparable NEFCO figures are not available.

Table E1 shows how this finance is accounted for in ODA terms, and its split between reducing greenhouse gas emissions (“mitigation”) and reducing vulnerability to the impacts of climate change (“adaptation”).

Table E1: Climate finance channelled through AFD, JICA, KfW and EIB (millions Euros)

Total 2008 climate finance (incl. ODA and non-ODA)	€ 8 090
Total ODA climate finance	€ 6 820
Total non-ODA climate finance	€ 1 270
Total mitigation finance (incl. ODA and non-ODA)	€ 5 845
Total adaptation finance	€ 2 244

At present the bulk of finance comes through ODA channels – roughly 85% for the four institutions combined. Roughly three quarters of the total supports mitigation outcomes, finance which is heavily focused on the energy sector including both stationary energy and transport. These mitigation finance figures do not include carbon finance used for purchasing emission reduction certificates. Typical projects funded by BFIs and reflected in the working paper include windparks, co-generation, biomass power plants, small scale photovoltaics and biogas, geothermal energy, energy efficiency credit lines, urban public transport, waste management systems, forest protection, no-tillage agriculture, reforestation, watershed management and water loss reduction.

In regional terms, a significant proportion (60%) of BFI spending on climate finance is directed toward Asia and Oceania. Lesser but still sizable amounts are disbursed to North Africa and the Middle East, Eastern Europe and Sub-Saharan Africa, while Latin America receives relatively less. As Figure E1 illustrates, the regional distribution for mitigation finance is similar to this overall pattern, however the picture for adaptation is noticeably different, with North Africa and the Middle East receiving a somewhat larger share.

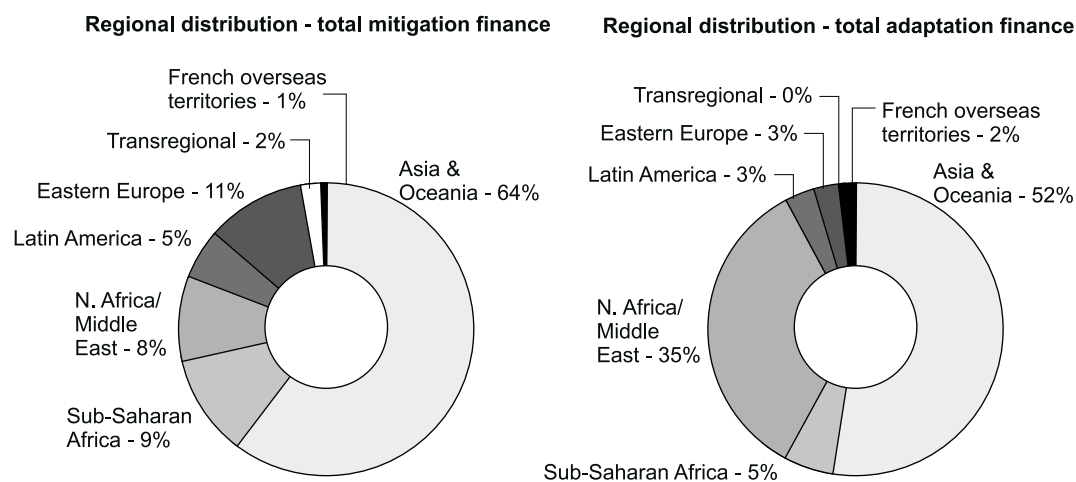


Figure E1: Regional distribution of total climate finance by BFIs + EIB

When assessed by sector, as illustrated in Figure E2, mitigation finance is channelled heavily toward the stationary energy (47%) and transportation (32%) sectors. A solid majority of adaptation finance is focused in the water sector (77%), however there is no clear, practical definition available for financial institutions to define finance for “adaptation” so consistent estimates are difficult to generate.

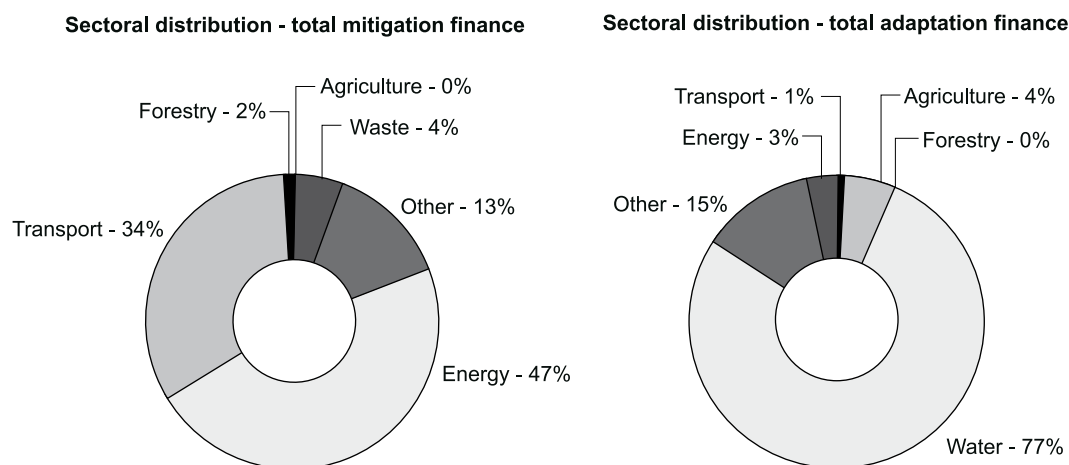


Figure E2: Sectoral distribution of finance by BFIs + EIB

These regional and sector groupings are rather broad and would benefit from a more detailed breakdown.

In addition to these flows, several of the financial institutions also play an active role in delivering carbon finance – i.e. finance for the purchase of emission reduction certificates from the Clean Development Mechanism (CDM) and Joint Implementation (JI) markets on behalf of Annex I parties with emission reduction obligations.

Qualitative findings: Bilateral financing beyond COP 15

The data clearly identifies that the participating finance institutions play a major role in channelling global flows of climate finance. While comparable data on the finance delivered through MFIs is difficult to find, the various estimates cited in this study suggest finance for mitigation (excluding carbon finance) delivered by four major MFIs – the World Bank, Inter-American Development Bank (IDB), Asian Development Bank (ADB) and European Bank for Reconstruction and Development (EBRD) – in 2007 was around € 3-4 billion. If this is accurate, the BFI data in this paper suggests that BFI finance for mitigation only is at least comparable and perhaps greater than that channelled through the MFIs (noting however that BFI data is for 2008).

It is also clear that the BFIs have experience using a wide range of instruments – debt, equity, credit lines, grants – for delivering climate finance in developing countries. This suggests that sharing of experience and greater harmonisation of their efforts could strengthen the effectiveness of the financial flows which they manage.

Interviews with participating institutions and analysis of recent literature during this mapping exercise suggest the following opportunities and needs:

1. There is an opportunity to increase awareness among policymakers and the wider public of the role of BFIs in financing climate change projects in developing and emerging economies, particularly while a future architecture for delivering climate finance globally is being developed.
2. It will be increasingly important that all institutions which deliver to developing countries both ODA and any future commitments through the UNFCCC to “new and additional climate finance” separate these flows when reporting. On the ground, the same set of activities may have both climate and development benefits, evidenced by the fact that around 85% of the total BFI finance for climate change compiled in this working paper is accounted for as ODA. However, in a future climate finance framework based on measurable, reportable and verifiable (MRV) contributions,

these commitments will need to be accounted for separately, even if they need to act together and in complement on the ground.

3. There is a need to more clearly define what is to be accounted for as “adaptation finance”. Some finance institutions appear to conceptualise adaptation quite narrowly, focusing mainly on addressing some of the *direct impacts* of climate change and rather less on actions which reduce human and/or natural system *vulnerability* to climate change impacts. If adaptation is instead conceptualised in this broader sense, it is probable that adaptation finance estimates would be higher than those provided here.
4. There is scope to increase awareness, both within finance institutions (including BFIs) and project developers, of the opportunities for finance supporting adaptation activities. There appears to be a general lack of awareness about the full range of possible adaptation activities, reflected in the fact that most BFI adaptation activities are reported in the water sector. There is a perception amongst the participating institutions that adaptation in developing countries does not provide many commercial finance opportunities and hence will require a significant portion be delivered as grants. It is possible that, with further analysis, this would prove to be an overly pessimistic assessment, particularly as MFIs and BFIs have the rather unique capacity to deliver concessional lending.
5. The informal character of the WG-BFI can provide a valuable opportunity for productive collaboration between the institutions. The OECD Development Assistance Committee (DAC) already provides a forum for the BFIs to collaborate and harmonise activities, however not all institutions are represented and its formal and political nature acts as a constraint on productive sharing. By contrast, the informality of the WG-BFI provides a cooperative forum which, if harnessed, could enhance the effectiveness of BFI climate finance to developing countries.

1 INTRODUCTION TO THE MAPPING OF BILATERAL FINANCE INSTITUTIONS' CLIMATE ACTIVITIES

1.1 Background to the mapping exercise and the Climate Change Working Group for Bilateral Finance Institutions

It is increasingly apparent that the substance and financing of the global development and climate change agendas are linked. In the context of financing development, the allocation of Official Development Assistance (ODA) must necessarily accommodate and anticipate the effects of climate change – from traditional development activities that serve to decrease vulnerability to the effects of climate change, to more reactive and impact-focused activities such as disaster response. In the context of international climate change negotiations, disagreement between industrialised and developing countries on financing for mitigation and adaptation comprises a major stumbling block to reaching a post-2012 global climate change agreement. This disagreement is related in part to a perception among developing countries that industrialised countries have not delivered on ODA commitments. Despite this inevitable and progressive overlap in policy and practice for financing development activities and climate change mitigation and adaptation, there is to date minimal communication and few repeat players working with financial flows in the climate *and* development regimes.

This working paper looks at Bilateral Finance Institutions (BFIs)² as a source of extensive experience and finance for both development and climate change activities. To this experience can be added various structural characteristics and financial instruments that render BFIs well-placed to innovate, and agile in disbursing funds through different mechanisms including ODA, carbon markets, and potentially “new and additional” finance for climate change as introduced in the United Nations Framework Convention on Climate Change (UNFCCC).³ Despite these qualities, the role of BFIs in the future financing architecture for climate remains to be articulated – in particular, whether and how BFIs’ bilateral mechanisms can channel finance that is considered “new and additional”. At present, the role of bilateral sources under the UNFCCC remains ambiguous: UNFCCC article 11.5 states simply that “developed countries... may also provide financial resources related to the implementation of the convention through bilateral, regional and other multilateral channels”, saying nothing about the “new and additional” nature of these resources. To date most public attention has been on the efforts of multilateral finance institutions, while the contributions of bilateral institutions have not been widely illuminated or acknowledged.

What is clear is that BFIs already serve up a large piece of the global climate change finance pie. As a starting point for future cooperation among BFIs in financing climate change mitigation and adaptation, and between BFIs and other entities, this paper maps the existing climate change finance delivered by participating BFIs.

2 For purposes of this report, a BFI is defined as a financial institution created and directed by a national government for the purpose of giving aid or investing in targeted development projects and programmes in developing countries or emerging markets. They are distinguished from bilateral ‘donors’ (i.e., development cooperation agencies) both in the channels by which they can raise funds as well as the financial instruments available to them to support development and climate activities, as well as in mandate. They are distinguished from commercial banks in that they are driven not only by financial but also by sustainable development objectives.

3 UNFCCC article 4.3 provides that “The developed country Parties and other developed Parties included in Annex II shall provide **new and additional** financial resources to meet the agreed full costs incurred by developing country Parties in complying with their obligations under Article 12, paragraph 1. They shall also provide such financial resources, including for the transfer of technology, needed by the developing country Parties to meet the agreed full incremental costs of implementing measures... (emphasis added)”.

Impetus for the mapping exercise was a high-level workshop convened by the United Nations Environment Programme (UNEP) and the Agence Française de Développement (AFD) in Paris, in January 2009. Bringing together actors from bilateral donors and supporting international institutions⁴, the workshop resulted in, among other things, a proposal for a Climate Change Working Group for Bilateral Finance Institutions (WG-BFI). The WG-BFI is intended for members to informally share experiences and to strengthen policies, tools, and procedures on climate change mitigation and adaptation activities.

1.2 Participating institutions

The institutions participating in this initial mapping exercise are limited to five finance institutions. Three of these are bilateral finance institutions (BFIs), namely AFD, the German Development Bank (KfW), and the Japan International Cooperation Agency (JICA).

The other two are multilateral finance institutions (MFIs), being the Nordic Environment Finance Corporation (NEFCO) and the European Investment Bank (EIB). Although of different character to the BFIs, NEFCO and EIB are included in this mapping exercise on the basis not only of interest in the process but also because doing so establishes a basis for enhancing existing relationships between the institutions and providing a platform for future collaboration, including through their involvement in the WG-BFI.

For purposes of this report, the five institutions are referred to collectively as *participating finance institutions*. These varying terminologies which are used throughout the Working paper are summarised in Table 1.

Finally, UNEP has played a supporting role in facilitating and innovating the project. It is envisioned that in the future, cooperation and sharing of information within the WG-BFI framework could be expanded to include other bilateral and multilateral funders and supporting international institutions.

Table 1: Classification of the participating finance institutions

AFD	BFIs	Participating finance institutions
KfW		
JICA		
EIB	MFIs	
NEFCO		

1.3 Objectives of the mapping exercise

This effort to map the activities of the participating institutions in relation to climate change has several clear objectives.

For **climate change negotiators and national governments**, this paper provides an inventory and explanation of the finance delivered by the participating institutions in support of climate change mitigation and adaptation. Given the size of these financial flows, this is an essential contribution to inform discussions about a future global architecture for financing climate change outcomes.

For the **participating finance institutions** themselves, it provides comparable data on climate change activities. In doing so it gives a clearer view of the collective global share of climate finance that is delivered by the institutions, and facilitates a clearer understanding of the scale and type of their

4 Please see informal papers *Summary of UNEP-AFD Workshop on BFIs and Climate Change* (2009) and accompanying *List of Participants* (2009), available from UNEP-Paris office.

investment in particular sectors and regions. Bringing this information together provides a platform to identify future opportunities for the WG-BFI participants to improve coordination and harmonisation of their activities and reporting processes, and illuminates some areas of potential future cooperation in tandem with supporting international institutions.

1.4 Mapping methodology and report structure

This mapping exercise is both retrospective and prospective, in that it documents existing investments and financing by participating institutions in climate change mitigation and adaptation, while at the same time as it creates a shared understanding of different approaches and priorities to identify future potential for coordination.

To collect data for the mapping exercise, information was first compiled from publically available materials (annual report, websites, and other publications) and the database of the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD DAC). A survey was subsequently distributed to the participating finance institutions in order to collect more detailed information about their different mandates and entry points for financing climate change activities. Interviews with each of the participating finance institutions were then undertaken. Finally, a second data collection tool was developed to collect comparable numerical data on institutional spending on mitigation and adaptation, broken down into ODA and non-ODA spending, as well as the regional and sectoral distribution of this finance. The results of this exercise are summarised and discussed in some detail in Section 3 of the report, while the data itself is condensed and presented as Annex A.

The Working Paper is structured as follows:

- **Section 2** situates BFIs within the broader global climate change financing architecture. In addition to BFIs, it notes the role played by other agents in delivering finance, notably the multilateral finance institutions and the private sector, along with the role of supporting international organisations such as the UNFCCC and other UN agencies, bilateral development cooperation agencies and the OECD DAC;
- **Section 3** presents a summary and analysis of current climate initiatives by the participating finance institutions. It looks at the array of financial instruments used by different initiatives to support mitigation and adaptation, as well as the regional and sectoral focus of finance. It then describes the activities of the participating institutions in relation to carbon finance as well as climate risk assessment and climate proofing of investments;
- **Section 4** presents some observations by the institutions about the difficulties and barriers associated with financing climate change objectives, as well as some of the ways in which they attempt to measure the effectiveness of their activities: and
- **Section 5** distils future opportunities for BFI cooperation including in communicating their potential role in the global climate change financing architecture.

2 OVERVIEW OF CLIMATE CHANGE ACTIVITY AMONG FINANCE INSTITUTIONS

While the main task of this Working Paper is to map the financing for climate change mitigation and adaptation channelled through the participating institutions, and the BFIs in particular, this section takes a step back to situate this within the broader picture of global financial flows for climate change activities. It describes broadly the roles filled by different financial agents, including MFIs, BFIs and the private sector, as well as the supporting roles played by various international institutions and bilateral donors, in order to describe the niche each fills.

An anatomy of the financial flows for climate change to developing countries, highlighting sources, agents and channels, is provided in Figure 2. Finance is sourced from both government budgets and capital markets, and can be channelled through various agents, notably BFIs, MFIs, development cooperation agencies, the UNFCCC (various funds including those managed by the Global Environment Facility), and the private sector. Within this picture, BFIs, along with MFIs, play a central and unique role in channelling finance from both public and private sources.

While this bird’s eye view of financial flows is somewhat simplistic, it illustrates several challenges in tracking finance for climate change mitigation and adaptation.

Firstly, with some exceptions there is generally no neat delineation or earmarking of finance for climate change as distinct from ODA. While this makes a certain sense in the “real world” (i.e. on the ground in developing countries), being able to clearly account for these flows as one or the other – that is, ODA or “new and additional climate finance” – is important in the context of climate negotiations and will be needed to support implementation of a future global climate finance architecture.

Secondly, what falls into the “new and additional” pot is at present somewhat arbitrarily defined since it relies on a subjective assessment by the institutions themselves, particularly about what is to be considered as “adaptation finance”. Overall, the parameters of what is covered by this type of financing must be more precisely defined (a discussion which is underway within the OECD DAC) if comparable data is to be generated and if greater harmonisation between financial agents is to be achieved.

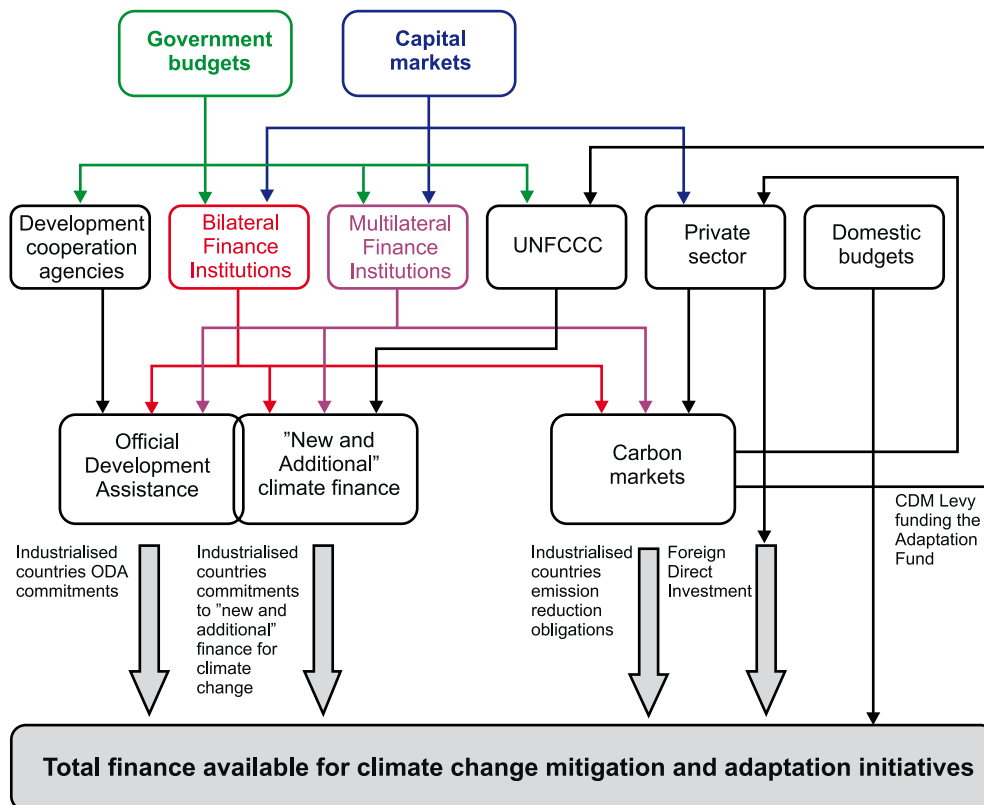


Figure 2: Financial flows for climate change mitigation and adaptation in developing countries
 Note: The UNFCCC mechanisms include the various funds under the Global Environment Facility as well as the Adaptation Fund.

Thirdly, data on private financial flows that support climate change outcomes is, at best, extremely difficult to determine, not least because these flows involve a vast array of individual actors and are not reported in any centralised forum.

With these difficulties in view, this section provides a very brief summary of the roles played to date by the multilateral, bilateral and private finance institutions as well as by other supporting institutions.

While the focus of this paper is on flows which support climate change outcomes, it is worth noting that in order to understand the net impact of finance delivered by different agents it would be necessary to also illuminate financial flows that have a detrimental effect on climate change objectives. As an example, World Bank financing in the energy sector in 2005 saw loans to fossil fuels and large dams amounting to more than US \$2.5 billion, while lending for renewables and energy efficiency made up around US \$109 million.⁵ It has been suggested (Porter *et al*, 2008) that the bank's tendency towards quick, high volume lending creates a significant bias towards large-scale projects, which can undermine climate change efforts.

2.1 Multilateral finance institutions

Multilateral finance institutions are here defined broadly as institutions which have a financial (banking) basis and to which multiple countries contribute funds and share ownership. They include the World Bank, regional development banks such as the Asian Development Bank, the African Development Bank and the Inter-American Development Bank, as well as two institutions participating in this mapping exercise, the European Investment Bank (EIB) and Nordic Environment Finance Corporation (NEFCO).

In addition to their direct lending activities, the MFIs have introduced a range of dedicated funds for financing climate change objectives. For example:

- The World Bank established its Climate Investment Funds (CIFs) in 2008, implemented jointly with the Regional Development Banks. Overall, the CIFs have an initial multi-annual capitalisation of just over US \$6 billion, comprising two separate funds: the Clean Technology Fund (CTF) and the Strategic Climate Fund (SCF). The CTF provides “scaled-up financing for demonstration, deployment and transfer of low-carbon programs”, and has for example included a US \$500 million loan to the government of South Africa for renewable energy and energy efficiency measures. The SCF provides finance to “pilot new development approaches”, under which the Pilot Program for Climate Resilience (PPCR) has been established to “integrate risk and resilience into core development planning”.⁶
- The Asian Development Bank in 2007 created the Clean Energy Financing Partnership Facility, which for 2008 had a target capitalisation of US \$250 million. A smaller Climate Change Fund was established in 2008 with an allocation of \$40 million, of which \$25 million is for clean energy, \$5 million for Reduced Emissions from Deforestation and Degradation (REDD) and improved land use management, and \$10 million for adaptation.

In 2008, the World Bank published its Strategic Framework for Development and Climate Change (SFDCC), which outlines a focus from 2009 to 2011 on increasing adaptation financing, promoting carbon market development, and facilitating the application of climate risk insurance.⁷

Estimating the scale of financial flows delivered through MFIs is difficult, not least because data tends to be often presented in multi-annual form, as commitments rather than disbursements, and often also includes carbon finance. The OECD and IEA (2009), relying on summaries by the World

5 Porter *et al*, 2008; citing FOE, 2005.

6 <http://web.worldbank.org>

7 World Bank, 2008

Bank, state that MDB financing of clean energy and energy efficiency was around USD \$4.1 billion annually for 2006 and 2007 (around €3 billion at average 2007 exchange rates⁸). For 2008, this same source quotes the World Bank's estimate of its own annual contribution as being USD \$2.7 billion for energy efficiency and renewable energy. By contrast, a report prepared for the German Parliament (2009) provides an alternative, and more generous, set of figures for spending on clean energy and energy efficiency. It estimates the combined finance from the World Bank, Inter-American Development Bank (IDB), Asian Development Bank (ADB) and European Bank for Reconstruction and Development (EBRD) in 2007 at roughly USD \$5.5 billion⁹ (around €4 billion at average 2007 exchange rates¹⁰). Though different, these estimates are at least of comparable magnitude. While the methods used to compile these different figures may vary between sources, and may also not be directly comparable to that used for the participating institutions in this paper, for indicative purposes they are nonetheless useful.

In addition to dedicated funds, some of the MFIs also play a role in 'carbon financing', i.e. the purchasing of emission reduction certificates from the Clean Development Mechanism (CDM) and Joint Implementation (JI) markets on behalf of Annex 1 parties with an obligation.

The multilaterals have also played a role as implementing agents of the UNFCCC's Global Environment Facility (GEF), while the World Bank also acts as trustee.

2.2 Bilateral finance institutions

The organisational structures and mandates of the three Bilateral Finance Institutions vary according to the relationship of each to other institutions in their country of origin. For example:

- In Germany, international development operations are shared between different state agencies, including ODA loans delivered by KfW Development Bank, technical assistance provided by GTZ, grant aid from the Federal Ministry for Economic Cooperation and Development (BMZ), and capacity building assistance provided by INWENT.
- In Japan, international development operations were brought together in 2008 to form one "new JICA", merging the former operations of the Japan Bank of International Cooperation (which provided ODA loans), the Ministry of Foreign Affairs (which provided grant aid) and the old JICA (which provided technical assistance). However, the Ministry of Foreign Affairs still plays a role in governing ODA loans and grants, including those that comprise Japan's *Cool Earth Partnership* as discussed in section 3.1.
- In France, AFD was established to work on behalf of the French government to finance development in accordance with French ODA policies.

The structural differences are noteworthy because they account for key differences in institutional mandate, which in turn account for variations in the types of programmes and projects supported. Until now, BFI climate finance has evolved in the strategic framework set by each national government, and BFIs have integrated climate change into their development financing independently.

Section 3 provides greater detail on the wide array of climate finance activities involving the three BFIs (along with EIB and NEFCO). It is worth noting here, however, that the bilateral institutions have for decades played a key role in providing aid and investments to developing countries. Their gradual integration of climate financing into development activities means they are now a very significant agent in delivering finance for climate change. While directly comparable data is difficult to

8 <http://www.x-rates.com/d/EUR/USD/hist2007.html>

9 This is comprised of World Bank USD 2.0 billion; IDB USD 1.13 billion; ADB USD 1.5 billion; and EBRD USD 0.9 billion.

10 <http://www.x-rates.com/d/EUR/USD/hist2007.html>

obtain, it is plausible based on the data collated in Section 3 that the BFIs provide at least comparable, if not a larger, amounts of climate finance than do the combined MFIs.

2.3 Private finance institutions

The UNFCCC has highlighted that a majority of finance to support climate change outcomes in developing countries will necessarily come from the private sector.¹¹ As Figure 2 illustrates, the private sector can come into the climate finance picture either upstream (as source) or downstream (as recipient) of the MFIs, or in parallel as a completely separate and independent finance stream.

Already, considerable private finance flows through MFI and BFI channels from upstream, where these institutions have drawn on capital markets through bond issues or where private parties with emission reduction obligations invest money into managed carbon funds to purchase their offset requirements.

When investing directly, the commercial expectations of private finance mean that the range of instruments available to deliver private flows for climate change is narrower than for flows through public finance channels. Private finance will mainly be delivered through commercial debt and equity instruments, meaning essentially that it plays what might be called a facilitating role rather than a “direct transfer” of finance¹². Although the provision of concessional finance may in some cases be possible, this is more difficult for private agents to deliver than for the multilateral and bilateral institutions since the latter are able to blend private finance from capital markets with non-commercial public finance. Private grant finance is available only through philanthropic sources.

To date, the private sector has probably played a much more substantial role in financing mitigation than adaptation, though this is difficult to verify. On the mitigation side, private finance has flowed most significantly to the clean energy sector, either as foreign direct investment or through carbon market mechanisms (i.e. carbon finance). Between 2004 and 2007, private investment in renewable energy and energy efficiency in developing countries rose from US \$1.8 billion to US \$26 billion. The majority of this investment took the form of asset financing, of which there is typically a significant debt component.¹³ The Clean Development Mechanism has provided a catalyst for some flow of finance to developing countries for low-carbon projects.

With respect to adaptation finance, there is a perception among some finance institutions¹⁴ that the role of the private sector in financing adaptation will be limited. While this is unlikely to be the case, finding data on the scale of private financing of adaptation is extremely difficult, a reflection of the fact that adaptation is itself a very diverse set of activities. One key private sector role in supporting adaptation is in risk sharing, for instance through the provision of insurance products which either provide coverage directly to developing countries for climate related risks (e.g. weather-based index insurance) or to the private sector to lower barriers for financing climate change initiatives in different regions.

A notable characteristic of private sector finance is that flows to developing countries are highly concentrated. In 2004, roughly 90% of private investment flow into Asia went to China (67%), India (14%) and Malaysia (9%) combined¹⁵. In 2007, around 82% of private financing of clean energy in developing countries globally was directed to China, India and Brazil.¹⁶ This means many of the Least

11 http://unfccc.int/files/cooperation_and_support/financial_mechanism/application/pdf/background_paper.pdf

12 Concepts discussed in Neuhoff *et al*, 2009

13 UNFCCC, 2009

14 For example, World Bank, 2009

15 Global Development Finance 2006, in Tomonori 2009

16 UNFCCC, 2009

Developed Countries (LDCs) may not see significant private finance. Ultimately, the future contribution of private finance to climate change will be heavily influenced by the success of public finance in leveraging private flows, and of the emergence of investment markets that can attract commercial finance.

2.4 Supporting role for other institutions

Various international institutions play an important role in supporting or influencing the financing of climate change and, in particular, the work of BFIs in relation to climate change. These include, *inter alia*, the UNFCCC and the OECD, bilateral development cooperation agencies, as well as other UN programmes including UNEP and UNDP.

2.4.1 United Nations Framework Convention on Climate Change (UNFCCC)

Under the UNFCCC (article 4.3), developed country Parties commit to providing financial assistance to developing countries to facilitate the implementation of the Convention. To facilitate this transfer of funds, the Convention establishes a financial mechanism, the operation of which is now assigned by Parties to the Global Environment Facility (GEF) under an arrangement reviewed every four years. Through the COP, Parties steer operations of the financial mechanism by deciding its climate change policies, programme priorities and criteria for eligibility for funding.

Under the UNFCCC, two special funds exist and are managed by the GEF: the Special Climate Change Fund (SCCF) and Least Developed Countries Fund (LDCF). A third fund, the Adaptation Fund (AF), exists under the Kyoto Protocol. The SCCF finances projects relating to adaptation; technology transfer and capacity building; as well as sectors such as energy, transport, industry, agriculture, forestry, and waste management. The LDCF was established specifically to finance activities in Least Developing Countries, and has in to help LDCs to prepare and implement National Adaptation Programmes of Action (NAPAs). Unlike the SCCF and LDCF which are managed by the GEF, the AF is governed by its own Board and is funded by a two percent levy on the Clean Development Mechanism.

2.4.2 Organisation for Economic Co-operation and Development

The OECD is instrumental in guiding its member countries' integration of climate change financing into development financing. In 2005 OECD member countries signed the Paris Declaration, through which they agree to harmonise their approaches to environmental assessments, and to collaborate on climate change financing in particular.¹⁷ Member countries of the OECD further reaffirmed these commitments by endorsing the 2008 Accra Agenda for Action. As recently as this year, the OECD has issued policy guidance on integrating climate change adaptation into development co-ordination.¹⁸ A peer review process, conducted by fellow OECD member countries, helps member countries honour their commitments and identify opportunities for co-ordination.

The OECD is the only international institution to which BFIs report their development funding with respect to climate change. Reporting is voluntary. By issuing guidelines that instruct BFIs on how they should report their climate change financing, and by defining certain terms associated with such financing, the OECD Development Assistance Committee (OECD DAC) influences how BFIs design, monitor and measure their climate change programs. This process is at the same time iterative – BFIs and bilateral donors are partners in guideline development.

The OECD DAC reporting system measures BFI financing with respect to climate change financing in two distinct ways. First, it measures three OECD DAC policy objectives, including “aid to

17 <http://www.oecd.org/dataoecd/11/41/34428351.pdf>

18 <http://www.oecd.org/dataoecd/26/36/42747468.pdf> and <http://www.oecd.org/dataoecd/26/34/42747370.pdf>

environment”.¹⁹ The policy objectives marking system helps measure BFIs’ progress toward achieving the Millennium Development Goals (MDGs). Data collection with respect to policy objectives is based on a marking system comprised of three values: principal (primary), significant, or not targeted. Each value refers to how important the objective, “aid to environment”, is to the design and impact of the activity. A “not targeted” value can mean either that the activity was screened against the objective, and found not to target the policy objective, or that the activity has not been screened against the objective. Negative impact is not a sufficient criterion. Rather, the policy objective must be explicit in the activity documentation.

The OECD DAC’s reporting system also measures BFI financing with respect to certain UN conventions, including the UNFCCC, the UN Convention on Biological Diversity (UNCBD), and the UN Convention to Combat Desertification (UNCCD).²⁰ Most activities aimed to address the (environmental) objectives of these Rio Conventions fall under the DAC definition of “aid to environment” and are identified in units of measurement called “Rio Markers.”

2.4.3 Bilateral Development Cooperation Agencies

In practice, the projects and programmes supported by bilateral development cooperation agencies are often similar to those of BFIs. However, these types of institutions differ in mandate and purpose, to the extent that BFIs exist as banks, with a profit as well a development objective. Furthermore, bilateral development cooperation agencies generally fall under the auspices of federal development ministries, and BFIs under finance ministries.

Despite differences in mandate and purpose, development cooperation agencies and BFIs share many considerations with respect to their climate portfolios, and have both very rapidly integrated climate change considerations into their regular operations. This is particularly so in the context of funding adaptation activities, where adaptation is understood as addressing drivers of vulnerability such as poverty – thus falling closer to traditional development activities.^{21,22} Like BFIs, bilateral development cooperation agencies have begun to realise that their own interests, as well as those of developing countries, are best served by screening portfolios for climate risk exposure.²³ As discussed in context of BFIs below, development cooperation agencies are also engaging in “climate proofing” their investments – that is, designing projects in a way that allows “avoidable risks” to indeed be averted.²⁴

The comparable considerations and steps taken by both types of institution suggest there would be benefits in both shared learning and information exchange so as not to duplicate efforts. Various development cooperation agencies participated in the first meeting of the WG-BFI in January, 2009.²⁵

2.4.4. Supporting International Programmes and Agencies

In financing climate change mitigation and adaptation projects, United Nations programmes and agencies that carry environmental and development mandates can play an important supporting role

19 <http://www.oecd.org/dataoecd/16/53/1948102.pdf>

20 <http://www.oecd.org/dataoecd/16/53/1948102.pdf>

21 For an explanation of the “Adaptation-Development Continuum”, see McGray *et al*, 2007.

22 *A Declaration on Integrating Climate Change Adaptation into Development Co-operation* was signed in 2006 by the development and environment ministers of OECD countries. It calls for “meaningful co-ordination and sharing of good practices on integrating climate change adaptation in development co-operation”.

23 See Klein *et al*, 2007.

24 See Person and Klein, *et al*, 2009 at 14-15.

25 AusAID, DANIDA, DFID, and SIDA were among the bilateral development cooperation agencies present.

in bringing key actors together (for example, in facilitating and financing workshops and conferences) as well as in filling knowledge gaps in order to support efficient, productive use of climate finance. To this end, UNEP has also played a convening role in the context of the WG-BFI working group, while the UNEP Finance Initiative also plays a linking role with the private finance sector.

Other UN agencies, in particular the United Nations Development Programme (UNDP), also have mandates that affect and are affected by financial flows for climate change. Climate change poses a risk to water, food security, and human health, which means it will directly impact the successful delivery of development activities.²⁶

Both UNEP and UNDP are key implementing agencies of the GEF.

3 MAPPING OF CLIMATE CHANGE ACTIVITIES AMONG BILATERAL FINANCE INSTITUTIONS

This section addresses the main task of this report, which is a collation of the overall financial contribution of the participating finance institutions towards climate change outcomes and a mapping of their climate change activities. The information presented here is heavily reliant on information and data provided by the institutions themselves, having been collected through a two-stage survey questionnaire provided to each institution as well as interviews with key personnel from each institution, and supplemented by a review of publicly available material (websites, annual and regional reports).

The discussion is structured as follows:

- Section 3.1 summarises the overall financial contribution made by the participating institutions to climate change outcomes;
- Section 3.2 analyses the ways in which this finance is made available to recipients, specifically the various financial instruments used by different facilities and funds;
- Sections 3.3 and 3.4 illuminate some broad patterns in the regional and sectoral distribution of the available finance;
- Section 3.5 looks specifically at the extent to which the participating institutions have been active in administering carbon finance; and
- Section 3.6 outlines the extent to which climate risk assessment and climate proofing have been mainstreamed into the everyday business activities of the institutions.

In this structure, a distinction has been made between the provision of *finance in support of climate change activities* – in other words the efforts of BFIs to financially support mitigation and adaptation projects (sections 3.1-3.5) – and *climate risk assessment and “climate proofing”* of all investment activity undertaken by the institutions (section 3.6).

By way of caveat, participating finance institutions have taken on the ambitious task of attempting to deconstruct complicated financial flows in order to illuminate the scale of finance supporting climate change outcomes. Given the difficulties in assigning climate change outcomes to finance, and the various points at which subjective judgement is required – particularly, though not only, in relation to adaptation – it is unsurprising that there appear to be some inconsistencies and gaps in the data provided in this section.

3.1 Overall finance picture

Compiling a picture of overall climate financing by the participating institutions is a challenge. Firstly, there are several different types of financial flows that can support climate change outcomes. Specifically:

²⁶ See Klein, 2001.

1. “Carbon finance” provides project revenue to emission reduction activities. This is finance provided against the emission reduction obligations of industrialised countries. It is not included in the data presented here in section 3.1 but is discussed in section 3.5;
2. Official Development Assistance (ODA) is development-focused finance provided against donor country ODA commitments, though in some cases development assistance can simultaneously support climate mitigation and adaptation objectives (recognised in the Rio Markers approach adopted by the OECD DAC for reporting financial flows for climate change); and
3. Climate-focused finance that is neither carbon finance nor ODA is, in the current system, usually lending at market conditions, for example provided as non-concessional credit lines.

The distinction between ODA and non-ODA climate finance is not merely academic; the “new and additional” concept under UNFCCC article 4.3 (see section 1.1) is central to the negotiating positions of developing countries, and implies a clear and verifiable distinction be made between ODA and non-ODA sources. This means in future that if finance is to be counted towards a country’s future UNFCCC commitments on climate change finance then it should no longer also be reported to the OECD DAC as ODA.

There is some ambiguity in estimating spending on adaptation, as there is as yet no official definition of “finance for adaptation” that can be used by finance institutions, hence a degree of subjectivity in the judgement by each institution about which activities are considered to be reducing vulnerability to climate change impacts.

Finally, since the regional focus of spending varies considerably between the participating institutions – especially between the three BFIs, whose sole mandate is developing countries, and NEFCO and EIB who have a much stronger focus on Europe and Candidate countries – estimates of overall climate finance will be affected by whether the interest is on highlighting total *global* spending or, for instance, spending on climate change in *developing countries*. The latter is in focus in this Working Paper.

3.1.1 Contribution to overall climate financing

Table 3.1 summarises overall institutional spending on climate change initiatives by AFD, JICA, KfW and EIB²⁷. For comparison, ODA and non-ODA finance are separated, as are mitigation and adaptation finance. The ODA component is measured using the OECD DAC’s Rio Markers.

In 2008, total annual climate change-related expenditure by the three bilateral institutions was approximately € 7.345 billion. When the climate-related finance directed by EIB to non-Annex I countries is included, the four institutions collectively made available € 8.09 billion.

Table 3.1: Overall climate finance through AFD, JICA, KfW and EIB²⁸ (millions Euros)

Total 2008 climate finance (incl. ODA and non-ODA)	€ 8 090
Total ODA climate finance	€ 6 820
Total non-ODA climate finance	€ 1 270
Total mitigation finance (incl. ODA and non-ODA)	€ 5 845
Total adaptation finance	€ 2 244

27 EIB data relates only to their financial commitments outside the EU. NEFCO finance has not been included here. The extent to which finance disbursed through its Nordic Investment Fund and Nordic Environment Development Fund support climate outcomes has not been quantified by NEFCO (this finance is focused on Baltic countries).

28 Source: Compilation of the individual institutional data provided in Table 3.2

At present the bulk of finance comes through ODA channels – roughly 85% for the four institutions combined. JICA finance is accounted for entirely as ODA, while EIB finance is entirely non-ODA related.

Institutional activity is separated in table 3.2. The data provided here relates only to climate finance channelled through the participating institutions themselves, which is not the full picture of total climate finance originating from each donor country. For instance, in the case of JICA the data relates only to ODA loans, whereas other forms of climate finance such as grant aid are not included because these are managed by MOFA & other ministries²⁹.

Table 3.2: Annual institutional spending (committed) on climate change (millions Euros), 2008³⁰

	AFD ³¹	JICA	KfW	EIB
Total climate finance	€ 1 178	€ 4 206	€ 1 762	€ 745
Finance delivered as ODA	€ 895	€ 4 206	€ 1 520	–
Non-ODA climate finance	€ 283	–	€ 242	€ 745
Total mitigation finance	€ 1 074	€ 2 664	€ 1 362	€ 745
Mitigation finance delivered as ODA (Rio Markers)	€ 840	€ 2 664	€ 1 120	–
Non-ODA mitigation	€ 234	–	€ 242	€ 745
Total adaptation finance (as ODA)	€ 302	€ 1 542	€ 400	–

As a portion of the institution’s overall activities, AFD’s climate-related finance was around 20% of total activity in 2005-2007, increasing to 30% in 2008. KfW’s €1.5 billion of ODA financing that also supported climate change objectives in 2008 represented around 45% of the bank’s commitments in developing countries (note that total development finance allocated for 2009 has increased significantly to €5 billion). Around 10% of EIB’s investment activity supports climate-related outcomes³².

The proportion of public versus private parties as recipients of the finance varies between institutions. KfW indicate that around 75% of their climate finance goes to governments and 25% to the private sector. AFD varies from 65% for the private sector in 2007 down to 29% in 2008, and averaged around 38% over the years 2006-09. EIB indicate around 50% is directed to the public sector and 50% private sector (for EIB this is their overall lending pattern, which could be different within climate projects).

3.1.2 Challenges defining adaptation finance

Total finance from AFD, JICA, KfW and EIB towards adaptation on behalf of their sponsors was approximately €2.244 billion in 2008.

There is a very significant overlap between adaptation activities and traditional ODA activities, meaning it can be difficult to separately define from ODA. Moreover, as stated there is no practical definition of what “finance for adaptation” encompasses, which makes assigning adaptation outcomes

29 Source: JICA correspondence with SEI, 2009

30 Data provided by the institutions in response to an SEI survey, 2009

31 There is an overlap of €199 million between mitigation and adaptation figures, due to both outcomes being attributed to a number of projects. This does not affect the total climate finance figure.

32 Source: EIB, interview with SEI, 2009

to finance a rather subjective exercise. Several of the BFIs have indicated that they are awaiting clarification on this issue from the OECD DAC's December meeting.

It is clear that, at present, financing of adaptation is significantly less than for mitigation. This may be partly a result of the perception (voiced by several of the participating institutions) that financing adaptation necessarily requires considerable grant funding and so is difficult to support with the predominantly debt and equity instruments available to BFIs. Another possible constraint flagged by the institutions is that effectively supporting adaptation may require a move away from the usual 'project focus' of finance institutions, towards more programmatic activities.

Of the activities included by BFIs under the "adaptation" label, to date most occur in the water sector. In 2008 KfW made available €400 million that supported adaptation outcomes. The Initiative for Climate and Environment Protection (described in s3.2) invests finance in urban drainage, integrated water resource management, flood protection, climate resistant infrastructure, conversion of agriculture and forestry. For the most part, KfW's "adaptation projects" make up a fraction of the water portfolio, mostly water system rehabilitation projects in the Middle East and North Africa.

JICA's financing of adaptation under the Cool Earth Partnership totalled around €1.5 million in 2008, provided as grants and/or technical assistance. JICA refers to disaster management, irrigation, potable water supply and forest management as example adaptation actions. Note that adaptation activities which are seen as commercially viable go through the Japanese export credit agency. JICA also points to supporting adaptation through its policy dialogues and 'climate proofing' activities.

In 2008 AFD made available €302 million towards activities that support adaptation outcomes. AFD finances adaptation projects in sectors including water and sanitation, energy, agriculture and natural resources. In 2008, most of those commitments were dedicated to the water and sanitation sector (72%), for water conservation as well as urban drainage systems. AFD has also financed agroecology, which increases soil resilience and promotes water conservation, as well as early warning systems for extreme weather events. In 2007, AFD financed an index-based insurance project in the Caribbean, which insures governments against catastrophic hurricanes by providing rapid, short-term support after such an event. In this example, AFD's finance is used to lower the insurance premiums paid by the governments.

EIB have not accounted for how much of its finance supports adaptation outcomes. Likewise, since adaptation is not part of NEFCO's mandate no attempt has been made to account for any possible adaptation outcomes achieved through its investment activity. It is likely, however, that some investments of both institutions inadvertently support adaptation.

3.2 Financial instruments

This section outlines the various funds and programs through which BFI finance is channelled in support of climate change outcomes. Again, carbon finance activities are not considered here.

The different 'pots' of finance that individual BFIs have available for funding projects which can reduce GHG emissions have been arranged according to the financial instrument(s) they use for delivering finance. The relative emphasis on different instruments to deliver finance to recipients – loans, soft loans, equity, grants and/or credit lines – varies between institutions. KfW indicate their breakdown to be roughly 25% equity, 18% grants and the remaining 57% as soft loans.

3.2.1 Grants

Generally, the amount of grant funding available through BFIs is low relative to other forms of finance.

Some is provided by KfW through the *International Climate Initiative* (see below under 'Mixed Instrument Funds').

The *Nordic Climate Facility* supports research and early stage development of "low carbon" projects. The NCF is jointly implemented by NEFCO, while its €4 million in finance (total amount for first call)

comes from the *Nordic Environmental Development Fund*. It provides grant funding in the order of €250,000 to 500,000 for climate projects in the “poorest countries of Asia, Africa and Latin America”. NEFCO also has a number of smaller avenues for providing grant finance, including the *Barents Hot Spot Facility* and the *Arctic Council Project Support Instrument*.

3.2.2 Lending

Unsurprisingly, lending makes up the majority of the participating institutions’ activities.

KfW draws funds from the *BMZ Initiative for Climate and Environment Protection (IKLU)* which is a facility that provides low interest loans as ODA to developing and emerging countries. It has a capitalisation of €2.4 billion until 2011, comprised of funds sourced from the German federal budget as well as capital markets. The minimum loan is normally €10 million. Priority is given to government and quasi-government institutions, though in some cases banks, private enterprises and project developers may also be deemed eligible. Broadly, it invests in “environmental and climate protection”. This includes renewable energy (e.g. wind, biomass, solar, geothermal and hydro), energy efficiency (e.g. energy production, transmission and distribution, and energy use by industry, commerce and households) and “energy saving mobility” (energy efficient transport systems such as rail and bus). BMZ decides on project eligibility, in consultation with KfW.

The *Facility for Energy Sustainability and Security of Supply* was established by EIB in June 2007. It has a multi-annual capitalisation of €3 billion funded from capital markets. Its global focus is on non-industrialised countries, providing finance for projects outside the EU that generate carbon credits which can then be acquired by EIB’s carbon funds. This facility supports EIB’s €500 million China Climate Change Framework Loan (CCCFL) signed in 2007, which focuses on emission reduction actions in the energy and industrial sectors as well as afforestation projects. Due to the small amount of EIB’s external mandate designated for Asia, the bank envisages a significant portion of this facility will be used in the Asia region.

AFD and JICA are pioneering a new approach in Indonesia, by providing budgetary support to the government in integrating climate change in its development strategy. The “Climate Change Program Loan” (CCPL) was designed in accordance with Indonesian national strategy on climate change and supports through budgetary aid a wide-ranging three-year action plan (policy matrix), which may be revised each year. So far, AFD have committed USD \$500 million to this initiative and JICA USD \$700 million. AFD intend to duplicate this experience in other major emerging economies.

NEFCO’s *Nordic Environmental Development Fund (NMF)* has total capital of approximately €50 million (2007), with a regional focus in Northwest Russia, Ukraine and Belarus. Within this fund, three facilities in particular are able to finance emission reduction projects – the *Revolving Facility for Cleaner Production* provides loans directly to enterprises implementing cleaner production programmes, while the *Eco-Efficiency Credit Facility* and *Energy Savings Credit Facility* support a range of small energy-efficiency investments.

3.2.3 Equity

EIB advises the *Global Energy Efficiency and Renewable Energy Fund (GEEREF)*, which was launched in December 2007. Of its overall investment finance of €150m, €80m is sourced from the EC. GEEREF provides equity finance for renewables and energy efficiency in order to attract private investment to these projects. It is sponsored by the European Commission, Germany and Norway with support from EIB and the *European Investment Fund (EIF)*, see below). Its geographic focus is essentially non-industrialised countries globally. Finance delivered through the GEEREF is registered as ODA by the OECD DAC. Priority is given to countries with policies that are “conducive to private sector engagement”.

3.2.4 Credit lines

The provision of credit lines has developed out of a recognition that the private sector is an important player in transforming economies and that local banks are often better suited to reaching decentralised small to medium scale projects.

KfW provides renewable energy and energy efficiency credit lines to commercial and government bank in many regions of the world. Partner banks are supported in developing and marketing their own retail loans products for small and medium sized enterprises and private households. Typically energy or emission savings of at least 20% are required for borrowers to become eligible for a concessional retail loan.

AFD currently provides credit lines for energy efficiency in Tunisia, China and Turkey.

3.2.5 Mixed instrument funds

JICA manages the *Cool Earth Partnership*, established in January 2008 with a capitalisation of USD \$10 billion (1,250 billion yen) over 5 years. USD \$2 billion is earmarked for adaptation to climate change and improved access to clean energy, providing grant aid and technical assistance, including aid through international organisations. The remaining USD \$8 billion is designated for assisting climate change mitigation. This includes the Climate Change Japanese ODA Loan (Cool Earth Loan), which is allocated up to roughly USD \$5.6 billion (500 billion yen) over 5 years, providing more favourable terms and conditions on lending than normal ODA loans (i.e. “preferential interest”). These loans are accounted for as ODA and can take the form of Project Loans (support government actions), Development Policy Loans (support government policies), Two Step Loans (support private sector actions), and Engineering Service Loans. Note that the *Cool Earth Partnership* was recently frozen by the new Japanese government and may soon be replaced by a new “Hatoyama Initiative”.

The *International Climate Initiative* (ICI) of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) has financed a range of KfW projects. It makes available €120 million annually, with funds originating from the auctioning of emission allowances for the EU ETS. It provides low interest loans and grants to developing, newly industrialising and transition countries to finance both mitigation (renewable energy, energy efficiency, carbon market development) and adaptation. The ICI has a focus on “flagship projects” which help to implement the Bali Roadmap.

The *NEFCO Investment Fund* has capital of approximately €114 million and a regional focus in northwest Russia, Ukraine, Belarus, Estonia, Latvia and Lithuania. It provides mainly equity investments, loans and/or guarantees to small and medium-sized projects, prioritising finance for projects that have substantial regional environmental effects, though some of these can also reduce GHG emissions.

AFD’s *French Global Environment Facility* (FGEF) has financed a total of 23 projects since 1994, to a total of €25 million in the form of grants to support pilot projects or initiatives related to climate mitigation and adaptation. Among these projects, the *Africa Assist Program*, implemented in partnership with the World Bank, supports the development of CDM in sub-Saharan countries. FGEF’s commitment to this initiative is €2.2 million.

3.2.6 EIB’s European-focused funds

It is useful to make passing reference to a number of other Europe-focused finance mechanisms managed by EIB. Although not part of the finance presented in section 3.1 nor a focus for this report, the experience of EIB with these models may be a valuable input to future expertise sharing between the institutions. Specifically:

- The *Risk Sharing Finance Facility*, signed in 2007, makes available up to €10 billion in total over the period 2007-13, with a maximum €50 million per project. This facility provides credit lines in the form of loans and guarantees to local financial institutions to be used for lending to Euro-

pean corporations for R&D, focusing on both large companies and SMEs. This finance is able to support projects with climate change benefits, for instance it has provided a €50 million loan to a solar thermal power station project in Spain. By the end of 2008, total finance of €1.48 billion had been requested, 30% of which was for energy sector projects.

- The *Clean Transport Facility* has in the past made lending of €2 billion per year available and the institution's Corporate Operational Plan for 2009-11 says lending could double to be €8bn over next 2 years. The facility targets automotive and other transport industries, their original equipment manufacturers and component suppliers. It supports GHG reductions through research, development and innovation expenditure as well as "tangible fixed assets in related infrastructure and production plants for cars, buses, trucks, ships, trains and aircraft" (for example, support for hybrid and hydrogen technologies).
- The *Covenant of Mayors* includes a €15m grant fund supporting urban energy efficiency (buildings, transport) and renewable energy projects, and also makes loan finance available, for instance a €200 million loan to a region in France for Solar PV panels.
- The *European Investment Fund* is managed by the risk capital arm of EIB. It provides equity instruments through venture capital to support high growth SMEs. The fund is owned by EIB (62%), the EC (29%) and 30 public and private banking institutions (9%). It can be used to finance climate change initiatives, though no clear funding amount for this purpose is apparent.
- The *Strategic Energy Technology Plan* is also a venture capital equity mechanism, expected to be released in late 2009 with the aim of accelerating the deployment of low carbon demonstration projects. It includes a focus on carbon capture and storage (CCS), renewables, 'clean' coal, smart grids and nuclear energy.
- EIB's Corporate Operational Plan for 2009-11 indicates a proposed new mechanism for energy, climate change and infrastructure, called *Marguerite*. It will provide a direct equity instrument to complement existing lending instruments. No funding amount is apparent.

3.3 Regional distribution of finance

Each of the participating institution's regional focus varies according to their mandate. Figures 3.1 to 3.3 show how climate finance from AFD, JICA, KfW and EIB is, collectively, distributed by region. The regional breakdown is first presented in total finance terms (Fig.3.1), then separated into mitigation (Fig.3.2) and adaptation (Fig.3.3). The corresponding data provided by each of the institutions individually is presented in Appendix A.

3.3.11 Total climate finance

The most obvious fact to notice in looking at how total BFI finance is collectively distributed is the very strong dominance of Asia (although the data is grouped together with Oceania, it is assumed that most of this is in fact directed to Asia). The coarse regional level at which this data is collated does not allow interrogation of whether this finance is spread across a wide range of Asian countries or instead concentrated in the larger emerging economies of China and India (a pattern observed in the CDM investment market).

It is also interesting to note the disproportionately low amount of finance disbursed to Latin America relative to other regions. Note that the French Overseas Territories have been separated out in the presentation of the data here because these are a dedicated focus for AFD, though other institutions may have included finance to these countries under other categories.

Both EIB and NEFCO have a rather different mandate to the three bilateral institutions and hence a very different regional focus, in both cases a much stronger emphasis on Europe and neighbouring countries. EIB's overall 'external mandate' which supports financing in developing countries totals €27 billion for 2007-13, though only a fraction of this supports climate-focused activities. Of this, €1 billion was officially designated for Asia, however to supplement this EIB raised another €3 billion

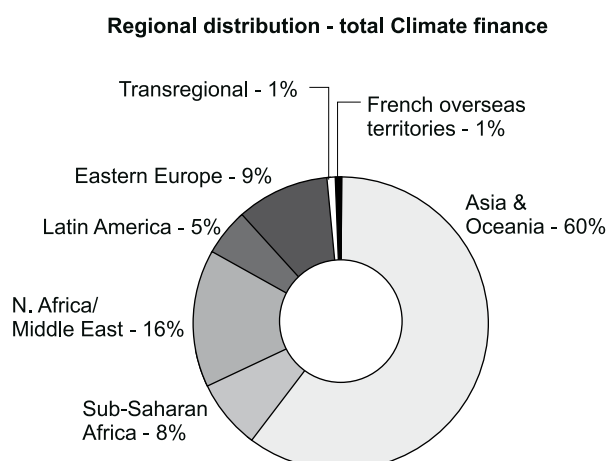


Figure 3.1: Regional distribution of total climate finance by BFIs + EIB
(based on 2008 financial commitments in €)

from the capital markets to support further activity in Asia³³. €2.8 billion of EIB's 2007-13 mandate is earmarked for Latin America. The majority of NEFCO investment is focused in Eastern Europe, particularly the Baltic countries, Russia, Ukraine and Belarus. NEFCO data has not been included in the figures presented here.

It would be valuable in future work to further break down the regional data, in order to illuminate the distribution of activity *within* major regions since the economic and social conditions, as well as climate finance needs, within a broad grouping such as "Asia and Oceania" are very diverse. In the case of private flows in the CDM market, for instance, investment is heavily concentrated in the large emerging economies of China and India while LDCs are receiving very little. Intuitively it may be expected that public mitigation finance is focused on major growing economies while adaptation finance is focused on the Least Developed Countries and most vulnerable regions. However, even the relatively coarse regional representation presented here suggests that, at least in the case of adaptation, this may not be true. It would therefore be particularly useful to illuminate more precisely where BFI finance is being delivered for both mitigation and adaptation.

Where BFI finance does not focus strongly on a particular region, there could be many explanations for this, and it would be useful to follow these up in further work. In terms of regional distribution, for instance, the fact that particular regions receive a lot or very little of BFI climate finance could relate to compatibility of the region's economic conditions with the particular financial instruments that BFIs have available (i.e. predominantly debt and equity), the availability of existing "project pipelines" in a region or by contrast difficulties identifying projects and project partners, the region's strategic importance from a bilateral relationship perspective, established BFI relationships and historical investment patterns, and so on. In the context of understanding and planning for future global financial flows for climate change in developing countries, these are important to understand. The same is true for patterns in the sectoral data presented in Section 3.4.

3.3.2 Mitigation finance

The regional distribution of finance supporting emission reductions, shown in Figure 3.2, is very similar to that for overall climate spending, not surprising given that mitigation finance makes up around 72% of the total climate figure. Mitigation finance is heavily concentrated in Asia, nearly two thirds of the total being disbursed in this region.

33 Source: EIB, interview with SEI, 2009

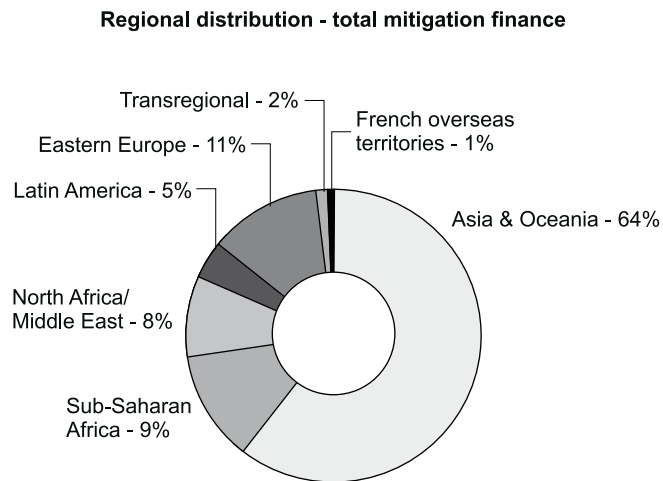


Figure 3.2: Regional distribution of total mitigation finance by BFIs + EIB (based on 2008 financial commitments in €)

3.3.3 Adaptation finance

While Figure 3.3 highlights that adaptation finance to Asia again dominates, an interesting point to note is that Sub Saharan Africa receives only a tiny fraction of total adaptation finance. Given that this region is likely to be one of the worst affected by climate changes and has a very low financial capacity to reduce its climate risks, it would be interesting in future work to understand why this is the case.

Relative to the overall climate picture, a much higher share of adaptation finance is made available to North Africa and the Middle East.

In the survey data provided, EIB did not designate any finance for adaptation, however this is highly unlikely to be a true reflection of current activity. For instance, EIB indicated in conversation with SEI that they fund projects in the water sector, and some of these are likely to be enhancing adaptation objectives.

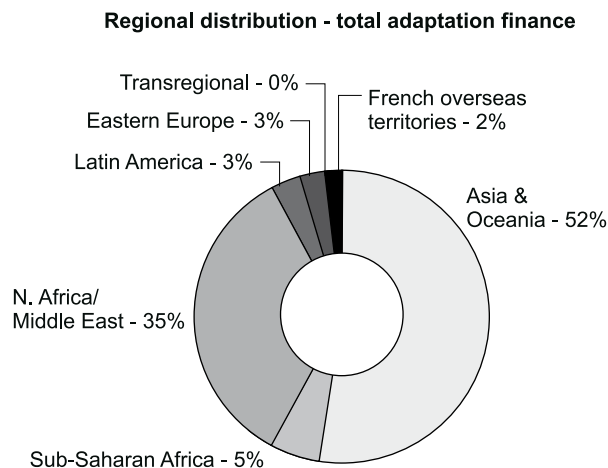


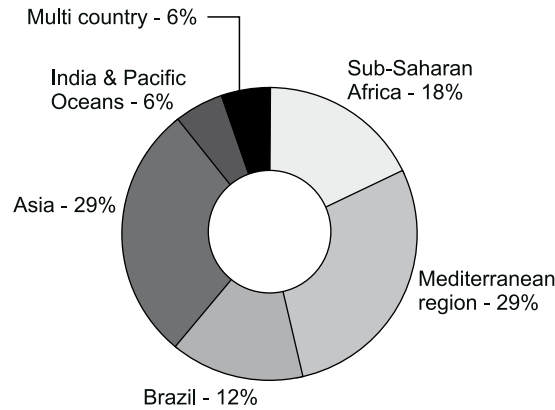
Figure 3.3: Regional distribution of total adaptation finance by BFIs (Based on 2008 financial commitments in €)

3.3.4 Comparison of total finance with project numbers

The picture of regional focus changes somewhat if the metric shifts from total financial commitments to total number of projects. Data provided by AFD illustrates this point (see Figure 3.4). The strong Asian focus evident in the total finance picture shrinks considerably when project numbers are

instead used as the basis for assessing regional activity. What emerges is a greater focus on Brazil and the French Overseas Territories. Relative activity in the Sub Saharan Africa and Mediterranean regions are relatively stable. This suggests that projects in Asia tend to be larger in size.

Regional breakdown by number of projects



Regional breakdown by total finance

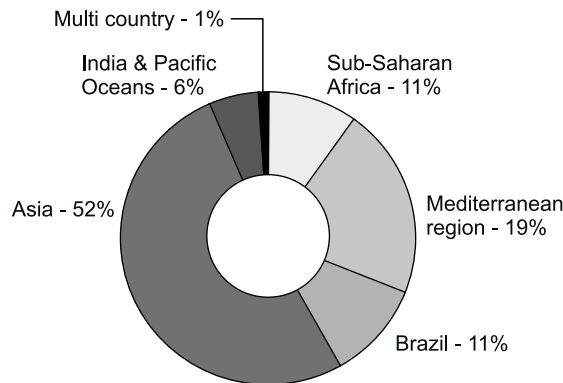


Figure 3.4: AFD regional focus –financial commitments versus project numbers, 2008

3.4 Sectoral distribution of finance

Figures 3.5 and 3.6 illustrate the sectoral breakdown of finance provided by the four institutions collectively, for mitigation and adaptation separately.

Some institutions have clear policies that guide activity into certain sectors. For instance, EIB’s Corporate Operational Plan 2009-11 includes a target that 20% of institutional finance be used to support renewable energy, including both the stationary energy and transport sectors. EIB has also implemented a policy of not investing in coal-fired power plants other than in “exceptional circumstances” (none have been financed since the policy was introduced)³⁴.

34 Source: EIB, interview with SEI, 2009

3.4.1 Mitigation

On the mitigation side, finance is unsurprisingly heavily focused on the energy sector. Based on the reporting breakdown provided by each institution, stationary energy alone makes up nearly half (47%) of total mitigation finance, although the true figure is actually higher than this since the vast bulk of the finance labelled “other” relates to either energy efficiency or renewable energy activities. When combined with the transport sector (34%), it is apparent that more than 90% of finance is focused on the energy sector.

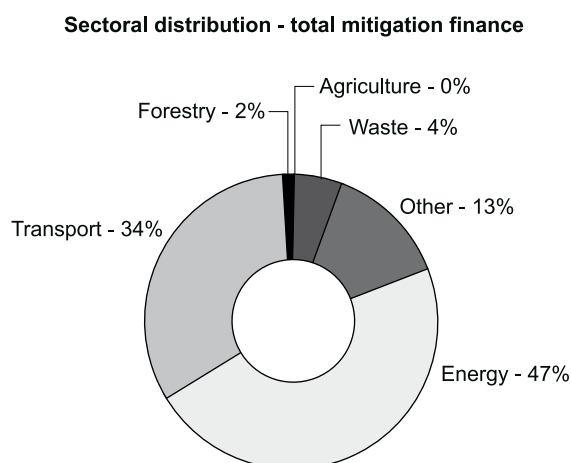


Figure 3.5: Sectoral distribution of mitigation finance by BFIs + EIB
(Based on 2008 financial commitments in €)

Interestingly, two sectors which are relatively significant sources of greenhouse gas emissions in the developing world – agriculture³⁵ and forestry – receive very little mitigation finance from the BFIs, reportedly due to low individual project volumes in these sectors.

Figure 3.6 illuminates the spread of mitigation finance within the stationary energy sector, with energy efficiency receiving the largest share (39%) ahead of renewable energy (29%).

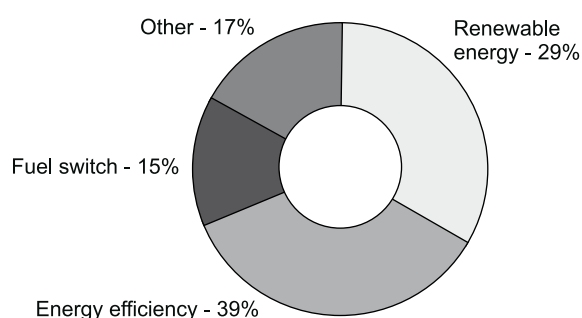


Figure 3.6: Breakdown in energy sector mitigation finance by BFIs

3.4.2 Adaptation

As already mentioned, the water sector makes up more than three quarters of total adaptation finance from BFIs. The strong focus on water sector projects could therefore be because BFIs have been con-

35 As an example, in India – the fourth or fifth largest emitter globally in terms of total GHG emissions – the agriculture sector makes up around a quarter of the country’s total emissions (MoEF, 2004). MoEF, 2004. India’s Initial National Communication to the UNFCCC, Ministry of Environment and Forests, Government of India, New Delhi.

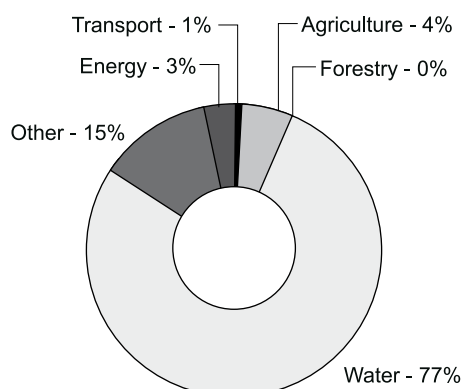
Sectoral distribution - total adaptation finance

Figure 3.7: Sectoral distribution of adaptation finance by BFIs

(Based on 2008 financial commitments in €)

servative in reporting adaptation finance in other sectors, due to uncertainty about what to call ‘adaptation’. It could alternatively reflect greater willingness to engage on water-related projects because these are better understood than other sectors such as agriculture or health. It could further be that the water sector is well suited to the type of funding instruments that BFIs have available.

Again, agriculture and forestry are not strongly featured despite these being particularly vulnerable to climate changes and likely to be sites of adaptation.

Several important sectors from an adaptation perspective, notably infrastructure, coastal protection and health, are not clearly visible in the categories used in collection of the data. The same is the case for important activities such as disaster response planning and livelihood diversification.

3.5 Carbon finance

As described earlier, the term ‘carbon finance’ is used to refer to the purchase of emission reduction credits from the carbon market, typically through either the Joint Implementation (JI) or Clean Development Mechanism (CDM) under the UNFCCC’s Kyoto Protocol.

KfW, EIB and NEFCO have been active participants in various carbon funds. The intention in pooling finance within managed carbon funds is to increase market liquidity and participation, and in doing so drive down the cost of carbon credits and thereby lower overall costs for parties in complying with their emission reduction obligations. For credit buyers, such as domestic industries who are required to purchase credits under the European Union Emission Trading Scheme (EU ETS), this carbon brokering role can lower transaction costs, which is particularly useful for small and medium sized parties. For credit sellers, it also plays an important role in providing a more certain flow of finance for CERs. When emission reduction certificate purchase agreements are signed in advance (i.e. during project development and approval), the high credit rating of the multilateral and bilateral finance institutions provides a greater guarantee that carbon finance will in fact be delivered once the project is up and running. This is particularly important in this period of uncertainty about the post-2012 environment where the eligibility of different types of credits as well as Annex I obligations are somewhat uncertain.

There are several reasons for analytically separating carbon finance from other investment activities. Firstly, the BFIs do not necessarily contribute finance to these funds, and where they do it is in the form of temporary capital commitments to bridge between an emission right purchase and a sale transaction. The institutions acting as trustees of carbon funds or operating purchase programmes typically do not take positions in the market, i.e. they do not permanently invest their own money.

Also distinguishing carbon finance from the other climate finance discussed in previous sections is that its role is almost always the purchase of emission reduction credits that are subsequently used by Annex I parties to meet their GHG obligations. In other words, it plays a role in deepening the carbon market, which is valuable for both buyers and sellers, however it does not achieve additional climate change outcomes beyond the emission reduction commitments already made by Annex I countries. Carbon finance will therefore not be seen as “new and additional” finance for developing countries under a future global climate agreement.

The other point of difference is that, depending on the individual fund, some carbon finance is purely transactional: i.e., it procures carbon credits from the market after a project has already been developed and is operating. In such cases it does not play a direct role in catalysing a project. It is not the case, however, that all carbon finance has no influence in catalysing an individual project. Where up-front finance is provided or guaranteed, through emission reduction purchase agreements for instance, this essentially plays a similar role to other forms of up front finance supplied through investment fund loans etc.

A list of the carbon funds established by, or involving, the institutions participating in this study is presented in Table 3.3. Overall, approximately €900 million have so far been committed to these funds by government and private sector buyers³⁶.

Table 3.3: Carbon funds involving AFD, JICA, KfW, EIB and NEFCO

Fund	Institutions	Total capitalisation
EIB-KfW Carbon Program	KfW, EIB	First tranche: €88 million Second tranche (May 2009): €100 million
KfW Carbon Fund	KfW	First tranche (2006): €80 million Second tranche (2008): €100 million
Post 2012 Carbon Credit Fund	EIB, KfW	€125 million
Multilateral Carbon Credit Fund	EIB	€190 million
Carbon Fund for Europe	EIB	First tranche: €50 million
Fonds Capital Carbone Maroc	EIB	Target capitalisation of €26.5 million
Baltic Sea Testing Ground Facility (TGF)	NEFCO	Total fund capital: €35m (as of March 2006). Half public, half private.
NEFCO Carbon Fund (NeCF)	NEFCO	€100.6 million (as of June 2009)

EIB is a partner in five different carbon funds, which together have made around €479m Euro available (though this is not all EIB’s contribution). EIB is not the implementing agency for any of these funds, so decisions are outsourced. The Fonds Capital Carbone Maroc focuses on equity participation.

NEFCO was not only one of the first institutions to move into carbon finance outside the World Bank (with the TGF, initiated in 2003) but also one of the first fund managers to have established a fund specifically targeting both the Kyoto and the post Kyoto crediting periods (the NeCF, initiated in April 2008). Both NEFCO funds use a Public Private Partnership approach. The NeCF acts as buyer of ERUs/CERs/AAUs on the basis of emission reductions purchase agreements concluded with project owners, giving priority to large projects. The fund’s principal target markets are the Russian

³⁶ In most cases there are other institutions also involved – for example, the Post 2012 Carbon Credit Fund also involves Caisse des Dépôts, Instituto de Crédito Oficial and the Nordic Investment Bank.

Federation, Ukraine, China, South East Asia and India, although other regions may also be considered. The NeCF procures credits from CDM projects in the post-Kyoto period up to the maximum of the first crediting period of the project (7 or 10 years).

KfW is involved in three separate funds. In June 2009 KfW signed a memorandum of understanding with the Andean Development Corporation (CAF) with the purpose of reinforcing their CDM cooperation in Latin America and Caribbean.

JICA provides some non-ODA finance under the World Bank's Prototype Carbon Fund, not for the purpose of purchasing carbon credits but instead to assist developing countries in accessing the CDM market. In this sense it plays a role in capacity building to support the implementation of the carbon market in developing countries.

AFD is not currently involved in carbon finance but is considering future contribution to this activity.

In addition to administering finance, several institutions also offer technical support for projects in order to enable access to carbon market revenues (as distinct from project support, this relates more to the work needed to be completed so that a project can be registered to earn credits). For example:

- EIB provides technical support via the Climate Change Technical Advisory Facility (CCTAF).
- KfW indicates it is prepared to "provide financial support for measures such as the preparation of project related documents and other costs related to CDM and JI projects".³⁷
- NEFCO's NeCF and TGF provide coverage of carbon related project preparation costs.

3.6 Climate risk assessment and climate proofing of all investment

The Asian Development Bank defines "climate proofing" as:

a shorthand term for identifying risks to a development project, or any other specified natural or human asset, as a consequence of climate variability and change, and ensuring that those risks are reduced to acceptable levels through long-lasting and environmentally sound, economically viable, and socially acceptable changes implemented at one or more of the following stages in the project cycle: planning, design, construction, operation, and decommissioning.³⁸

The extent to which the BFIs undertake climate risk assessment and actively "climate proof" their wider investment activities appears to date rather limited. It is apparent that the BFIs are at a very early stage in making climate risk assessment and climate proofing an integral part of their business activities. However, some important steps have been taken:

- AFD is developing a manual for assessing project vulnerability to projected climate changes. When implemented it should improve project design by integrating future climate constraints. Their aim is to combine this manual with a geographic tool that can overlay regional climate impacts.
- KfW Development Bank is currently implementing the German BMZ climate risk screening approach, "Climate Proofing". It will soon be used to screen all German aid investments, including those made by KfW.

Several institutions have implemented methods to assess the emissions associated with the projects they finance:

- As a pilot during 2009, EIB calculated the absolute and relative carbon footprint of all directly financed projects with emissions exceeding 20,000 tCO₂e/yr, and plans to systematically apply this procedure from 2010 onwards. Also, from September 2009 EIB includes a shadow carbon price in all its project assessments;

37 KfW, survey response, 2009

38 Asian Development Bank (2005)

- AFD measures projected emissions using its Bilan Carbone (AFD Carbon Footprint) tool. The bank uses this tool to calculate the overall emissions associated with every project it finances (except those where AFD involvement is in the form of financial intermediation or budget support), as well as emission reductions. Its main indicators are tCO₂ emitted annually, tCO₂ avoided annually, and amount (€) invested in projects per tCO₂ avoided.
- KfW Development Bank is currently implementing the “Emission Savings” approach of the German BMZ in order to maximise the emission savings of its loans portfolio. In this spirit it reports annual emission savings from all its energy efficiency and renewable projects. From its 2008 financing commitment in this sector it expects savings of 56 MT CO₂ over the lifetime of the measures, corresponding to a cost-effectiveness of € 4.7 of public budget allocation per tonne of CO₂ equivalent avoided.

These latter efforts are essentially a means of assessing climate *policy* risks (i.e. the risk that future climate policy frameworks could impose a carbon cost on the project’s activities) rather than physical risks arising from climate change itself. Incorporating a shadow carbon price should have the effect of both reducing the bank’s financial exposure to shifts in climate policy as well as shift lending away from carbon-intensive projects.

4 MEASURING EFFECTIVENESS

This brief section discusses some of the barriers highlighted by participating finance institutions to more significant engagement in climate financing, and illuminates some of the methods used for measuring the effectiveness of their climate work. Although not an exhaustive list of barriers and options for assessing effectiveness, observing both is a useful exercise as a basis for productive future collaboration within the WG-BFI.

4.1 Difficulties and barriers

During preparation of this report, the institutions have each pointed to various barriers which constrain their ability to support climate objective. These can be broadly summarised into a number of categories.

4.1.1 Lack of capacity among recipient countries

BFIs have highlighted a lack of support and/or capacity on the recipient country (developing country) side as a barrier. In order for low-carbon energy projects to be viable vehicles for BFI investment, the host country must have both the willingness to take on the incremental costs associated with the low-carbon option over more traditional, carbon intensive options, as well as domestic policy measures which make the low-carbon approaches more cost competitive – either market instruments which subsidise clean energy or tax carbon-intensive energy sources. Views expressed by the BFI’s suggest that domestic policies supporting renewables in developing countries are often weak or absent.

Alternatively, effective international mechanisms (e.g. carbon market measures such as CDM) can play a role in incentivising clean energy, though the carbon market to date has not been effective in reaching certain technologies (notably solar energy). In other words, there are still financial barriers to improving the viability of investments in clean energy.

Capacity constraints in recipient countries have also been raised as a barrier, including slow government procedures. This refers specifically to the ability to assess and approve projects, and represents a constraint in the project pipeline and “deal flow”.

The difficulties associated with making investments in the poorest of developing countries was also raised. Investment risks are perceived to be often highest in these countries, for instance due to the threat of political turmoil, which means returns on investments must be higher than elsewhere if investors are to be attracted.

4.1.2 Information

Information is also an important barrier. With respect to mitigation, it has been suggested that the development of mitigation cost curves at a country level would improve the effectiveness with which the available finance can be used and help BFIs maximise climate outcomes.

Project promoters are often either unaware of climate change implications or not concerned (i.e. it is not a major priority for them) and commonly have a low capacity to evaluate the climate change impacts of a project. As a result, BFIs face challenges during discussions about project design in cases where the BFI may want to pursue a low-emission option.

4.1.3 Financing adaptation

Particularly in relation to adaptation, BFIs expressed the view that there is a lack of commercial adaptation projects. The view among the institutions is that adaptation projects will often require grant funding, and since this type of resource is in short supply the opportunity to work with adaptation is limited. Increased awareness about the full scope of potential adaptation actions and some clear examples of how these can be supported with debt, for instance, could help foster greater engagement by financial institutions generally.

There are also difficulties accounting for the benefits arising from adaptation projects, since these are not clearly defined. As discussed, it is difficult to identify the benefits separately from ODA, which creates difficulties not only in interpreting how much finance is supporting adaptation but in identifying adaptation co-benefits that might make projects more attractive for financiers.

4.2 Tools for measuring the effectiveness of climate financing

In the past, the key metric used by finance institutions, as well as by UN-administered funds such as the GEF, to monitor and measure their climate activity has been the total volume of finance provided (or in some cases, committed). Alternative metrics such as the cost-effectiveness of climate-related actions in reducing emissions, or total GHG emission reductions, or attempts to quantify adaptation outcomes are, on the whole, less utilised.

However, various initiatives among the BFIs point at additional metrics which could be used in future to improve analysis of their effectiveness in supporting climate change outcomes.

Several institutions are currently developing ‘climate footprinting’ tools, which will provide a platform for mitigation benefits (GHG reductions) to be assessed from a *cost effectiveness* perspective. For instance, as mentioned in section 3.6:

- KfW is currently implementing “Climate Check”, a tool jointly developed with GTZ and BMZ. From September 2009 Climate Check will be applied by the bank as a screening tool for all development projects, so that climate risks and emission reduction potentials can be factored into all investment decisions.
- AFD measures projected emissions, emissions savings and cost per tonne of emissions saved using its Bilan Carbone (AFD Carbon Footprint) tool.

Another measure of the effectiveness of climate finance could be to look at the *amount of co-financing leveraged*. NEFCO has compiled information for its lending activities that estimates how much co-finance is leveraged in different sectors (renewable energy, energy efficiency, methane, landfill gas). A summary is presented in Table 4.1.

Table 4.1: NEFCO – Leveraged investment in different sectors³⁹

Emissions reductions activity	Percentage investment leveraged
Renewable energy	5 to 10%
Methane	More than 50% (best case scenario)
Energy efficiency	Up to 90%
Landfill gas	More than 100%

AFD's presentation of *total project numbers* alongside total financial outlays (see section 3.3) is also useful and can complement other indices of effectiveness. This could be especially useful for adaptation, as there is no uniform metric for quantifying benefits.

None of these metrics identifies innovation in financing, i.e. new financial models that are developed to support projects with climate change benefits. If BFI case studies highlighting innovative finance delivery were compiled, this would be valuable not only in showcasing the work of the BFIs themselves but also in influencing the climate-focused work of other financial institutions, both public and private.

A future work stream within the WG-BFI could look at sharing methodologies, such as those supporting the indicators outlined above, and developing a range of common metrics to be used when assessing the effectiveness of climate finance activities.

5 FUTURE EXPECTATIONS AND OPPORTUNITIES FOR BFIS

It is clear that BFIs occupy a significant place within the picture of climate change finance to developing countries, both in the scale of finance they deliver and also in the experience they have accumulated in terms of delivery modes. This section identifies potential opportunities for future cooperation among BFIs, as well as options for communicating their potential contribution to the future climate change financing architecture under a post-2012 agreement.

5.1 Key messages

1. *There exists an opportunity to increase public awareness of the significant role being played by BFIs in financing climate change projects, particularly in relation to developing and emerging economies. Raising awareness among policy makers, as well as within the broader environment and development communities, is particularly important during the UNFCCC negotiations about a future architecture for climate change financing.*
2. *It will be increasingly important for all institutions that provide finance for mitigation and adaptation activities in developing countries, including BFIs, to report these financial flows as separate from conventional development cooperation finance, which is reported as ODA. How finance is to be accounted is a key question in lead up to the COP15 negotiations, and is likely to be important going forward. The clear expectation among developing countries is that industrialised countries will provide "new and additional" finance for climate change mitigation and adaptation. Although on the ground it is clear that the same set of activities may have both climate and development benefits, reporting of finance can not simply be double counted against existing aid budgets and climate commitments. A UNFCCC registry has been proposed under the UNFCCC, and would facilitate this process.*

³⁹ Rough estimates for NEFCO's current activities, taken over an average period of five years. Figures sourced from SEI interview with NEFCO, 2009.

3. *There is a need to increase awareness, both within BFIs and project developers, of the opportunities for supporting adaptation activities.* At present financial support for adaptation through BFIs is significantly lower than for mitigation. This is partly because there appears to be a general lack of awareness about the full range of adaptation activities that are needed – for instance, most BFI adaptation activities are reported in the water sector. It is also partly because of a perception amongst the BFIs that adaptation does not provide commercial opportunities and hence can only be supported through grants – whereas, there will in fact be various opportunities to use other financial instruments, for instance loans to developing country governments, as some examples outlined in Section 3.2 already do⁴⁰. While the activities themselves may not always be commercial from a project perspective, there may still be commercial opportunities from a finance perspective. The UNFCCC and other organisations such as UNEP can take a lead role in raising awareness within financial institutions about the spectrum of adaptation projects and in identifying opportunities to support adaptation not only with grants but also commercial finance.
4. *There is an opportunity to use the informality of the current Working Group for productive collaboration between institutions.* While the OECD DAC already provides a forum for donor governments and the BFIs to collaborate and harmonise activities, it has a number of clear weaknesses. Firstly, not all of the institutions participating in this study are represented in the DAC (neither NEFCO nor EIB are involved), and although there are some structural differences between NEFCO, EIB and the three BFIs, there is also considerable common ground and there would seem to be benefit in collaborating as a group. Secondly, the DAC is a highly formal – and hence politicised – forum. This can have a constraining effect on efforts to collaborate. By contrast, the informal nature of the WG-BFI could make it a highly effective forum for collaboration and exchange and a genuinely valuable opportunity to accomplish things which may otherwise be too difficult to achieve through the DAC. It also enables different kinds of expertise to be harnessed, for instance the experience of UNEP and other UN agencies, private financial institutions, and so on.
5. *There is scope to better understand how multilateral and bilateral activities complement one another in financing mitigation and adaptation.* As this paper presents an initial attempt to understand the scale as well as the sectoral and regional place occupied by BFIs, it is hoped their role can now be more easily understood vis-à-vis multilateral actors.

5.2 Future activities of the BFI Working Group

On the basis of the information compiled for this Working Paper, a number of potential productive work streams emerge that should be taken up within the WG-BFI:

1. *Refine the existing data collection and reporting methods.* A more fine-grained breakdown of regional spending, for instance, would be particularly valuable to better illuminate the spread of finance between recipients. One interesting distinction would be the relative amounts being disbursed to larger emerging economies compared to the Least Developed Countries and Small Island Developing States, particularly with respect to adaptation finance. This kind of information would be extremely valuable in helping both industrialised countries and developing countries understand practical issues relating to scaling up climate finance, and in particular the roles that different kinds of institutions and funds will likely play in different regions.
2. *Create a broader range of metrics for measuring the effectiveness of the contributions of finance institutions to climate change outcomes.* This can help to inform the respective discussions on measurable, reportable, and verifiable (MRV) actions under the UNFCCC:

40 As another example, the World Bank has used finance from its Green Bonds initiative to provide a USD \$500 million loan to the government of Mexico for a range of climate activities, some of which appear to be adaptation related.

3. *Build case studies of innovative financial models that have been used to support climate change projects.* These should illuminate not only project information but also *project financing* information.
4. *Bring adaptation financing into greater focus.* The opportunities for financing institutions, like the BFIs, to engage with financing adaptation appears to be much less understood than for mitigation. Therefore, in addition to work through the OECD DAC to develop practical definitions of adaptation for financial accounting purposes, it would also be highly valuable to further develop both institutional knowledge about adaptation opportunities as well as case studies illuminating what kinds of financial instruments have been used for what kinds of adaptation projects. The BFIs could play an important role here in influencing private finance institutions.
5. *Collaboration on climate risk assessment and climate proofing methodologies and tools.* Some institutions are further developed than others with respect to incorporating climate risks into decision making, and there would be great value in harmonising efforts across the various institutions once a certain level of experience has been achieved by the pilot users.

REFERENCES

- Asian Development Bank (2005) *Climate Proofing: A Risk Based Approach to Adaptation*. Pacific Studies Series. <http://www.adb.org/Documents/Reports/Climate-Proofing/climate-proofing.pdf>.
- German Parliament (2009) *Antwort der Bundesregierung auf die Grosse Anfrage der Abgeordneten Jürgen Trittin, Winfried Nachtwei, Volker Beck (Köln), weiterer Abgeordneter und der Fraktion BÜNDNIS 90/DIE GRÜNEN*. Drucksache 16/10386 - Zur Energieaussenpolitik der Bundesregierung, Deutscher Bundestag, Drucksache 16/13276, 28 May 2009,
- Klein, R.J.T (2001) *Adaptation to Climate Change in German Official Development Assistance: An Inventory of Activities and Opportunities, with a Special Focus on Africa*. Eschborn: Deutsche Gesellschaft für Technische Zusammenarbeit.
- Klein, R.J.T., Eriksen, S.E.H., Næss, L.O., Hammill, A., Tanner, T.M., Robledo, C. and O'Brien, K.L. (2007) Portfolio screening to support the mainstreaming of adaptation to climate change into development assistance. *Climatic Change*, 84(1), pp. 23–44.
- McGray, H. et al. (2007) *Weathering the Storm: Options for Framing Adaptation and Development*, World Resources Institute Report.
- Neuhoff, K., Fankhauser, S., Guerin, E., Hourcade, J.C., Jackson, H., Rajan, R. and Ward, J. (2009) *Structuring International Financial Support to Support Domestic Climate Change Mitigation in Developing Countries*, published by Climate Strategies, September 2009.
- OECD (Organisation for Economic Cooperation and Development) (2006) A Declaration on Integrating Climate Change Adaptation into Development Co-operation. Development and Environment Ministers of Member Countries, April 2006. <http://www.oecd.org/dataoecd/44/29/36426943.pdf>
- OECD (2009) *Joint High-level Meeting of the OECD Development Assistance Committee and the Environment Policy Committee, Policy Guidance on Integrating Climate Change Adaptation into Development Co-operation*. Paris.
- OECD and IEA (International Energy Agency) (2009) *Financing Climate Change Mitigation: Towards a Framework for Measurement, Reporting and Verification*, by Corfee-Morlot, J., B. Guay and K. Larsen.
- Persson, Å., Christiansson, Y. and Klein, R.J.T. (forthcoming), *Mainstreaming climate adaptation into ODA: an overview of bilateral donors' practices*.
- Persson, Å., Klein, R.J.T., Kehler-Siebert, C., Atteridge, A., Müller, B., Hoffmaister, J., Lazarus, M. and Takama, T. (2009) *Adaptation Finance under a Copenhagen Agreed Outcome*, Stockholm Environment Institute, Stockholm.
- Porter, G., Bird, N., Kaur, N., and Peskett, L. (2008) *New Finance for Climate Change and the Environment*, WWF and Heinrich Böll Stiftung, July 2008.
- Tomonori, S. (2009) *Greening Recovery*. Background paper for conference on the “The impact of the Global Economic Slowdown on Poverty and Sustainable Development in Asia and the Pacific”, September 2009, Hanoi.
- UNEP (2009) *Catalysing Low Carbon Growth In Developing Economies: Public Finance Mechanisms to Scale Up Private Sector Investment in Climate Solutions*.
- UNFCCC (2009a) *Fulfilment of the Bali Action Plan and components of the agreed outcome*, note by the Chair, FCCC/AWGLCA/2009/4 (Part I), <http://unfccc.int/resource/docs/2009/awglca5/eng/04p01.pdf>.
- UNFCCC (2009b) *Fulfilment of the Bali Action Plan and components of the agreed outcome*, note by the Chair, FCCC/AWGLCA/2009/4 (Part II), <http://unfccc.int/resource/docs/2009/awglca5/eng/04p02.pdf>.
- UNFCCC (2009c) *Investment and Financial Flows to Address Climate Change: An update*. http://unfccc.int/resource/docs/publications/financial_flows_update_eng.pdf.

World Bank (2008) *Development and Climate Change: A Strategic Framework for the World Bank Group*. The World Bank Group, Washington, DC.

World Bank (2009) *World Development Report 2010: Development and Climate Change*.

APPENDIX A: INSTITUTIONAL FINANCE SUPPORTING CLIMATE CHANGE OUTCOMES

This Appendix provides the institutional-level data on regional and sectoral distribution of climate finance that underpins the summaries presented in Sections 3.3 and 3.4 respectively.

The data presented in the following tables was provided by the institutions to SEI in spreadsheet form. In some cases the data was given in percentages of total finance, in which case it has been converted here into Euros.

Regional distribution

Table A1: Total climate finance disbursed by region (Euros, 2008)

Region	Total finance	AFD	JICA	KfW	EIB
Asia & Oceania	4868583000	539650000	3449394000	705060000	174479000
Sub-Saharan Africa	653482000	189105000	-	179340000	285037000
N. Africa/ Middle East	1283440000	373100000	695340000	215000000	-
Latin America	387826000	174500000	61266000	152060000	-
Eastern Europe	705464000	-	-	419980000	285484000
Transregional	115470220	7470220		108000000	
French overseas territories	93056000	93056000	-	-	-

Table A2: Total mitigation finance disbursed by region (Euros, 2008)

Region	Total mitigation finance	AFD	JICA	KfW	EIB
Asia & Oceania	3711091000	466000000	2445552000	625060000	174479000
Sub-Saharan Africa	543727000	107350000	-	151340000	285037000
N. Africa/ Middle East	482930000	274050000	186480000	22400000	-
Latin America	314528000	174500000	31968000	108060000	-
Eastern Europe	637464000	-	-	351980000	285484000
Transregional	114500000	6500000		108000000	-
French overseas territories	46000000	46000000	-	-	-

Table A3: Total adaptation finance disbursed by region (Euros, 2008)

Region	Total adaptation finance	AFD	JICA	KfW	EIB
Asia & Oceania	1157492000	73650000	1003842000	80000000	-
Sub-Saharan Africa	109755000	81755000	-	28000000	-
N. Africa/ Middle East	800510000	99050000	508860000	192600000	-
Latin America	73298000	-	29298000	44000000	-
Eastern Europe	68000000	-	-	68000000	-
Transregional	970220	970220	-	-	-
French overseas territories	47056000	47056000	-	-	-

Sectoral distribution

Table A4: Total mitigation finance disbursed by sector (Euros, 2008)

Sector	Total finance	AFD	JICA	KfW	EIB
Energy	2732471000	680551000	546120000	850800000	655000000
Transport	1966300000	379000000	1486500000	100800000	
Agriculture	13250000	13250000			
Forestry	97310000	1500000	34630000	11200000	49980000
Water	-	-	-	-	-
Waste	251500000		229100000	22400000	
Other	784430000		367630000	376800000	40000000

Table A5: Total adaptation finance disbursed by sector (Euros, 2008)

Sector	Total finance	AFD	JICA	KfW	EIB
Energy	68566000	68566000	-	-	-
Transport	16000000	-	-	16000000	-
Agriculture	100639000	5079000	75560000	20000000	-
Forestry	9079000	5079000	-	4000000	-
Water	1704267000	222807000	1173460000	308000000	-
Waste	-	-	-	-	-
Other	345950222	970222	292980000	52000000	

Table A6: Distribution of mitigation finance in the energy sector (Euros, 2008)

Sector	Total finance	AFD	JICA	KfW
Renewable energy	592346046	146600046	63936000	381810000
Energy efficiency	830321723	142551723	239760000	448010000
Fuel switch	301424000	59000000	242424000	-
Other	353680097	332500097	-	21180000

SEI - Africa
Institute of Resource Assessment
University of Dar es Salaam
P.O. Box 35097, Dar es Salaam
Tanzania
Tel: +255-(0)766079061

SEI - Asia
15th Floor, Witthayakit Building
254 Chulalongkorn University
Chulalongkorn Soi 64
Phyathai Road, Pathumwan
Bangkok 10330
Thailand
Tel+(66) 22514415

SEI - Oxford
Suite 193
266 Banbury Road,
Oxford, OX2 7DL
UK
Tel+44 1865 426316

SEI - Stockholm
Kräfftriket 2B
SE -106 91 Stockholm
Sweden
Tel+46 8 674 7070

SEI - Tallinn
Lai 34, Box 160
EE-10502, Tallinn
Estonia
Tel+372 6 276 100

SEI - U.S.
11 Curtis Avenue
Somerville, MA 02144
USA
Tel+1 617 627-3786

SEI - York
University of York
Heslington
York YO10 5DD
UK
Tel+44 1904 43 2897

The Stockholm Environment Institute

SEI is an independent, international research institute. It has been engaged in environment and development issues at local, national, regional and global policy levels for more than a quarter of a century. SEI supports decision making for sustainable development by bridging science and policy.

sei-international.org

ISBN 978-91-86125-20-2