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Review of the experience of international funds, multilateral financial institutions and other sources of funding relevant to the current and future investment and financial needs of developing countries

Technical paper

Summary

This technical paper provides an overview of the practices of the following multilateral development banks (MDBs) in supporting climate-relevant sectors: the African Development Bank, the Asian Development Bank, the World Bank (International Bank for Reconstruction and Development and International Development Association), the European Investment Bank, the Inter-American Development Bank and the European Bank for Reconstruction and Development. Information on the International Finance Corporation, the branch of the World Bank that provides private-sector support, is also included.

The findings and analyses presented in this paper are based on inputs provided by MDBs, data from the Organisation for Economic Co-operation and Development Creditor Reporting System system, and information available in a background paper prepared by the UNFCCC secretariat, which covers an assessment of the investment and financial flows needed in 2030 to meet worldwide mitigation and adaptation requirements under different scenarios of social and economic development.

Chapter II of the paper provides an overview of current and future needs of investment and financial flows to address climate change in developing countries, by referring to some key conclusions of the UNFCCC background paper. This is followed by an overview of practices and activities undertaken by the different international financial institutions. Chapter IV analyses lending by MDBs to different sectors relevant to mitigation and adaptation actions, and chapter V summarizes the conclusions.

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I. Introduction

Mandate and scope

1. This technical paper has been prepared in response to the request by the Conference of the Parties to the secretariat (decision 2/CP.12) to review the experience of international funds and multilateral financial institutions and other sources of funding that is relevant to address current and future investment and financial needs of developing countries for the purposes of meeting their commitments under the Convention.
2. The findings and analyses presented in this paper are based on information available in a background paper¹ prepared by the United Nations Framework Convention on Climate Change (UNFCCC) secretariat, which covers an assessment of the investment and financial flows which will be needed in 2030 to meet worldwide mitigation and adaptation requirements under different scenarios of social and economic development, as well as on inputs provided by multilateral development banks (MDBs).
3. This paper should therefore be read in conjunction with the UNFCCC background paper. Since many sources of investment and financing are already addressed in the background paper (e.g. official development assistance (ODA) in general, foreign direct investment (FDI), and international borrowing), this paper focuses on lending by international financial institutions (IFIs), and more specifically MDBs,² to climate-relevant sectors.
4. The analyses presented here are based on commitments of loans and grants by the MDBs. The banks covered by this study are the African Development Bank (AfDB), the Asian Development Bank (ADB), the World Bank (International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA)), the European Investment Bank (EIB), the Inter-American Development Bank (IDB) and the European Bank for Reconstruction and Development (EBRD). Information on the International Finance Corporation (IFC), the branch of the World Bank that provides private-sector support, is also included.
5. The paper presents both information provided by the MDBs on their lending (most recent data available) and a summary of trends in lending based on the Creditor Reporting System (CRS) of the Organisation for Economic Co-operation and Development (OECD). The CRS has been used to analyse trends in lending (grants, loans and equity) by sector during the period 1995–2005 by development banks and donors. The CRS was chosen as it is the only official source that tracks bilateral and multilateral flows into developing countries by sector.
6. Since the sectors reported by the CRS need not match the sectors reported by donors or institutions, and given the data gaps and inconsistencies identified in the time-series analysis of MDBs' lending, the results presented here should be considered as indicative and as being intended to allow

¹ UNFCCC. 2007. "Background Paper on Analysis of Existing and Planned Investment and Financial Flows Relevant to the Development of Effective and Appropriate International Response to Climate Change". Available at <http://unfccc.int/cooperation_and_support/financial_mechanism/items/4053.php>.

² MDBs are institutions created by a group of countries that provide financing and professional advice for the purpose of development. MDBs have large memberships including both developed donor countries and developing borrower countries. MDBs finance projects in the form of long-term loans at market rates (close to the London Inter Bank Offer Rate (LIBOR) – see note 6) and soft loans (also known as credits) below market rates, and through grants. The MDBs covered in this paper are the World Bank and the large regional development banks. The paper does not cover sub-regional MDBs.

some preliminary conclusions to be drawn on the scope, pattern and trend in investments relating to mitigation and adaptation.

7. Chapter II of this paper provides an overview of some of the key conclusions of the UNFCCC background paper with regard to investment and financial flows to address climate change in developing countries. This is followed by an overview of practices and activities undertaken by different IFIs. Chapter IV analyses the lending by multilateral development banks to different sectors relevant to mitigation and adaptation action, and chapter V summarizes the conclusions. Annex I summarizes the MDBs' activities by sector and region. Technical terms used in this paper are defined in annex II, and annex III provides references to sources.

II. Overview of investment and financial flows needed for mitigation and adaptation in 2030, in particular in developing countries

8. The UNFCCC background paper on analysis of existing and planned investment and financial flows relevant to the development of an effective and appropriate international response to climate change concludes that the additional global investment and financial flows needed in 2030 to address climate change are large compared with the funding currently available under the Convention and its Kyoto Protocol, but small in relation to their share in estimated global gross domestic product (GDP) (0.3–0.5 per cent) and global investment (1.1–1.7 per cent) in 2030.

9. In many sectors the lifetime of capital stock can be 30 years or more. The fact that total investment in new physical assets is projected to triple between 2000 and 2030 provides a window of opportunity to direct the financial and investment flows into new facilities that are more climate-friendly and resilient. The investment decisions taken today will affect the world's emission profile in the future.

10. Particular attention needs to be given to developing countries. Although they currently account for only 20–25 per cent of global investments, their expected rapid economic growth means that they will require a large share of future investment and financial flows.

11. **With regard to mitigation of climate change**, globally, USD 200–210 billion investment and financial flows from all sources (private and public, domestic and international) will be needed in 2030 to bring greenhouse gas (GHG) emissions back to the current level. About USD 65 billion of this total will be needed in the developing countries. The investment involves the energy, industry, building, waste, agriculture and forestry sectors.

Table 1. Additional investment and financial flows needed from all sources (private and public, domestic and international) for key mitigation sectors in 2030
(billions of 2005 United States dollars)

Sector	Non-Annex I Parties
Energy supply by low GHG emission options ^a	77
Energy efficiency improvement	52
Non-CO ₂ gases	2
CCS for industry	11
Agriculture and forestry	34

Source: Adapted from: UNFCCC. 2007. "Background paper on analysis of existing and planned investment and financial flows relevant to the development of effective and appropriate international response to climate change".

Abbreviations: CCS = carbon dioxide capture and storage.

^a The USD 77 billion reported in this table is the additional investment that would be needed for renewables, CCS, nuclear power and hydropower. Investment for coal-, oil- and gas-fired generation and transmission and distribution are estimated to be reduced by USD 80 billion. For more detailed information please refer to the UNFCCC background paper, tables 11 and 39.

12. The entities that make the investment decisions are different in each sector and the policy and/or financial incentives needed vary accordingly. While currently most of the investment in mitigation measures is domestic, ODA plays an important role in developing countries, in particular in Africa and the least developed countries (LDCs). With appropriate policies and/or incentives, a substantial part of the additional investment and financial flows needed could be covered by the current sources. However, there will be a need for new and additional external sources of funds dedicated to mitigation in developing countries.

13. **With regard to adaptation to climate change**, the additional global investment and financial flows from all sources (private and public, domestic and international) needed to adapt to climate change by 2030 could be tens of billions of dollars by 2030.³ The change in investment and financial flows for adaptation that will need to occur in developed and developing countries varies by sector. As table 2 shows, a significant share of the additional investment and financial flows will be needed in non-Annex I Parties (USD 28–67 billion).

Table 2. Estimated additional investment and financial flows needed from all sources (private and public, domestic and international) for adaptation in 2030

(billions of 2005 United States dollars)

Sectors	Non-Annex I Parties
Agriculture, forestry and fisheries	7
Water supply	9
Human health	5
Coastal zones	5
Infrastructure	2–41

Source: Adapted from: UNFCCC. 2007. “Background paper on analysis of existing and planned investment and financial flows relevant to the development of effective and appropriate international response to climate change”.

14. Private sources of funding can be expected to cover a portion of the adaptation costs in sectors (such as agriculture, forestry and fisheries (AFF) and infrastructure) with privately owned physical assets, in particular in developed countries. However, public resources will be needed to implement policies or regulations to encourage the investment of private resources in adaptation measures, especially in developing countries. Public domestic resources will be needed to cover adaptation costs related to climate change impacts on public infrastructure in all countries.

15. The background paper concludes that additional external public funding will be needed for adaptation measures. Such additional funding will be needed in particular for sectors and countries that are already highly dependent on external support, for example in the health sector in LDCs, or for coastal infrastructure in developing countries that are highly vulnerable to a rise in sea level. Current mechanisms and sources of financing are limited and it is likely that new sources of funding will be required.

III. Overview of current investment and financial flows

16. Most investment (75–80 per cent) occurs in Annex I Parties. Globally, corporations are responsible for about 60 per cent of total investment, but this varies from 50 per cent to 75 per cent in different regions, with Africa at the low end and developing Asia at the high end. Households, individuals, farmers and small businesses are responsible for 26 per cent of global investment, ranging from 20 per cent in developing countries to 30 per cent in OECD countries. Governments are responsible for 14 per cent of total investment, ranging from 10 per cent in some regions to 25 per cent in

³ UNFCCC. 2007. “Background Paper on Analysis of Existing and Planned Investment and Financial Flows Relevant to the Development of Effective and Appropriate International Response to Climate Change”, chapter 5.

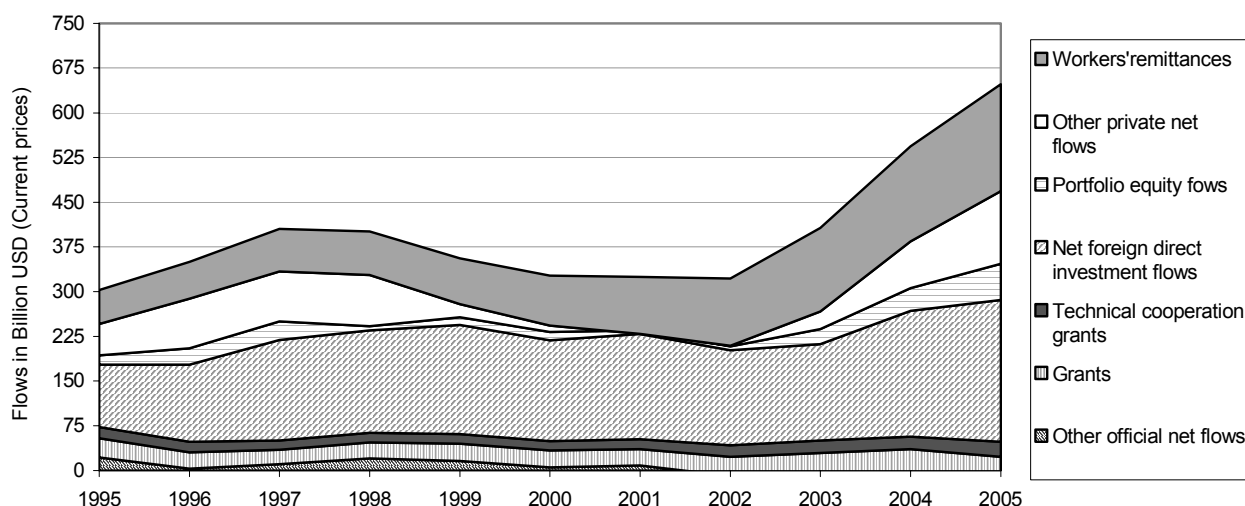
Africa. Summaries of total current investment flows in 2000 by sector and region are provided in tables 17 and 18 in annex I.

17. Globally, about 60 per cent of total investment comes from domestic sources, and about 20 per cent each from FDI and international debt. The domestic share ranges from 20 per cent in the European Union (EU) countries to 90 per cent in Africa and the Middle East. Domestic sources account for most of the funds invested in almost every sector and region. FDI tends to be invested in mining, including oil and gas production; manufacturing; and financial services. Only small amounts of FDI are invested in agriculture, forestry and construction.

18. Most of the investment that developing countries receive from external sources is from the private sector.⁴ Figure 1 provides the trend in external financing in developing countries, which shows that FDI is the most important source of external financing for developing countries, far larger than official bilateral and multilateral inflows.

19. The multilateral and bilateral sources, though small, continue to be crucial sources of external financing for developing countries, typically being used by the governments to finance economic and social infrastructure. MDBs could play a key role in mainstreaming, optimizing and mobilizing adequate resources from public and private sources to support climate-resilient and low-carbon investments in developing countries.

Figure 1. Trend in external financing in developing countries



Source: World Bank, 2007h.

Note: See annex II for definitions of terms.

20. Table 3 shows total cumulative lending by the development banks during the period 1995–2005 by all the sectors that are reported in the CRS. The climate-relevant sectors are listed individually; the miscellaneous sectors shown in the last row of the table are excluded from the analyses.

⁴ UNFCCC. 2007. “Background Paper on Analysis of Existing and Planned Investment and Financial Flows Relevant to the Development of Effective and Appropriate International Response to Climate Change”, chapter 3.

Table 3. Lending by multilateral development banks in developing countries for all sectors in selected years*(millions of 2005 United States dollars)*

Sector	1995	2000	2005	Annual average (1995–2005)	Share (percentage)
Education	3 405	1 750	2 550	2 463	6
Health	1 262	1 446	1 328	1 395	3
Water supply and sanitation	2 967	1 496	2 645	2 125	5
Transport and storage	4 585	4 209	6 969	5 550	14
Communication	441	80	248	220	1
Energy generation and supply	4 422	2 707	2 707	3 095	8
Agriculture	2 672	3 360	2 464	2 559	6
Forestry	101	53	125	134	0.3
Fishery	85	6	2 120	67	0.2
Industry	845	747	2 414	1 089	3
Mineral resources and mining	25	342	405	222	1
General environmental protection	5 614	1 014	319	696	2
Urban and rural development	1 380	883	1 439	1 235	3
Reconstruction relief and rehabilitation	0	269	2 497	569	1
Disaster prevention and preparedness	0	0	660	60	0.1
Emergency response	122	189	0	226	1
Miscellaneous (business, tourism, trade, budget support, debt relief and government services)	37 389	32 733	37 273	18 620	46
Total	65 316	51 285	66 162	40 326	100

Source: OECD, 2007.

IV. Practices of the multilateral development banks in supporting activities relevant to climate change

21. MDBs aim at social and economic progress (to eliminate poverty and support sustainable development) through lending, grant and country-assistance strategies that support different infrastructure projects and policy reform activities in their developing member countries. MDBs make loans at commercial rates to governments (and government entities) in medium-income member countries, and grants to governments and government entities in low-income countries. The EBRD, EIB and IFC provide only limited grants.

22. The World Bank has the largest investment among the MDBs. In 2006, the IBRD and the IDA approved loans and grants totalling USD 23.6 billion. Together the other MDBs committed a similar amount: the ADB, AfDB, EBRD and IDB committed USD 7.4 billion, USD 3.47 billion, EUR 4.9 billion and USD 6.4 billion, respectively, in 2006. In the same year, the IFC committed USD 6.7 billion from its own account and the EIB, as a lending bank of the EU, approved in total EUR 45.7 billion, of which EUR 5.9 billion was invested outside the EU.

23. All the banks recognize the importance of supporting the mitigation of, and adaptation to, climate change. There has been a growing interest on the part of the MDBs in developing individual climate change strategies and integrating climate change considerations into their lending activities, such as those

of the EBRD and EIB. In the World Bank and the EBRD, climate change has been considered part of the environmental appraisal for lending projects.

24. The July 2005 Gleneagles communiqué on climate change of the Group of Eight industrialized countries (G8) requested the World Bank and the regional development banks to take a leadership role in developing a framework for clean energy and development, including investment and financing. The purpose of this framework is to be a vehicle to accelerate investments to address developing countries' energy needs, mitigate GHG emissions and support developing countries in adapting to climate variability and risk. This also provides an opportunity for all MDBs to consolidate their strategies and actions to address climate change. The joint efforts by MDBs on the Clean Energy and Development Investment Framework (CEDIF) should help to develop a more comprehensive strategy to address climate change within each MDB.

25. Reflecting the different priorities in their business strategies, the focal areas to address climate change vary between the different banks. The focus on climate change seems to have increased in the last two years and is reflected in newly formed dedicated funds for mitigation projects, adaptation initiatives and capacity-building and information-sharing activities.

26. In most of banks the climate change issue is managed by staff in clean energy, energy efficiency or other sustainable development units. Specific units in charge of carbon financing have been established in the World Bank, EIB and EBRD.

A. The World Bank

1. Introduction

27. The World Bank is a development institution owned by the 185 member governments. Each member government is a shareholder of the Bank. The number of shares a country has is based roughly on the size of its economy. The Bank, which has been providing financial and technical assistance to developing countries around the world, comprises five separate entities:

- (a) The **IBRD** aims to reduce poverty in middle-income and creditworthy poorer countries by promoting sustainable development through loans and guarantees and, in the non-lending area in analytical and advisory services;
- (b) The **IDA** helps low-income countries to reduce poverty by providing low interest loans and grants for programmes that boost economic growth, reduce inequalities and improve people's living conditions;
- (c) The **IFC** promotes private-sector investment by supporting high-risk sectors and countries;
- (d) The **Multilateral Investment Guarantee Agency** provides political risk insurance (guarantees) to investors in and lenders to developing countries;
- (e) The **International Centre for Settlement of Investment Disputes** settles investment disputes between foreign investors and their host countries.

28. Each institution plays a different but supportive role in the mission of global poverty reduction and the improvement of living standards (World Bank, 2007a). This section considers the World Bank (the collective name of the IBRD and the IDA). The IFC is discussed in section G of this chapter.

29. The **IBRD** raises most of its money from capital markets. It sells bonds and other debt securities to pension funds, insurance companies, corporations, other banks and individuals around the world.

Because they have the backing of almost all the governments of the world, IBRD bonds have the highest credit rating, which enables the World Bank to borrow on good terms. Generally, this advantageous position and the World Bank's non-profit status mean that its loan rates are lower than those on commercial loans.

30. The **IDA** is funded largely by contributions from the governments of its richer member countries. Additional funds come from IBRD and IFC income and from borrowers' repayments of earlier IDA credits.⁵ Donors meet every three years to replenish the IDA's funds and review its policies (World Bank, 2007a).

31. The World Bank uses gross national income (GNI) per capita in US dollars to classify countries and determine borrowing eligibility.

32. The **IBRD** lends only to sovereign governments or for projects guaranteed by sovereigns. It offers loans at an interest rate close to the London Inter Bank Offered Rate (LIBOR)⁶ with more time to repay than a commercial bank would allow – typically 15–20 years with a three-to-five-year period of grace before repayment of the principal begins. IBRD borrowers are generally considered to be middle-income countries, that is countries with a per capita income between USD 875 and USD 10,276 in 2005. A growing number of IBRD borrowers have some access to private capital markets (BIC, 2007a). Net loan disbursements by the IBRD to middle-income countries at market rates have fallen in recent years⁷ whereas net loan disbursements by the IDA to low-income countries at concessionary rates continue to rise (World Bank, 2007g).

33. The **IDA** provides loans with minimum interest charge of about 0.5 per cent and grants to the poorest member governments of the World Bank, that is, the low-income countries with an annual per capita income of less than USD 875. These governments have been assigned credit ratings so low that they are unable to borrow from commercial lenders or from the main lending arms of the MDBs. **IDA loan** repayments are stretched over 35–40 years, including a 10-year period of grace. The IDA complements the IBRD and they evaluate projects to the same rigorous standards. "IDA is one of the largest sources of assistance for the world's 80 poorest countries, 39 of which are in Africa" (World Bank, 2007a).

34. The IBRD and IDA have two basic types of **lending instruments** – investment loans and development policy loans (World Bank, 2007f):

- (a) **Investment loans.** The World Bank provides investment loans for a wide range of activities aimed at creating the physical and social infrastructure necessary for poverty alleviation and sustainable development. The investment lending has, on average, accounted for 75–80 per cent of all Bank lending. To ensure satisfactory performance, the loan agreement may include disbursement conditions for specific project components;
- (b) **Development policy loans** (previously known as "structural adjustment" loans). The World Bank provides support for economic, institutional or other policy reforms. Eligibility for a development policy loan also requires agreement on monitorable policy

⁵ The money the IDA lends on concessional terms is also termed "credits".

⁶ LIBOR is a daily reference rate based on the interest rates at which banks offer to lend unsecured funds to other banks on the London wholesale money market (or interbank market). LIBOR will be slightly higher than the London Interbank Bid Rate (LIBID), the rate at which banks are prepared to accept deposits.

⁷ The Economist in its 20–26 October 2007 edition ("A Stitch in Time") reports that "The World Bank's traditional customers, such as Latin American governments, borrow less than they did and find less bothersome creditors in the private markets" (p. 106).

and institutional reform actions, and satisfactory macroeconomic management. Coordination with the International Monetary Fund (IMF) is an essential part of the preparation of a development policy loan.

35. The **World Bank guarantee instrument**⁸ is designed to help private investors in developing countries gain access to a wider range of private lenders and to borrow at lower cost. Guarantees are issued to private lenders to cover risks arising from non-performance of sovereign contractual obligations or from force-majeure aspects of a project. This is a partial guarantee, meaning that private lenders still bear other project risks.

2. Strategies and policies relevant to addressing climate change

36. The World Bank's climate change strategy is part of its overall Environmental Strategy.⁹ The Bank intends to help developing countries identify and implement "win-win" actions that bring economic, local environment and climate change benefits. As mentioned in the strategy, the Bank's support to clients is focused on three themes:

- (a) Mitigation of GHG emissions;
- (b) Reducing vulnerability and adapting to climate change;
- (c) Capacity-building.

37. With these three themes the Bank seeks to mainstream climate change concerns in its development dialogue with its clients. In doing so, it envisages the use of three main financing instruments (World bank 2007a):

- (a) IBRD/IDA lending;
- (b) Global Environment Facility (GEF) and donor grant support;
- (c) Carbon financing.

38. The Bank's energy sector lending is blended with GEF grant resources, with the latter covering the incremental costs of adopting clean and energy-efficient technologies such as the costs associated with barrier removal, capacity-building and institutional strengthening. The Bank sees carbon financing as a major instrument for the large-scale replication and market expansion of low-carbon emission technologies (World Bank, 2007a).

39. In March 2007 the World Bank presented to its Development Committee an action plan on the CEDIF, which includes a number of priorities and strategic support activities to be undertaken by the Bank in the area of climate change, including the following:

- (a) Further development and implementation of sector strategies for energy efficiency, renewable energy and transport;
- (b) Implementation of low-carbon projects funded by the IBRD, IDA, IFC, GEF, and carbon finance, often together, and with an emphasis on leveraging the private sector;

⁸ This guarantee instrument is different from the one offered by the Multilateral Investment Guarantee Agency (MIGA).

⁹ The World Bank Environmental Strategy, issued in 2001, recognizes that the livelihoods of poor people and their nations' prospects for sustained economic growth are intimately linked to the state of the environment (World Bank, 2001, appendix F).

- (c) A series of country case studies for the “G8+5” countries (the G8 plus Brazil, China, India, Mexico and South Africa) to assess the opportunities to promote the transition to a low-carbon economy, followed by the development of a set of action plans for potential implementation;
- (d) Facilitation of the further development of the carbon market, and innovative ways of combining existing financial instruments. A follow-up progress report on the Bank Group’s action plan was prepared in September 2007.

3. Specific activities and initiatives related to climate change mitigation

40. The majority of the Bank’s activities in GHG mitigation projects are co-financed by the GEF or by purchasing project-based GHG emission reductions through its various carbon funds. The projects are expected to be increasingly mainstreamed into the Bank’s operations as it gains experience with such projects and the costs of some clean technologies decline. However, the Bank sees the challenge as balancing local and global environmental impacts related to energy¹⁰ against the priority development needs of the countries.

41. The World Bank assists its clients in mitigating GHG emissions in the following areas (World Bank, 2007a):

- (a) Renewable energy for rural areas to improve energy access for household lighting, water pumping, grain processing, small cottage industry, rural health centres and schools;
- (b) Management reforms, energy efficiency improvements, and fuel switching for municipal heating systems;
- (c) Reducing the energy intensity of the transport sector through land-use planning, traffic management, the promotion of non-motorized transport, and more efficient technologies;
- (d) Forest regeneration through community participation;
- (e) Cultivation of experience with these approaches and technologies as a basis for attracting future financing flows under the clean development mechanism (CDM).

42. The World Bank manages 10 carbon funds and two facilities comprising public and private participants (World Bank, 2007f):

- (a) The **Prototype Carbon Fund** has pioneered the market for project-based GHG emission reductions while promoting sustainable development;
- (b) The **Community Development Carbon Fund** provides carbon finance to projects in poorer areas of the developing world that combine community development with investment in clean energy;
- (c) The **Bio-Carbon Fund** focuses on projects that sequester or conserve carbon in forest and agro-ecosystems, while promoting biodiversity conservation and poverty reduction;

¹⁰ The World Bank considers that energy growth is critical for economic development and poverty alleviation and that accelerating access to affordable, modern energy for the poorest is critical to meeting the Millennium Development Goals. The Bank identifies that there is currently a large financing gap in the energy sector – about USD 65 billion a year, or about 40 per cent of the actual needs for electricity generation in the developing countries.

- (d) The **Netherlands CDM Facility** supports projects in developing countries that generate potential credits under the CDM framework of the Kyoto Protocol;
- (e) The **Netherlands European Carbon Facility** purchases emission reductions from joint implementation (JI) projects located in countries with economies in transition;
- (f) The **Italian Carbon Fund** facilitates opportunities for the private and public sectors in Italy to participate in projects that generate cost-effective emission reductions and the transfer of clean technology;
- (g) The **Danish Carbon Fund** purchases emission reductions that generate potential credits under the CDM and JI mechanisms of the Kyoto Protocol;
- (h) The **Spanish Carbon Fund** promotes projects that contribute significantly to the sustainable development of developing countries and countries with economies in transition;
- (i) The **Umbrella Carbon Facility** is an aggregating facility that pools funds from World Bank-managed carbon funds and other participants to purchase emission reductions from large projects;
- (j) The **Carbon Fund for Europe** assists European buyers of emission reductions in meeting their compliance needs. The fund is jointly managed by the World Bank and the EIB; it purchases emission reductions that generate potential credits under the CDM and JI mechanisms of the Kyoto Protocol.

43. The Bank's Board of Executive Directors recently approved two new carbon facilities, which are both aimed at the post-2012 period and are set up as a partnership between the sellers (governments and private entities from Bank client countries) and the buyers of emission reductions:

- (a) The **Carbon Partnership Facility (CPF)** focuses on supporting programmes that generate emission reductions from long-term investments, mainly in the post-2012 period. The CPF seeks to scale up carbon finance with a view to helping catalyse a transformation towards a lower-carbon development path in sectors and countries. The Bank aims to support the development strategies of its client countries. The facility is planned to be launched in the first half of 2008;
- (b) The **Forest Carbon Partnership Facility (FCPF)** focuses on helping developing countries with tropical and subtropical forests to tackle deforestation and forest degradation. It includes a readiness mechanism that will assist these countries to develop and implement plans that will lead to lower emissions from forest loss. It also includes a pilot mechanism that will make payments for emission reductions from reduced forest loss. The FCPF is expected to be launched in December 2007 the thirteenth session of the Conference of the Parties (COP 13) in Bali.

44. Other World Bank activities related to climate change mitigation include:

- (a) The **Energy Sector Management Assistance Program**, which helps build consensus and provide policy advice and technical assistance on sustainable energy development to the governments of developing countries and countries with economies in transition;
- (b) The **Asia Alternative Energy Program**, which provides assistance in renewable energy and energy efficiency project identification, preparation and supervision in Asia;

- (c) The **Global Gas Flaring Reduction** programme, helping oil-producing countries and companies to increase the utilization of natural gas, which will otherwise be flared or burned and thus will harm the environment;
- (d) The **Transport Strategy**. The Bank's forthcoming Transport Strategy update recognizes that the strong connection between economic growth and transport-generated GHG emissions can be moderated over time by changes in travel behaviour, logistics decisions, technology choices and modes of transport.

4. Specific activities/initiatives related to climate change adaptation

45. The Bank is focusing on climate-change impact concerns in sectors such as water, agriculture, forestry and the management of coastal zones. The Bank is also in the process of developing internal and client capacity to perform vulnerability assessments, assist regional institutions in forecasting impacts, raise awareness of long-term consequences, and mobilize additional financing for responding to climate vulnerability challenges. The Bank has worked with a few of its most vulnerable clients (low-lying islands in the Caribbean and Pacific, mountain zones in Latin America, and rural areas in South Asia) to assess adaptation options in the context of their development plans.

46. The Bank's focus over the medium term is on improving the understanding of the development risks associated with climate change impacts, assessing risk-mitigation measures, and identifying and implementing adaptation responses to reduce vulnerability to current climate and climate change. The Bank is also discussing with its partners ways of starting now to achieve development that is sustainable and resilient to climate variability – or “climate-proofing” its development investments.

47. The Bank has begun piloting the inclusion of adaptation components within development projects (e.g. in the management of arid lands and agriculture) by actively implementing GEF adaptation grants; has established an insurance facility to help countries cope with natural disasters such as hurricanes; and is developing tools and guidance to allow project managers to screen proposed projects for potential climate risk and to implement response measures.

5. Specific activities/initiatives on capacity-building related to climate change

48. Examples of capacity-building activities related to climate change supported by the Bank include (World Bank, 2007a):

- (a) **Carbon Finance Assist (CF-Assist)**, which aims to build the capacity of various stakeholders in developing countries to enable them to participate effectively in the carbon market through CDM and JI projects. The programme incorporates knowledge gained from the Bank's experience as a trustee of carbon funds, and ongoing dialogue with members of the Bank's Host Country Committee on Carbon Finance. CF-Assist currently assists over 45 countries with resources generated from direct donor contributions and the income from some of the carbon funds;
- (b) **Adaptation and vulnerability**. Plans are being developed through the World Bank Institute for a programme of activities to build and maintain capacity to adapt to the impacts of climate variability and climate change in individual economic sectors, especially the water–agriculture nexus, and to disseminate tools and approaches for integrating adaptation into development policies and actions. The programme aims to work with other partners and incorporate the knowledge and experience being gained both within and outside the Bank.

6. Institutional arrangements to support activities addressing climate change

49. ***Organizational programmes/units in charge of climate change in the World Bank.***

- (a) The **Sustainable Development Network (SDN)**. The key areas such as energy, water, transport, oil, and mining, together with the environment, social development and agriculture, have been integrated into the SDN since June 2006. The integration is designed to increase synergies and effectiveness and brings sustainability to the forefront of the Bank's development agenda. The SDN combines responsibilities across all areas – from the biggest cities to the smallest towns, at the global, national and local levels by contributing to sustainable economic growth and also minimizing the impact of natural disasters and climate risk in developing countries (World Bank, 2007a);
- (b) The **Climate Change Team**. The Bank has a special Climate Change Team under the Environment Department which is also a part of the SDN. The Climate Change Team provides resources and expertise for the World Bank's participation in international climate change negotiations under the Convention and provides technical advice to the World Bank's GEF programme on the preparation of GEF climate change mitigation projects in energy efficiency and renewable energy and on the development of strategic initiatives with the GEF. The Team also leads the Bank's efforts related to climate change vulnerability and adaptation issues for its client countries (World Bank, 2007a);
- (c) The **operational entity of the GEF**. The Bank considers that GEF is the largest source of grant financing for climate change-related activities, with cumulative commitments through the Bank of more than USD 1 billion since 1992. The Bank finds evidence of emerging market transformation towards increased use of renewable energy in certain sectors in specific countries. The Bank also has a portfolio of GEF-co-financed urban transport projects that are focused on public transport, traffic demand management and non-motorized transport. However, the Bank identifies that the GEF's resource levels, accompanying funding strategies and business model are not adequate to meet the investment needed to support the shift to a low-carbon economy;
- (d) The **Carbon Finance Unit (CFU)**. Both the IBRD and the IFC have CFUs which use money contributed by governments and companies in OECD countries to purchase project-based GHG emission reductions in developing countries and countries with economies in transition. The emission reductions are purchased through one of the various carbon funds managed by the Bank on behalf of the participants in the fund.

50. ***Existing coordination effort in the banks to address climate change.*** The World Bank is working together with the other MDBs to identify areas for collaboration in the climate change area. Key partners include the ADB, AfDB, EBRD, EIB and IDB. The Bank identifies possible areas for joint work: these include assessment of portfolio GHG emissions, sharing experiences to enable programmes to be scaled up in sectors such as energy, forestry and transportation, and collaboration to develop a more ambitious and coherent set of "adaptation products" (investment and policy) designed to leverage each other's strengths.

51. The Bank is also focusing on reducing present-day climate vulnerability through the implementation of "no regrets" measures and closer coordination with its Disaster Management Facility (World Bank, 2007a).

7. Overview of lending and grants relevant to addressing climate change

52. Environment and Natural Resources Management (ENRM) is one of 11 thematic groups of the Bank. Climate change is one of the themes under the ENRM group (World Bank, 2007a).

53. World Bank lending in fiscal year (FY) 2006 by thematic group shows that the ENRM accounts for only about 6 per cent of total lending of about USD 24 billion. The pollution management and environmental health theme accounts for the largest share of the active ENRM portfolio (34 per cent) with another 27 per cent focused on the water resource management theme (World Bank, 2007a). It is not clear from the data how much of the World Bank's lending was devoted to the climate change theme but it appears to be quite small (less than about 40 per cent in the ENRM thematic group lending, or less than 2.5 per cent of total Bank lending).

54. ***Commitments by the IBRD and the IDA in sectors relevant to climate change mitigation.*** Tables 4 and 5 provide an overview of lending by IBRD and IDA to sectors relevant to climate change mitigation. The sectors include those that by their very nature are likely to reduce GHG emissions (e.g. renewable energy and energy efficiency) and sectors with a substantial emissions impact.

55. About 30 per cent of the total commitment of both the IBRD and the IDA during the period 1995–2005 was to sectors relevant to mitigation, most of which was for transport, followed by energy and agriculture. The IBRD has lent an annual average of about USD 4.8 billion to sectors relevant to mitigation during this period whereas the IDA lent about USD 2.3 billion per year.¹¹

¹¹ All time series data are expressed in United States dollars (USD) and adjusted to 2005 USD. The inflation adjustment factors (GDP deflator) used for the conversion were obtained from the United States Bureau of Labour Statistics, <<http://www.bls.gov/cpi/>>.

Table 4. International Bank for Reconstruction and Development (IBRD) lending to sectors relevant to climate change mitigation, percentage of total commitment

Sector	1995 (percentage)	2000 (percentage)	2003 (percentage)	2006 (percentage)	Cumulative 1995–2006 (percentage)	Annual average (million 2005 USD)
Agriculture	1.8	1.9	1.9	3.1	3.4	544
Forestry	0.0	0.5	0.6	0.8	0.3	52
Energy and mining	12.3	10.6	4.5	11.7	9.2	1 471
District heating and energy efficiency services	0.7	2.1	0.3	0.6	0.8	130
Power	10.9	7.0	3.5	9.4	7.4	1 191
Renewable energy	0.1	0.0	0.0	1.0	0.4	62
General energy sector	0.6	1.6	0.7	0.8	0.6	88
Industry	2.3	6.3	1.2	0.3	1.9	298
Agro industry	0.1	0.0	0.0	0.0	0.3	45
Petrochemical and fertilizers	0.0	0.0	0.1	0.0	0.1	10
Other industry	2.0	2.8	0.4	0.1	0.8	134
Housing construction	0.3	3.5	0.7	0.1	0.7	109
Transportation	14.2	10.6	15.1	15.0	15.3	2 446
Roads and highways	6.0	9.6	13.8	12.4	11.0	1 763
Ports, waterways and shipping	1.9	0.4	0.0	0.6	0.7	108
Aviation	0.0	0.0	0.0	0.0	0.2	29
Railways	3.1	0.0	0.1	0.3	1.4	226
General transportation sector	3.2	0.5	1.2	1.7	2.0	320
Solid waste management	0.7	0.3	0.5	0.4	0.2	39
Total share of sectors relevant to mitigation in total IBRD commitment	31.3	30.2	23.8	31.3	30.3	4 849
Total IBRD commitment, all sectors (million 2005 USD)	20 627	12 309	11 899	13 739	192 230	16 019

Source: World Bank, 2007d.

Table 5. International Development Association (IDA) lending to sectors relevant to climate change mitigation, percentage of total commitment

Sector	1995 (percentage)	2000 (percentage)	2003 (percentage)	2006 (percentage)	Cumulative 1995–2006 (percentage)	Annual average (million 2005 USD)
Agriculture	9.4	4.6	2.4	6.1	6.0	468.91
Forestry	1.4	0.5	1.3	0.2	0.7	53.45
Energy and mining	11.0	6.9	5.8	9.5	8.5	661.0
District heating and energy efficiency services	0.1	0.0	0.0	0.3	0.1	9.4
Power	2.4	1.3	1.1	0.3	1.6	124.5
Renewable energy	8.0	5.2	4.1	7.6	6.2	482.1
General energy sector	0.5	0.4	0.7	1.2	0.6	45.0
Industry	3.7	0.8	0.4	3.3	2.0	157.0
Agro industry	0.7	0.2	0.0	0.4	0.3	21.6
Petrochemical and fertilizers	1.9	0.0	0.0	0.0	0.2	12.1
Other Industry	1.0	0.5	0.3	0.5	0.5	37.9
Housing construction	0.0	0.2	0.1	2.3	1.1	85.3
Transportation	4.9	13.0	14.2	11.5	12.0	936.9
Roads and highways	3.0	8.9	8.9	7.2	9.2	713.5
Ports, waterways and shipping	1.2	1.6	0.1	0.4	0.6	48.3
Aviation	0.1	0.0	0.3	0.4	0.2	17.6
Railways	0.3	0.6	0.4	1.4	0.5	42.7
General transportation sector	0.3	1.8	4.5	2.0	1.5	114.7
Solid waste management	0.4	0.2	0.0	0.1	0.1	10.7
Total share of sectors relevant to mitigation in total IDA commitment	30.7	26.0	24.1	30.8	29.4	2 287.9
Total IDA commitment, all sectors (million 2005 USD)	6 939	4 913	7 716	9 240	93 487	7 791

Source: World Bank, 2007d.

56. *Commitments by the IBRD and the IDA in the sectors relevant to climate change adaptation.* Tables 6 and 7 provide an overview of lending by the IBRD and IDA to sectors relevant to adaptation. The sectors include investment in infrastructure and technology/equipment in climate-sensitive sectors relating to adaptation and do not include investments in education or capacity-building relating to climate change or investments in companies producing goods or services that may be used for infrastructure development.

57. However, it is to be noted that, as a rule, these investments have been made to help developing countries develop *without assuming climate change*. Hence it is not possible to determine how these investments reduce vulnerability to climate change. Nonetheless, the lending to each sector can be

viewed as a measure of the interest of the World Bank in developing these sectors that are sensitive to climate change and are, therefore, relevant to climate change adaptation.

58. About 34 per cent of the total commitment by the IBRD during the period 1995–2005 was to sectors related to adaptation, of which the largest shares went to the health and power sectors. In the case of the IDA, almost half of the total commitments during that period were for the sectors related to adaptation, with most of the lending going to the health, AFF and power sectors. The IBRD has lent an annual average of about USD 5.8 billion to sectors relevant to adaptation, whereas the IDA has lent an average of about USD 3.8 billion per year to those sectors.

Table 6. International Bank for Reconstruction and Development (IBRD) lending to sectors relevant to climate change adaptation, percentage of total commitment

Sector	1995 (percentage)	2000 (percentage)	2003 (percentage)	2006 (percentage)	Cumulative 1995–2006 (percentage)	Annual average (million 2005 USD)
Agriculture	1.8	1.9	1.9	3.1	3.4	860
Forestry	0.0	0.5	0.6	0.8	0.3	51.6
General agriculture, fishing and forestry	1.5	2.7	2.4	1.6	1.6	264
Health and other social services	4.3	7.1	18.4	7.8	9.4	1 505
Coal, oil and gas extraction	3.4	1.0	0.6	2.9	2.2	358
Power	10.9	7.0	3.5	9.4	7.4	1 191.4
Renewable energy	0.1	0.0	0.0	1.0	0.4	61.6
Agro industry	0.1	0.0	0.0	0.0	0.3	44.7
Petrochemical and fertilizers	0.0	0.0	0.1	0.0	0.1	10.4
Other industry	2.0	2.8	0.4	0.1	0.8	133.9
Housing construction	0.3	3.5	0.7	0.1	0.7	108.7
Telecommunication	2	2	0.0	0.1	0.6	79
Sanitation	0.3	0.5	0.3	0.6	0.3	52
Water supply	4.6	2.3	1.0	2.2	2.2	347
Flood protection	0.2	1.9	0.3	0.5	0.6	93
Sewerage	1.4	5.7	2.0	1.0	2.0	328
General water, sanitation and flood protection sector	2.8	0.8	3.3	2.9	1.7	266
Total share of sectors relevant to adaptation in total IBRD commitment	35.7	39.8	35.5	34.0	34.0	5 753.8
Total IBRD commitment, all sectors (million 2005 USD)	20 627	12 309	11 899	13 739	192 230	16 019

Source: World Bank, 2007d.

Table 7. International Development Association (IDA) lending to sectors relevant to climate change adaptation, percentage of total commitment

Sector	1995 (percentage)	2000 (percentage)	2003 (percentage)	2006 (percentage)	Cumulative 1995–2006 (percentage)	Annual average (million 2005 USD)
Agriculture	9.4	4.6	2.4	6.1	6.0	469
Forestry	1.4	0.5	1.3	0.2	0.7	53
General agriculture, fishing and forestry	11.0	6.9	5.8	9.5	8.5	661
Health and other social services	14.7	16.5	18.9	10.8	15.6	1 217
Coal, oil and gas extraction	2.4	1.3	1.1	0.3	1.6	125
Power	8.0	5.2	4.1	7.6	6.2	482
Renewable energy	0.5	0.4	0.7	1.2	0.6	45
Agro industry	0.7	0.2	0.0	0.4	0.3	22
Petrochemical and fertilizers	1.9	0.0	0.0	0.0	0.2	12
Other industry	1.0	0.5	0.3	0.5	0.5	38
Housing construction	0.0	0.2	0.1	2.3	1.1	85
Telecommunication	0.5	0.4	0.7	0.6	0.6	40
Sanitation	0.8	0.6	1.2	0.6	0.6	45
Water supply	5.6	1.6	3.2	3.7	3.3	257
Flood protection	0.7	0.0	0.0	0.6	0.6	49
Sewerage	0.4	0.4	0.0	0.2	0.4	28
General water, sanitation and flood protection sector	1.3	3.2	3.1	1.7	2.1	163
Total share of sectors relevant to adaptation in total IDA commitment	60.3	42.2	42.9	46.5	48.7	3 792
Total IDA commitment, all sectors (million 2005 USD)	6 939	4 913	7 716	9 240	93 487	7 791

Source: World Bank, 2007d.

B. The African Development Bank

1. Introduction

59. The African Development Bank, established in 1964, is a regional multilateral development finance institution dedicated to combating poverty and improving the lives of the people in Africa. It mobilizes resources to support the economic and social progress of its regional member countries (RMCs) through loans, equity investments and technical assistance.¹²

60. The Bank is made up of three different lending “windows”(BIC, 2007b) – the AfDB, the African Development Fund (AfDF) and the Nigeria Trust Fund (NTF). Together, they are called the African Development Bank Group or the AfDB Group. The AfDB window makes loans to governments in wealthier African countries, such as South Africa, Morocco, Tunisia and Gabon. The AfDF provides grants and loans to 38 African countries with a per capita GDP below or equal to USD 540. No interest is charged for AfDF loans. The NTF’s lending has typically been a very small part of the AfDB’s business, representing less than 1 per cent of its annual operations. The AfDF has become the biggest AfDB lending window. In 2005, the AfDB provided USD 2.5 billion for lending operations, of which USD 1.4 billion came from the AfDF.

61. The AfDB raises funds for its operations mainly by issuing bonds on the market, with a triple-A crediting rating, and contributions from donor countries. Donor countries contribute new funds to the AfDF every three years. The 11th replenishment of the AfDF will run from 2008 to 2010 (FAN, 2007).

2. Strategies, policies and initiatives relevant to addressing climate change

62. Climate change has emerged as one of the important issues in the AfDB’s agenda. The AfDB is committed to assisting African governments in their efforts to mitigate the effects of climate change. As part of the international response to climate change, the AfDB is developing its own action plan under the CEDIF. According to its perspective prospectus (AfDB, 2007), the AfDB’s future action on climate change plans to focus on promoting a shift towards low-carbon economies through energy efficiency and further use of renewable energy sources, as well as supporting the dissemination of carbon reduction technologies and access to the CDM in relation to improved and modern biomass technologies. Its focus will also be on small hydropower, solar and wind power, and methane capture from landfills, and it will be helping its RMCs develop appropriate policies to avoid deforestation and promote afforestation.

63. With regard to adaptation, the AfDB recognizes the importance of African governments building climate resilience into their development investments in infrastructure, agriculture, water resources, health and education in order to address climate change and the effects of climate variability and to adapt better to its impacts. The AfDB is committed to assisting RMCs with building climate resilience by developing and mainstreaming climate risk assessment and climate information tools at the macro and micro levels so as to influence development plans, policies and project designs.

3. Specific activities and initiatives related to climate change mitigation

64. A joint effort has been carried out between the AfDB and the Africa Energy Unit of the World Bank on accelerating energy access in Africa. An Africa Energy Action Plan is being developed by the World Bank, including donor mobilization. The major components include an electrification programme with better integration of mini-grid and off-grid electricity options, enhancing generation capacity, the provision of energy services for key public facilities such as schools and clinics, the promotion of a stand-alone lighting package and a push for cleaner cooking, heating and lighting fuels. The action plan

¹² <http://www.afdb.org/portal/page?_pageid=473,968615&_dad=portal&_schema=PORTAL>.

was planned to be further elaborated by the AfDB after the African Energy Ministers' Meeting in March 2007. Another key action item is collaboration with the Netherlands to help achieve the goal of connecting 10 million people to electricity by 2015 (World Bank, 2007e).

65. The AfDB will focus on cleaner use of energy, including increased utilization of renewable energy in Africa. The ongoing activities include implementation of the Financing Energy Services for Small-Scale Energy Users (FINESSE) programme to support capacity-building on mainstreaming renewable energy, preparation of the renewable energy component in the AfDB's projects, the updating of the Energy Sector Policy, and the development of a Renewable Energy and Energy Efficiency Strategy.

66. The **FINESSE** (FINESSE, 2006) Africa programme was conceived to assist countries in Africa, working through the AfDB, to formulate appropriate policy and regulatory frameworks and to develop capacity to generate a pipeline of investment projects in renewable energy and energy efficiency.

67. A **Bio-fuel Support Facility** is under discussion with the German Government to accelerate the updating of biofuel projects in Africa. The AfDB is also partnering with United Nations agencies within the "Nairobi Framework for catalyzing CDM in Africa" to set up a mechanism to support AfDB member countries' access to the CDM.

4. Specific activities and initiatives related to climate change adaptation

68. The AfDB will target both climate-proofing of investments and the integration of adaptation into project cycles to address adaptation issues. In 2006 the AfDB started working on a number of policy and project areas. With respect to policies, it is currently reflecting on modalities and approaches to deepen and broaden its engagement in climate adaptation assistance. The intention is ultimately to develop a new policy on climate risk management and adaptation in order to climate-proof its portfolio of operations, including infrastructure, rural, natural resources and human development investments.

69. With respect to projects, the Bank has recently submitted a project preparation financing request for a climate adaptation proposal to the GEF for grant co-financing. The project (the Malawi Climate Adaptation for Rural Livelihoods and Agriculture) is linked to an agriculture and irrigation project approved in 2006 and is one of the first to be presented to the GEF under the Least Developed Countries Fund adaptation window.¹³

5. Specific activities and initiatives related to capacity-building

70. The AfDB is active in supporting capacity-building for adaptation at Bank and country level as well as the development of new tools and approaches for climate-proofing and the development of climate resilience, such as climate-screening tools, climate assessments, and country and sector climate vulnerability profiles. All these tools will be used in the ensuing adaptation programmes, both in agriculture, water and natural resources projects and in infrastructure interventions.

71. The AfDB is also engaged in a number of activities relating to climate information for development, disaster risk reduction and improved natural resources management with various African institutions and bilateral agencies. It is a partner, together with the African Union and the United Nations Economic Commission for Africa, in the Joint Secretariat for Clim-Dev Africa (Climate for Development in Africa programme) and is already contributing, both financially and technically, to a number of activities under this programme.

¹³ GEF Project Identification Form, Malawi Climate Adaptation for Rural Livelihoods and Agriculture (CARLA).

6. Institutional arrangements to support activities addressing climate change

72. The AfDB is engaged in a number of other initiatives and activities involving collaboration with other organizations, including:

- (a) Ongoing discussions with the German Government for a Bio-fuel Support Facility to accelerate the uptake of biofuel projects in Africa;
- (b) Collaboration with the United Nations Industrial Development Organization (UNIDO) on its bio-fuels initiative;
- (c) Enhancement of the partnership with the United Nations agencies within the Nairobi Framework on climate change for Africa, to set up a mechanism to support AfDB member countries' access to the CDM and/or other carbon financing opportunities;
- (d) Defining the AfDB's role in the implementation of the Bio-Gas Initiative in Africa, which was launched in Nairobi in May 2007.

73. Up to now, no specific programme or unit in charge of climate change issues in the AfDB has been identified.

7. Overview of lending and grants in sectors relevant to climate change

74. From 2002 to 2006, in total the AfDB approved USD 13.4 billion of lending and grants.

75. Investments in sectors relevant to adaptation to climate change account (roughly) for less than one-third of total investment by the AfDB on average. The top two sectors, agriculture and water supply, account for two-thirds of total investment in the sectors relevant to adaptation to climate change. The remainder mostly goes to health and other social services.

76. Almost half of the investment to sectors relevant to mitigation of climate change goes to the transportation sector. Power supply ranks third, following agriculture and rural development. Investment in other relevant sectors only accounts for 5.5 per cent of total AfDB investment relevant to mitigation.

77. An inventory of ongoing AfDB climate change-related activities shows a modest number of renewable energy and energy efficiency projects in its recent portfolio. In 2005, the Bank approved one project categorized as a renewable energy project and one project categorized as an energy efficiency project, for a total of USD 380 million (World Bank, 2007a).

Table 8. Lending approved by the African Development Bank (AfDB)
(millions of United States dollars)

		2002	2003	2004	2005	2006	Total
Sectors relevant to adaptation	Agriculture and rural development	281	351	426	330	362	1 750
	Health	213	55	158	130	120	677
	Other social service	62	204	24	42	149	481
	Water supply and sanitation	92	431	187	285	343	1 337
	Urban development	-	-	-	-	-	0
	Environment	-	4	3	106	-	113
Subtotal for adaptation		648	1 045	798	892	974	4 358
Sectors relevant to mitigation	Agriculture and rural development	281	351	426	330	362	1 750
	Power supply	253	220	87	394	252	1 206
	Transportation	177	435	775	303	696	2 387
	Industry, mining and quarrying	21	43	-	49	84	197
	Urban development	-	-	-	-	-	0
	Environment	-	4	3	106	-	113
Subtotal for mitigation		732	1 053	1 291	1 182	1 394	5 652
Total investment of AfDB		2 157	2 622	2 692	2 491	3 472	13 434

Source: AfDB, 2006.

C. The Asian Development Bank

1. Introduction

78. The ADB is a multilateral development finance institution founded in 1966 to promote social and economic progress in its developing member countries in the Asia–Pacific region. The Bank’s mission is to help its developing member countries reduce poverty and improve the quality of life of their citizens. It raises funds through bond issues on the world’s capital markets. The Bank also relies on members’ contributions, retained earnings and loan repayments. The financial resources of the ADB consist of ordinary capital resources (OCR) comprising subscribed capital, reserves and surpluses, and borrowed funds. The Bank also has special funds such as the Asian Development Fund (ADF) and other trust funds contributed by members for the Bank’s concessional loan and technical assistance programmes.

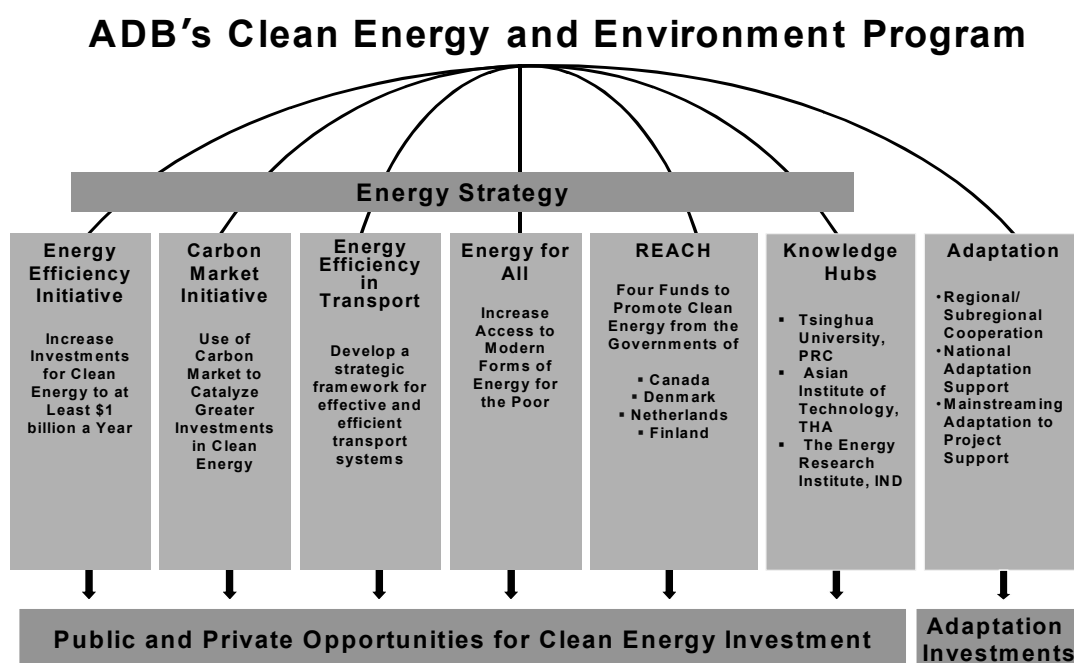
79. The ADB aims for social and economic progress through lending to governments and public and private enterprises in its developing member countries. Its principal tools are loans and technical assistance, which are provided to governments for specific, high-priority development projects and programmes. The Bank also provides equity and debt financing to private entities. OCR is a pool of funds available for its lending operations. It traditionally lends to public entities that have a government guarantee. Special operations financed from special funds resources include the ADF, the Technical Assistance Special Fund and other trust funds. The ADF is a special fund that lends on concessional terms to poor Asian nations for projects and programmes of high development priority. It provides grant funds for technical assistance that can be utilized for certain aspects of project preparation. There are also various other funds such as the Japan Fund for Poverty Reduction, the Poverty Reduction Cooperation Fund and others targeted at particular developmental themes, providing concessional finance and grants to member countries. The ADB’s private-sector operations provide direct assistance to private companies and financial institutions by way of direct financing and/or risk mitigation, in most cases without government guarantee.

2. Strategies, policies and initiatives relevant to addressing climate change

80. Over the past decade, the ADB has launched various initiatives in the Asia–Pacific region for climate change mitigation and adaptation (ADB, 2006). It is helping its developing member countries adapt to the inevitable impacts of climate change by providing support through regional and subregional cooperation and information exchange, national policy and strategy development, and project-level mainstreaming.

81. In line with the CEDIF, the ADB has established a **Clean Energy and Environment Program (CE&EP)** (ADB, 2007a) supporting such efforts by its developing member countries (CEDIF, 2007). The CE&EP has several components such as the Energy Efficiency Initiative, which aims to expand the ADB’s operations in clean energy to USD 1 billion a year, and the Carbon Market Initiative (CMI), which aims to provide financial and technical support to developers and sponsors of projects with GHG mitigation benefits that can qualify as eligible CDM projects under the Kyoto Protocol. The CE&EP also includes the Sustainable Transport Initiative to develop an investment and development framework for effective and efficient transport systems. The ADB has also initiated the Energy for All Program to improve access to modern forms of energy for the poor. The CE&EP combines several previously existing initiatives with new efforts of the Bank.

Figure 2. The Clean Energy and Environment Program



Source: ADB, 2007a.

3. Specific activities and initiatives related to climate change mitigation

82. The ADB’s draft new Energy Strategy focuses on energy security and climate change mitigation through the promotion of cleaner, more efficient and less polluting sources and technologies, and greater use of indigenous forms of renewable energy (ADB, 2007b). The completed, ongoing and proposed initiatives of the Bank for climate change mitigation include:

- (a) **Inventory of GHG levels.** Under the Asia Least-cost Greenhouse Gas Abatement Strategy programme, the ADB has funded the development of national-level GHG inventories and identification of mitigation projects for 11 developing member countries;
- (b) **The CDM Facility.** This provides technical support to developing member countries in accessing additional financial resources for CDM-eligible projects. The CDM Facility, completed in December 2005, assists developing member countries in meeting the CDM requirements for projects identified;
- (c) **The Carbon Market Initiative.**¹⁴ The ADB has also started the CMI, within the CE&EP, to harness the emerging carbon market in order to catalyse the development of clean energy projects in Asia and the Pacific. It provides developing member countries with access to additional financial resources and technical support for promoting energy efficiency and renewable energy projects that are eligible for the CDM. The two structures of the CMI aimed at assisting developing member countries for mitigation projects are:
- (i) **The Asia Pacific Carbon Fund (APCF),**¹⁵ a trust fund established and managed by the ADB to provide upfront co-financing to CDM projects in developing member countries for future delivery of certified emission reductions. The APCF aims to increase the number of clean energy and energy efficiency projects in developing member countries and assist APCF participants in satisfying their legally binding emission reduction commitments under the Kyoto Protocol;
- (ii) **The Technical Support Facility**¹⁶ which aims to provide targeted technical support to project developers and sponsors in project preparation and registration, due diligence, capacity development and policy reforms;
- (d) **Renewable Energy, Energy Efficiency, and Climate Change (REACH).** The REACH programme was launched to address barriers facing renewable energy and energy efficiency, and develop government capacity and capability. The Technical Assistance programme on climate change includes capacity-building activities on generic climate change issues and the CDM, with emphasis on clean energy and energy efficiency, carbon sequestration and adaptation;
- (e) **The Energy Efficiency Initiative.**¹⁷ This was launched in July 2005 to expand the ADB's operations in clean energy to USD 1 billion a year. The ADB has prioritized the People's Republic of China, India, Indonesia, Pakistan, the Philippines and Vietnam as priority countries and is in the process of developing country strategies and action plans for promoting clean energy, and establishing a pipeline of investments. The ADB also established the Clean Energy Financing Partnership Facility in April 2007 (ADB, 2007c). It is designed to finance smaller energy efficiency investments; the costs of transferring clean technologies; and grant assistance for activities such as developing the knowledge base, capacity-building, project preparation, and establishment of the monitoring and evaluation mechanisms.

¹⁴ More information is available at <<http://adb.org/Clean-Energy/cmi.asp>>.

¹⁵ More information is available at <<http://adb.org/Documents/Others/Asia-Pacific-Carbon-Fund.pdf>>.

¹⁶ More information is available at <<http://adb.org/Documents/TARs/REG/40543-REG-TAR.pdf>>.

¹⁷ More information is available at <<http://adb.org/Clean-Energy/eei.asp>>.

83. The ADB aims to improve energy security and reduce GHG emissions by implementing energy efficiency measures and seeking alternative sources of energy in developing member countries. It emphasizes the acceleration of the widespread application of renewable energy and energy efficiency in its developing member countries.

4. Specific activities and initiatives related to climate change adaptation

84. The ADB is working in partnership with its developing member countries to increase their capacity to adapt to increasing climate change risks. It is also embarking on an Asia and Pacific Climate Change Adaptation Technical Assistance Program. The ADB is integrating adaptation considerations into its strategic planning process at the country level and aims to consider climate change risks as a part of the Country Partnership strategies:¹⁸

- (a) **Regional and subregional cooperation.** The ADB's Climate Change Adaptation Program for the Pacific has worked with the Pacific small island developing States to examine the special risks they face and identified adaptation approaches and measures, for example climate-proofing coastal infrastructure investments (ADB, 2005). The ADB led the Central Asian Countries Initiative for Land Management to address the problems of land degradation exacerbated by climate change. In the Greater Mekong subregion, the ADB is sponsoring an analysis of the impact of climate change on natural resources productivity, and discussions are under way with the World Bank to undertake a joint analysis of impact of the climate change on Asia's coastal mega-cities. The ADB is also working to integrate climate change risk considerations into support for disaster preparedness in the region;
- (b) **National adaptation support.** The ADB aims to integrate adaptation efforts and practices in national support programmes on reducing vulnerability and enhancing the adaptive capacity of member countries. As an executing agency of the GEF, the ADB is positioned to tap and complement resources from the three GEF-administered climate change adaptation funds.

5. Specific activities and initiatives related to capacity-building

85. The ADB has been working on developing capacity among selected developing member countries to integrate climate change issues into their development process. It undertook a capacity-building programme for implementation of the Kyoto Protocol and the CDM in 15 developing member countries, targeting the relevant government departments and organizations in each country. The ADB has also established regional knowledge hubs at the Energy and Resources Research Institute in New Delhi, India, for clean energy, at Tsinghua University in Beijing, China, for climate change, and at the Asian Institute of Technology in Bangkok, Thailand, for the "3R" (reduce, reuse and recycle) initiative.

6. Institutional arrangements to support activities addressing climate change

86. The Regional and Sustainable Development Department (RSDD) at the ADB was established in 2002 to initiate and support activities in the area of clean energy and climate change.¹⁹ The RSDD aims to act as a knowledge centre and a source of innovative approaches to sustainable development and the inclusiveness of ADB investment.²⁰

¹⁸ More information is available at <<http://www.adb.org/Environment/wed2007-adbsupport.asp>>.

¹⁹ More information is available at <<http://adb.org/RSDD/default.asp>>.

²⁰ More information is available at <<http://adb.org/rsdd/mission.asp>>.

7. Assessment of lending and grants relevant to addressing climate change

87. The ADB's annual lending typically amounts to about USD 6 billion, with technical assistance usually totalling about USD 180 million a year. Between 2000 and 2005, the ADB approved clean energy projects to a cost of about USD 720 million, including renewable energy development in developing member countries and private equity investment in funds targeting clean energy. The ADB *Annual Report 2006* presents lending of USD 807 million to agriculture and natural resources, USD 638 million for water supply, sanitation and waste management, USD 1,370 million for energy and USD 1,433 million for infrastructure development which is relevant to mitigation and adaptation. Total lending by the ADB for the year 2006 amounted to USD 7,396 million (see table 9).

Table 9. Asian Development Bank (ADB) lending in 2006

ADB sectoral lending	Share (percentage)	Million 2005 USD
Agriculture and natural resources	11	807
Education	3	251
Energy	19	1 370
Finance	24	1 787
Health, nutrition and social protection	0	0
Industry and trade	0.1	10
Law, economic management and public policy	3	220
Multi-sector	12	880
Transport and communications	19	1 433
Water supply, sanitation and waste management	9	638
Total	100	7 396

Source: ADB, 2006.

D. The European Bank for Reconstruction and Development

1. Introduction

88. The EBRD was established to nurture a new private sector in a democratic environment for the Central and East European countries and newly independent states of the former Soviet Union. In 2006 the EBRD developed a new business strategy for the 29 countries where it operates. At the core of the new strategy is a commitment to support the transition to a market economy by taking greater risks than private financial institutions are usually prepared to do (EBRD, 2006a).

89. The EBRD is owned by its member/shareholder countries, the European Community and the EIB. Its share capital is provided by its members. It finances project lending and operational needs by borrowing funds on the international capital markets.

90. The EBRD offers three major financing instruments to clients – loans, equity and guarantees. Usually the cost of projects financed directly by the EBRD ranges from EUR 5 million to EUR 250 million. Smaller projects are almost always financed through support to local commercial banks, micro-business banks, equity funds and leasing facilities.²¹

91. With regard to renewable energy and energy efficiency projects, the EBRD also provides specific financing tools, such as carbon financing, renewable energy funds and funding through energy service companies.²²

²¹ More information on how to access funding from the EBRD is available at <http://www.ebrd.com/apply/index.htm>.

²² More information is available at <http://www.ebrd.com/country/sector/power/renew/index.htm>, and <http://www.ebrd.com/country/sector/energyef/index.htm>.

2. Strategies, policies and initiatives relevant to addressing climate change

92. The EBRD is committed to ensuring that respect for the environment is part of the strong corporate governance attached to all EBRD investments.²³ Its new business strategy for 2010 commits it to tackling climate change, especially through energy efficiency measures, and to promoting regional and international cooperation. Specific policies and measures to address climate change have been integrated into relevant sector policies, such as energy policy and environment policy.²⁴

93. The new Energy Policy, approved in July 2006 (EBRD, 2006c), sets a formal target for the EBRD's investment in energy efficiency and renewable energy between 2006 and 2010. It also commits the EBRD to unlocking the region's energy potential and encouraging the development of the carbon market.

94. For all industrial projects financed by the EBRD, an assessment of the associated GHG emissions should be made. According to the EBRD, all projects where it has invested in modernizing existing facilities and improving energy efficiency are expected to lead to lower emissions or to a reduction in emissions per unit of output if capacity increases. If the EBRD is financing the construction of new facilities, it aims to ensure that the associated GHG emissions are in line with current best practice (EBRD, 2005).

3. Specific activities and initiatives related to climate change mitigation

95. The **Sustainable Energy Initiative (SEI)**.²⁵ Following the new business strategy and energy policy, the EBRD launched the SEI in 2006 to scale up the Bank's existing focus on addressing energy waste and investment in cleaner sources of energy. The initiative proposes to more than double the EBRD's investment in energy efficiency and cleaner energy across its region of operations. The Bank will seek to invest up to EUR 1.5 billion in the context of the SEI over the next three years, associated with total potential investment of up to EUR 5 billion and supported by grant funds of EUR 100 million.

96. The **Netherlands Emissions Reduction Co-operation Fund (NERCoF)**.²⁶ Since 2003 the EBRD has been managing an EUR 35 million cooperation fund, NERCoF, whereby it acquires carbon credits from JI projects for the account of the Netherlands. NERCoF has contracted seven JI projects to date.

97. The **Multilateral Carbon Credit Fund (MCCF)**.²⁷ The EBRD and the EIB have recently agreed to establish the MCCF. The Fund is to assist the Banks' operations to take advantage of the new carbon market created by the Kyoto Protocol and related arrangements and to facilitate the sale of carbon credits by these countries and by companies located there, including those generated by their emission reduction projects. Typical emission reduction projects include industrial energy efficiency, fuel switching, renewable energy (biomass, wind and mini-hydro) and landfill gas extraction and utilization projects.

98. There are ongoing internal discussions on the use of the Bank's net income (profits) for climate change-related activities.

²³ <<http://www.ebrd.com/about/index.htm>>.

²⁴ <<http://www.ebrd.com/pubs/factsh/themes/introe.pdf>>.

²⁵ <<http://www.ebrd.com/country/sector/energyef/sustain.htm>>.

²⁶ <<http://www.ebrd.com/country/sector/energyef/carbon/nercof.htm>>.

²⁷ <<http://www.ebrd.com/country/sector/energyef/carbon/mccf/index.htm>>.

4. Specific activities and initiatives related to capacity-building

99. Capacity-building is an ancillary component of many of the Bank's climate change investments. For example, energy management training for companies can be provided using donor funds following the provision of energy audits (also funded by donors) that lead to targeted EBRD investments.

5. Institutional arrangements to support activities addressing climate change

100. The EBRD has set up an Advisory Board where top management meet to discuss issues of common interest and how to drive the sustainable energy agenda forward within the EBRD. The Bank also holds a Sustainable Energy Forum twice a year. Participants include shareholders and donors but also other IFIs, the International Energy Agency and the UNFCCC. The EBRD is also an active participant in the G8 Gleneagles Dialogue Process.

101. The Energy Efficiency and Climate Change Team is part of the Bank's general banking work. It is supporting all the banking teams in originating and executing sustainable energy investment transactions, in particular through systematic screening at an early stage in the Bank's project pipeline, and the mobilization of (donor-funded) consultants to carry out energy audits. The team is also in charge of the carbon finance activity of the Bank.

6. Overview of lending and grants in sectors relevant to climate change

102. In 2006 the EBRD committed EUR 4.9 billion to projects across its countries of operations from Central Europe to Central Asia. Around 19 per cent of total investment by the EBRD in 2006 went to sectors relevant to adaptation to climate change, that is, agribusiness, property, tourism and infrastructure. Around 40 per cent of its investment in 2006 went to sectors relevant to the mitigation of climate change, that is agribusiness, energy and power, manufacturing, natural resources and transport.

103. More specifically, the EBRD's investments to mitigate climate change are in the fields of energy efficiency and renewable energy (EBRD, 2006b). According to the EBRD, since 2002 it has financed 35 industrial energy efficiency projects with a total value of EUR 1.45 billion and EBRD-funded energy efficiency components amounting to EUR 276 million. The EBRD has signed energy efficiency credit lines with 11 banks in three countries, which amount in total to EUR 69.7 million.

104. The EBRD's renewable energy portfolio has a total value of approximately EUR 300 million for a total project value of EUR 622 million (mostly hydropower projects).

105. Overall, between 2001 and 2005 the EBRD invested close to EUR 680 million in projects which directly reduce GHG emissions, excluding power generation and transmission projects. In addition, between 2000 and 2004 it invested or lent a total of EUR 406 million for power projects with direct emission reduction benefits.

106. As table 11 shows, in 2007 the EBRD invested EUR 748.4 billion in energy efficiency and renewable energy projects.

Table 10. European Bank for Reconstruction and Development (EBRD) energy efficiency investments, 2001–2005
(millions of euros)

Sector	2001	2002	2003	2004	2005	Total
Dedicated energy efficiency projects	53.1	76.0	36.2	92.3	66.9	324.5
Industrial energy efficiency components ^a	0	0.6	64.0	108.9	102.4	275.9
Renewable energy	13.4	0	0	0	1.1	14.5
Energy distribution ^b	0	24.0	0	0	35.0	59.0
Total	66.5	100.6	100.2	201.2	205.4	673.9

^a The energy efficiency component of industrial projects was not recorded before 2002.

^b Figures are the investment component of these projects which directly relate to reduced losses in distribution networks.

Source: EBRD, 2006b.

Table 11. Results of the Sustainable Energy Initiative, 2007

Sector	Number of projects	EBRD SEI financing (million EUR)
Industrial EE	16	188.2
EE credit lines	8	81.1
Cleaner energy production	5	310.3
Renewable energy	6	80.8
Municipal infrastructure EE	16	88
Total	51	748.4

Source: Information provided by the EBRD to the UNFCCC secretariat.

Abbreviations: EE = Energy efficiency; SEI = Sustainable Energy Initiative.

E. The European Investment Bank

1. Introduction

107. The EIB was created under the Treaty of Rome in 1958 as the long-term lending bank of the European Community. The EIB Group consists of the EIB and the European Investment Fund. The EIB is owned by the EU member States. The task of the Bank is to contribute to the integration, balanced development and economic and social cohesion of the EU member States.²⁸

108. The EIB is active both inside and outside the European Union. Most of its lending (87 per cent in 2006) is to entities in the EU countries supporting the continued development and integration of the Union (EIB, 2006). Outside the EU, EIB lending is governed by a series of mandates from the European Union in support of EU development and cooperation policies in partner countries.

109. The EIB is financially independent. It operates on a broadly self-financing basis, raising resources through bond issues and other debt instruments, mostly publicly quoted on exchanges around the world.²⁹ The EIB offers three main services to clients – loans, technical assistance, and guarantees.³⁰

²⁸ <<http://www.eib.org/about/index.htm>>.

²⁹ <http://www.eib.org/investor_info/index.htm>.

³⁰ <<http://www.eib.org/products/index.htm>>.

2. Strategies, policies and initiatives relevant to addressing climate change

110. Protecting the environment, including tackling climate change, and improving human well-being are among the key lending priorities of the EIB. Environmental lending is targeted at 25–30 per cent of the EIB's overall lending within the EU countries and is one of the objectives in its Corporate Operational Plan. In addition, the EIB has reinforced its contribution to EU energy policy (EIB, 2007c). The actions concerning renewable energy and energy efficiency inside and outside the EU are particularly relevant to climate change objectives.

111. The Bank is mainstreaming climate change mitigation and adaptation to climate change by incorporating climate change considerations into its internal appraisal procedures (EIB, 2007b). Climate change is listed as one of the factors to be reviewed in the *Environmental and Social Practices Handbook* during the appraisal of projects. Projects teams will screen projects for energy efficiency and the adaptability of projects to climate change considerations in cases where adverse effects of climate change could have a significant impact on project performance. The EIB is also a member of the MDB working group involved in the preparation of the CEDIF.

3. Specific activities and initiatives related to climate change mitigation

112. **EIB Climate Change Facilities.**³¹ The EUR 1 billion Climate Change Financing Facility (2005–2008) was developed to provide long-term loan finance to companies participating in the EU emissions trading scheme (ETS). It includes an EUR 200 million allocation for companies operating outside the EU and developing JI and CDM projects. The facility was renewed in May 2006 and enlarged to include financing for any project that significantly reduces or mitigates GHG emissions, regardless of region, sector or type of greenhouse gas, or makes a significant contribution to climate change adaptation outside the EU.

113. The **Climate Change Technical Assistance Facility (CCTAF).**³² The EUR 5 million CCTAF provides advance funding for activities associated with the development of project-based carbon credits under the JI and CDM mechanisms of the Kyoto Protocol on a conditional loan basis. The CCTAF involves three stages of support – phase I (carbon feasibility study), phase II (preparation of project documentation) and phase III (JI/CDM project validation and registration).

114. **Carbon finance**³³

- (a) The **Multilateral Carbon Credit Fund (MCCF)** sources and purchases carbon credits from projects financed by the EBRD and/or the EIB in countries eligible for EBRD operations. The MCCF has aggregate commitments of EUR 165 million for project-based carbon credits;
- (b) The **Carbon Fund for Europe (CFE)** is co-managed by the World Bank and the EIB. Initially it has at its disposal EUR 50 million which may rise to a total of EUR 100 million. The CFE emphasizes CDM projects. A key feature of the Fund is that it will purchase verified emission rights (VERs) prior to CDM Board approval. The CFE can also buy VERs for delivery after the first Kyoto commitment period;
- (c) The **EIB/Kreditanstalt für Wiederaufbau (KfW) Carbon Programme**, a risk-sharing arrangement between the EIB and the KfW, focuses on promoting the ability of

³¹ <<http://www.eib.org/projects/topics/environment/climate-change/index.htm>>.

³² <<http://www.eib.org/projects/topics/environment/climate-change/index.htm>>.

³³ <<http://www.eib.org/projects/topics/environment/climate-change/index.htm>>.

EU-based small and medium-sized enterprises (SMEs) to access carbon credits for voluntary or statutory compliance purposes;

- (d) The **Post-2012 Carbon Fund** is being prepared by the EIB and a group of IFIs and national development agencies. The Fund will acquire post-2012 carbon credits only, that is, credits for delivery after the end of the current Kyoto period (and phase II of the EU ETS).

4. Specific activities and initiatives related to climate change adaptation

115. The Bank is currently preparing internal guidance related to the risks of and the opportunities presented by climate change and climate variability for its project-financing activities, to be introduced as routine procedures in the near future.

5. Specific activities and initiatives related to capacity-building

116. The EIB does not provide support for institutional capacity-building in its own right but as part of its project preparation and financing activities; hence it indirectly supports both national institutions and individual promoters in developing their respective capacities to manage climate change-related issues better. Initiatives such as the Post-2012 Carbon Fund represent significant enhancements of market capacity in qualitative if not quantitative terms.

6. Institutional arrangements to support activities addressing climate change

117. The Sustainable Development Unit (SDU) in the EIB is responsible for the development of the climate change policy and practices of the Bank within the context of promoting the goal of sustainable development. The SDU is supported by the two operational directorates of the Bank (particularly the Energy/Environment Division in the EU Structured Finance and Advisory Group) as well as various other specialized teams. The implementation of climate change policy – notably the development of appropriate financial instruments – is the responsibility of the operational directorates, with technical advice on climate change issues being provided by specialists in the SDU and other parts of the Bank's Project Directorate. The EIB environmental coordinator also plays a broad coordination role in respect of climate change matters. The internal "carbon footprint" of the Bank is managed by the team responsible for corporate responsibility.

118. As mentioned above, several collaboration activities in the field of carbon markets have been carried out by the EIB and other organizations.

7. Overview of lending and grants relevant to addressing climate change

119. In 2006, the EIB lent a total of EUR 45.7 billion in support of the objectives of the European Union – EUR 39.8 billion in the member States of the Union and EUR 5.9 billion in the partner countries. Direct loans for environmental investment projects totalled EUR 10.9 billion in 2006, accounting for 24 per cent of total lending. Investments made by the EIB to address climate change reached EUR 2.2 billion in 2006.

120. In the past five years, the investment in sectors relevant to adaptation to climate change – that is, water and sewerage, urban infrastructure, composite infrastructure, health and education, and AFF – has accounted for less than one-fifth of total investment of the EIB on average. Health combined with education received the largest investment, followed by the water and sewerage and urban infrastructure sectors. Little was invested in the AFF sector.

121. Investment in sectors relevant to mitigation of climate change – that is, energy, transport, water and sewerage, industry, and AFF – accounts for around half of the total investment of the EIB on

average. About half of the investment related to mitigation went to the transportation sector. Energy ranked second, with one-sixth of total investment. In both aspects, mitigation and adaptation, investment in the AFF sector is too small to be comparable to that in other sectors.

122. Investment in renewables has increased rapidly in the past five years. A significant increase happened in first half of 2007, when it reached about EUR 1 billion, equal to the total investment in 2005 and 2006 together.

Table 12. Lending committed by the European Investment Bank (EIB), by sector, 2002–2007
(*millions of euros*)

Sector	2007^a	Past 5 years
Energy	4 144	19 088
Transport	7 197	62 664
Telecommunications	1 505	6 518
Water, sewerage	1 351	10 967
Urban infrastructure	1 445	9 767
Composite infrastructure	189	6 572
Industry	2 641	17 279
Services	2 352	10 296
Health and education	2 395	15 537
Agriculture, fisheries, forestry	0	46
Global loans	5 616	59 519
Total	28 836	218 254

Source: <<http://www.eib.org/projects/loans/sectors/index.htm>>, 22 October 2007.

^a Up to 22 October 2007.

F. The Inter-American Development Bank

1. Introduction

123. The IDB, founded in 1959, has 47 member countries from the Latin America and the Caribbean (LAC) region and other parts of the world. It aims to foster sustainable economic and social development in the LAC region through its lending operations, regional initiatives, research and knowledge dissemination activities, institutes and programmes (IDB, 2006a). The IDB obtains its financial resources from its members, borrowing on the financial markets, trust funds and loan repayments, and through co-financing ventures.

124. The IDB assists its borrowing member countries in formulating development policies and provides financing and technical assistance to achieve environmentally sustainable economic growth, increase competitiveness, enhance social equity, fight poverty, modernize the state, and foster free trade and regional integration. It provides loans, grants, guarantees and investments to fund development programmes in member countries. Loans, grants and guarantees are used for public and private investment projects, for policy reforms and for national and regional technical cooperation. The majority of the Bank's projects and technical cooperation programmes are financed by loans and concessional resources. Grants are provided mainly for micro-entrepreneurs. The IDB also plays an essential role in the economic growth of member countries through private-sector development and investment.

2. Strategies, policies and initiatives relevant to addressing climate change

125. The IDB offers a range of lending and technical assistance services to address climate change issues in its member countries. It aims to finance GHG mitigation and adaptation projects, fostering the region's knowledge and capacity where climate change is concerned. It also aims to mainstream climate change into its activities and strategic partnerships. It is one of the executing agencies of the GEF for mitigation and adaptation projects.

126. In October 2005, the IDB prepared a plan – the Action Plan for Renewable Energy, Energy Efficiency, Greenhouse Gas Mitigation and Carbon Finance, 2006–2010 (IDB, 2006b) – for its role in addressing climate change. The plan identifies near-term actions to be undertaken in 2006 which include assessments of the opportunities for clean energy projects through increased use of external sources of finance, including the GEF. It proposes screening of the IDB current project pipeline to identify opportunities for the incorporation of carbon finance. The Plan also identifies actions to be taken over the longer term (2007–2010) with the goal of continuing to increase investments in renewable energy and energy efficiency and continuing to increase carbon finance within the Bank's projects.

127. In line with the CEDIF, the IDB has launched the Sustainable Energy and Climate Change Initiative (SECCI) to support such efforts by its member countries in the LAC region (CEDIF, 2007). Through the SECCI³⁴ the Bank aims to help the LAC region find economically and environmentally sound energy options. Its core objectives are to expand the development and use of renewable energy sources, energy efficiency technologies and practices, and carbon finance in the region. It has a mandate to promote and finance climate change adaptation strategies that reduce the region's climate vulnerability. The core objectives of SECCI have been translated into the following work programmes for addressing climate change mitigation and adaptation.

3. Specific activities and initiatives related to climate change mitigation

128. The IDB aims to help LAC member countries to assess their potential for renewable energy and energy efficiency to meet energy needs. It will also work to minimize regulatory, institutional and financial barriers to making investments in these areas while at the same time increasing incentives. In addition, the IDB proposes to finance renewable energy and energy efficiency projects. It works to reduce the transaction costs and risks for CDM projects as well as strengthening the capacity of the region's countries to participate in the international carbon market. The following themes have been proposed with in the SECCI for climate change mitigation efforts:

- (a) **Renewable energy and energy efficiency (RE/EE)**
 - (i) To review existing RE/EE analyses and mapping exercises, conduct additional studies, and advise governments on the best ways to develop their RE/EE potential;
 - (ii) To identify and promote regulatory reforms and policy instruments to improve the policy framework for expanding investment in RE/EE;
 - (iii) To identify the RE/EE potential of the IDB pipeline and search for new investment opportunities with IDB clients, utilizing a range of financing mechanisms;

³⁴ More information is available at <<http://www.iadb.org/secci/>>.

- (iv) To support the development of new RE/EE technologies by making technologies available on a commercial scale and applying innovation loans for research and development;
- (b) **Biofuel development**
 - (i) To analyse the availability of feedstock and costs of production, and to assess the potential for developing domestic or regional biofuel markets, taking environmental and social benefits and risks into full consideration;
 - (ii) To provide country-level policy assistance in support of biofuel development by helping to remove barriers and introduce policies and financial instruments that facilitate the development of domestic markets, promote access to international markets, and mitigate adverse social and environmental impacts;
 - (iii) To develop financial instruments to test and demonstrate the efficacy of new technologies, including loans to pilot programmes, and the commercialization of new technologies and innovations; and provide support to networks or centres of knowledge;
- (c) **Increasing access to carbon finance**
 - (i) To incorporate CDM components into the pipeline and sector lending, and invest in energy-related CDM projects. The IDB aims to provide technical advice to clients on accessing carbon finance and financing project development;
 - (ii) To offer technical assistance in developing and testing methodologies that would benefit LAC countries in the post-2012 carbon market.

4. Specific activities and initiatives related to climate change adaptation

129. A new policy on Natural and Unexpected Disasters was adopted in 1998 and an Action Plan for Disaster Prevention and Mitigation was launched in 2000 (IDB, 2006c). It includes the creation of a new financing facility for prevention and mitigation activities. The IDB sees its role in financing adaptation in the member countries through assistance in developing and implementing sustainable development strategies for disaster prevention.

130. In partnership with the United Nations Development Programme (UNDP), the IDB will work with the Caribbean island nations, whose reliance on tourism for economic growth could be adversely affected by climate change (IDB, 2003).

131. The key priority issues identified by the IDB for adaptation are:³⁵

- (a) Mainstreaming climate risk in country programming;
- (b) Financing country-level climate change vulnerability assessments, risk assessments, and strategic identification of adaptation measures;
- (c) Investing to reduce the vulnerability of urban and regional infrastructure to climate risk;
- (d) Developing a screening tool to assess and mitigate climate risk in new IDB projects.

³⁵ More information is available at <<http://www.iadb.org/secci/allPillar.cfm#bx4>>.

5. Specific activities and initiatives related to capacity-building

132. The IDB fosters the LAC region's knowledge and capacity in climate change policymaking through the Research Network for mitigation and adaptation policies and strategies. The Bank aims to support regional forums on climate change, involving a range of stakeholders from national and local governments, private companies and non-governmental organizations (NGOs) (IDB, 2007b). Through its membership on a special Inter-Agency Committee, which includes the United Nations Environment Programme (UNEP), UNDP, United Nations Economic Commission for Latin America and the Caribbean and the World Bank, the IDB aims to support the Forum of Ministers of the Environment of LAC member countries. It also plans to foster LAC countries' capacity to meet their obligations and make use of their opportunities under the Convention through support for national strategy studies and the development of inventories of GHG emissions.

6. Institutional arrangements to support activities addressing climate change

133. The Environment Division³⁶ of the IDB furthers the IDB's goal of sustainable development by enhancing the environmental quality of its operations. The division prepares and disseminates technical studies and provides guidance on environmental impact assessments and good practices in environmental management and project analysis. The work of the Environment Division embraces public- and private-sector projects including urban and rural environmental management, energy conservation and development, sustainable agriculture, forestry and biodiversity, water resources management, coastal and marine resources, climate change and disaster risk management.

7. Assessment of lending and grants relevant to addressing climate change

134. The IDB *Annual Report 2006* presents lending in 2006 of USD 62 million to agriculture and fisheries, 370 million for water supply and sanitation, USD 140 million for health, nutrition and social protection, USD 85 million for the environment, and USD 1,056 million for infrastructure development which is relevant to mitigation and adaptation. Total lending by the IDB for the year 2006 was USD 6,381 million (see table 13).

³⁶ More information is available at <http://www.iadb.org/sds/env/index_env_e.htm>.

Table 13. Inter-American Development Bank (IDB) lending in 2006

Sector	Share (percentage)	Million 2005 USD
Competitiveness	50	3 190
Energy	16.4	1 044
Transportation and communications	11.2	717
Agriculture and fisheries	1	62
Industry, mining and tourism	0.1	5
Multi-sector credit and pre-investment	0	0
Science and technology	5.2	332
Trade financing	4	253
Productive infrastructure	5.2	333
Capital markets	7	444
Social development	27.1	1 727
Social investment	15.6	995
Water and sanitation	5.8	370
Urban development	1.2	74
Education	0.9	61
Health	2.2	140
Environment	1.3	85
Micro-enterprise	0	3
Reform and modernization of the state	22.9	1 464
Reform and public sector support	0.4	24
Financial sector reform	12.6	801
Fiscal reform	2.8	177
Decentralization policies	5.5	353
Modernization and administration of justice	0.8	54
Planning and state reform	0.4	26
Parliamentary modernization	0	0
Civil society	0	0
Trade policy support	0	0
E-government	0.4	28
Total	100	6 381

Source: IDB, 2006a.

G. The International Finance Corporation

1. Introduction

135. The IFC is a member of the World Bank Group. Its purpose is to promote open and competitive markets in developing countries, support companies and other private-sector partners, generate productive jobs, deliver basic services, and create opportunities for people to escape poverty and improve their lives.

136. The IFC is owned by its 179 member countries, which provide its authorized share capital of USD 2.4 billion and vote in proportion to the number of shares held. Like other MDBs, the IFC raises virtually all of the funds for its lending activities through the issuance of debt obligations on the international capital markets.³⁷

137. The IFC's worldwide committed portfolio as of FY 2007 was USD 25.4 billion for its own account and USD 5.5 billion held for participants in loan syndications. More than 80 per cent of its new

³⁷ <<http://www.ifc.org/about>>.

investments were in the financial sector, infrastructure, and oil, gas, mining and chemicals. The IFC offers a wide variety of financial products for private-sector projects in developing countries. Like other private-sector investors and commercial lenders, it seeks profitable returns, prices its financing and services in line with the market, and aims to fully share risks with its partners.

2. Strategies and policies relevant to addressing climate change

138. As the realities of climate change become increasingly apparent, the IFC's Management Group has recently expanded its strategic priority on sustainability to incorporate climate change, especially following the CEDIF.

139. Two aspects are targeted by the IFC's effort to address climate change. With regard to mitigation, the IFC is taking a leading role in developing new business models that stimulate private-sector investment in sustainable energy and at the same time support sustainable economic development in emerging markets. With the Kyoto Protocol having come into force, the IFC is also facilitating the development of a commercial carbon market. As more information confirming ongoing climate change impacts and major future consequences becomes available, to adapt to climate change which has already happened and will happen, the IFC has started to integrate climate change related risk into financial models.

140. The IFC is currently finalizing a Climate Change Strategy in coordination with the World Bank Group which will outline a more detailed approach to the subject.

3. Specific activities and initiatives related to climate change mitigation

141. In FY 2007, the IFC invested USD 1.1 billion in 27 projects that had a sustainable energy component – either a significant improvement in energy efficiency or a renewable energy component (excluding hydropower projects larger than 10 MW). The total value of the investment in these projects was USD 6.2 billion and included an estimated USD 2 billion invested directly in renewable energy and energy efficiency components. The estimated direct investment of the IFC in sustainable energy through its own portfolio in FY 2007 was USD 477 million, of which USD 294 million was in renewable energy (USD 139.7 million of this was for hydropower projects larger than 10 MW) and USD 183 million in energy efficiency (IFC, 2007).

142. The IFC currently has about USD 175 million under management in partnership with the Government of the Netherlands, through which it purchases emission reduction credits from projects eligible under the CDM and the JI. The IFC plans to deliver new financial products that will allow its clients in emerging markets to unlock the value of their carbon assets.

143. The Carbon Delivery Guarantee (CDG) is the flagship product of the IFC for carbon finance. Two types of price structure are possible under the CDG: (a) fixed-price forwards, where sellers receive a fixed price at closing less a pre-agreed spread for the IFC; this provides sellers with a firm revenue stream that can be used to support financing; and (b) indexed forwards, where sellers receive a price that equals EU allowance prices less a pre-agreed IFC spread. This is attractive to sellers who would like to capitalize on increases in EU allowance prices and potentially provides for higher returns on equity.

144. The IFC has undertaken several new energy technology projects with the GEF and other donor resources, including projects to commercialize stationary fuel cells, advanced power generation technologies to co-generate with bagasse in sugar mills, the manufacture of advanced micro-turbines, and helping to define and facilitate markets for solar lanterns and other very low-power, low-cost, modern lighting devices.

4. Specific activities and initiatives related to climate change adaptation

145. As most loans for private investment in emerging markets are for less than 15 years, evaluating the risks due to climate change on the basis of current data and modelling is challenging. In an effort to better understand the climate risks to its investments and its clients, the IFC is initiating studies of several investments to identify current knowledge concerning climate risks and possible adaptive responses. As the insurance sector has a crucial role to play in helping businesses and communities prepare for and recover after such risk, the IFC is focusing on helping insurance providers to adopt new and emerging risk instruments such as a Weather Index insurance product. It is also working on related issues with the World Bank initiative on the Global Facility for Disaster Reduction and Recovery.

5. Specific activities and initiatives related to capacity-building

146. As a private-sector lending institution, the IFC provides substantial technical assistance to commercial entities in its lending activities, such as training in evaluating clean energy loans for commercial banks. It also provides advisory services to governments interested in policies to promote private investment more effectively, a service that may be offered to promote increased clean energy investment.

6. Institutional arrangements to support activities addressing climate change

147. The IFC participates in the regular meetings of IFI environmental programmes as a forum for coordination and information sharing. In recent meetings, the mitigation of, and adaptation to, climate change have been primary topics.

148. The Carbon Finance Unit serves as the IFC in-house resource for all carbon finance-related issues, providing services directly to buyers and sellers. The Sustainability Business Innovator, a unit in the Environment Department, serves as the primary manager for the GEF and other donor-funded clean energy projects, although dedicated donor-supported facilities also exist in several industry departments. The Financial Markets Group has also created a dedicated clean energy financing unit. The IFC is considering the need for a focused climate change coordination unit.

7. Overview of lending and grants in sectors relevant to climate change

149. In FY 2007, the IFC invested USD 8.2 billion for its own account. Among the sectors identified as relevant to adaptation – that is, infrastructure and health and education – infrastructure ranks third in the IFC's investment portfolio, while it is the first among the sectors relevant to adaptation to climate change. As one of the sectors most relevant to adaptation, health attracts much less investment than others: together with education it only accounts for less than 2 per cent in the portfolio in total.

150. Oil, gas, mining and chemicals is the sector most relevant to mitigation of climate change as categorized by the IFC in its portfolio. The data from the annual report for 2007 listed in table 14 show that the investment in oil, gas, mining and chemicals accounts for slightly more than 10 per cent of the total.

151. The detailed data provided by the IFC on its energy-related lending for the past three years are summarized in table 15. Investment in renewable energy has been increasing for the last three years, while investment on coal has been declining.

152. According to the IFC, the value of IFC-managed funds invested in the carbon market (primarily clean energy projects) was USD 19 million in FY 2005, USD 29 million in FY 2006 and USD 32 million in FY 2007.

Table 14. Total committed portfolio for the International Finance Corporation (IFC) account
(millions of United States dollars)

Sector	FY 2006	FY 2007
Infrastructure	3 382	3 727
Health and education	302	466
Global manufacturing and services	4 699	5 210
Global information and communication technologies	986	970
Global financial markets	7 463	9 448
Agribusiness	1 485	1 698
Sub-national finance	48	148
Private equity and investment funds	958	1 071
Oil, gas, mining and chemicals	2 304	2 675
Total	21 627	25 413

Source: IFC, 2007.

Table 15. International Finance Corporation (IFC) energy-related investments
(millions of United States dollars)

IFC fiscal year	2005	2006	2007^a
Investments – IFC's own account			
IFC net investment in renewable energy	65	84	294
excluding hydro > 10 MW	47	67	140
IFC net investment in energy efficiency	156	309	183
IFC investment in clean energy	221	393	477
Investments – IFC-managed donor funds and GEF			
Renewable energy	22	16	7
Energy efficiency	10	20	0
Total	32	36	7
For comparison - IFC fossil fuel investments			
Gas production, transmission, distribution	200	162	382
Oil production, transmission, distribution, refining	186	413	103
Oil power	28	21	21
Gas power	0	63	135
Coal power	72	50	8
Total fossil fuels-related investments	485	708	648
Total from IFC's own account (all industries)	5 373	6 703	8 216

Source: Data provided by the IFC to the UNFCCC secretariat.

^a Subject to revision.

V. Conclusions

153. The aim of the MDBs is social and economic progress in their member countries. In the period 1995–2005, most of their investment went to infrastructure projects in sectors such as energy, transport and AFF, and to policy reform activities, all of which are closely related to addressing climate change. All the MDBs are making an effort to develop comprehensive climate change strategies to address climate change more effectively through their lending activities.

154. Most of the investment flows relating to **mitigation** come from private-sector sources (domestic and international) in developing countries. However, they vary substantially depending on general economic conditions. The development banks have major impacts on many infrastructure projects that have substantial implications for GHG emissions and the potential for climate mitigation in developing countries. They have provided confidence for the private sector and leveraged substantial private investments for core mitigation projects in areas such as renewable energy and energy efficiency, and for

sectors relevant to mitigation. They have also been a catalyst for fostering public–private partnerships and carbon funds and facilities. The joint efforts on the CEDIF by the MDBs should help to develop a more comprehensive strategy to address climate change in each MDB. The contribution made by ODA in supporting the mitigation effort in developing countries is also substantial and in many cases is directed to countries that are not receiving much private investment.

155. During the period 1995–2005, in the case of the World Bank, about one-third of total lending went to sectors relevant to mitigation of climate change, and in the case of the regional development banks the share was about one-half. Total lending by the development banks in the sectors relevant to mitigation amounted to about USD 127 billion over the period 1995–2005, and the shares of the World Bank, ADB and IDB were 47 per cent, 24 per cent and 18 per cent, respectively. The rest was shared by the other regional development banks.

156. Cumulative lending by the development banks in the **energy sector** during the period 1995–2005 amounted to about USD 36 billion (see table 19 in annex I). The largest share (about 40 per cent) went to policy-related activities, followed by transmission and distribution (21 per cent) and fossil fuel power generation sources (16 per cent). Sixteen per cent of the total lending went to clean energy generation sources.

157. Total energy sector lending by the MDBs peaked in 1996 (at about USD 5.2 billion) and then declined to about USD 2.9 billion in 2005 (see figure 4 in annex I). During the years 2000–2005, lending for energy sector policy decreased dramatically while lending for fossil fuel-based energy generation increased faster than lending for clean energy generation sources.

158. However, more recently all the MDBs have given increased priority to energy efficiency and renewable energy. Various new dedicated funds have been created by the banks to increase funding for renewable energy and energy efficiency projects. The EBRD, recognized as leader among the MDBs in the promotion of energy efficiency, has made improvement of energy efficiency in the Central and East European countries the top priority in its business strategy. The ADB has also launched a new initiative to address energy efficiency. In 2004, the World Bank committed itself to increasing its lending for clean energy by 20 per cent each year till 2009, with a significant focus in Asia, Africa and Latin America. The EIB has established challenging targets for its support for renewable energy, and is committed to annual lending of not less than EUR 600–800 million for renewable energy projects. In the first six months of 2007, the EIB signed renewable energy loans worth around EUR 1 billion, of which EUR 250 million was outside the EU. Renewable energy and biofuels are identified by the AfDB and the IDB as their priorities to address mitigation of climate change.

159. Total cumulative lending by the development banks in the **industry sector** during the period 1995–2005 amounted to about USD 11.5 billion (an average of about USD 1.05 billion per year) (see table 20 in annex I). Most of it (51.6 per cent) went to industrial policy and administrative management, followed by SME development (27.6 per cent).

160. Total lending in the industry sector increased from USD 750 million in 1995 to USD 2.5 billion in 2005. It peaked in 1999 (at about USD 3.5 billion). In recent years, most of the lending has gone to SMEs (see figure 5 in annex I).

161. Cumulative lending by the MDBs in the **transport sector** during the period 1995–2005 amounted to about USD 61 billion (an average of about USD 5.6 billion per year) (see table 21 in annex I). Most of it (62.3 per cent) went to road transport, followed by policy-related activities (19.4 per cent) and rail transport (12 per cent).

162. Total lending in the transport sector by the MDBs increased from USD 4.5 billion in 1995 to USD 7 billion in 2005. It peaked in 2004 at about USD 8 billion (see figure 6 in annex I).

After 1999, lending for transport policy declined, while lending for road transport and other modes of transport (air and rail) kept increasing.

163. Given the critical impact of road transport on climate change, most of the MDBs have begun to direct their attention to this sector. The ADB has completed an analytical paper on this issue and is developing an action plan designed to address the problem. The EBRD has given particular attention to the development of public transport rehabilitation projects. The World Bank is currently finalizing an update of its transport infrastructure strategy, originally approved in 2002, with a view to reducing the sector's contribution to climate change. The IDB has been expanding its support of bus rapid transport systems, with over 10 operations in nine countries. The AfDB will focus on the improvement of transport systems, including the selective support of mass rapid transport investments, including low-emission bus rapid transit networks and high-speed electric-powered light rail networks, especially in mega-cities.

164. Cumulative lending by the development banks in the **waste sector** during the period 1995–2005 amounted to about USD 650 million. This is a small amount compared to the lending by MDBs to other climate-relevant sectors. Most of the lending is from the World Bank (62.3 per cent), followed by the ADB.

165. Cumulative lending by the development banks in the **agriculture sector** during the period 1995–2005 amounted to about USD 15 billion (see table 22 in annex I). Most of it (about 61 per cent) went to agricultural policy and administration management, followed by agriculture development (about 39 per cent). Lending in the agriculture sector by the development banks shows a decreasing trend over the period 2000–2005.

166. The MDBs' assistance programmes in the **forestry sector** remain modest. Cumulative lending by the development banks in the sector during the period 1995–2005 amounted to about USD 1.3 billion (see table 23 in annex I). Most of it went to forestry development (about 61 per cent), followed by forestry policy and administration management (about 39 per cent) and fuelwood (about 1 per cent).

167. A number of initiatives have been launched more recently by the MDBs, in particular to support afforestation and reforestation activities as well as reduced deforestation. The World Bank's Bio-Carbon Fund was set up in 2004 to deliver cost-effective emission reductions through carbon sequestration. The Forest Carbon Partnership Facility, which is under development by the World Bank, will aim to assist IDA and IBRD member countries in their efforts to reduce emissions from deforestation. Given the importance of tackling this global issue urgently, the MDBs, particularly those whose client countries are among those most seriously affected, are expected to substantially raise the priority they attach to reducing the rate of deforestation and to articulate a consistent set of remedial strategies and programmes.

168. All the MDBs have embarked on efforts to **catalyse low-carbon investments through new financial instruments such as the carbon market**. MDBs have played the role of market maker in the carbon market by acting as both buyers and sellers of carbon credits at different stages of the development of the carbon market.

169. The World Bank Group has been pioneering the development of the carbon market since 2000. Two new facilities have recently been approved by its Board – the CPF and the FCPF. Most of the regional banks have established funds and programmes to help the countries in their regions get access to the carbon markets, support investment in the CDM and JI, and provide technical assistance and capacity-building.

170. With regard to **adaptation** the greater part of relevant lending by the MDBs goes to long-lived infrastructure projects that are likely to be adversely affected by climate change. While about half of

total lending is relevant to adaptation, only a small portion of it is lending directly to adaptation projects. Most of the programmes and projects on adaptation so far have focused on analytical work, capacity-building and impact assessments. The MDBs are increasingly considering integrating climate-proofing investment in their lending activities. They have also started various adaptation initiatives, such as the ADB's REACH initiative, to assess vulnerability and include the climate change agenda in their country assistance strategies. The work of the MDBs in climate change adaptation is mostly at the pilot stage.

171. Total lending by the MDBs in sectors relevant to adaptation amounted to about USD 204 billion over the period 1995–2005. The World Bank lent about 56 per cent of this total, followed by the ADB (22 per cent) and the IDB (9 per cent) (see figure 3).

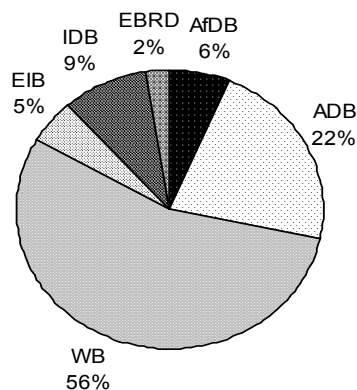
172. From 1995 to 2005, lending by the MDBs in the sectors relevant to adaptation followed a consistent trend, with average annual lending of about USD 18 billion. Infrastructure lending had the major share (about 50 per cent), followed by the water sector and the AFF sector. There has been an increase in MDB assistance for disaster relief, reconstruction and emergency response. Housing policy and urban and rural development receive relatively little assistance from the MDBs (see table 16).

Table 16. Trends in lending by multilateral development banks for the sectors relevant to adaptation
(in percentages)

Sector	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
AFF	16	16	18	21	22	24	17	10	14	14	12
Health	7	9	9	14	6	10	6	5	7	6	5
Water	15	11	12	9	12	10	13	8	11	13	9
Environmental protection	3	6	5	7	5	7	4	4	1	1	1
Urban and rural development	2	1	4	2	2	2	3	4	4	2	2
Housing policy	0	0	1	0	0	0	1	1	1	1	3
Infrastructure	56	57	50	42	47	43	51	61	59	61	57
Disaster relief, reconstruction and emergency response	1	0	2	5	7	3	5	8	3	2	12
Total	100	100	100	100	100	100	100	100	100	100	100
Total (million 2005 USD)	18 629	18 935	18 087	19 082	14 987	14 737	16 929	16 434	19 325	19 833	27 182

Source: OECD, 2007.

Figure 3. Share of each multilateral development bank in lending relevant to adaptation, 1995–2005



Source: OECD, 2007.

Abbreviations: AfDB = African Development Bank; ADB = Asian Development Bank; WB = World Bank; EIB = European Investment Bank; IDB = Inter-American Development Bank; EBRD = European Bank for Reconstruction and Development.

173. According to a joint report recently prepared by all the MDBs on the CEDIF, although the focal areas may differ in their core strategy, the MDBs have a long history of cooperation in such areas as energy efficiency, renewable energy, clean coal technologies, urban transport, forestry and environmental protection. With the development of a common vision regarding approaches and actions to tackle the challenge posed by climate change, these joint efforts should be accelerated and become much more intense in the future. It will be increasingly important to shift the emphasis of cooperation from strategy formulation to implementation (World Bank, 2007e).

174. Given the data gaps and the inconsistencies identified in the time-series analysis of MDBs' lending, further research could be undertaken to extend the scope of this compilation to cover more institutions and to identify within the climate-relevant investments the direction, positive or negative, and the magnitude of their effect on climate mitigation and adaptation.

Annex I

Summary of multilateral development banks' activities, by sectors and regions

Table 17. Sources of investment as a percentage of total investment, by region, in 2000

	Africa	Dev Asia	LA	Mid East	OECD Europe	OECD NA	OECD Pacific	Other Europe	EIT	World	AI Parties	NAI Parties	LDC
Total investment, (billion 2005 USD)	118	804	332	140	2 067	2 488	1 695	2	105	7 750	6 014	1 654	40
Households (in per cent)													
Domestic	19.24	16.91	21.55	25.34	28.29	33.34	20.51	19.43	15.90	26.38	28.52	18.69	17.92
Total investment	19.24	16.91	21.55	25.34	28.29	33.34	20.51	19.43	15.90	26.38	28.52	18.69	17.92
Corporations (in per cent)													
Domestic	45.59	54.15	13.67	57.55	-19.52	13.84	58.44	66.10	60.38	20.78	20.78	13.26	57.28
Debt	0.48	0.01	25.57	1.09	31.87	22.27	0.13	0.00	0.61	16.81	16.81	20.20	0.02
FDI	8.75	18.61	27.68	5.58	46.87	18.33	2.29	0.00	12.19	22.40	22.40	23.99	11.81
FDI adjusted ^b	5.41	17.90	36.81	4.84	34.29	27.49	3.14	-12.75	15.06	22.46	22.46	23.65	13.96
Domestic adjusted ^b	40.18	36.25	-23.14	52.70	-53.81	-13.65	55.29	78.86	45.32	-1.68	-1.68	-10.39	43.32
Total investment	54.81	72.78	66.92	64.22	59.23	54.44	60.86	66.10	73.18	59.99	59.99	57.45	69.11
Government (in per cent)													
Domestic	23.25	8.67	3.32	7.40	11.12	12.50	18.63	14.39	-15.98	12.37	13.29	9.05	15.26
Debt	0.38	0.31	7.48	2.81	1.33	-0.28	-0.01	0.00	26.28	1.03	0.74	2.12	-0.39
ODA bilateral	1.41	0.80	0.59	0.19	0.01	0.00	0.00	0.08	0.48	0.14	0.00	0.65	3.17
ODA multilateral	0.91	0.54	0.14	0.05	0.01	0.00	0.00	0.00	0.15	0.08	0.00	0.38	3.09
Total ODA	2.32	1.34	0.73	0.24	0.02	0.01	0.00	0.08	0.63	0.23	0.00	1.03	6.26
Total investment	25.95	10.32	11.52	10.44	12.48	12.22	18.62	14.47	10.93	13.62	14.04	12.20	21.14
Total (in per cent)													
Domestic	88.07	79.72	38.55	90.28	19.90	59.68	97.58	99.92	60.29	59.54	55.07	85.02	82.05
FDI	8.75	18.61	27.68	5.58	46.87	18.33	2.29	0.00	12.19	22.40	23.99	11.81	12.00
Domestic adjusted ^b	91.41	80.44	29.41	91.02	32.48	50.52	96.74	112.67	57.42	59.48	55.41	82.87	79.45
FDI adjusted ^b	5.41	17.90	36.81	4.84	34.29	27.49	3.14	-12.75	15.06	22.46	23.65	13.96	14.61
Debt	0.86	0.33	33.04	3.90	33.21	21.99	0.12	0.00	26.89	17.84	20.94	2.14	-0.32
ODA	2.32	1.34	0.73	0.24	0.02	0.01	0.00	0.08	0.63	0.23	0.00	1.03	6.26
Total investment (in per cent)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Sources: United Nations Statistics Division, National Accounts Main Aggregates database; Bank for International Settlements, Monetary and Economic Department, *International Finance Statistics* and electronic data for international bonds and bondware; World Bank, *World Development Indicator 2006*; and Organisation for Economic Co-operation and Development, Creditor Reporting System database.

Abbreviations: AI = Parties included in Annex I to the Convention; Dev Asia = Developing Asia; LA = Latin America; Mid East = Middle East; NA = North America; NAI = Parties not included in Annex I to the Convention; OECD = Organisation for Economic Co-operation and Development; EIT = countries with economies in transition.

^a Combined financial and non-financial corporations.

^b Adjusted for mergers and acquisitions.

Table 18. Investments by sectors and sources as a percentage of total global investment in 2000

Investment flows	Agriculture, hunting, forestry and fishing	Mining and quarrying	Manu facturing	Electricity, gas and water supply	Wholesale retail trade	Construction	Transport, storage and communi cations	Financial intermediation; real estate, renting and business activities	Public administration and defence; compulsory social security	Education; health and social work; other community, social and personal services	Total
Total investment, (billion 2000 USD)	175	139	1 301	257	621	438	889	2 611	622	696	7 750
Domestic investment	93.14	66.44	71.93	68.81	64.74	97.04	65.45	43.40	84.96	81.92	64.64
FDI flows	0.97	33.18	22.09	12.19	19.44	1.16	16.73	23.92	-	17.30	17.89
International debt	5.39	0.16	5.95	16.44	15.82	1.79	16.91	32.67	15.04	0.60	17.25
ODA total	0.50	0.23	0.04	2.55	-	-	0.90	-	-	0.19	0.23
Bilateral	0.30	0.19	0.03	1.67	-	-	0.50	-	-	0.17	0.14
Multilateral	0.20	0.04	0.00	0.88	-	-	0.41	-	-	0.01	0.08

Sources: United Nations Statistics Division, National Accounts Main Aggregates database; Bank for International Settlements, Monetary and Economic Department, *International Finance Statistics* and electronic data for international bonds and bondware; World Bank, *World Development Indicator 2006*; and Organisation for Economic Co-operation and Development, Creditor Reporting System database.

Notes: Wholesale retail trade = Wholesale retail trade, repair of motor vehicles, motorcycles etc. and hotels and restaurants.
The figures in the first row are in dollar value, while the other rows are in percentage values.

Table 19. Total cumulative energy sector lending by development banks, 1995–2005

Energy sector	Total lending by development banks	
	Share in total lending (percentage)	Million 2005 USD
Energy policy and admin. management	40	14 497
Electrical transmission/distribution	21	7 452
Energy generation: fossil fuel	16	5 689
Multi-fuel thermal power plants	13	4 677
Oil-fired power plants	-	-
Gas-fired power plants	3	1 012
Coal-fired power plants	-	-
Energy generation: clean energy	16	5 407
Renewable energy planning/development programmes /incentives/surveys	7	2 652
Nuclear power plants	-	-
Hydroelectric power plants	7	2 363
Geothermal energy	1	202
Wind power	1	190
Biomass	-	-
Solar energy	-	-
Coal, oil and gas extraction	6	2 274
Gas distribution	3	992
Energy education/training	-	-
Energy research	0.01	5
Total	100	36 317

Source: OECD, 2007.

Table 20. Total cumulative lending in the industry sector in developing countries from development banks, 1995–2005

Industry sector	Share in total lending (percentage)	Million 2005 USD
Industrial policy and admin. Management	51.6	5 935
Industrial development	3.0	340
SME development	27.6	3 181
Cottage industries and handicraft	0.0	0
Agro-industries	2.6	297
Forest industries	0.0	0
Textiles – leather and substitutes	0.2	17
Chemicals	0.0	0
Fertilizer plants	0.5	58
Cement/lime/plaster	1.7	190
Energy manufacturing	4.1	475
Basic metal industries	1.0	112
Engineering	1.3	152
Transport equipment industry	3.5	403
Technological research and development	3.0	350
Total	100	11 509

Source: OECD, 2007.

Table 21. Total cumulative lending in the transport sector in developing countries from development banks, 1995–2005

Transport sector	Share in total lending (percentage)	Million 2005 USD
Transport policy and admin. management	19.4	11 820
Road transport	62.3	38 016
Rail transport	12.0	7 346
Water transport	3.0	1 832
Air transport	2.5	1 547
Storage	0.8	491
Total	100	61 053

Source: OECD, 2007.

Table 22. Total cumulative agriculture sector lending by development banks, 1995–2005, relevant for mitigation

Sector	Share in total lending (percentage)	Cumulative million 2005 USD
Agricultural policy and admin. management	61.5	9 289.0
Agricultural development	38.5	5 815.5
Total	100	15 104.5

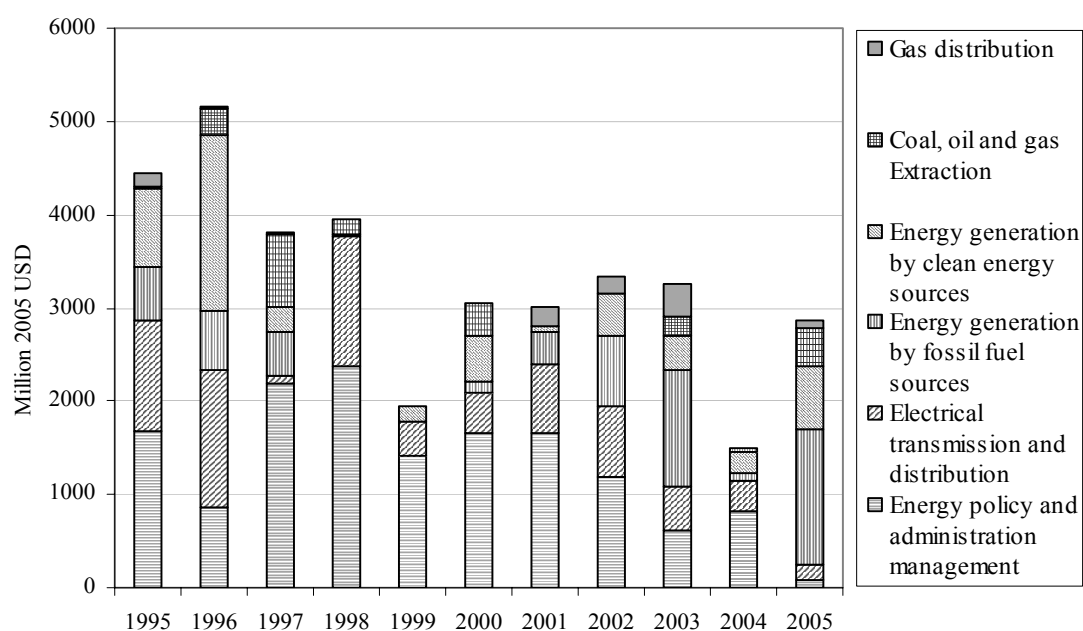
Source: OECD, 2007.

Table 23. Total cumulative forestry sector lending by development banks relevant for mitigation, 1995–2005

Sector	Percentage of total	
	lending	Million 2005 USD
Forestry policy & admin. management	38.0	525.0
Forestry development	61.0	841.6
Fuelwood/charcoal	1.0	14.0
Total	100	1 380.6

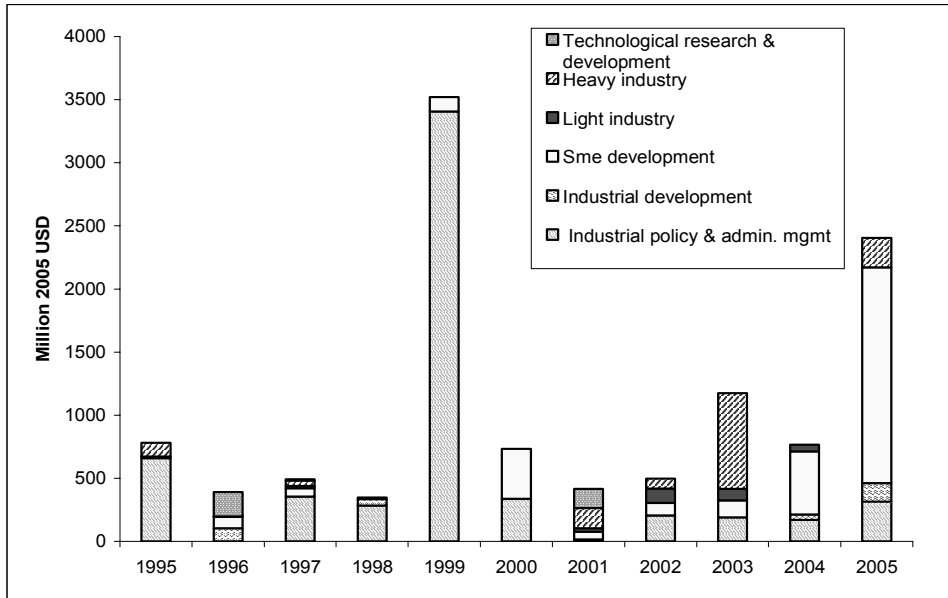
Source: OECD, 2007.

Figure 4. Trend in energy sector lending by development banks in developing countries by different energy sector categories, 1995–2005
(million 2005 United States dollars)



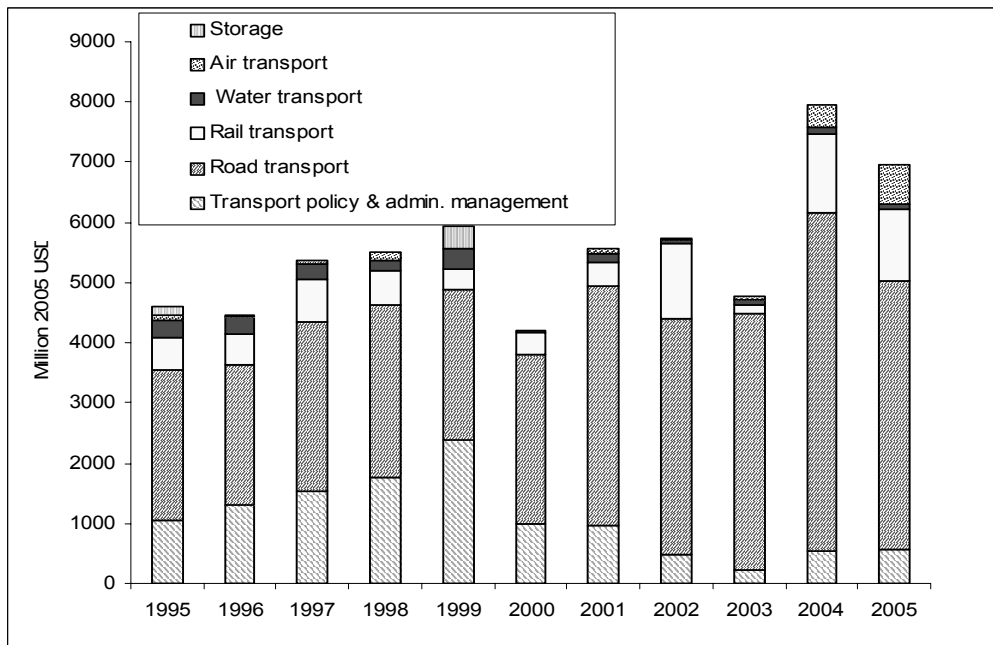
Source: OECD, 2007.

Figure 5. Trends in development bank lending by industry sector categories in developing countries, 1995–2005
 (million 2005 United States dollars)



Source: OECD, 2007.

Figure 6. Trends in development bank lending by transport sector categories in developing countries, 1995–2005
 (million 2005 United States dollars)



Source: OECD, 2007.

Annex II

Definitions of technical terms

Equity investments represent partial ownership of the company receiving the investment and entitle the investor to a portion of the profits. Such investments are made by public and private institutions, in privately held (venture capital, foreign direct investment) or publicly traded (portfolio equity investment) ownership shares. Equity stakes in infrastructure project development companies or privatized government companies are the main equity investments considered in this report.

Foreign direct investment (net) is defined as investment that is made to acquire a lasting management interest (usually of 10 per cent of voting stock) in a company operating in a country other than that of the investor (defined according to residence), the investor's purpose being an effective voice in the management of the company. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments.

Grants are defined as legally binding commitments that obligate a specific value of funds available for disbursement for which there is no repayment requirement.

Other private net flows are the net flows on debt to private creditors excluding net foreign direct investment and portfolio equity flows. Net flows (or net lending or net disbursements) are disbursements minus repayments of principal.

Infrastructure is the basic equipment, utilities, productive enterprises, buildings, installations, technology, and services essential for the development, operation and growth of an organization, city or nation. In the text it is referred to as infrastructure, technology and equipment.

Loans are investments for which both the amount of the loan (the principal) and a return on the loan (interest) must be repaid over time. Loans can be made by both public and private institutions, for short (bank lending) and long (bonds) periods of time. Medium- to long-term loans made in support of infrastructure and similar projects are the main focus of this report.

Other official net resource flows are the sum of official net flows on long-term debt to official creditors (excluding the IMF) excluding official grants (excluding technical cooperation).

Portfolio equity flows are the sum of country funds, depository receipts (American or global), and direct purchases of shares by foreign investors.

Private net resource flows are the sum of net flows on debt to private creditors plus net foreign direct investment and portfolio equity flows. Net flows (or net lending or net disbursements) are disbursements minus repayments of principal.

Technical cooperation grants include free-standing technical cooperation grants, which are intended to finance the transfer of technical and managerial skills or of technology for the purpose of building up general national capacity without reference to any specific investment projects; and investment-related technical cooperation grants, which are provided to strengthen the capacity to execute specific investment projects.

Workers' remittances and compensation of employees comprise current transfers by migrant workers and wages and salaries earned by non-resident workers. In addition, migrants' transfers – a part of capital transfers – are treated as workers' remittances in Global Development Finance.

Annex III

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