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Financial mechanism of the Convention
Matters relating to the implementation of decision 5/CP.8

Report on the assessment of funding necessary to assist developing countries in fulfilling their commitments under the Convention prepared in the context of the Memorandum of Understanding between the Conference of the Parties and the Council of the Global Environment Facility

Note by the secretariat*

Summary

This note, prepared in collaboration with Global Environment Facility (GEF) secretariat, contains information relevant to the assessment of the funding necessary to assist developing countries in fulfilling their commitments under the Convention. It includes information and data identified in paragraph 1 (a)–(d) of the annex to the memorandum of understanding and presented in national communications of Parties not included in Annex I to the Convention and of Parties included in Annex II to the Convention, and guidance provided by the Conference of the Parties to the GEF. Also included is information provided by United Nations organizations and international financial institutions on their activities which support the efforts of Parties in the implementation of the Convention, as well as references to private capital flows.

* This document was submitted later than originally expected because it had to be prepared in consultation with a number of institutions and in collaboration with the secretariat of the Global Environment Facility, as mandated by the Subsidiary Body for Implementation.

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I. Introduction

A. Mandate

1. The Subsidiary Body for Implementation (SBI), at its twentieth session, welcomed the successful and substantial third replenishment of the Global Environment Facility (GEF) Trust Fund which was achieved through existing arrangements for GEF replenishments. It also noted that inputs by the Conference of the Parties (COP) to fourth replenishment discussions should be consistent with the provisions of the Convention, and of the annex to the memorandum of understanding (MOU) between the COP and the Council of the GEF on the determination of funding necessary and available for the implementation of the Convention, as brought into effect by decision 12/CP.3. It therefore requested the secretariat to prepare, in collaboration with the GEF secretariat, a report, to be considered by the COP, at its tenth session, on the assessment of the funding necessary to assist developing countries in fulfilling their commitments under the Convention and in order for the COP to contribute to the joint determination, with the Council of the GEF, of the amount of funding necessary and available for the implementation of the Convention as defined in the above-mentioned MOU. The report should be based on information and data identified in paragraph 1 (a)–(d) of the annex to the above-mentioned MOU, in accordance with the guidance provided by the COP, and should also not prejudge the joint determination process.

B. Scope of the note

2. The secretariat based this note on the annex to the MOU and the guidance provided by the COP to the GEF. It also considered information from national communications of Parties not included in Annex I to the Convention (non-Annex I Parties) relating to financial and technical needs for the implementation of the Convention, and third national communications of Parties included in Annex II to the Convention (Annex II Parties) relating to bilateral assistance to support the efforts of non-Annex I Parties in the implementation of the Convention. Other sources included GEF reports to the COP and relevant GEF Council documents, and information provided by United Nations organizations and international financial institutions, including the World Bank Group and regional development banks, on their activities which support the implementation of the Convention by developing countries, upon the request of the secretariat. The secretariat also consulted publications of the United Nations Conference on Trade and Development (UNCTAD) and the World Bank for information on private capital flows. This note was prepared in collaboration with the GEF secretariat.

3. Chapter II briefly outlines the relevant sections of the Convention as they relate to the provision of new and additional resources for the implementation of the Convention by developing countries. It also makes reference to the procedures and the parameters in accordance with which the COP and the Council are jointly to determine the aggregate GEF funding requirements for the purposes of the Convention. Chapter III summarizes the guidance provided by the COP to the GEF as it relates to funding, and provides an overview of the needs for financial and technical assistance as contained in the compilation and synthesis reports on national communications of non-Annex I Parties. Chapter IV describes the three earlier replenishments of the GEF Trust Fund and programme delivery of the GEF in the climate change focal area. Chapter V describes other sources of funding available for the implementation of the Convention including the new climate change funds, bilateral and multilateral institutions such as the United Nations system, and international financial institutions, such as the World Bank Group and the regional development banks. It also makes a brief reference to the potential of private capital flows to support the implementation of project activities that have climate change implications. The potential contribution of the clean development mechanism (CDM) as a source of funding and technology transfer for the implementation of the Convention is also mentioned.

C. Possible action by the Subsidiary Body for Implementation

4. The SBI may wish to take into account information provided in this report when considering the assessment of funding needs of developing countries for the implementation of the Convention.

II. Agreement between the Conference of the Parties and the Council of the Global Environment Facility

5. Article 4.3 of the Convention stipulates that developed country Parties and other developed Parties included in Annex II to the Convention shall provide new and additional financial resources to meet the agreed full costs incurred by developing country Parties in complying with their obligations under Article 12.1 of the Convention.[1] They shall also provide such financial resources, including for the transfer of technology, needed by the developing country Parties to meet the agreed full incremental costs of implementing measures that are covered by Article 4.1 of the Convention, and that are agreed between a developing country Party and the international entity or entities referred to in Article 11 of the Convention, in accordance with that Article. The implementation of these commitments shall take into account the need for adequacy and predictability in the flow of funds and the importance of appropriate burden sharing among the developed country Parties.

6. One avenue for a developed country Party or other developed Party included in Annex II to the Convention to provide new and additional financial resources is through contributions to the financial mechanism of the Convention. Article 11 of the Convention defines the financial mechanism and provides that the mechanism is to function under the guidance of and be accountable to the COP, which shall decide on its policies, programme priorities and eligibility criteria relating to the Convention. Article 21.3 of the Convention designates the GEF as an operating entity of the financial mechanism on an interim basis and decision 3/CP.4 confirmed the GEF as an operating entity of the financial mechanism.

7. At SBI 20 the secretariat presented a note on the implementation of decisions 12/CP.2 and 12/CP.3 on the determination of funding for the implementation of the Convention. In that note the secretariat outlined the provisions of the annex to the MOU between the COP and the Council of the GEF on the determination of funding necessary and available for the implementation of the Convention as brought into effect by decision 12/CP.3.[2]

III. Guidance from the Conference of the Parties and overview of needs

8. This chapter provides summaries of relevant sections of COP guidance to the GEF. The COP has provided guidance to the GEF on several issues including support for the preparation of national communication and national climate change programmes; adaptation; capacity-building; technology transfer; regional institutions, centres of excellence, databases and systematic observations; and Article 6 of the Convention. It also contains an overview of the needs identified in national communications of

[1] Article 12.1 stipulates that in accordance with Article 4.1, each Party shall communicate to the Conference of the Parties, through the secretariat, the following elements of information: (a) national inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, to the extent its capacities permit, using comparable methodologies to be promoted and agreed upon by the Conference of the Parties; (b) a general description of steps taken or envisaged by the Party to implement the Convention; and (c) any other information that the Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its communication, including, if feasible, material relevant for calculations of global emission trends.

[2] FCCC/SBI/2004/6.

non-Annex I Parties submitted to the secretariat and contained in the five compilation and synthesis reports previously prepared by the secretariat and presented to Parties in response to COP guidance.

A. Preparation of national communications and national programmes

1. COP guidance

9. COP guidance to the GEF on its support for the preparation of the national communications is contained in decisions 11/CP.1, 11/CP.2, 2/CP.4, 6/CP.7, 6/CP.8 and 4/CP.9. The GEF was requested to fund the agreed full costs incurred by developing country Parties in complying with their obligations under Article 12.1. It should also finance the formulation of national programmes on climate change and be available to assist, if so requested, in the implementation of these national programmes. In the implementation of these programmes, it should support agreed activities to mitigate climate change, as referred to in the Convention, in particular in Article 4.1, consistent with Article 4.3. The GEF should also be supportive of national development priorities which contribute to a comprehensive national response to climate change.

2. Needs identified in national communications

10. A lack of capacity, financial resources and good quality data were frequently reported in the national communications of non-Annex I Parties. In the preparation of national greenhouse gas (GHG) inventories, needs expressed related to the improvement of the scope and quality of national activity data, relevant emission factors and conversion factors (particularly for the estimation of non-CO_2 emissions); and institutional strengthening to ensure continuous collection, archiving, and management including the establishment of databases, and modelling to assess GHG emissions in the agriculture sector, especially in rice fields, and to undertake research studies on savannah burning.

11. On vulnerability assessments and identification of adaptation options in the context of preparing national communications, the needs expressed included the building and upgrading of research capacity, data collection, and analysis. For most Parties, the need to improve upon the scope of vulnerability assessments already carried was considered essential for identification and effective implementation of adaptation options, which are consistent with stage II adaptation activities.

12. Ten non-Annex I Parties have prepared national programmes to address climate change with funding from the GEF. As others undertake the task of preparing their national programmes, information contained in these programmes will provide an indication of future needs of non-Annex I Parties to implement the Convention.

B. Adaptation

1. COP guidance

13. COP guidance to GEF on adaptation is contained in decisions 11/CP.1, 11/CP.2, 2/CP.4, 6/CP.7 and 4/CP.9. The GEF should also provide funding to developing country Parties to implement adaptation measures under Article 4.1 of the Convention for stage II adaptation activities (measures, including further capacity-building, which may be taken to prepare for adaptation, as envisaged by Article 4.1(e)) identified in stage I activities and in the context of their national communications (decision 2/CP.4, paragraph 1 (a)).

14. The guidance requested the GEF to provide funding for the establishment of pilot or demonstration projects to show how adaptation planning and assessment can be translated into projects that will provide real benefits, and may be integrated into national policy and sustainable development planning. The GEF should provide funding for building capacity for preventive measures, planning, and

preparedness for disasters relating to climate change. The GEF should operationalize the new strategic priority in the climate change focal area (piloting an operational approach to adaptation) as soon as possible and support strengthening and establishing early warning systems for extreme weather events in an integrated and interdisciplinary manner to assist developing country Parties.

2. Needs identified in national communications

15. Many Parties also outlined problems in developing climate change scenarios, the use of general circulation models and impact assessment models, especially at the regional and local levels. Others mentioned the need for assistance to undertake or further improve socio-economic scenarios, conduct integrated assessment of climate change impacts in different sectors of the economy and in the broader context of social development priorities. Parties also expressed the need to improve projections of future changes in temperature and precipitation and reduce uncertainties, and to develop capacity to undertake assessments in water resources and costal zones. They also expressed their need for financial and technical assistance to enable them conduct climate change related research in agriculture, human settlements and human health. Some Parties also identified adaptation options in the areas of forestry, biodiversity, ecosystems and fisheries.

16. Most Parties indicated the need for financial and technical support to implement adaptation options identified in their national communications. The lack of institutional capacity and inadequate human resources were commonly reported. Parties also emphasized the need for funding and technology to implement adaptive measures in areas identified in the assessment namely, water resources management, agriculture, land use, human health and coastal zone management. Many Parties included a list of adaptation options and/or project concepts for funding, but only few elaborated these into project proposals.

17. Several Parties indicated that identified adaptation options in forestry, biodiversity, ecosystems, and fisheries would require financial and technical support. Some Parties emphasized the need to develop capabilities to apply and integrate adaptation measures into national development, and to strengthen the legal, institutional and administrative arrangements to respond to the adverse effects of climate change.

C. Capacity-building

1. COP guidance

18. COP guidance to GEF on capacity-building is contained in decisions 2/CP.4, 6/CP.7, 6/CP.8 and 4/CP.9. The GEF should provide funding to developing country Parties to build capacity for participation in systematic observational networks to reduce scientific uncertainties relating to the causes, effects, magnitude and timing of climate change; and to enhance the capacity of their subregional and/or regional information networks. This will enable such networks to serve as repositories of climate change related information on vulnerability and adaptation assessments.

19. The GEF was also requested to continue to support developing countries in implementing the capacity-building framework annexed to decision 2/CP.7. It should also support capacity-building for the assessment of technology needs to fulfil the commitments of developing countries under the Convention, the identification of sources and suppliers of these technologies, and the determination of modalities for the acquisition and absorption thereof (decision 2/CP.4, paragraph 1 (g) (i)). Other activities to be supported include country-driven initiatives which will enable non-Annex I Parties to design, evaluate and manage these projects (decision 2/CP.4, paragraph 1 (g) (ii)). The GEF should also facilitate access to the information provided by international centres and networks, and the dissemination of this information in support of activities to implement the Convention.

2. Needs identified in national communications

20. Many Parties identified needs in capacity-building in human resources development, institutions, methodologies, technology and equipment, and information and networking. Parties also reported insufficient human and institutional capabilities and financial resources to formulate and prepare mitigation and adaptation project proposals for funding. Some Parties expressed the need to improve research and systematic observation through capacity-building in scientific research.

D. Technology transfer

1. COP guidance

21. COP guidance to GEF on technology transfer is contained in decisions 2/CP.4, 6/CP.8 and 4/CP.9. The GEF should provide funding to developing country Parties on enabling activities to enable them identify and submit to the COP their prioritized technology needs, especially those relating to key technologies needed in particular sectors of their national economies conducive to addressing climate change and minimizing its adverse effects; and to the transfer of environmentally sound technologies and know-how in support of the Convention. It should provide financial resources to non-Annex I Parties to carry out technology needs assessments.

2. Needs identified in national communications

22. A number of Parties emphasized the need to promote technology transfer in the areas of GHG mitigation and adaptation. Others reported a lack of access to appropriate technologies, and the existence of barriers and difficulties such as high cost and lack of information and inadequate policy frameworks associated with transfer of new technologies to address climate change.

E. Regional institutions, centres of excellence, databases and systematic observation

1. COP guidance

23. COP guidance on regional institutions, centres of excellence, databases and systematic observation is contained in decisions 6/CP.7 and 4/CP.9. The GEF should support the strengthening and, where necessary, establishment of national, subregional or regional databases on climate change; and also of subregional and/or regional climate change related institutions and centres of excellence to enable these institutions and centres to provide a supportive framework (decision 6/CP.7, paragraph 1 (f)). The GEF was invited to give appropriate consideration to addressing the priority needs identified by non-Annex I Parties in their regional action plans relating to global observing systems for climate, noting the existence of other bilateral and multilateral agencies and mechanisms that support global climate observing systems.

2. Needs identified in national communications

24. Parties also reported that the lack of financial resources, technical support and human capacities has restricted the capacity of their institutions and agencies responsible for collecting, collating, managing and using meteorological and hydrological data. Important gaps existed in establishing new monitoring stations, improving technical capacities, coordinating and strengthening research and educational institutions in meteorology and climatology, database development and management, and modernizing, rehabilitating and strengthening existing observation systems, stations and networks.

25. Some Parties reported the need for information exchange among national, regional and international experts, and intergovernmental and non-governmental organizations. Others indicated a

need to establish and/or enhance national and/or regional centres of excellence to improve the exchange of and public access to relevant information. They also emphasized the need to strengthen regional cooperation initiatives and to create a climate change network to promote information exchange and cooperation. Others highlighted the need to implement early warning systems for disasters relating to climate change.

F. Article 6 of the Convention

1. COP guidance

26. COP guidance to GEF on Article 6 is contained in decisions 11/CP.1, 2/CP.4, 6/CP.7, 6/CP.8 and 4/CP.9. The GEF should provide funding to developing country Parties to develop, strengthen and/or improve national activities for public awareness and education on climate change and response measures, to undertake more in-depth public awareness and education activities, community involvement and participation in climate change issues, and to support the implementation of the work programme on Article 6 of the Convention contained in the annex to decision 11/CP.8.

2. Needs identified in national communications

27. Most Parties emphasized the need to raise societal awareness and knowledge on climate change issues through the media, educational and research institutions and public and private sector institutions. All Parties noted that the major barrier to the implementation of education, training and public awareness programmes was the lack of financial and technical resources. Some Parties reported the need to develop or improve national programmes for formal and non-formal education, and to strengthen universities and research institutions to undertake climate change studies. Almost all Parties acknowledged the need for training on climate change issues especially for their policy makers and planners. Many Parties provided information on their needs and priorities for education, training and research relating to vulnerability and adaptation assessments.

G. Projects identified in national communications

1. COP guidance

28. COP guidance on projects identified in national communications is contained in decisions 11/CP.1, 11/CP.2 and 6/CP.7. The GEF should provide support for developing and implementing prioritized projects identified in the national communications of developing countries. It should also finance the agreed full incremental costs of projects relating to other commitments contained in the Convention only upon request of the Party.

2. List of projects submitted in national communications by non-Annex I Parties in accordance with Article 12.4

29. Article 12.4 of the Convention states that developing country Parties may, on a voluntary basis, propose projects for financing, including specific technologies, materials, equipment, techniques or practices that would be needed to implement such projects, together with, if possible, an estimate of all incremental costs, of the reductions of emissions and increments of removals of GHGs, and an estimate of the consequent benefits. As at 24 September 2004, a total of 741 project proposals contained in the national communications of non-Annex I Parties had been listed by the secretariat. Information on these proposals is contained in documents FCCC/SBI/2004/INF.13 and FCCC/SBI/2004/INF.16.

30. Of the project proposals presented, only 197 included qualitative and/or quantitative information describing the expected benefits of the project. No project concepts or profiles provided an estimate of the incremental cost(s) associated with their implementation. However, 114 proposals estimated the

project costs either as a single estimate of total project cost, or as a project budget including estimated costs for specific project activities and materials; the cost for these projects amounted to about USD 2.7 billion.

31. This list of projects provides a good indication of the needs of Parties and as such represents the activities for potential funding by the GEF and bilateral, regional and other multilateral channels.

IV. Global Environment Facility Trust Fund replenishments and programme delivery

A. First, second and third replenishments

32. Since its establishment in March 1991 as a three-year pilot programme, the GEF Trust Fund has received three replenishments. The pledged resources were USD 0.86, 2.00, 2.75 and 3.0 billion for the pilot phase (1991–1994), first replenishment (1995–1998), second replenishment (1998–2002) and third replenishment (2002–2006), respectively. The total received by the GEF Trust Fund was less than the total pledged. As at June 2004, the GEF has committed a total of USD 5 billion[3] to the focal areas of biodiversity, climate change, international waters, land degradation, ozone depleting substances, persistent organic pollutants, and multi-focal area.

33. The main factors that were considered in deciding on the levels of replenishment included the strategic direction for GEF financing as defined through the operational programmes (OPs) and COP guidance; the rapid increase in the number of eligible recipient countries ratifying the Convention; the large number of enabling activities; and the rapid development of the GEF projects pipeline. Other factors were the absorptive capacity of the countries; delivery capacity of the GEF implementing and executing agencies; the amount of GEF financing within the context of trends in financing for the global environment; the amount of financing provided by bilateral agencies and the private sector; and the volume of resources required for operations and for administrative fees.

34. The total amount of the GEF grants for climate change projects undertaken between 1991 and 2004 was about USD 1.81 billion (36 per cent of total GEF grants to all its focal areas). See table 1 for a breakdown by GEF phases of GEF grants to support the implementation of climate change projects, excluding funding for enabling activities and project development facilities. These grants attracted about USD 9.5 billion in co-financing, corresponding to a co-financing ratio of about 5.2:1. Projects supported by the GEF in its climate change focal area fall into the interrelated categories listed below:

(a) Mitigation measures which lead to the reduction of GHG emissions from anthropogenic sources or protect or enhance removal of such gases by sinks. These mitigation projects are developed under long-term operational programmes

(b) Short-term response measures (STRMs) in the form of high-priority projects which are not enabling activities or mitigation projects developed under long-term operational programmes, but yield climate change benefits at low cost

(c) Enabling activities

(d) The Small Grants Programme administered by the United Nations Development Programme (UNDP), which offers grants of up to USD 50,000 to eligible projects.

[3] FCCC/CP/2004/6.

Table 1. Climate change project allocations in GEF phases (excluding enabling activities and project development facilities[a])

GEF phases	Number of projects	GEF funding (USD million)
Pilot phase (1991–1994)	30	207.24
Phase-1 (1995–1998)	40	425.71
Phase-2 (1998–2002)	103	592.27
Phase-3 (2002–to date)	34	205.11
TOTAL	**207**	**1 430.33**

Source: GEF Climate Change Programme Study 2, 2004.

[a] Project development facilities (PDF) are funds provided by the GEF to assist a proposer to develop a GEF co-financed project. Three categories or "blocks" of such funding are available, namely PDF Blocks A, B and C. PDF Block A grants with a ceiling of USD 25,000 are provided to finance early stages of project or programme identification, and are approved through the GEF's implementing agencies (UNDP, the United Nations Environment Programme (UNEP) and the World Bank). PDF Block B grants (up to USD 350,000 for single country projects and up to USD 700,000 for multi-country projects) are made available to finance information gathering activities and stakeholder consultations which are necessary to complete full-sized project proposals and provide necessary supporting documentation. These grants are approved by the GEF Chief Executive Officer. PDF Block C grants (up to USD 1 million) provide additional financing, as required, for large and complex projects to complete technical design and feasibility studies. PDF Block C grants are normally made available after a project proposal is approved by the GEF Council.

B. Current climate change portfolio of the Global Environment Facility, programme delivery, evolving priorities and future prospects[4]

1. Programme delivery and overview of GEF climate change portfolio

35. The largest share of GEF resources (about USD 1.3 billion) has been assigned to long-term mitigation projects which lead to the reduction of GHG emissions from anthropogenic sources or enhance removal of such gases by sinks. In its report to the COP, at its first session, the GEF reported that these projects were envisaged to have "much greater impact because the projects would drive down costs, build capacity, and start to put in place the technologies that can ultimately avoid GHG emissions".[5] These climate change mitigation projects now fall under the four operational programmes of the climate change focal area.

36. A smaller share of funds (USD 112 million) has been committed to STRMs. These include projects that "maximize short-term cost-effectiveness by, for example, sequestering or abating the emissions of carbon dioxide that have the lowest unit incremental costs".[6] Although their rate of entry into the GEF work programme has declined somewhat, they account for six per cent of total resources and four per cent of projects.

37. Although limited in financial terms, GEF-supported enabling activities facilitate implementation of effective climate change response measures and preparation of national communications. For the preparation of initial national communications using the guidelines annexed to decision 10/CP.2, the ceiling for expedited[7] financing was USD 350,000. However, a ceiling of USD 405,000 is applicable for expedited financing for the preparation of second and/or subsequent national communications using the

[4] Second GEF climate change programme study, draft, August 2004.
[5] FCCC/CP/1995/4.
[6] FCCC/CP/1995/4.
[7] Expedited procedures of the GEF are streamlined procedures for approving enabling activities and medium-size projects which conform to a set of criteria set by the GEF Council. These procedures incorporate key elements of the GEF project cycle while shortening the time required for project development and approval.

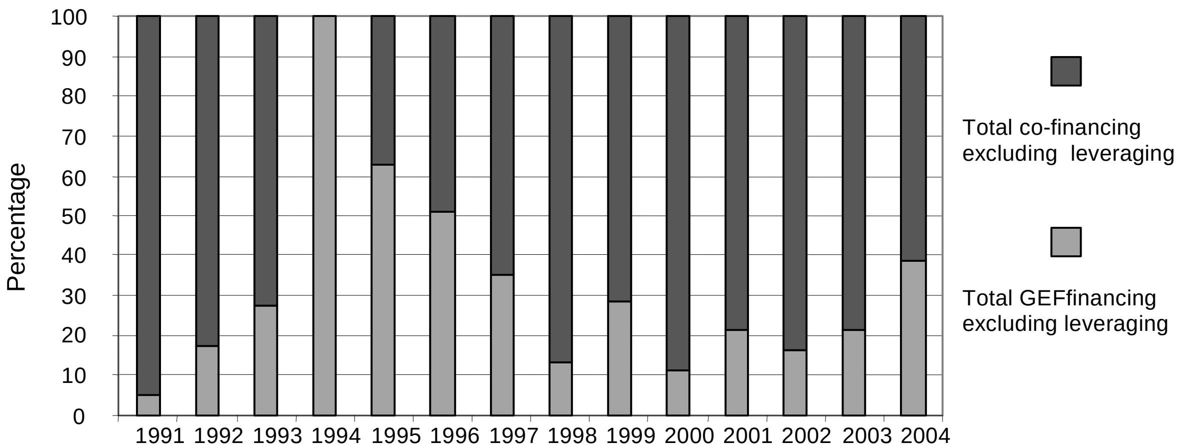
reporting guidelines annexed to decision 17/CP.8; these guidelines impose greater demands in respect of communication of information from non-Annex I Parties.

38. The GEF provided financing to support 132 non-Annex I countries in preparing their initial national communications. As of June 2004, the GEF had provided USD 70.77 million for national projects, capacity-building in priority areas and a number of regional and global projects to assist non-Annex I countries in preparing their initial national communications. GEF grants earmarked to date for second and subsequent national communications amount to USD 60.57 million.

39. The GEF climate change portfolio includes projects in 143 countries. As at July 2004, 144 full-size projects had been approved, accounting for 67 per cent of the total financial allocation of USD 1.81 billion for the climate change focal area. Since the introduction of medium-size projects in 1998, 40 such projects have entered the GEF work programme, accounting for only two per cent of total financial allocations.

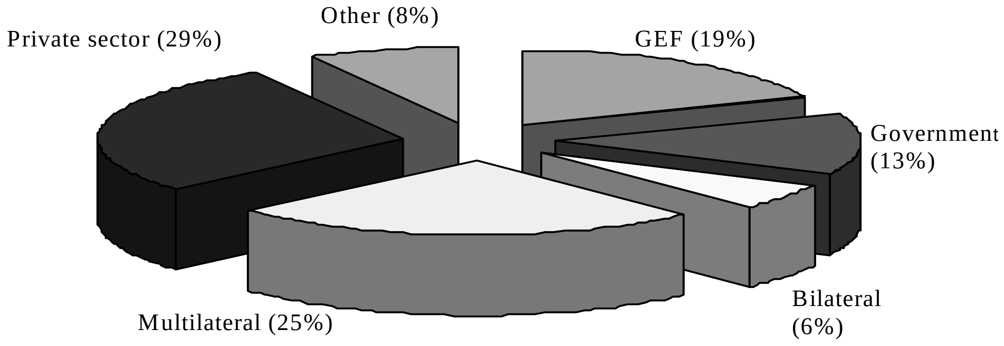
40. Figure 1 illustrates the ratio of GEF financing to co-financing the financial years 1991–2004. Within the exception of 1994 where the GEF fully funded one pre-investment feasibility study, annual co-financing levels have ranged from 37 per cent in 1995 to 89 per cent in 2000. Available data therefore suggest that the GEF has been successful in attracting additional resources to support the implementation of climate change projects. However, it is essential for the GEF to continue its efforts at leveraging even more resources from other funding channels.

Figure 1. Ration of GEF grant financing to co-financing by financial year (1991–2004)



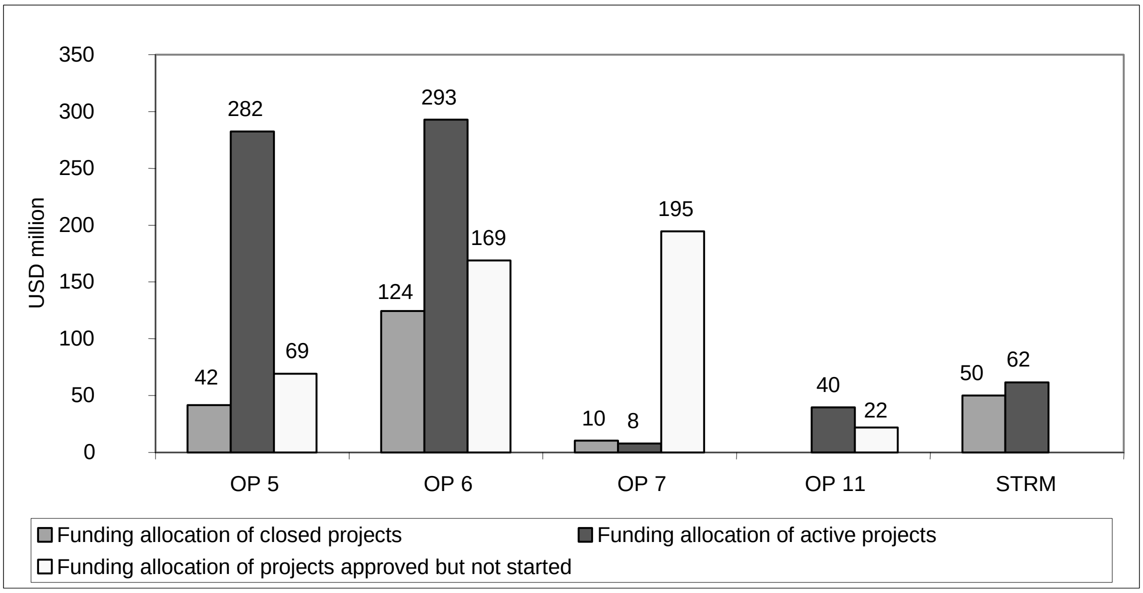
41. Figure 2 shows the distribution of GEF financing and co-financing for full-size projects from 1991–2004. Although the chart shows a government contribution of 13 per cent, much of the multilateral contributions are in the form of loans, for which governments assume ultimate responsibility. If these two elements are combined, the government contributions come to nearly 44 per cent of total project financing, revealing the important contributions of governments towards the implementation of projects that address climate change and enhance sustainable development.

Figure 2. GEF grant financing and co-financing by source (1991–2004)



42. Operational programme funding allocation for GEF climate change projects, 1991–2004, is shown in figure 3. OP 6[8] accounts for 44 per cent of total project allocations of about USD 1.4 billion. About a third of projects fall within OP 5.[9] OP 11,[10] on environment-friendly transport, was formally established by the GEF Council only in 2001, and is limited to eight approved projects. OP 7,[11] which aims to reduce the long-term costs of low GHG emitting energy technologies, has only two projects under implementation and six approved projects pending.

Figure 3. Operational programme funding allocation for GEF climate change projects, 1991–2004



Source: Climate Change Programme Study 2, 2004.

8 Promoting the adoption of renewable energy by removing barriers and reducing implementation costs.
9 Removal of barriers to energy efficiency and energy conservation.
10 Promoting environmentally sustainable transport.
11 Reducing the long-term costs of low-greenhouse-gas-emitting energy technologies.

2. Evolution of strategic priorities

43. Seven strategic priorities established by the GEF Council in May 2003 now guide GEF programming of resources. The development of strategic priorities was prompted by decisions taken during the third replenishment negotiations that "strategic targets for each GEF programme … will be developed for the approval of Council…". This was the first time that allocations and aggregate targets had been set for the GEF focal areas.[12] The targets for the third replenishment (GEF–3) are based on projected levels of financing of USD 529 million for climate change, and reflect the cumulative impact of all projects approved during the financial years 2003–2006. An intermediate target was also established: approval of projects to avoid 200 million tonnes CO_2, by the end of 2004.[13] Six of the seven strategic priorities addressed GHG mitigation. The strategic priority on adaptation (SPA) was added by the GEF Council in November 2003, in response to COP guidance[14] (see table 2).

Table 2. Climate change strategic priorities and future targets

Strategic priorities	Indicators and GEF-3 targets (FY 03-06)	Funding (USD million)
SP1. Transformation of markets for high-volume low GHG products or processes	12,000 GWh annual energy savings	78
SP2. Increased access to local sources of financing	Funding volume of public and/or private financier lending for applications targeted by projects: USD 700 million	84
SP3. Power sector policy frameworks supportive of renewable energy and energy efficiency	Expected 4000MW additional power sector investments Ten additional countries with explicit renewable energy/energy efficiencypower sector policies	128
SP4. Productive uses of renewable energy	2 million additional people served with renewable energy, 20,000 additional social service institutions using renewable energy and 10,000 additional income-generating businesses from renewable energy	95
SP5. Global market aggregation and national innovation for emerging technologies	Actual and planned/committed additional global investment in targeted technologies, measured in number of business plans	65
SP6. Modal shifts in urban transport and clean vehicle/fuel technologies	20 cities with integrated sustainable transport plans in place 15 cities with bus rapid transit plans completed 3,000 km of additional bikeways constructed	79
SP7. Piloting an operational approach to adaptation (SPA)	Funding for financial year 2005–2007. Targets not determined	50

44. The GEF Business Plan for 2004–2006 outlines the GEF objective of "accelerating the shift from technology-based towards market-based approaches".[15] GEF projects aim not simply to make an immediate impact on GHG emissions but also to achieve sustainable market transformation that leads to a reduction or avoidance of emissions over the long term. The GEF's role is thus often catalytic. GEF barrier removal and market transformation strategies can be grouped into five broad categories:

[12] Strategic business planning; directions and targets, Annex 2: climate change <http://www.gefweb.org/Documents/Council_Documents/GEF_C21/C21.Inf.11-_Strategic_Business_Planning.pdf>.
[13] An assessment of whether this target has been reached will be conducted by the Monitoring and Evaluation Unit of the GEF when preparing the third overall performance study of the GEF to be completed in mid-2005.
[14] GEF/C.21/Inf.10, "A Proposed GEF Approach to Adaptation to Climate Change".
[15] The GEF Business Plans FY04–06. <http://www.gefweb.org/Documents/Council_Documents/GEF_C21/C.21.9_GEF_Business_Plan_FY0406.pdf>.

developing enabling policies; financing instruments and mechanisms; business models and providing enterprise support; disseminating knowledge/information and creating awareness; and demonstrating creative project approaches and technologies and building capacity.

45. In response to the increasing needs for adaptation to climate change, the GEF developed an approach to adaptation[16] which has three key elements:

(a) Continue and expand the GEF's support of adaptation activities within the context of national communications

(b) Support projects that link adaptation and measures that achieve other GEF-supported global environmental benefits

(c) Take greater consideration of climate change as a long-term risk to the sustainability of GEF projects and reduce such risk by conducting climate risk assessment of projects in the pipeline and developing a good practice for project design, review and implementation.

46. The GEF will assist countries to mainstream climate change into their development programmes and policies by funding adaptation projects that operationalize linkages between focal areas and promote integrated and cross-sectoral approaches to natural resources management. Currently the main source of GEF funding for adaptation is the GEF Trust Fund. The GEF will use experience from the pilot to develop good practices and estimates of the costs of adaptation to better mainstream adaptation into its activities.

47. The resource for this pilot window will be USD 50 million during 2005–2007 by re-allocating within the climate change focal area. Under this pilot programme, which has been operational since July 2004, the GEF will fund the incremental cost of those adaptation activities that generate global environmental benefits, as well as the incremental cost of selected adaptation activities that are identified as high priorities in national communications. The implementation of the strategic priorities will be facilitated by the process of reviewing the operational programmes, by May 2005, the results of which may impact the strategic priorities and their objectives.[17]

48. Among the GEF focal areas, the climate change portfolio depends the most on effective private sector participation.[18] As an outcome of the policy recommendations agreed as part of the third replenishment of the GEF Trust Fund, a paper reviewing private sector participation was developed for the May 2004 Council meeting. The paper discussed, among other options, opportunities for direct and indirect engagement of the private sector in GEF-funded projects.[19] Evidence suggests that potential exists to mobilize even greater levels of resources from the private sector to support the implementation of climate change projects.

3. Future prospects

49. Proactive future planning for the GEF climate change portfolio is difficult. Although the implementing agencies generally have some sense of coming projects, the GEF secretariat does not have a thorough knowledge of what may emerge at the country level. The GEF portfolio is shaped, in many

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[16] GEF Business plan FY05–07 (Pilot Window on Adaptation), 17 October 2003 <http://www.gefweb.org/Documents/Council_Documents/GEF_C22/C.22.6_Business_Plan_FINAL.pdf>.
[17] GEF/C.22/7 of October 2003, Action plan to respond to recommendations for improving GEF's performance.
[18] Mentioned in World Bank Power sector evaluation; environment sector evaluation; the UNDP 2003 Annual Report of the Administrator; and the review of the GEF's private sector engagement (GEF/C.22/Inf.6).
[19] GEF/C.23/11, Principles for engaging the private sector, May 2004.

respects, bottom-up. However, as outlined above, the GEF Council also establishes strategic priorities which are communicated to the staff of the implementing agencies as well as country-level staff.

50. Future projects are only registered by the GEF secretariat once they officially enter the GEF pipeline. The GEF secretariat is currently undertaking a much needed review of available pipeline data, eliminating pre-pipeline projects that cannot yet be addressed and clarifying the status of pending projects. It is likely that some possible future projects in the pipeline may be dropped or withdrawn.

51. The portfolio of possible future activities includes those that have been endorsed/approved by the GEF Council but have not yet started, project development facilities (PDFs), and pipeline, pre-pipeline, deferred and pending projects. A breakdown of future projects is presented in table 3.

Table 3. GEF Future Climate Change projects by status[a]

Project status	Number of projects	Total GEF fund allocation (USD million)
Chief Executive Officer endorsed /approved (not yet started)	40	465.34
PDF A, B and C	64	280.8
Other (pipeline /pre-pipeline/ deferred)	31	110.4
Pending	27	189.33
TOTAL	**162**	**1 045.87**

Source: Climate Change Programme Study 2, 2004.
[a] Excludes enabling activities.

52. Among the projects that are endorsed, some are about to start and others are awaiting fulfilment of necessary conditions. Examples of the latter are several OP 7 solar thermal and OP 11 fuel cell buses projects. More than half (21 of 40) are renewable energy projects. Of these, three projects aim to develop wind energy markets, although the majority promote mixed technologies (micro-hydro, demonstration of stand-alone renewable energy technologies (RETs)) or diesel/hybrid RETs in mini-grid situations, with components to support photovoltaic systems in general). Often, these projects also include components for addressing policy, legal and regulatory barriers. There is less emphasis on projects that focus only or primarily on photovoltaic systems for home use, and more emphasis on renewable energy for productive purposes. A number of projects seek to develop biomass related applications. Most new projects in the energy efficiency area incorporate the development of financial instruments and/or new business models.

53. Project development facilities allow for concept and proposal development, project appraisal, or technical design and feasibility work for large projects. The total portfolio of PDFs currently makes up 15 per cent (USD 280.8 million) of total climate change allocations. Sixty per cent of PDF resources were spent on OP 6; OP 7 had 23 per cent, OP 5 14 per cent; STRM 2 per cent; and OP 11 1 per cent.

54. A detailed breakdown of the GEF pipeline for the remainder of the third replenishment period is provided in table 4. The current formal GEF pipeline extends to the end of the third replenishment period.

Table 4. GEF climate change pipeline for 2005 and 2006
(United States dollars)

Strategic priority	Code	UNDP	UNEP	World Bank	IDB	Total
Financial year 2005						
Market transformation	SP1	7 745 000	2 000 000			9 745 000
Sustainable local finance	SP2	30 184 100	7 300 000	33 515 000	4 140 000	75 139 100
Power sector reform	SP3	9 503 500	45 925 000	29 965 000	8 850 000	94 243 500
Productive uses	SP4	20 742 450	10 653 600	1 025 000		32 421 050
Aggregation emerging technologies	SP5			15 350 000		15 350 000
Sustainable transport	SP6	4 050 000		12 000 000		16 050 000
Other (piloting an operational approach to adaptation)	SPA (SP7)		3 000 000	4 270 000		7 270 000
Short-term response measures	STRM			4 350 000		4 350 000
Totals		**72 225 050**	**68 878 600**	**100 475 000**	**12 990 000**	**254 568 650**
Financial year 2006						
Market transformation	SP1	16 432 000		11 697 000		28 129 000
Sustainable local finance	SP2	10 156 000		37 350 000		47 506 000
Power sector reform	SP3	18 971 000		9 081 000		28 052 000
Productive uses	SP4	8 550 000		2 900 000		11 450 000
Aggregation emerging technologies	SP5			35 220 000		35 220 000
Sustainable transport	SP6	13 625 000	3 025 000	2 025 000		18 675 000
Other (piloting an operational approach to adaptation)	SPA (SP7)	6 425 500				6 425 500
Short-term response measures	STRM					0
Totals		**74 159 500**	**3 025 000**	**98 273 000**	**0**	**175 457 500**

Source: GEF secretariat.

V. Other sources of funding available

55. Article 11.5 of the Convention and paragraph 1 (d) of the annex to the MOU recognize the importance of other sources for funding to support the efforts of Parties to implement the Convention. In recent years, and mainly as a result of the growing interest of Parties to address the problem of climate change, there has been a considerable growth in the number of funding sources for the implementation of activities relating to climate change. This emerging trend provides Parties with a large number of options in accessing funding to facilitate the implementation of the increasing volume and scope of their climate change programmes. The options available within the Convention process include the three new climate change funds established by the COP at its seventh session in 2001 and the imminent operationalization of the CDM, also agreed at COP 7.

56. This chapter provides a broad overview of some of the principal sources of funding for the implementation of the Convention. Due to lack of well disaggregated data on funding for activities relating to climate change and the limited time available to access data for the preparation of this report, it has not been possible to provide comprehensive information on all possible sources of funding. This chapter therefore gives only an indication of the growing number of funding sources and the opportunities and challenges that confront Parties as they undertake the task of packaging the financing of activities and programmes relating to climate change to enable them to access resources from available funding channels.

1. New funds

57. The two new funds established under the Convention (the Least Developed Countries (LDC) Fund and the Special Climate Change Fund (SCCF)) and the Adaptation Fund established under the Protocol, provide new channels for mobilizing resources to support the implementation of the climate change activities in developing countries which are complementary to those funded with resources from the GEF Trust Fund. The LDC Fund was established to support the work programme for the LDCs which includes the preparation and implementation of national adaptation programmes of action (NAPA), and the Adaptation Fund was established to finance concrete adaptation projects and programmes in developing countries that are Parties to the Protocol, as well as activities identified in paragraph 8 of decision 5/CP.7. Guidance provided by COP 9[20] to the GEF on the operation of the SCCF indicated that the fund will be initially applied to support prioritized activities in the areas of adaptation and technology transfer and its associated capacity-building. The COP at its tenth session would continue to deliberate guidance to be provided to the GEF on activities to be funded under the SCCF. In November 2004, the GEF secretariat will convene a donor's meeting to mobilize resources for the SCCF to make it operational.

58. The LDC Fund, which supports adaptation related activities in LDCs, is already operational and from 6 November 2002 to June 2004 total contributions amounting to USD 16.5 million have been received by the Trustee of the Fund (the World Bank). Total approved resources for 43 NAPAs and two global support projects are USD 9.4 million.[21] At COP 9, Parties agreed that the GEF should apply resources from the LDC Fund to support the implementation of NAPAs as soon as possible after their completion.[22] Efforts are being made to mobilize additional resources to replenish the fund to enable it provide this support.

59. The Adaptation Fund will be operationalized when the Kyoto Protocol enters into force and two per cent of the proceeds from CDM projects (LDCs exempted) would be paid into it. These resources would go towards assisting developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation.

2. Bilateral sources of funding

60. The third national communications of Annex II Parties provide a way of assessing bilateral support for project activities relating to climate change in developing countries. Information contained in these reports showed that over the period 1997–1999, Annex II Parties provided more than USD 10.2 billion[23] (see figure 4) for such activities in areas/sectors covering both mitigation and adaptation.

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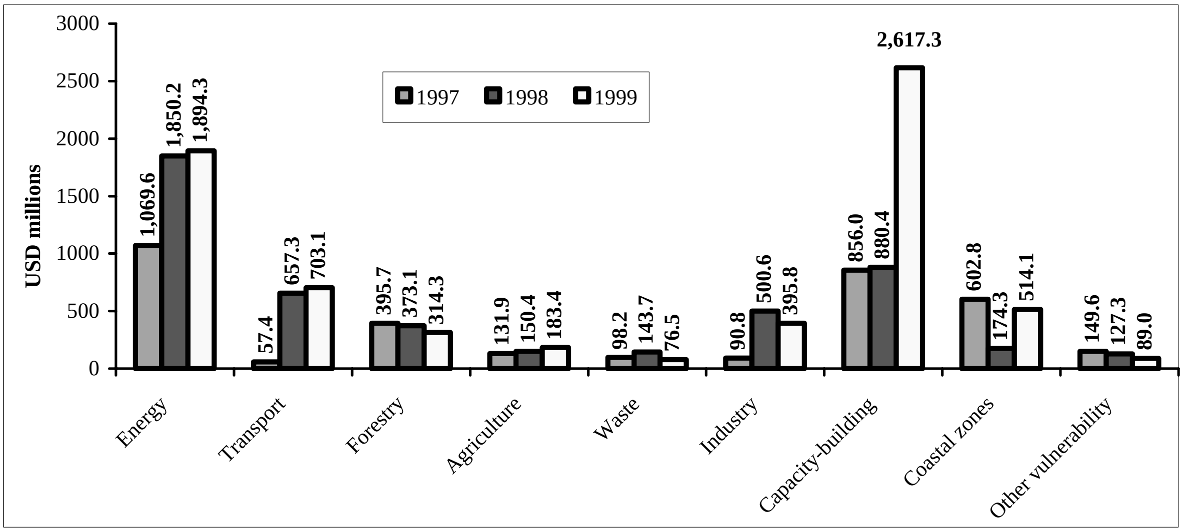
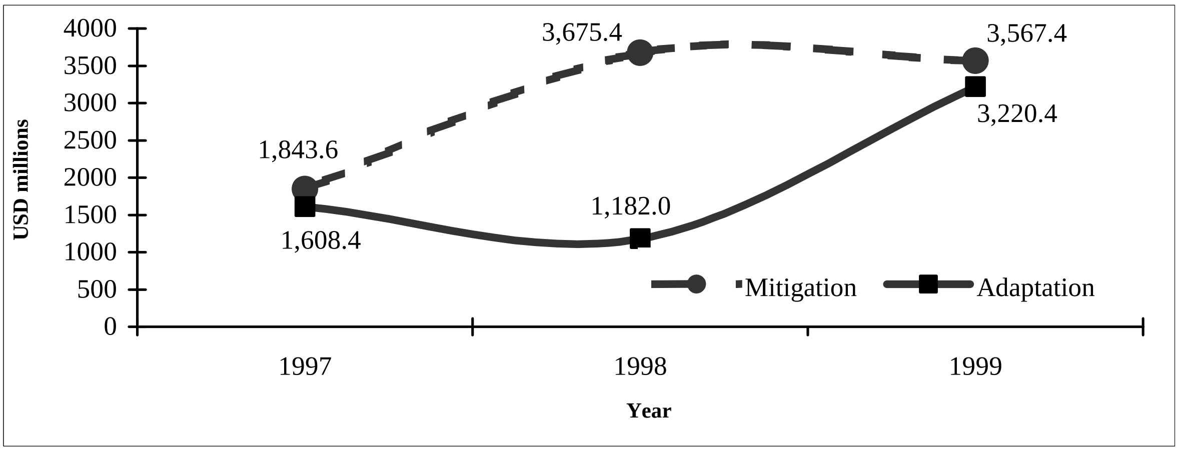
[20] Decision 5/CP.9.
[21] The number does not include 11 per cent fees for the implementing agencies.
[22] Decision 6/CP.9.
[23] The USD 10.2 billion does not include contributions to the GEF. The information provided was such that the secretariat is unable to ascertain if contributions to United Nations organizations and international financial institutions are included or not.

Figure 4. Bilateral financial contributions to some sectors relating to the implementation of the Convention, 1997–1999



61. Energy is the most important sector, receiving more than 47 per cent of total resources. Projects in this sector included those aimed at improving energy efficiency, planning, and management and utilization of renewable energy sources. Forestry sector projects included those to improve forest management and increase afforestation. Agricultural projects were mainly those relating to sustainable land use and soil management. Although mitigation activities received the greatest level of support, there was growing support for adaptation activities to the extent that in 1999 support for adaptation and mitigation activities was about USD 3.22 billion and USD 3.57 billion, respectively (see figure 5). The Organisation for Economic Co-operation Development–Development Assistance Committee (OECD–DAC) has been analysing trends in overseas development assistance (ODA) flows in support of activities relating to climate change in developing countries, mainly in the transport, energy, agriculture and forestry sectors, and the data provided are largely consistent with information contained in national communications.

Figure 5. Evolution of bilateral financial contributions for mitigation and adaptation activities in support of the implementations of the Convention, 1997–1999



3. International financial institutions

62. Several international financial institutions, including the World Bank Group and the regional development banks, have important investments portfolios involving projects in the energy and carbon sequestration sectors that enhance the efforts of developing countries to implement the Convention.

63. The World Bank Group has, over the past 14 years, approved about USD 5 billion in loans and credits and through its investments and technical support has leveraged about USD 15 billion of additional financing from public, private and bilateral sources for renewable energy and energy efficiency. In early 2004, the Bank's active portfolio in renewable energy and energy efficiency comprised more than USD 1.7 billion in loans, credits and grants in 72 projects spread across 36 countries, thus revealing an increasing support for activities relating to climate change. Typically more than 60 per cent of renewable energy and energy efficiency project costs are covered by co-financing, largely through the private sector (see table 5).

Table 5. World Bank Group renewable energy and energy efficiency commitments since 1990
(USD million)

Source		Total	Renewable Energy	Energy efficiency
Direct investment				
World Bank (IBRD and IDA)[a]		3 054	1 320	1 734
IFC[b]		845	752	93
Financing that leverages investments[c]				
IBRD Carbon Finance Business	*(i) Funds approved or under management*	410	n.a	n.a
	(ii) Funds committed	295	234	61
IFC Carbon Finance Business	*Funds under management*	55	n.a	n.a
MIGA[d]		600	600	0

Source: Renewable energy for development: The role of the World Bank Group, 13 April 2004. <http://www.worldbank.org/energy/RenewableEnergy%20Brochure.pdf>.
n.a : Not applicable
[a] Loan and Credit Board approvals in 45 countries up to World Bank Group financial year 2004. World Bank figures include only hydropower of less than 10 MW. IBRD: International Bank for Reconstruction and Development. IDA: International Development Agency.
[b] Mainstream investment portfolio. The value of these investments is measured at gross original commitment levels (International Finance Corporation (IFC) equity and loans) and excludes the value of any associated financing within the transactions (that is, sponsor equity, other co-financing, and GEF co-financing or carbon finance).
[c] Carbon Finance Business (CFB) and Multilateral Investment Guarantee Agency (MIGA) financing leverages mainly private sector investments – they do not directly invest in a project. CFB typically leverages five to six times the value of the carbon emission reductions purchases in investments. Figures since CFB inception in 2000.
[d] Figures state gross coverage for investments. Guarantees in support of USD 2.3 billion of investments in renewable energy.

64. The African, Asian and Inter-American Development Banks, as well as the European Bank for Reconstruction and Development, increasingly have energy portfolios which have enabled them to support project activities in "clean" energy, energy efficiency and renewable energy. However, the level of disaggregated data obtained from these institutions does not allow the secretariat to provide a more

complete insight into resources spent on project activities that advance the implementation of the Convention (see table 6).

Table 6. Summary of climate change related investments by regional development banks

Asian Development Bank	1998–2004: USD 1.48 billion for 14 projects with mitigation component. USD 28.3 million for 41 technical assistance projects supporting mitigation and adaptation activities
African Development Bank	1967–2001: About USD 37.4 million spent on activities relating to renewable energy sources and decentralized power supply. Strategic plan for wind energy investment for the period 2004–2012
Inter-American Development Bank	Financing of technical studies and scoping exercises relating to mitigation of GHG emissions. Projects receiving loans from the bank are not targeting mitigation, but are often contributing to lowering GHG emissions, e.g. renewable energy projects. Anticipated increase in clean energy investments
European Bank for Reconstruction and Development	2003: EUR 211.2 million devoted to activities for emissions reductions and energy efficiency, mainly for countries with economies in transition. Only a few non-Annex I Parties receive assistance from the bank

4. Multilateral institutions

65. Information provided by United Nations organizations including UNDP, UNEP, United Nations Industrial Development Organization (UNIDO), the Food and Agriculture Organization (FAO), the World Health Organization (WHO) and the World Meteorological Organization (WMO), revealed that these organizations possess adequate technical and institutional capacities to support developing countries in their effort to implement the Convention in the areas of mitigation, adaptation, technology transfer and capacity-building. However, these organizations indicated that they have very limited core funds apart from those provided by the GEF to support the implementation of climate change activities. Their key areas of support are summarized in table 7.

Table 7. Support to non-Annex I Parties for climate change related activities of the United Nations organizations

UNDP	USD 50 million UNDP core funds supported by approx. 100 million co-financing. Focus on mitigation (mostly relating to energy) and adaptation. Expected increase in support for adaptation and mitigation activities
UNEP	Several initiatives in the area of adaptation: 24 regional studies on impacts and vulnerability and assessment (V&A); mainstreaming V&A in eastern and southern Africa; early warning systems for glacial lake outburst floods in the Himalaya; reducing vulnerability of coastal zones of Indian Ocean islands. Key challenges: poverty reduction and mainstreaming adaptation.
UNIDO	Focus on capacity-building, technology transfer and demonstration projects on greenhouse gas mitigation including the improvement of energy efficiency in energy-intensive industries.
FAO	Focus on agriculture, bio-energy, biodiversity, forestry, information, technology transfer, capacity-building, and economics of natural resources and environmental sustainability.
WHO	Support activities which minimize climate change impacts on human health
UNESCO	Activities relating to climate change mainly in the areas of water resources, coastal zones and carbon sequestration are carried out essentially in the context of UNESCO's intergovernmental programmes, namely the Intergovernmental Oceanographic Commission, the International Hydrological Programme and the Man and the Biosphere Programme.
WMO	Support for monitoring the atmosphere including GHGs and aerosols.

5. Private capitals flows

66. In 1996, the Intergovernmental Panel on Climate Change published *Technologies, Policies and Measures for Mitigating Climate Change* describing the sectors and technologies in which more investment is needed to help mitigate climate risks. In particular, it calls for more efficient energy use

across all sectors,[24] cleaner energy production (including more efficient use of fossil fuels), control of pollutants from the combustion of fossil fuels, and expanded use of renewable energy sources; increased sequestration of carbon in plants and soils; and better capture of GHG emissions from agriculture and waste disposal operations.

67. Private investment, particularly foreign direct investment (FDI) from Annex II countries, could be an important source for this investment. But private investment has the potential for contributing both to increases in emissions of GHGs, and to the adoption of technologies to mitigate climate change through emissions reductions or sequestration. The links – both negative and positive – between private investment and climate change vary across sectors and countries according to a variety of factors, many of them not well understood.

68. UNCTAD, which has been tracking flows of FDI since the 1970s, recently published three research notes on the “Prospects for FDI Flows” drawn from interviews with investment promotion agencies, transnational corporations and investment location experts. All three reviews projected that FDI flows to developing countries are expected to recover from a recent decline and increase over the medium and short term. These FDI flows increased through the 1990s to USD 184 billion a year in 1999. In 2002, the figure was USD 143 billion a year. The magnitude of these investments underscores the need to consider how best to attract or drive more private investment to support the implementation of projects that minimize climate risk. It also underscores the importance of the role that other sources of funding such as the GEF, ODA, and multilateral institutions could have in helping leverage larger amounts of private capital into mitigating climate risk. For the GEF for example, co-financing by the private sector between 1991 and 2004 represented about 29 per cent of the overall resources allocated to the climate change area.

6. Clean development mechanism

69. The CDM under the Kyoto Protocol was introduced to mobilize resources for projects in developing countries which help to mitigate climate change and at the same time advance sustainable development. This mechanism is particularly geared to engaging the private sector in a potentially significant manner but is not excluding the use of public funds if there is no diversion of ODA. Credits (certified emission reductions or CERs) obtained for reducing emissions, or enhancing sinks, beyond what would have otherwise happened, can be directly used by an Annex I Party for compliance with its Kyoto targets or sold on the international emissions trading market. It is expected that CDM project activities should promote transfer of environmentally safe and sound technology and know-how in addition to that required under Article 4.5 of the Convention and Article 10 of the Kyoto Protocol.

70. Currently, the level of resources for CDM projects, such as up-front investments, and/or expected proceeds resulting from them, can at best be only roughly estimated, as supply and demand data are evolving. However, bearing in mind that any model result needs to be used with caution, and the influence of assumptions on results, indications can nonetheless be obtained from the literature[25] on the estimated volume of the CDM market until 2012. The size of the CDM market in 2010 is expected to be 250 million tonnes of CO_2 equivalent (range of between 50 and 500 million tonnes) at a price of USD 11 per tonne of CO_2 equivalent (range of +/- 50 per cent). This would represent a total market size in 2008–2012 of 1,250 million tonnes of CO_2 equivalent. Critical for this figure is the assumption that a

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[24] Residential, Commercial and Institutional Buildings; Transport; Industrial; Energy Supply; Agriculture; Forest; and Solid Waste and Waste-water Disposal.

[25] Estimating the Market Potential for the Clean Development Mechanism: Review of Models and Lessons Learned <http://carbonfinance.org/docs/EstimatingMarketPotential.pdf>.

post-2012 value for CERs is assured. Otherwise, the supply may shrink to between 250 and 450 million tonnes of CO_2 equivalent for the same period.

71. Public funding in the CDM is possible but should not result in the diversion of official development assistance and should also be separate from, and not counted towards, the financial obligations of Annex I Parties.

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