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Guidelines for Reporting Information on Public Climate Finance

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Executive Summary

Reporting and reviewing financial information has become an increasingly urgent issue in the international climate negotiations. In the Copenhagen Accord, which resulted from the United Nations Climate Change Convention in Copenhagen in 2009, developed countries pledged to provide USD$30 billion for the period of 2010-2012 and $100 billion per year by 2020 for climate adaptation and mitigation in developing countries. Developing countries want assurances that developed countries are fulfilling their climate finance pledges. To address this need, the Bali Action Plan (2007) mandates that support from developed countries for developing country Nationally Appropriate Mitigation Actions be "measurable, reportable and verifiable." The Copenhagen Accord, building on these provisions, calls for "financing by developed countries [to] be measured, reported and verified in accordance with existing and any further guidelines adopted by the Conference of the Parties," and that accounting of such finance is "rigorous, robust and transparent." However, countries have yet to agree on next steps for tracking progress against climate finance pledges under a post-2012 international climate regime and what, if any, common reporting format will be required.

Current United Nations Framework Convention on Climate Change (UNFCCC) reporting guidelines are neither transparent nor comprehensive, and efforts by multilateral and bilateral development finance institutions to fill this gap are emerging but have so far remained limited in scope. As a result, existing data collection systems provide only limited information on the levels of financing, what financing is used for and which countries are benefiting. They do not provide information on whether funds are new and additional. The result is a lack of coordination among donor countries to ensure that funding efforts address needs in a balanced and thorough way that avoids duplication. This also generates a lack of trust between developed and developing countries that hinders progress in the negotiations for a post-2012 international treaty to address climate change.

Therefore, for public climate financing to be evaluated and flow effectively and efficiently, it is critical that data on climate finance are reported using a common reporting system as well as reviewed. Depending on the level of detail required by a reporting system, the reported data should help determine how Parties are meeting their financial commitments, improve understanding of sectoral and technological investment trends, and lead to assessments of the effectiveness of different forms of financing.

The goal of this paper is to help Parties to the UNFCCC develop robust reporting processes for climate finance, starting with a decision in Cancun that addresses the measurement, reporting, and verification (MRV) of finance. The paper discusses:

- The characteristics and principles of an improved reporting system for climate finance.
- How and what kind of financial data are currently collected and reported by the UNFCCC, the OECD DAC, private organizations, and multilateral development banks (MDBs).
- Options to improve on current reporting systems, including a proposed reporting format.
- The potential implications and operational consequences of an improved reporting system for the review process, institutional structures, and fast-start climate finance.

This paper aims to inform not only the nature of the text to be adopted by the Conference of the Parties at COP-16, but will also be pertinent over the next two years as improved reporting guidelines are drafted, agreed to, and implemented.

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Key Observations and Recommendations

An ideal reporting process for climate finance should ensure that reporting by developed countries is complete, transparent, comparable, accurate, and efficient. However, current reporting of public sector financing for climate change projects by bilateral and multilateral institutions do not completely fulfill these principles. Consequently, Parties to the Convention should at COP-16:

> **"*Request* the SBSTA to revise the guidelines for the reporting of information in national communications by Annex I Parties to the Convention, part II: UNFCCC reporting guidelines on national communications (Decision 4/CP.5), including the development of reporting formats for finance, with a view to adoption of the enhanced reporting guidelines by COP-17."**

The process of revising the guidelines should be informed by the insights and experiences of the Multilateral Development Banks (MDBs), bilateral financing institutions (BFIs), the OECD DAC, and experts from developed and developing countries.

Parties could significantly improve the transparency of financing by adopting a standardized financial reporting format with common definitions and methodologies to quantify climate finance. However, in launching an effort to either revise or initiate a new means to collect financing data, Parties to the Convention will need to determine the kinds of data they want a climate finance reporting system to provide. This will determine the extensiveness of any expanded data collection effort and its likely cost.

Improved climate finance data alone will not be able to shed light on whether or not funds for climate change are new and additional to official development assistance, a topic on which there are widely divergent political views. Better data would eventually allow Parties to determine from a technical standpoint whether there has been an increase or decrease in climate finance over time. However, judging newness and additionality is a subsequent and separate step which necessitates a political agreement on methodologies and a reliance on other data sources outside of the UNFCCC. A transparent reporting process can nevertheless help inform this discussion and build trust and understanding between developed and developing countries.

Parties should consider implementing a more robust process to review reported data. This could include launching voluntary pilot projects to establish how reviews could be successfully conducted, using independent, non-political technical financial experts, formally establishing clear rules and guidelines for civil society participation in the review process, and improving record keeping so that data between countries can be compared.

A revised reporting system will likely require the redesign of existing databases and search engines. If Parties wish to have a centralized data system, they will need to decide where such a system should be located and will need to develop new procedures for collecting and processing financial data.

The introduction of an improved reporting system will take time to implement. It will thus not satisfy the need for more transparency in the short-term, and in particular for fast-start funding under the Copenhagen Accord. It is important to ensure that financial support to developing countries is accounted for in a clear and transparent manner during the fast-start period through existing reporting systems and through short-term multilateral efforts and efforts on the part of donor countries. Lessons learned from this experience could shape the implementation of new reporting and review systems in the longer term.

I. Introduction

Developing countries have sought clarity around climate change financial commitments from developed countries since the United Nations Framework Convention on Climate Change (UNFCCC) was adopted in 1992. The 2007 Bali Action Plan, which states that support provided to developing countries should be "measurable, reportable and verifiable," and the 2009 Copenhagen Accord are the latest in a series of efforts toward this end (UNFCCC 2008).[1] These provisions reflect the feeling among developing countries that most developed countries have failed to deliver on their development aid commitments in the past—a concern that is fostered by a lack of transparency around international aid provided by developed countries.[2] Developed countries, for their part, having seen development assistance fail to meet their objectives over several decades, are reluctant to scale up financing without adequate means to ensure that it is spent effectively and efficiently.

The result is a lack of trust between Annex I Parties and non-Annex I Parties to the Convention that hinders progress in the negotiations for a post-2012 international treaty to address climate change. The importance of reporting and reviewing financial information is therefore an increasingly salient, if not urgent, issue in the international climate negotiations. From an even broader perspective, understanding the level and uses of financing can provide insights into whether greenhouse gas emissions will continue to increase in the future, where possible abatement opportunities lie, and whether the global community is preparing to adapt to a changing climate.

Despite critical need, there has been little political guidance to help countries and their bilateral financing institutions (BFIs)

or multilateral development banks (MDBs) communicate their climate finance commitments and avoid double-counting between the two groups. Instead, technocrats have been left to sort out ways to improve the reporting and collection of public financial data on projects addressing climate change. The current UNFCCC reporting guidelines for Annex I Parties, which have not been revised since 1999, are neither transparent nor comprehensive, and efforts by other institutions to fill this gap have been limited in scope. As a result, current data collection systems provide only limited information on the levels of financing both pledged and delivered, what financing is used for, and which countries are benefiting.

Purpose of the paper

The purpose of this paper is to lay the foundation for an improved set of reporting guidelines for public climate financing, and an improved system of collecting financial data. To this end, it aims to demonstrate the necessity of launching negotiations on such improved guidelines at COP-16, and to inform the process moving forward post-COP-16. In particular, the paper addresses several key questions:

- What are the characteristics and principles of an ideal reporting system for climate finance?
- What kind of financial data are currently reported and how are they collected by the UNFCCC and other public and private organizations? What are the limitations of existing data collection systems?
- What options exist to improve reporting and what would a financial reporting system that can satisfy a broad set of user needs look like?
- What are the potential operational consequences and implications for the implementation of improved reporting systems, including for tracking fast-start finance and for the review of the reported data?

Reporting climate finance is an issue that affects a wide variety of stakeholders. As a result, this paper serves several purposes:

- For UNFCCC Parties, it provides a technical and analytical basis for mandating the development and implementation of enhanced guidelines for reporting finance at COP-16 and beyond, including the principles and functions that will be necessary to guide the development of those guidelines.
- For the body that drafts enhanced guidelines, it provides example guidelines and lessons learned from existing reporting systems.
- For multilateral development banks, international financial institutions, and other institutions with systems for tracking climate finance, it identifies ways to improve current systems for reporting public climate finance. It- also identifies ways to include these improvements in the drafting of enhanced guidelines within the UNFCCC in order to achieve comprehensive and comparable reporting across institutions.
- Finally, for civil society, it outlines ways in which they have played and could play a role in the MRV of climate finance system.

Scope

A number of organizations (UNFCCC 2007a, OECD 2008, World Bank 2009) have focused on potential sources of climate finance and on issues relating to the governance of a possible new financial arrangement under the Convention. Several experts have also tried to catalog trends in bilateral and multilateral financing for energy and other sectors and identify deficiencies in current reporting systems (Tirpak and Adams 2008, Moncel et al. 2009a, Roberts et al. 2009, Corfee-Morlot 2009, Ballesteros et al. 2009). This paper builds on these efforts. More specifically, it focuses on:

- **Public funds from developed country governments** (with the exception of Clean Development Mechanism projects), which are often supported by a combination of public and private financing. However, this paper does take a brief look at private systems for collecting financial data.
- **Adaptation[3] and mitigation** (including reducing emissions from deforestation and forest degradation). While both are development issues, the former is a particular challenge because the boundaries between projects to adapt to future changes in climate and efforts to reduce risks from current weather anomalies are less clear than those associated with efforts to solely reduce GHG emissions. Adaptation also includes a more diverse set of activities and larger number of sectors. Later in the paper, we propose an approach that attempts to differentiate funding for adaptation to climate change from funding for development.
- **Loans, grants, and guarantees**. We omit "equity" funding while recognizing that in some instances this can be an important source of capital.
- **All major sectors that contribute to emissions of GHGs or in which adaptation may be needed**. Ex-

amples include power, industry, transport, forests and other ecosystems, waste, agriculture, disaster risk management, cities, coastal systems, and human health.

- **All categories of project financing**. Examples include capacity building, training, planning, assessments, analysis, research and development, technology demonstrations, and technology deployment.

There are several important topics outside the purview of this paper that should be noted in particular:

- **The paper does not address how to account for international private investment flows**. These can include international bank lending, public debt, portfolio equity holdings, foreign direct investment, and philanthropic sources. The IMF and the OECD (2003) note that there is a lack of data available on private investment flows to developing countries (some data are available from central banks, but they lack reliability and consistency).[4] At present, data that measure the environmental effectiveness of private flows are not available either.
- **This paper suggests no minimum level of reporting in terms of currency units for a particular sector or form of assistance**. Analysis of projects could shed light on this issue, but it should be noted that setting a minimum threshold could overlook capacity building, planning, and assessment types of projects, which are often relatively small in size.
- **Many MDBs often report that a project has leveraged funds either from other MDBs, BFIs, or from the private sector**. Leveraged funds are sometimes difficult to confirm. Yet excluding leveraged private sector funds means that the reporting system would not provide a complete picture of financing. Parties should therefore consider how such funds could be accounted for after consultation with MDBs and how to avoid double counting within the MDB portfolios and vis-à-vis bilateral financial flows.
- **There are widely divergent views between developed and developing countries regarding the issue of "additionality" — that is, whether financing is additional to official development assistance**. Developing countries generally propose that funds addressing climate change should not be counted towards the previous commitment of OECD countries to allocate 0.7 percent of their GDP to development in developing countries. Most OECD countries, on the other hand, find this demand difficult to meet as only a small number of countries have met their 0.7 percent commitment so far. Moreover, several OECD countries make the case that since development and climate finance are closely linked, some, if not all of their climate finance contributions should also be counted toward their regular development assistance commitment. The World Bank will attempt to address this issue by requiring their donors to distinguish between climate finance and traditional development assistance, and to state whether or not they will be counting the former towards their development assistance commitments. While it is useful to see this distinction, it cannot truly show whether or not funding is additional in the absence of an agreement on a baseline against which additionality can be measured.[5]

This paper suggests that an improved reporting format for bilateral and multilateral financing should be a first step toward improved understanding of this issue. By making progress on the technical challenge of tracking and compiling climate finance, Parties will eventually be able to determine whether there has been an increase or decrease in climate finance. However, improved tracking of climate finance will not be able to shed light on whether or not funds for climate change are new and additional to official development assistance as the latter will require additional data and methodologies outside the purview of the UNFCCC. Judging newness and additionality is a subsequent and separate step which necessitates a political agreement on how to determine additionality. However, a transparent reporting process can, at a minimum, help inform this discussion and build trust and understanding between developed and developing countries around the finance that is flowing.

II. A Vision for an Improved Reporting System

In order to implement an improved reporting system for climate finance, Parties first need to clarify what objectives and functions that system should fulfill. We suggest that financial reporting should serve three general objectives:

1. to assist Parties to the Convention in gaining a comprehensive understanding of the level of developed country climate financing from all public entities;

Box 1 **Finance in Articles 4 and 12 of the UNFCCC**

Article 4.3: "The developed country Parties and other developed Parties included in Annex II shall provide new and additional financial resources to meet the agreed full costs incurred by developing country Parties in complying with their obligations under Article 12, paragraph 1. They shall also provide such financial resources, including for the transfer of technology, needed by the developing country Parties to meet the agreed full incremental costs of implementing measures that are covered by paragraph 1 of this Article and that are agreed between a developing country Party and the international entity or entities referred to in Article 11, 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."

Article 4.5: "The developed country Parties and other developed Parties included in Annex II shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention.…"

Article 12.3: "Each developed country Party … shall incorporate details of measures taken in accordance with Article 4, paragraphs 3, 4 and 5 [in the communication of information to the Conference of the Parties]."

2. to enable developed countries to demonstrate that they are meeting their international climate financing commitments, for example, under Articles 4 and 12 of the Convention (Box 1); and,
3. to facilitate a process of reviewing financial information on public sources of finance, including an evaluation of how financing is being distributed and used, with a view to improving coordination and efficiency in the delivery of support.

However, in considering these objectives, it is important to recognize that reporting only public finance from developed countries will not provide a complete picture for several reasons:

- **The private sector will finance the majority of the measures for mitigating and adapting to climate change** either directly or through the purchase of project offset mechanisms such as the Clean Development Mechanism (CDM). The UNFCCC (2007a) estimated that up to 86 percent of investment and financial flows for climate measures will come from the private sector. The Copenhagen Accord assumes the inclusion of private finance in the delivery of the pledged $100 billion per year by 2020 in long-term finance, an assumption that was reinforced by the conclusions of the November 2010 report from the UN's High-Level Advisory Group on Climate Change Financing.[6]
- **Most developing countries support mitigation and adaptation policies and programs with internally generated funds**. The UNFCCC (2007a) estimated that in 2000, domestic sources of investment represented about 83 percent of total investment in non-Annex I countries, compared with foreign direct investment (FDI), which represented 14 percent, and official development assistance (ODA), which represented 1 percent. Understanding the level of domestically supported actions in developing countries is important for grasping the extent of domestic ambition, evaluating how international finance can build on domestic finance, and filling any gaps.
- **Developing countries are now a source of significant financing for projects in other developing countries**. A 2007–08 New York University study estimated that Chinese foreign assistance and government-supported economic projects in Africa, Latin America, and Southeast Asia grew from less than US$1 billion in 2002 to US$25 billion in 2007 (Lum et al. 2009);[7] aid from Brazil is estimated to be approaching US$1.2 billion.[8] Developing country contributions to the Global Environment Facility (GEF) in 2006 totaled US$52.84 million (Ballesteros et al. 2009). Moreover, environment ministers from the BASIC (Brazil, South Africa, India and China) countries meeting for the first time in January 2010 "expressed their desire to enhance South-South cooperation with other countries on various issues including those related to scientific cooperation and support for adaptation to vulnerable countries" (BASIC 2010). On April 28, 2010, Indian Prime Minister Manmohan Singh announced the establishment of an India Endowment for Climate Change in South Asia to help member states of the South Asian Association for Regional Cooperation (SAARC) meet adaptation and capacity building needs (Singh 2010).

Parties will need to decide whether and how to account for these other sources of finance. This will be complex given the

difficulty of tracking private financial flows and the limited capacity in some developing countries to account for incoming financial flows. The system proposed in this paper is intended to be an important first step toward a comprehensive tracking framework for climate finance.

The general principles that should govern the reporting of financial information do not differ significantly from those used for reporting national GHG inventories; that is, reporting should be complete, transparent, comparable, accurate, and efficient[9] (UNFCCC 1999a).

- *Completeness* means that a report should cover all major sectors, forms of financing, and uses of funds (types of projects) from all Parties to all Parties. It could also refer to the sources of funding by governments and other mechanisms.
- *Transparency* means the methodologies, processes, and procedures to estimate financing should be clearly explained and the sources of information identified to facilitate the checking of information.
- *Comparability* means that the information provided by Parties should be in a format to facilitate the aggregation and analysis of information.
- *Accuracy* means that the reported quantities of financial data are systematically neither over nor under actual financing and that uncertainties are reduced as much as possible. Guidelines should achieve sufficient accuracy to enable users to make decisions with reasonable assurance as to the integrity of the reported data.
- *Efficiency* means that the information provided serves the decision-making needs of Parties with a minimum of effort, expense, or waste.

In addition to these general principles, Parties must also decide on the specific design goal or goals of an effective reporting system in order to evaluate existing systems and improve upon them. To that end, Parties to the Convention should consider which questions about climate finance they wish to be able to answer in the future. The types of questions will determine the extent and nature of the data collection effort, including its likely cost. This paper suggests a tiered set of increasingly specific questions, for example:

Tier 1: How much public money is flowing from one Party to another for climate change activities in a particular year? This would allow a picture to emerge as to whether climate change funds are increasing or declining, which countries are giving and receiving funds, and how much they are exchanging.

Tier 2: How much public money is flowing from developed to developing countries in a particular year and what type of funds (grants, loans, or guarantees) are being made available? This would allow a determination to be made as to whether Annex II Parties are meeting their commitments, what type of financing they are using to meet these commitments, and to some extent whether funds are being used in the most efficient manner.

Tier 3: How much public money is flowing toward particular purposes in a given country, and in which sectors? This would allow analyses of whether funds are going into the sectors identified as priority areas in the countries' development plans. It would also support the development of a global picture of the balance between adaptation and mitigation funding, as well as the global distribution among sectors.

Tier 4: How much public money is flowing toward particular activity types, and what categories of activities are being supported? This would allow Parties to understand whether there is movement toward low-GHG technologies and fuel types. It would also allow Parties to understand how support is being divided for categories, such as capacity building, planning and assessments, or technology deployment.

Depending on the level of detail required by a reporting system, the data should help determine whether Parties are meeting their financial commitments, improve understanding of sectoral and technological investment trends, and lead to assessments of the effectiveness of different forms of financing.

III. A Review of Existing Reporting Systems

Reporting under the UNFCCC

Annex II Parties are required by Decision 4/CP.5 to report on financing for developing countries in their national communications (UNFCCC 1999b). The decision requires Parties to indicate what "new and additional" financial resources they have provided pursuant to Article 4.3 and to clarify how they have determined such resources as being "new and additional." Parties are required to provide information in tabular form for a three-year period on financing through bilateral and regional mechanisms to specific countries for mitigation (energy, transport, forestry, agriculture, industry, and waste management) and for adaptation (capacity building, coastal zone manage-

Box 2 **Issues related to reporting as identified by the UNFCCC secretariat**

- Parties did not use the reporting categories in the guidelines
- Parties reported using different years
- Parties reported funding to multilateral institutions without distinguishing funding for climate change
- While all Parties reported information relating to bilateral contributions, the data were provided in different formats and therefore difficult to compare
- Only half the Parties reported information on their private sector engagement
- Some parties reported information over a period instead of annually

ment, and other vulnerability assessments). Also, Parties are to provide a list of contributions over a three-year period to multilateral institutions such as the World Bank Group, United Nations Programmes, and scientific, technological, and training programmes. In addition, Parties are encouraged to indicate in what way they have encouraged private sector activities and how these activities meet the commitments of Parties under Articles 4.3, 4.4, and 4.5 of the Convention.

Non-Annex I Parties are requested to provide, through their national communication, information on their needs for financial resources and technical support for the preparation of their national communications, as well as the support received from the GEF, Annex II Parties, or bilateral and multilateral institutions (UNFCCC 2002a).

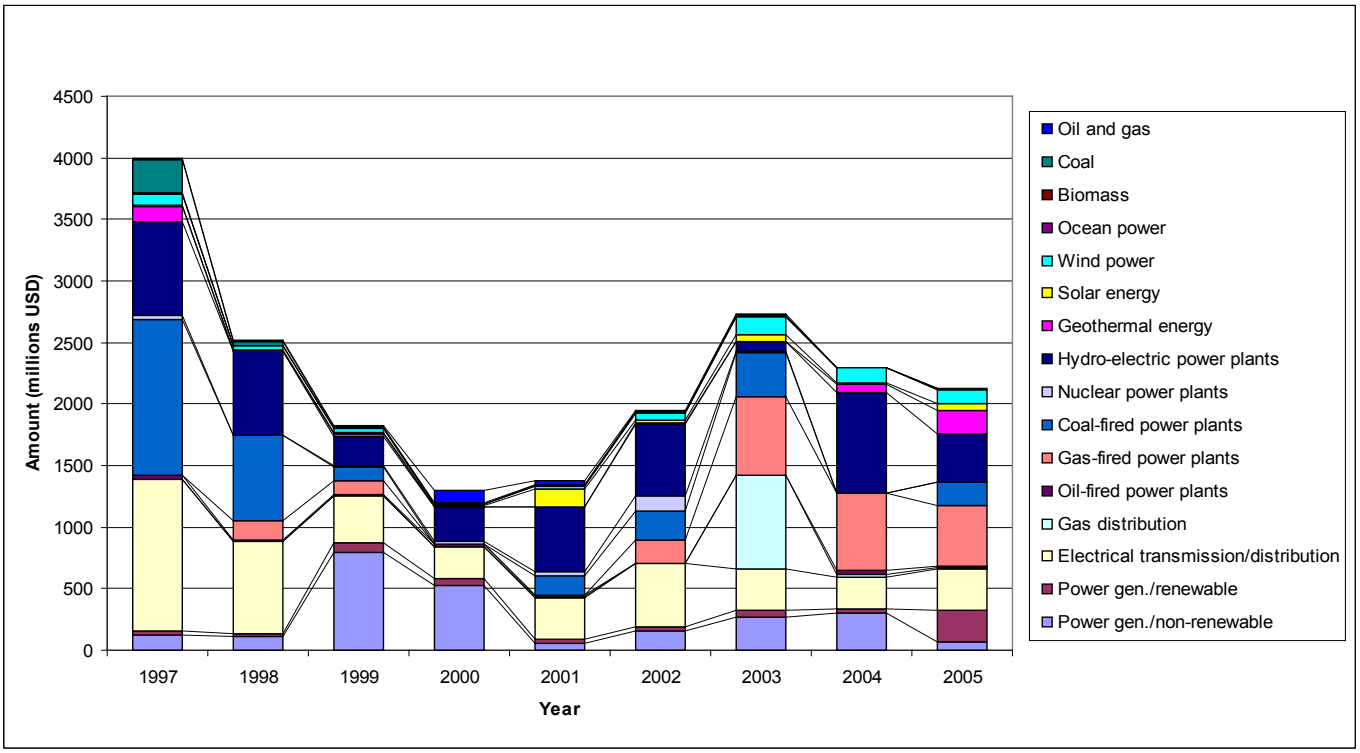
In 2007, the UNFCCC secretariat prepared a synthesis of financial information based on the fourth national communications from Annex I Parties (UNFCCC 2007b). The secretariat synthesized information on how financial flows varied from each Annex II Party through the GEF, through other multilateral institutions, and through bilateral channels for the period 1998–2004.[10] In the case of bilateral contributions, it categorized financing for mitigation and adaptation by the mitigation and adaptation classifications noted above for 1998–2004. The secretariat noted that multiple methodological and reporting issues limited the utility of their analysis; some of these are listed in Box 2.

In addition, with respect to the Annex I guidelines we note the following:

- The mitigation classifications do not require reported financial data to be broken down by specific technologies, e.g., in the case of electricity generation, technology by coal, oil or gas combustion, nuclear, wind, geothermal, solar, hydro, or wave power.
- The adaptation classifications leave out several important aspects of adaptation, e.g., water, forests, health, energy, and infrastructure. Moreover, the guidelines do not provide information as to how climate change financing is to be distinguished from development assistance support.
- The guidelines do not distinguish among funding for research and development, planning, assessments, capacity building, demonstrations, or technology deployment.
- The data do not distinguish among grants, loans, and guarantees.
- The guidelines provide no information on how to report projects having multiple components, e.g., a project that may have an energy efficiency component, a renewable energy component, and other non-energy related components.
- The data reported under the UNFCCC cannot be readily compared to other sources, such as the OECD, BFIs, or MDBs, due to the use of different reporting systems.
- The UNFCCC reporting guidelines do not require Annex I countries not included in Annex II to report on financial aid to climate change-related activities in developing countries.[11]

Information on financial assistance in developing country national communications also suffers from significant reporting issues. While the UNFCCC guidelines require non-Annex I Parties to provide information on their needs for financial resources and technical support from the GEF, Annex II Parties, or bilateral and multilateral institutions, it does not request that they follow a common reporting format (UNFCCC 2007c). A look at national communications from non-Annex I Parties shows that this information, when provided, often lacks comprehensiveness and is scattered throughout non-Annex I Party national communications rather than compiled in an easy-to-find, comparable, and detailed manner. According to the UNFCCC secretariat's 2002 compilation and synthesis report of initial national communications from non-Annex I Parties, "National communications made reference to the assistance received from the GEF through its implementing agencies ... Many also referred to assistance from bilateral programmes such as the United States Country Studies Pro-

Figure 1 Trends in bilateral assistance by energy technology based on DAC Data, 1997–2005



gram and the Netherlands and German cooperation agencies" (UNFCCC 2002b).

Reporting to other international organizations (OECD DAC, MDBs, UNCTAD, and BFIs)

The **OECD Development Assistance Committee (DAC)** collects and monitors official bilateral financial contributions from developed countries at the activity level through the Creditor Reporting System (CRS).[12] The objective of the CRS is to "provide a set of readily available basic data that enables analysis on where aid goes, what purpose it serves and what policies it aims to implement, on a comparable basis for all Development Assistant Committee members."[13] The CRS online User's Guide provides information on data quality indicators and a list of DAC members. Within the CRS database, aid activities are recorded on the basis of commitments according to a descriptive "marker" system that identifies the objective of the aid and a quantitative purpose code system that identifies the sector of the supported activity. For DAC purposes, grants and "soft" loans are recorded on the face value of the activity at the date a grant or loan agreement is signed with the recipient.

The CRS compiles aid data in an online database which has several important features. For example, it allows the user to see individual aid activity information such as the sector, purpose, policy objective (including the Rio Markers of biodiversity, climate change, and desertification), type (investment, technical cooperation, etc.), channel, donor, or recipient. Sector classifications refer to the sector of the economy at which the aid is targeted (e.g., health, energy, or agriculture). Policy objective markers are applied to activities according to three values of degree—principal, significant, and not targeted—based on how well they fulfill various objectives such as the Millennium Development Goals (MDGs).

While the CRS provides more detailed information on *individual* aid activities, some of these data[14] are aggregated in the DAC annual aggregates database to provide comprehensive statistics on aid overall that can be sorted by sector classification, technology, donor, and recipient country. For example, see Figure 1, which shows trends in bilateral financing for different energy technologies.

The OECD DAC's CRS, in place since 1967, is one of the most comprehensive databases available for tracking international public aid flows. However, given that the objectives of the OECD DAC are broader than tracking climate change funding and are aimed only at DAC members, its CRS system should not be expected to meet all of the needed functions

of a robust climate finance reporting system. Its limitations in this respect are as follows:

- It compiles data primarily from DAC members.[15] It has incomplete or no data for aid from OECD countries that are not DAC members or from foundations and other NGOs. Multilateral organizations are not obligated to report to the CRS, although some data are available.[16]
- Some donors do not regularly supply data for all years.
- While the OECD DAC does impute aid by multilateral institutions back to the funders of those institutions (to the extent possible given the inherent limitations of this process), this aid is not marked with a sector or other aid parameters in the CRS.[17]
- While countries do report on cancelled projects, these are not reflected in the database. This information gap is important as it means that this system may not be capturing *delivered* support, but instead only *pledged* support. This hints at a greater problem in many reporting institutions in which aid is marked based on the intent of the supported activity before it is carried out rather than on its impact *after* implementation.
- Coding errors may limit the accuracy and generate possible political bias (Michaelowa 2009). The CRS purpose code system does not correctly capture aid with multiple sectors. The purpose code applies to the full financial amount of the aid for a given activity, and each activity can only be assigned one purpose code. Otherwise, activities cutting across multiple sectors are either classified with a multi-sector code or with the most relevant code.[18] The marker system indicating the activity's policy objective, on the other hand, allows for applying multiple policy objectives to one project. This marker, however, is descriptive rather than quantitative, so one cannot split aggregate numbers up by policy objective, meaning that an entire project's budget would be marked with the policy objective of "climate change" even if only 10% of the budget is actually climate-relevant.[19] As a result, the CRS marker system could have the result of over- or underestimating policy objective totals in projects with multiple policy objectives, such as energy efficiency and adaptation. It is especially problematic for adaptation activities, which are increasingly being integrated with other development objectives such as poverty alleviation.[20] (OECD 2010)

The **Multilateral Development Banks (MDBs)** report on activities based on their own mandates and operations. They use indicators to classify projects and to track the performance of projects. They have no software comparable to the OECD that enables a user to track contributions from donors to specific funds, technologies, countries, or other purposes.

Public databases and search engines with limited search capabilities are available on all websites of the MDBs, but their degree of user friendliness varies greatly. Those that are available appear to have been designed to allow countries and analysts to determine the number of projects or the amount of funding provided to individual countries.[21] None of the systems have the same design features and most of the databases contain incomplete information, for example, on the form of financing and on whether funding has been approved or disbursed. In most instances it is also difficult to obtain financial data on complex projects having several components, for example, a construction loan and a training component. In addition, MDBs will often report "allocated" funds before they are delivered, but do not always update the information to reflect what is actually "obligated." Also, it should be noted that the MDBs do not report to the COP of the UNFCCC; they receive their mandates from their Executive Boards. See Appendix III for an analysis of the IADB, GEF, World Bank, and ADB project databases.

Neither the MDBs nor the OECD DAC have databases that provide summary information on different types of activities supported. Currently the only way to ascertain the amount of funding for wind power projects is to count the number of projects in a given year, or to search through websites that have summary statistics scattered in various reports that are difficult to compare (see, for example World Bank (2006)). This can lead to errors, as the actual status of projects may be obsolete or incomplete. The lack of a consistent format for available information does not allow an easy and accurate comparison or integration of information across MDBs and the OECD DAC.

The **United Nations Conference on Trade and Development (UNCTAD)** compiles data on foreign direct investment and aggregates them in an online database. The online database does not break down FDI by sector; however, UNCTAD does provide some sectoral data in its annual World Investment Report. As is the case with other reporting systems such as the OECD CRS, the sectoral classifications make it difficult to distinguish whether or not the funds are furthering climate change objectives. Therefore, Corfee-Morlot et al. (2009) conclude

that tracking of private-private flows is neither comprehensive nor particularly useful to the MRV of climate finance.

Bilateral financing institutions such as AFD, JICA, and KfW disclose information on their climate investment individually as part of their annual reports as well as jointly within the UNEP-BFI Initiative (Atteridge et al., 2009). Their numbers provide sectoral and regional differentiation as well as information on different financial instruments used and eligibility as official development assistance (ODA). While these reports are useful as a reference for information on bilateral financial flows, the ability of the UNFCCC to compile and use this information towards its objectives is limited as no comparable format is used across BFIs for the information in their annual reports.

Reporting to private financial data systems

There are two private sector sources of information on financing that cut across countries and projects: New Energy Finance and Dealogic. The New Energy Finance system tracks annual investments by energy technology (solar, wind, biomass, geothermal, marine, small hydro, and efficiency) and by type of financing (venture capital, government and corporate research and development, projects, and equity investments) in major countries and regions. New Energy Finance issues an annual report in conjunction with the UNEP Sustainable Energy Finance Initiative (SEFI), which outlines investment trends in renewable energy from both public and private sources.[22] Access to detailed data is available for a fee.[23]

Dealogic is a private firm with research tools covering global capital market and corporate finance activity for all types of projects, including but not limited to energy investments. It has a range of products aimed at the needs of the banking industry. For example, *ProjectWare* software provides access to the global project finance market including details of every project from pre-approval through signing and contains all relevant financing information. *Loan Analytics* software offers comprehensive market data on all global syndicated loans. A search engine allows users to analyze data in numerous ways while advanced reporting tools enable the production of a wide variety of reports. While many of the loans are from private banks, the software also provides information on public finance contributions in the form of loans and equity.[24] Access to the databases is available for a fee.

The principal limitation with private databases is that, as they are a client-based tool rather than UNFCCC-based, the data are collected for specific clients and do not come directly from Parties, the responsible agents under the Convention. There is also a lack of transparency, consistency and comprehensiveness. In addition, there is little tracking related to climate change mitigation and adaptation. For example, Dealogic does not have markers for carbon finance. Moreover, the Convention is likely to have little influence over what data the private sector chooses to collect and how.

It is important to note that these systems, like the OECD DAC were not established to fulfill the functions of the Convention, but instead have their own mandates. Thus, the limitations outlined are not necessarily failings of the reporting systems in reaching their mandates, but limitations of the current systems in reaching a comprehensive reporting system that serves the functions of the Convention.

IV. Options for Improving Reporting of Information

Parties to the Convention have several options for improving the reporting and compilation of financial data, exclusive of what may be necessary in the short-term for fast start financing under the Copenhagen Accord.

Option 1: Use existing data reporting and collection systems

In the near term, the UNFCCC will need to rely on existing public and private systems and voluntary reporting initiatives for any reports that Parties to the Convention may require. These systems have significant limitations when it comes to comparability, completeness, accuracy, and transparency. Some systems such as the Global Environment Facility at least have data on projects by type that extend over the last 15 years, but others cover different time spans and use different categories, thereby making the creation of a comprehensive dataset nearly impossible. However, it would be possible to assess trends in some sectors such as the renewable energy/energy efficiency sector by relying on data from New Energy Finance. It would also be possible to get a sense of bilateral financing from the OECD DAC and multilateral financing from the MDBs. Depending on the questions of interest to Parties (see page 6), a partial picture could be developed. To further promote comparability over the long-term, consideration could be given to asking the UNFCCC, the OECD DAC, or one of the MDBs to become a central repository for all financial data. However this method would still lack sufficient comparability in the absence of a common reporting format. In addition, the transaction costs incurred by the institution compiling and reviewing the data would likely be higher than for the same

institution compiling data reported using a common reporting format, resulting in inefficiencies and more difficulty in verifying the accuracy of the data.

The most important advantage of using existing systems is that procedures exist for coding, collecting and storing data that can be built upon. The biggest disadvantages are that control of the design and operation of such systems are entirely dependent on other institutions which may or may not be responsive to requests from the COP. The process for making decisions may need to be modified to take into account developing country concerns because of a perception that current processes are biased towards donor countries.

Option 2: Complement the existing reporting and data collection systems with a new one under the UNFCCC based on aggregated data reported by Parties

Parties could consider using the OECD DAC system and those of the MDBs to collect data to answer detailed questions while building a new system of reporting under the UNFCCC to address broader questions. For such a system, Parties would need to agree on which questions they would like to be able to answer in the future; this in turn would determine the type of aggregated data to be reported. (See Appendix IV for a list of possible aggregated indicators). This approach could enable some Tier 4 type questions to be addressed while relying on existing systems to answer more specific questions.

For *bilateral mitigation projects*, Box 3 provides two possible formats for reporting on the energy sector[25] by donor countries and MDBs.[26] Depending on the variables of interest to Parties, other formats could be adopted to address different questions. These formats are ambitious relative to the format used in the current reporting guidelines for Annex I Parties, but we offer them as a means to stimulate a conversation among Parties and MDBs. The first format builds on the OECD marker system for mitigation financing, while the second format builds in part on an ADB methodology for estimating financing for EE and RE in multiple component projects (for example, projects that may aim to expand production and improve energy efficiency).

We propose the introduction of six sectoral forms for energy, industry, transport, waste management, forestry, and agriculture (see example in Box 3). In each case, the y-axis represents the recipient country,[27] channeling institution, or fund[28] (e.g., GEF)[29] with cells for the different categories that the finance supports —that is, planning, research and development, deployment, and capacity building. The x-axis has columns for different types of technologies unique to that sector. For estimating the investments in energy and industry projects that have multiple components, we propose adoption of the Guidelines for Estimating Investments in Renewable Energy and Energy Efficiency Projects used by the Asian Development Bank (ADB undated; see A II). For Multilateral Development Bank reporting, we propose a similar format, but the y-axis only contains cells for recipient countries. The format shown in Box 3 would not allow data to be gathered on the type of financing (grant, loan, or guarantee) or the sources of financing, but such information could be shown in the comment column or in a supplemental report (see section V). Each form would be submitted every year by each Party and channeling institution to a body designated by the COP.

We have not explicitly accounted for public funds used to purchase project offsets in this format. While Parties to the UNFCCC have not yet agreed on methodologies for determining whether or not funds used to purchase offsets can be counted towards donors' climate finance pledges as well (known as "double counting"), reporting on funds used to purchase offsets, in an supplemental form, for example, is important to achieve comprehensive reporting and to fully understand the overall level of ambition to respond to climate change. For example, the CDM guidelines indicate that the international public finance for CDM projects should not be a "diversion of ODA." They require every project that uses public financing to do so in an annex.

Reporting for *bilateral adaptation projects* entails somewhat different considerations. For example, distinguishing financing for climate change adaptation projects from development projects is a significant, near impossible challenge. The current method the OECD DAC, BFIs, and the MDBs use for estimating investments in adaptation projects requests the funder to rank adaptation projects on a subjective scale.[30] Depending on the score, a different portion of the investment is credited as a climate change investment. We suggest a significant departure from this approach.

Given the highly contextual nature of adaptation, it is very difficult to tell from the description of an activity whether or not it is adaptive. A particular activity that supports adaptation in one context may be maladaptive in another, depending upon climatic, environmental, socio-economic, cultural, and institutional factors. Likewise, it can be difficult to distinguish an adaptation activity from a run-of-the-mill development activity based on the nature of the activity alone; the very same activity may be needed in one context to address climate change,

Box 3 Examples of a Proposed Reporting Format for Mitigation (Energy)

Bilateral and Multilateral Reporting of Financial Contributions for Mitigation Activities

[Indicate Reporting Year]

Energy Sector

Example 1.

Recipient country or channeling institution	Category	Solar	Wind Power	Biomass	Etc.	Total	Comment
Indonesia	Assess/Planning						
	R, D &D						
	Deployment						
	Capacity Building						
Maldives	Assess/Planning						
	R, D &D						
	Deployment						
	Capacity Building						

Example 2.

Recipient country or channeling institution	Category	Power	RE	EE	Coal/ Oil/ Gas	Trans-mission & distribution	Transport-ation	Total	Comment
Indonesia	Assess/Planning								
	R, D &D								
	Deployment								
	Capacity Building								
Maldives	Assess/Planning								
	R, D &D								
	Deployment								
	Capacity Building								

but in another it may be selected simply because it furthers a development objective. In other words, adaptation is not defined exclusively by *what* you do, but rather by *why* you do it.

For this reason, we propose to count adaptation financing only for projects that are directly linked to or emerge from vulnerability or impact assessments, a recipient country adaptation planning document, a climate risk screening, or another study indicating how the selected activity can help to address a particular climate risk. The comment/reference column in the suggested reporting format (Box 4) could be used to identify the document or study serving as a rationale for the activity. The format proposed for adaptation draws heavily on WRI's National Adaptive Capacity Framework.[31] This approach (like several others) may risk over-estimating adaptation finance. However, if a reported finance number, the rationale for it, and supporting documentation are all publicly available, this risk should be at least partially mitigated.[32] In addition, the World Bank recently launched a pilot project to develop detailed markers for the agriculture sector as part of its effort to better estimate the financial climate change component of supported projects. This methodology, firstly, emphasizes the importance of only marking as adaptation activities those which were intended from the beginning to have an adaptation benefit, and secondly, enables project managers to count as climate finance only the proportion of the cost of the project directly related to adaptation.[33] While these elements of the World Bank approach do not help assure that only finance for activities that fit the location's climate change context is

Box 4 Examples of a Proposed Reporting Format for Adaptation (Water)

Bilateral and Multilateral Reporting of Financial Contributions for Adaptation Activities

[Indicate Reporting Year]

Water Sector

Example 1. Major project categories are further divided among activity type.

Recipient country or channeling institution	Category	Natural Resource Management	Engineering/ Construction	Social Protection	Other Activity Type	Total	Comment
Indonesia	Assess/Planning						
	R, D &D						
	Deployment						
	Capacity Building						
Maldives	Assess/Planning						
	R, D &D						
	Deployment						
	Capacity Building						

Example 2. Major categories are further divided by level of intervention.

Recipient country or channeling institution	Category	International	National	Sectoral	Local/ Community	Household	Total	Comment
Indonesia	Assess/Planning							
	R, D &D							
	Deployment							
	Capacity Building							
Maldives	Assess/Planning							
	R, D &D							
	Deployment							
	Capacity Building							

counted, they do have the potential to help decrease the risk of overestimating adaptation finance.

A second challenge with reporting adaptation finance is the broad diversity of activities that may be supported. In this context, creating a reasonably sized set of comprehensive, mutually exclusive reporting parameters can be very difficult. Two example forms for reporting bilateral or multilateral adaptation projects in the water sector are presented in Box 4. Each would provide Parties with different information about activities supported and would have different strengths and weaknesses with regard to comparability and comprehensiveness. Example Form 1 would provide additional information about the nature of the activity, but it may require a subjective judgment for categorization of an activity (for example, whether an irrigation project would be categorized as a changing natural resources management practice, or an engineering project). Example Form 2 would provide different information about supported activities and would be able to answer different types of questions that may interest Parties.

Separate forms would be required for other sectors or impacted areas—for example, agriculture, energy, health, and coastal zones. The selection of a sector set would significantly influence the appropriateness of different reporting parameters. Indeed, Parties would probably want to consider whether different parameters would be needed for different sectors (though this would significantly complicate the reporting system). We note that both the set of potential sectors and the set of potential parameters for reporting are large and may need to be defined

somewhat arbitrarily after consultations with experts. Both are likely to be modified once experience is gained through a piloting of the new reporting format.

The advantage of this option is that the system would be under the direct control of the UNFCCC and respond to the information needs of the COP, including the need for completeness, transparency, comparability, accuracy, and efficiency. However, a new system will require new guidelines and formats for reporting, donor countries will have to find new ways to collect and aggregate data, and new software will need to be designed, tested, and maintained.

Option 3. Project-level reporting

If Parties wish to be able address very specific questions (for example, how much financing has Indonesia received for wind power training in the form of grants from the Overseas Development Corporation), it will be necessary to have Parties report and characterize every project instead of aggregating data as suggested in Option 2. This would require extending the y-axis on all forms to allow a reporting country to list every project undertaken with the recipient country. The x-axis would be extended so that every type of finance, technology, and category of support would have its own cell and a new column would be added to allow for the source of funding—in this case, the Overseas Development Corporation. This would provide additional transparency by allowing Parties to report projects having multiple types of finance, technologies, or categories of support, depending on preferences established by the COP. The advantage of this option is that Parties would have direct control of information on every climate change project supported by donor countries. Such a database could prove to be invaluable to future analysts as Parties attempt to determine how funds have been used and whether they should be allocated differently in the future. However, it creates an added reporting burden for the donor country that could be deemed inefficient if Parties decide it is not necessary information to serve the objectives of the COP.

These three options, depending on how they are executed, offer different ways of achieving an improved reporting system, and each have tradeoffs with regard to comparability, completeness, accuracy, transparency, and efficiency. However, it is important to note that these options are not necessarily mutually exclusive, but could serve as complementary in the process moving forward.

V. Critical Design Issues and Implications of an Improved Reporting System

The relationship between reporting and verification of data

An improved reporting system would need to be complemented by a review or verification process. The review process verifies that reporting accurately reflects actual circumstances and is done in a manner consistent with approved methodologies, thus helping to foster trust among Parties. In the case of Annex I national GHG inventory data, a review process exists consisting of review teams of technical experts from both developed and developing countries that review the data every year based on guidance from the COP. Similar reviews are conducted for Annex I national communications, but are generally spaced over longer time periods. Having information from nonpolitical technical experts has allowed for the consideration of such information by the Subsidiary Bodies of the Convention.

An enhanced review mechanism for climate finance could therefore take into account the experience and limitations[34] of the current review mechanisms for GHG inventories and national communications from Annex I Parties.[35] In developed countries, a lead ministry would need to have responsibility for consolidating financial data from multiple ministries and making it available to reviewers. A specialized community of financial experts would need to be recruited and given guidance on how to conduct reviews. Experts would need the cooperation of the MDBs, the OECD DAC and other institutions to complete their work. Also, developing countries might ultimately need to develop a system for collecting data upon receipt of financing, which could be used to cross-check data from developed countries (also known as "double-entry bookkeeping"). Finally, the COP will need to decide whether the SBI or a new body such as the Finance Committee proposed by some developing countries would be responsible for considering information from review teams.[36]

Verification - recipient country and third party recordkeeping

Verification of financial data will be complicated. However, verification of financing from one country to another or from an MDB to a country could be enhanced if the recipient country maintains a comparable set of "books" with information on financing received. If this were done it would also have the benefit of providing some information on the limitations, impacts and outcomes of project financing. The Philippines (Resources Environment and Economics Center for Studies,

Inc. 2010) and Costa Rica (INCAE Business School and FUNDECOR 2010) have undertaken initial studies toward this end as part of their financial needs assessments. Such recipient-led reporting would require a revision of the UNFCCC's suggested guidelines for non-Annex I reporting of climate finance received in their National Communications, as well as capacity building to enable developing country institutions to track international money flowing through a variety of institutions (regional, national, non-governmental, etc.).

Other third party entities such as civil society could also play a valuable role in cross-checking the sources and allocation of climate financial data from developed countries as well as the use of finance in developing countries. The Institute for European Environmental Policy's (IEEP) January 2009 evaluation of the EU's fulfillment of its 2001 Bonn pledge provides one example of tracking the allocation of climate finance. The IEEP's assessment compiled aid data on the EU's climate finance transfers through bilateral aid, the GEF, and MDBs.[37] In addition, in the absence of a formal reporting process for short-term climate financial flows (2010-2012) as promised in Copenhagen in December 2009, civil society organizations such as the World Resources Institute, climatefundsupdate.org, and Project Catalyst have stepped in to play a *de facto* role of collecting climate financial information. A study by the Center for International Forestry Research (CIFOR) provides an example of a third party organization reporting on the use of finance in developing countries. The report documents the governance structure and spending practices of the Indonesian Reforestation Fund since 1989, including the over USD$5 billion in REDD funds that were lost to financial mismanagement and fraudulent practices in the 1990s, and the attempts at reform since then.[38] To be able to play such a role, civil society would need access to financial data. Also, its current unofficial status would need to be changed to allow for consideration of its information in the UNFCCC processes. This could be remedied by formally establishing clear rules and guidelines for the participation of civil society. (Moncel et al. 2009a)

Information systems to support evaluations of the effectiveness of public finance

In addition to tracking the generation and delivery of public finance, Annex I Parties have expressed a need to assess the effectiveness of projects. Over time, developed and developing country Parties are likely to want more information on how well projects and programmes have performed in order to make more informed decisions on best practices for disbursing climate finance.

Bilateral aid agencies and the MDBs currently use a variety of software tools to manage and monitor the performance of projects. Other project performance monitoring and evaluation online initiatives exist as well separate from financial reporting systems, such as the World Overview of Conservation Approaches and Technologies (WOCAT) network, which catalogues sustainable land management cases at the local level to identify needs, outcomes, and best practices.[39] However, linking project management systems with financial reporting systems would add substantial complexity to both reporting and review systems. Parties will need to consider whether and how such systems should be linked. Options include using existing mechanisms to evaluate projects and programmes on a case-by-case basis (as usually stipulated in agreements between donors and recipient countries) or evaluating portfolios held by the MDBs, development agencies, or the financial mechanism of the Convention.

Institutional arrangements to report actions (NAMAs) and financial support

Since the 2007 Bali UNFCCC negotiations, several countries have proposed a mechanism that includes a registry fulfilling one or multiple functions,[40] including keeping track of (1) support for domestic capacity to design, prepare and implement NAMAs; (2) the provision of scientific advice and technical support to developing countries; (3) support for the assessment of mitigation potential of developing country actions and their financial, technological, and capacity building needs; (4) facilitation of knowledge sharing and best practice at various levels; and, (5) the matching of support to NAMAs.[41] A registry could record proposed NAMAs seeking international support and would contain information about estimated incremental costs, estimated mitigation benefits, the type of support required, and the estimated timeline. However, the objectives and elements of such a system have yet to be agreed upon by Parties, including how it relates to MRV.

Other institutional arrangements are being considered in the context of the negotiations. For example, developing countries are suggesting the establishment of a Finance Committee that could provide guidance to the COP in matters relating to the financial mechanism of the UNFCCC. Several countries suggest that the Finance Committee could manage the registry and measure, report, and verify financial support to developing countries. Another proposal suggests creating a "forum of entities" that would ensure coherence and coordination amongst operating entities and other non-UNFCCC finance channels and promote common measurement and reporting procedures.

Given these different views, it is crucial that Parties decide on institutional arrangements to measure, report, and verify supported actions by developing countries and on a body that will be responsible for developing the guidelines for reporting climate finance information by Annex I Parties, as well as coordinating with other institutions.

Operational issues relating to existing and new data systems

The adoption of an improved reporting system would likely lead to the redesign of existing databases and search engines and the introduction of new procedures for collecting and processing financial data. For example, as previously noted, only the OECD DAC database is searchable by mitigation technology type. If the COP required this capability, other institutions would need to revise the design of their databases and search engines to make information more accessible. If the COP were to adopt new guidance for the classification of mitigation and adaptation projects or for projects having multiple components, a new computer coding system would be needed, procedures would have to be revised and training would be initiated for either project managers or those classifying projects/activities and reporting data.[42] If Parties wish to have a centralized data system, it would require the design of electronic reporting forms and a data storage system with an associated search engine. Parties would need to decide where such a centralized data system should be located. Options might include the UNFCCC secretariat, the OECD DAC, one of the MDBs, or a completely independent institution or corporation. The direct and indirect costs of establishing a centralized data system are difficult to determine at this time. In the case of the GHG data system, most costs were spread out over many years thereby making them acceptable to Annex I Parties.

Current data collection efforts suffer from poor quality assurance procedures, including: the lack of a standardized reporting format, unclear instructions to people responsible for coding projects, changes in personnel responsible for classifying projects, and a lack of training. To improve data quality, Parties could consider the introduction of an instruction manual with example cases relating to classification of projects, an e-learning tool such as the one used to train GHG expert reviewers, and testing material to improve the level of competency of personnel in aid agencies.

Supplemental information

While standardization of information is important, there are important nuances that may not be captured in common reporting tables. Also, the tables may not be sufficient to fully understand the numbers reported by Parties. For example:

- The data alone will not provide information on the sources of financing, that is, which ministries or agencies are providing support and legal mandates for financing.
- The budget categories of ministries often change over time. Budget categories may be relabeled or aggregated differently and shifted from one ministry to another. Explanations of such changes would lead to more transparency.
- Parties may wish to have an opportunity to describe new initiatives, examples of success stories, contact information for key staff, and other information not revealed in a quantitative common reporting format.
- Given the unique challenges involved in matching adaptation finance to the needs of a particular area, Parties may wish to provide insights on innovative approaches to support adaptation.
- Given the importance of social and environmental safeguards in the REDD+ discussion, donors may wish to report on how these have been addressed.

To address these issues, we recommend that in addition to reporting data using the format in Boxes 3 and 4, Parties provide a supplementary report. The report could be an opportunity to provide narrative information on how the data are compiled within countries, priorities and new initiatives, legal mandates, and other topics to help the reader understand the reported data and allow for cross-checking of information. This "supplemental" information could be provided through the national communications submitted by Parties to the UNFCCC, as has been proposed by some Parties.

Phasing in an improved reporting system

In June 2010, the SBSTA agreed to a schedule to revise the UNFCCC reporting guidelines on annual inventories for Parties included in Annex I to the Convention (Part 1).[43] It has yet to agree on a schedule to revise Part 2 of the guidelines which includes information on how to report financial data. We suggest the following schedule for the revision of Part 2 of the Guidelines:

1. Agreement at COP-16 (2010) on a decision to request the UNFCCC secretariat under the guidance of the SBSTA

to formulate a proposed decision on draft guidelines for reporting of financial information by COP-17. This should be done with the cooperation of all major MDBs, the OECD DAC, BFIs, and experts from developing and developed countries. A decision at COP-16 could include a set of principles and functions to inform the design of the guidelines.

2. Agreement at COP-17 (2011) on draft guidelines for reporting financial information and on a process and schedule for their introduction. (An announcement of a number of voluntary efforts in which both developed and developing countries would report data using the draft guidance could energize the process.)
3. A report at COP-18 (2012) by the SBSTA to the COP on the voluntary experience of Parties, the MDBs, the OECD DAC, BFIs, and others in applying the draft guidelines.
4. Agreement at COP-19 (2013) on the final guidelines based on the experiences of Parties, the MDBs, the OECD DAC, BFIs, and others in applying the draft guidelines.
5. By 2015, reporting of financial data by Parties using the guidelines for reporting financial information.

Connecting "fast-start" financing to a revised system of reporting in the long-term

An improved reporting system takes time to develop. In the meantime, it is important to ensure that financial support to developing countries is accounted for in a clear and transparent manner. An important outcome of COP-15 in December 2009 as contained in the Copenhagen Accord was the agreement that developed countries would provide "fast-start" finance to developing countries in the amount of US$ 30 billion for the period of 2010–2012. Many developed countries have come forward with individual fast-start climate finance pledges to help reach this global goal.

While about 20 countries have publicly released information on their fast-start finance,[44] due to the lack of a common global reporting format, this information is not complete or comparable. There are gaps in transparency around how these pledges will be allocated among countries or funding channels, if the funds are new and additional, and for which activities (mitigation or adaptation) the support is intended. The diversity of information provided by Annex I Parties reflects the current absence of a common reporting format with common definitions and methodologies to quantify climate finance to report this support (Ballesteros et al. 2010). Moreover, the nearly real-time nature of the disbursement processes associated with these funds suggests that any attempt to develop guidelines for reporting will come too late to address questions such as those noted above. Nevertheless, the climate change community could learn from the experience of the various national fast-start fund processes and this experience could serve to shape new reporting and review systems over the coming years.

One option could be to launch a number of pilot efforts. For example, the UNFCCC negotiating process would be helped if several developed countries reported their fast-start finance using a voluntary common reporting format, and offered to have it reviewed through a voluntary system. Countries have already begun to list their fast-start finance in an ad-hoc manner through a Netherlands-led online initiative.[45] The World Resources Institute has also begun to compile information on countries' fast-start finance pledges, a process that has shed light on gaps and areas where current reporting systems can improve.[46]

Fast start reviews could identify institutional issues relating to collecting and synthesizing data in developed countries, differences arising from different terms such as "budgeted, appropriated, approved, or expended" funds, and the practical problems likely to be encountered in conducting reviews. In so doing, reviewers would come to understand which countries received funds and for what types of projects.

Another option is to try tracking data by sector, such as REDD, since related, voluntary efforts are underway in the context of the Forest Carbon Partnership Facility (FCPF)[47] and the Interim REDD+ Partnership.[48]

Following the money trail over time will be a challenge, but just as GHG inventories were permitted to be updated as new methodologies emerged, a flexible financial review system could allow for the consideration of the knowledge gained from different types of pilot efforts.

VI. Conclusions and Recommendations

Current reporting of public sector financing for climate change projects by bilateral and multilateral institutions lacks transparency, completeness, consistency, and accuracy. No integrated international system currently exists for storing and accessing financial data, although individual components of a system reside in the OECD, the MDBs and the private sector. As a result it is difficult to determine what categories of projects are being funded (e.g., capacity building, training, planning, assessments, analysis, research and development, and technology deployment); what types of funds (grants, loans, and guarantees) are being provided; what the financing trends are in particular sectors, technologies and measures; and, whether financing is new and additional. In particular, current efforts to categorize adaptation projects provide little insight about the types and levels of funding. Consequently, the COP should decide to:

> **"*Request* the SBSTA to revise the guidelines for the reporting of information in national communications by Annex I Parties to the Convention, part II: UNFCCC reporting guidelines on national communications (Decision 4/CP.5), including the development of reporting formats for finance, with a view to adoption of the enhanced reporting guidelines by COP-17."**

Parties could make significant improvements by adopting a standardized financial reporting format with common definitions and methodologies to quantify climate finance based on some of the components of existing systems. This reporting format should ensure that reporting is complete, transparent, comparable, accurate, and efficient. However, before launching an effort to either revise or initiate a new means of collecting financing data, Parties to the Convention ought to give consideration to what questions they need to answer. The types of questions will determine the extent of any expanded data collection effort and its likely cost.

Assuming the need for pilot projects to gain experience with the draft guidelines over a period of two years and the need to develop electronic reporting forms and an associated database, a fully operational system could be available by 2015. This will not satisfy the need for more transparency regarding fast-start funding under the Copenhagen Accord, but it would put the tracking of financial information on a sound long-term path.

There are widely divergent views between developed and developing countries regarding whether financing for climate change is new and additional to official development assistance. An improved reporting format for bilateral and multilateral financing would improve understanding of this issue. Better data would eventually allow Parties to determine whether there has been an increase or decrease in climate finance over time. However, by itself, improved climate finance data will not be able to shed light on whether or not funds for climate change are new and additional to official development assistance, particularly in the absence of an agreed baseline for additionality. To do that, countries would have to rely on other data sources outside the purview of the UNFCCC. A transparent reporting process can nevertheless help inform this discussion and build trust and understanding between developed and developing countries.

The adoption of a revised or new reporting system in the absence of a process to review data will not build significant trust among Parties. Having independent nonpolitical technical financial experts review financial data will allow bodies of the Convention to reasonably consider such information and build trust. A review process for the reported climate finance could build on the current UNFCCC review systems for Annex I GHG inventory data and national communications.

The adoption of an improved reporting system would likely lead to the redesign of existing databases and search engines and the introduction of new procedures for collecting and processing financial data. In the case of GHG accounting, most costs were spread out over many years thereby making them acceptable to Annex I Parties.

While this paper did not address private finance for climate change, further research is clearly needed on this topic. The UNFCCC could make a contribution to such an effort by requesting the Secretariat organize a workshop to explore this issue.

VII. Endnotes

1. The Copenhagen Accord requires that "financing by developed countries be measured, reported and verified in accordance with existing and any further guidelines adopted by the Conference of the Parties, and will ensure that accounting of such targets and finance is rigorous, robust and transparent."
2. The importance of tracking these pledges through a robust and transparent measurement, reporting, and verification (MRV) system is demonstrated by the experiences of similar pledges made by developed countries in the lead up to the Kyoto Protocol during a 2001 UNFCCC meeting in Bonn. At the meeting, the European Union, Canada, Iceland, New Zealand, Norway, and Switzerland pledged to provide US$410 million annually until 2008 for climate change adaptation. Of this amount, the then-15 EU countries pledged to provide US$369 million. While the EU affirms that it has delivered on its pledge, the data is insufficient to prove that this is the case due to inadequate transparency and reporting and a lack of agreement on what qualifies as climate finance (Moncel et. al. 2009a)
3. The MRV of finance provisions of the Bali Action Plan are explicitly applied only to finance-supporting developing country Nationally Appropriate Mitigation Actions (NAMAs) and are not explicitly applied to adaptation actions. However, most countries do not make this distinction when referring to MRV of finance in their submissions, nor is it made in the Copenhagen Accord (Moncel et al. 2009b).
4. For a discussion of the difficulties in compiling FDI data and interpreting what is available, see IMF/OECD 2003 and UNCTAD 1998.
5. For more information on potential baselines for additionality, see Stadelmann et. al. (2010) and Brown et. al. (2010), who outline various baseline options.
6. Report of the Secretary-General's High-level Advisory Group on Climate Change Financing." High-Level Advisory Group on Climate Change Financing. November 5, 2010. http://www.un.org/wcm/webdav/site/climatechange/shared/Documents/AGF_reports/AGF_Final_Report.pdf
7. These numbers are estimates given that China does not publicly release foreign aid–related data.
8. "Brazil's foreign-aid programme: Speak softly and carry a blank cheque." The Economist. July 15, 2010. http://www.economist.com/node/16592455?story_id=16592455
9. "Efficient" is included here but is not a principle included in the national GHG reporting guidelines on inventories.
10. A few Parties provided data for 2005–06.
11. Liechtenstein, Slovenia, and Slovakia in their fifth national communications provided some detailed information on climate assistance. As of May 13, 2010, Turkey and Monaco had not yet submitted their fifth national communication.
12. This includes grants or loans to developing countries. See OECD's "Official Development Assistance," online at http://www.oecd.org/glossary/0,2586,en_2649_33721_1965693_1_1_1_1,00.html#1965586
13. See "User's guide to the CRS Aid Activities database," online at: http://www.oecd.org/document/28/0,3343,en_2649_34447_14987506_1_1_1_1,00.html
14. Information on the Rio Markers is only available in the CRS, and is not aggregated in the DAC database.
15. Non-DAC member countries include Chile, the Republic of Korea, Mexico, Poland, the Slovak Republic, and Turkey.
16. The OECD is currently attempting to expand their database to include more multilateral donors and major foundations, such as the Bill and Melinda Gates Foundation (E-mail correspondence with the OECD, August 2010).
17. "OECD methodology for calculating imputed multilateral ODA." Organisation for Economic Co-operation and Development (OECD). Accessed: August 9, 2010. http://www.oecd.org/document/54/0,3343,en_2649_34447_41037110_1_1_1_1,00.html
18. The DAC encourages reporting countries to report multiple activities in the place of one activity with multiple sectors in order to correct this problem. However, this is only possible with smaller projects.
19. They are applied to entire aid activities based on a three-tiered value of degree. Projects whose principal objective is entirely climate change are given a 2. Those that could have a significant climate component ranging from 10 to 90 percent of the project are given a 1. Those which are not targeted for climate change and are deemed to be entirely for development purposes are given a 0. Any data obtained through the system is therefore highly uncertain.
20. Starting January 1, 2010, DAC members began to apply a new adaptation marker when reporting aid to the CRS. The marker, however, will be applied to aid in the same vein as the other markers (i.e., to the whole aid activity based on a

three-tiered value of degree system) and will thus not accurately track aid for mainstreamed adaptation activities.

21. Internal databases can be used by MDBs to present results on specific trends as they contain considerable details on projects. For example, the IADB is currently working on developing indicators that would allow it to have a first simple screen for determining if projects have mitigation and/or adaptation characteristics. The IADB is also undertaking a portfolio assessment with regard to adaptation and risks to climate change impacts.
22. Reports available at: SEFI, "Creating the Climate for Change," http://sefi.unep.org/english/home.html
23. See New Energy Finance at http://www.newenergyfinance.com/
24. See Dealogic at http://www.dealogic.com/en/index.htm
25. Similar tables would be needed for other sectors, for example, industry, agriculture, forestry, and waste management.
26. For a more detailed explanation of the content of these tables, see Appendix I.
27. In instances of support for a regional entity, Parties should indicate the countries in the region that are expected to benefit from the finance. Reporting should indicate whether the regional entity will spend particular amounts in particular countries, or if the finance is for capacity building of that regional entity.
28. Parties should indicate the fund(s) or other institution(s) through which finance was channeled. Examples include global channels (e.g., World Bank PPCR, LCDF, SCF, Kyoto Protocol Adaptation Fund, UNDP, UNEP), regional channels (e.g., SPREP, regional climate centers, regional development banks), national channels (e.g., recipient country climate trusts or other "basket funds," budgetary support), or via sub-national channels (e.g., direct to a NGO, research institute, or sub-national government body).
29. Parties providing financial support directly to an MDB or a specialized fund would only fill out the amount, type of funding, and the channeling institution/fund.
30. Development projects that are deemed to be 90–100 percent relevant to climate change are ranked 2. Those that are deemed to be 10–90 percent relevant are ranked 1. Projects that are deemed to be 0–10 percent relevant are ranked 0.
31. "National Adaptive Capacity Framework." World Resources Institute. http://www.wri.org/project/vulnerability-and-adaptation/nac-framework
32. Adaptation measures are typically determined through a process of assessing climate change vulnerability and risks, identifying priority adaptation needs, and selecting a measure from among several options that might meet the needs (see the UKCIP Climate Wizard or the Cristal tool for prominent examples of such processes). While processes vary significantly in their resources, participants, and decision criteria, there is usually some form of documentation that can provide evidence of why a measure was selected. Stakeholders close to the process will be best able to judge whether appropriate considerations were made.
33. Final guidelines should be ready in early 2011 for use by World Bank programmes. A portfolio review will be carried out for FY11 and, based on that review, a baseline will be developed. The marker system will be mandatory from July 2012 onwards. Preliminarily the OECD DAC has suggested that the system may be a basis for developing a common ground for the quantification of the Rio Markers in the long run. Source: Personal communications for Ari Huhtala, Senior Environmental Specialist, and Per Ryden, Senior Sustainable Land Management Specialist, at the World Bank.
34. One limitation of the reviews of national communications arises from the composition of review teams and their mandate. For example, since financial data are only one aspect of a national communication, review teams rarely include financial specialists or have the time to assess financial data in depth, nor is it clear that they have a mandate to do so.
35. According to decisions 2/CP.1, 9/CP.2, 6/CP.3 and 33/CP.7, 26/CMP.1 and 7/CP.11 each national communication of an Annex I Party is subject to an "in-depth" review. The in-depth review is conducted by an international team of experts, and coordinated by the UNFCCC secretariat. The review of each national communication typically involves a desk-based study and an in-country visit and aims to provide a comprehensive, technical assessment of a Party's implementation of its commitments. The in-depth review results in an in-depth review report, which typically expands on and updates the national communication. The in-depth review reports aim to facilitate the work of the COP in assessing the implementation of commitments by Annex I Parties. The reports also allow easier comparison of information between the national communications of Parties,

although no common indicators are employed. Subsequent COPs have requested streamlining of this process, but the basic elements remain the same.

36. "Review Process." United Nations Framework Convention on Climate Change (UNFCCC). http://unfccc.int/national_reports/annex_i_ghg_inventories/review_process/items/2762.php

37. Pallemaerts, M. and J. Armstrong. 2009. "Financial Support to Developing Countries for Climate Change Mitigation and Adaptation: Is the EU Meeting Its Commitments." Institute for European Environmental Policy (IEEP), January 29. http://www.ieep.eu/publications/pdfs/2009/sds_paper_funding.pdf

38. Barr, Christopher et. al. Financial Governance and Indonesia's Reforestation Fund during the Soeharto and post-Soeharto periods, 1989-2009: A political economic analysis of lessons for REDD+. Occasional paper 52. Center for International Forestry Research (CIFOR). Bogor, Indonesia. 2010.

39. The World Overview Conservation Approaches and Technologies (WOCAT). http://www.wocat.net/

40. FCCC/AWGLCA/2010/14. "Negotiating Text." Note by the secretariat. August 13, 2010. http://unfccc.int/resource/docs/2010/awglca12/eng/14.pdf.

41. For more information and country positions on the registry, see McMahon and Moncel 2009 and McMahon et. al. 2010.

42. The World Bank Group (WBG) has a pilot project to test a new classification system using sector/subsector specific indicators to track the WBG's progress in building a more climate-resilient and sustainable investment portfolio. As part of this process, the WBG is also improving its portfolio tracking and monitoring system to better track investments that yield climate-related benefits. Results from this pilot are expected late this year (World Bank 2010).

43. UNFCCC/SBSTA/2010/6, Report of the Subsidiary Body for Scientific and Technological Advice on its thirty-second session, held in Bonn from 31 May to 10 June 2010, page 12

44. See, for example, the U.S. report on FY2010 fast-start finance (U.S. Department of State, Bureau of Oceans, Environment, and Science 2010), or the EU fast start finance report for Cancun (Council of the European Union 2010), which includes select information on fast-start finance by using a common reporting format for its member-states.

45. "Fast Start Finance." Government of the Netherlands. last modified September 2, 2010, http://www.faststartfinance.org/

46. Athena Ballesteros, et. al. "Summary of Developed Country Fast-Start Climate Finance Pledges." World Resources Institute. http://www.wri.org/publication/summary-of-developed-country-fast-start-climate-finance-pledges.

47. As part of the REDD readiness process, the FCPF has asked that REDD countries have systems in place to track various financial flows coming in from different programs and how they plan on using this money.

48. The Interim REDD+ Partnership recently surveyed developing countries, developed countries, multilateral institutions, and large international organizations on their REDD+ activities, including financing for REDD+ dispersed or received. While the survey did not require countries to report or to adhere to a common reporting format, lessons learned from this effort can help provide feedback for moving forward with an improved reporting system, for how 'double-entry bookkeeping' might work, and how reporting on REDD finance might need to be treated differently from reporting on finance from other sectors such as adaptation or mitigation. The Interim REDD+ Partnership's REDD+ Financing and Activities Survey can be found here: http://www.oslocfc2010.no/documentslinks.cfm

VIII. Appendices

Appendix I - Explanation of Proposed Reporting Formats

Mitigation

Column Heading	Explanation
Recipient country or channeling institution	This column can be filled in with the recipient region or country for donor Party or multilateral institution reporting. In instances of support for a regional entity, Parties should indicate the countries in the region that are expected to benefit. In the case of donor Party reporting in which climate funds are being channeled through an intermediary institution, this column should indicate which fund(s) or other institution(s) finance was channeled through. Institutions for channeling mitigation finance are currently proliferating. Examples include global channels (e.g., World Bank, the GEF), regional channels (e.g., regional development banks), national channels (e.g., recipient country climate trusts or other "basket funds," budgetary support), or sub-national channels (e.g., direct to an NGO, research institute, or sub-national government body).
Category	Successful mitigation will require a wide variety of activities, and these will vary significantly from country to country and over time. The finance flowing to each country should be broken down by the following key categories: • **Assessment and planning** – Assessment is the process of examining available information to guide decision-making. This includes assessing the GHG abatement options, reduction potential, costs and benefits, and impacts (environmental, social, and economic) of a mitigation activity. Planning that takes into account the assessments is needed on both the micro and macro level, and for both mitigation measures and the development of national systems that can facilitate mitigation. Examples of macro-level plans include countries' national Low Carbon Development Plans. Effective processes for planning will engage a wide range of stakeholders, will be made transparent to the public, will prioritize issues and sectors, and will enable review and adjustment of plans and priorities as circumstances change. • **Research, development and demonstrations** – This includes, for example, support for projects, networks, or organizations undertaking scientific research, data collection, systematic observation and development of new technologies or methods to understand and mitigate climate change. It could also include demonstrating the feasibility of a technology or policy in order to build awareness around less known but effective solutions and to attract private funding. • **Deployment** – Deployment is the implementation of plans, measures, and technologies to actively and concretely decrease emissions. For example, this could include constructing a solar power plant, building an energy efficient building, or reforesting a previously deforested area. • **Capacity building** – Building capacities for all the above activities is a critical component of mitigation. Additional key mitigation activities for which capacity building may be needed include: ° Coordination – Mitigation requires action by disparate actors at multiple levels, both within and outside of government. Coordination of their activities helps avoid duplication or gaps and can create economies of scale in responding to challenges. Coordination may be horizontal (e.g., among ministries), vertical (e.g., among national, global and sub-national actors), or inter-sectoral (e.g., between government and business). ° Information management – This consists of collecting, analyzing and disseminating knowledge in support of mitigation activities. Relevant information will vary but at a minimum typically covers GHG emissions and energy use by sector. Good information management will ensure that information is useful and accessible to stakeholders. It may also involve building the capacity of stakeholders to use information for mitigation. ° Public awareness – This includes developing and implementing public awareness programs, increasing public access to information, and increasing public participation in addressing climate change and its effects. It consists of, among other things, aid to education ministries, administration and management systems; institution capacity building and advice; curriculum and materials development; educational facilities, equipment, and materials development; and training teachers. ° Training – Training personnel to carry out the activities mentioned above. ° Monitoring/Review – The monitoring and review of GHG emissions and policies will be necessary for evaluating progress domestically and assessing and revising strategies based on those findings. It could also be useful internationally to increase transparency and communication around the actions countries are taking, in turn inspiring more ambition in the international system.

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Column Heading	Explanation	
Activity type	Examples 1 (energy): CCS Biomass Biofuel Biogas Municipal waste Ocean power Wind power Solar energy Geothermal energy Hydro-electric power plants Nuclear power plants Clean-coal power plants Electrical transmission/distribution Gas distribution Renewable power generation Energy efficiency	Example 2 (energy): **Power**: Includes generation of electricity from coal, oil, gas, and nuclear. **Renewable Energy**: Hydro, wind, geothermal, biomass, solar for electricity production and for thermal applications, including hot water for households. **Energy Efficiency**: Includes efficiency improvements in energy supply and demand and improvements in district heating. **Coal/Oil/Gas**: Includes support for mine rehabilitation and mine closing and coal, lignite, and peat mining. Includes crude oil and natural gas liquids (NGLs), fuel quality, gas distribution, oil and gas pipelines, liquefied natural gas (LNG) plants, liquid fuels, including liquefied petroleum gas (LPG), manufactured gases, natural gas and its fuel products, and refineries. **Transmission and distribution**: Transmission and distribution of electric energy for sale to household, industrial, and commercial users. **Transportation**: Includes rail, air, and land transport infrastructure, rapid transit systems, traffic management, and other systems
Total	Indicates the total amount disbursed (in U.S. dollars at the time of dispersal) during the reporting year that supported an mitigation activity or the mitigation component of an activity for each row. In the case of funds channeled through an intermediary institution, the amount should only include funding for climate change.	
Reference or comment	This comment section should include a justification of how the countries' financed activities further mitigation. For example, this could be a reference to an environmental impact assessment.	

Adaptation

Column Heading	Explanation
Recipient country or channeling institution	This column can be filled in with the recipient region or country for reporting by donor Parties or multilateral institutions. In instances of support for a regional entity, Parties should indicate the countries in the region that are expected to benefit. In the case of donor Party reporting in which climate funds are being channeled through an intermediary institution, this column should indicate which fund(s) or other institution(s) finance was channeled through. Institutions for channeling adaptation finance are currently proliferating. Examples include global channels (e.g., World Bank, PPCR, LCDF, SCCF, Kyoto Protocol Adaptation Fund, UNDP, UNEP), regional channels (e.g., SREP, regional climate centers, regional development banks), national channels (e.g., recipient country climate trusts or other "basket funds," budgetary support), or sub-national channels (e.g., direct to an NGO, research institute, or sub-national government body).

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Column Heading	Explanation
Category	Successful adaptation will require a wide variety of activities, and these will vary significantly from country to country and over time. The finance flowing to each country should be broken down by the following key categories: • **Assessment and planning** – Assessment is the process of examining available information to guide decision-making. This may include assessments of vulnerability, climate change impacts, adaptation practices, and the climate sensitivity of development activities. Planning that takes into account the assessments is needed on both the long- and short-term, and for measures and national systems that can facilitate adaptation. Examples include countries' national, state, or regional adaptation plans, "mainstreaming" plans, effective processes for engaging stakeholders, methods to prioritize issues and sectors, processes to review and adjust plans, and processes for dispute resolution. • **Research, development and demonstrations** – This could include, for example, aid for various networks or organizations supporting research, data collection, systematic observation, and development of new technologies or methods to understand and adapt to climate change. This could also include demonstrating the feasibility of measures, policies, and technology to draw attention to less known but effective solutions and to attracting private funding. • **Deployment** – Deployment is the implementation of plans, measures and technologies to actively and concretely manage risk and address vulnerabilities to climate change. For example, this could include implementing a micro-insurance scheme or building an irrigation system to increase access to water. • **Capacity building** – Building capacities for all the above activities is a critical component of adaptation. Additional key adaptation activities for which capacity building may be needed include: ° Coordination – Adaptation requires action by disparate actors at multiple levels, both within and outside of government. Coordination of their activities helps avoid duplication or gaps, and can create economies of scale in responding to challenges. Coordination may be horizontal (e.g., among ministries), vertical (e.g., among national, global, and sub-national actors), or between government and business or civil society. ° Information management – This consists of systems for collecting, analyzing, and disseminating data and information in support of adaptation activities. Relevant information will vary, but at a minimum typically covers climate variables, the status of natural and human systems, and existing coping strategies. Good information management will ensure that information is useful and accessible to stakeholders. It may also involve building the capacity of stakeholders to use information for adaptation. ° Public awareness – This includes developing and implementing public awareness programs, increasing public access to information, and increasing public participation in addressing climate change and its effects. It consists of, among other things, aid to education ministries, administration, and management systems; institution capacity building and advice; curriculum and materials development; educational facilities and equipment development; and training teachers or media representatives. ° Training – Training personnel to carry out the activities mentioned above is one component of capacity building. ° Monitoring/Review – The monitoring and review of adaptation policies and measures will be necessary for evaluating progress domestically and assessing and revising strategies based on those findings. It could also be useful internationally to increase transparency and communication around the actions countries are taking.
Activity type*	Natural Resources Management: Activity emphasizes changing natural resource management practices (e.g., for managing water, land, protected areas, fisheries) as an adaptation strategy. Engineering/Construction: Focuses on construction or changes to the built environment (e.g., roads, building codes, sea walls) as an adaptation strategy. Social Protection: Focuses on the creation or modification of social protection mechanisms (e.g., insurance, credit, asset transfer, safety nets) as an adaptation strategy.
Total	Indicates the total amount disbursed (in U.S. dollars at the time of dispersal) during the reporting year that supported an adaptation activity or the adaptation component of an activity for each row. In the case of funds channeled through an intermediary institution, the amount should only include funding for climate change.
Reference or comment	This section should reference how the projects are directly linked to or emerge from a vulnerability or impacts assessment, a recipient country adaptation planning document, a climate risk screening, or another study.

*Separate activity type categories will be needed for other sectors such as agriculture and forestry, industry, waste management, etc.

Appendix II - Procedure for Estimating Investments in Energy Efficiency and Renewable Energy

The ADB's 2009 Energy Policy has the promotion of clean energy as one of its three key pillars and targets US$2 billion in renewable energy and energy efficiency investments by 2013. To effectively monitor and evaluate ADB's progress, a methodology has been established to quantify ADB's clean energy investments. The reason for this is that, for example, an investment in a wind or solar power farm can be clearly attributed to renewable energy and the whole amount of the investment can be counted towards the current US$1 billion clean energy target.

However, for many projects it is not so simple. Often, clean energy is only a component of a project. For example, some projects address several sectors at the same time, such as those dealing with the rehabilitation of urban infrastructure. Such a project can cover poor road systems, wastewater treatment, more efficient water pumps, and reducing water losses during distribution (non-revenue water). In such a case, there are clear energy efficiency gains from decreasing non-revenue water, as each cubic meter of water saved represents energy conserved in its pumping, filtering, and any other processes that use energy. There are also gains from replacing old, outdated, and inefficient pumps with modern energy-efficient pumps. The ADB computes the percentage of efficiency gains for the investment and counts only that percentage of the ADB investment amount toward its target investment of US$1 billion.

For detailed methodologies of cost estimations for a variety of clean energy project components (e.g., renewable energy, energy efficiency, and fuel switching), see the ADB's "Guidelines for Estimating Asian Development Bank (ADB) Investments in Renewable Energy and Energy Efficiency Projects."

Appendix III - Major MDB Aid Databases

MDB	Database Format	Reporting Markers	Issues
IADB	Provides information on a project-by-project basis. Can search the project database based on a keyword search.	Organizes aid by sector and subsector. Provides information on the type of finance (loan, grant, guarantee, or investment), as well as on the status of the project (preparation, approved, implementation, or completion).	• It does not provide aggregate data on aid, but merely provides project-by-project information. • Climate change is a sub-sector that is applied generally to both mitigation and adaptation efforts and is not applied to all projects that address climate change. For example, a project that promotes sustainable management of forests may be tagged with "Environmental Programs" even though it is relevant to climate change. • Under the energy sector, there is only a general "alternative sources of energy" subsector classification that is not broken up into the various technologies like solar and wind. If you want to isolate projects for a specific technology, it would have to be done by keyword search.
World Bank	Provides information on a project-by-project basis that can be sorted based on a keyword search, or by region, country, area, goal, theme, or sector. Provides aggregate data by country for some countries, including aggregate data by one of ten general sector classifications.	The World Bank tags aid based on sector and theme (i.e., the goals/objectives of Bank activities). It also has a separate marker that tags aid based on its environmental impact (based on an environmental screening that the World Bank must do according to its Safeguard Policy on Environmental Assessment). Up to five sectors can be applied to a single project, and the sectors are applied based on the percentage of the project they are relevant to. Each project page provides fairly detailed information, including the type of finance and the status of implementation.	• It does not provide aggregate data by sector (beyond the ten general classifications within each country). It only provides aggregate data for a small number of countries. • While the sector classifications are applied in percentages, one cannot aggregate aid numbers by specific sector or theme. • Projects are marked with general sectors such as "Renewable Energy" and general themes such as "Climate Change." The renewable energy marker is not broken up into the various technologies like solar and wind, so a keyword search is necessary to isolate projects for a specific technology. There is no adaptation marker (although the World Bank is working on creating one), and there is no marker for the type of activity.
CIFs	Unlike many other MDBs, the CIFs do not compile their financial information in a database. The CIFs compile numerical pledges from countries in a brief table, which is supplemented by trustee reports providing more information.	The table divides up aid by country and by contribution to the two CIF Trust Funds—the Clean Technology Fund (CTF) and the Strategic Climate Fund (SCF). Contributions to the CTF are further divided into funds for the Pilot Program for Climate Resilience, the Forest Investment Program, Scaling Up Renewable Energy, and others. The trustee reports distinguish the funds by grant, loan, or capital.	• It only provides information on the numerical pledge and delivery of the finance and not on the use or implementation. • Aid is not distinguished by technology type or specific adaptation objective.
ADB	Provides information on a project-by-project basis. Can sort projects based on several metrics: keyword search, country, sector, status, type of assistance, and approval year.	Project status: "proposed", "approved", or "closed or cancelled." Type of finance: Public sector - loans, technical assistance, regional TA, or grants, guarantees and equity investments (technical assistance figures are clearly separated from loans and grants), or private sector. Provides information on implementation progress.	• It does not aggregate data at all. • Information on implementation progress is often out of date. • Projects are marked with general sectors such as "energy," which is not broken down into the various technologies like solar and wind. Isolating projects for a specific technology have to be done by keyword search. • There is no adaptation or climate change marker, and there is no marker for the type of activity.

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MDB	Database Format	Reporting Markers	Issues
GEF	Provides information on a project-by-project basis. Can sort projects based on several metrics: keyword in title, country, focal area, GEF Agency, project size, fund, size of the financing, and approval year. Provides country profiles, which includes aggregate information on the Resource Allocations (RAF) for each country.	Projects are tagged with one of seven focal areas, including climate change and biodiversity.	• Information is not aggregated, except for by country. • The climate change tag is broad and is not broken down into various energy technologies or adaptation. Isolating projects for a specific technology have to be done by the title keyword search.

Appendix IV - Information Pertinent to the MRV of Climate Finance

Information included in Appendix I	Definition and Importance
Amount of aid provided	The amount of financing in a currency designated by Parties.
Recipient country/ region	
Channeling institution	Examples include global channels (e.g., World Bank, PPCR, LCDF, SCF, Kyoto Protocol Adaptation Fund, UNDP, UNEP, the GEF), regional channels (e.g., SPREP, regional climate centers, regional development banks), national channels (e.g., recipient country climate trusts or other "basket funds," budgetary support), or sub-national channels (e.g., direct to an NGO, research institute, or sub-national government body).
Donor country	Information on the donor country when aid is channeled through an intermediary institution.
Category	For example, the amount of financing for: (1) Assessment and planning, (2) research, development and demonstrations, (3) deployment, and (4) capacity building.
Activity type	The amount of financing for particular mitigation or adaptation activity.
Justification of climate change objective	Information demonstrating that the aid is actually furthering climate change objectives, through referencing reports such as environmental or vulnerability impact assessments.
Type	The type of financing: loan, grant, or guarantee. This might also include equity financing.
Source	Standard budgetary appropriations or innovative sources of finance such as carbon markets or taxes.
New	An indication whether the funds represent an increase of existing or previous climate funds.
Leveraged funds	The amount of money contributed by the private sector (not another bilateral or multilateral institution).
Status of delivery	An indication of whether funds have been obligated (delivered).
Narrative	Information on innovative mechanisms or programs, for example, success stories or other information not captured in the reporting tables.

Glossary of Acronyms

ADB	Asian Development Bank
AFD	Agence Française de Développement
BASIC	Brazil, South Africa, India and China
BFI	Bilateral Financing Institution
CDM	Clean Development Mechanism COP Conference of the Parties to the UNFCCC
CIFs	Climate Investment Funds
CRS	Creditor Reporting System
DAC	Development Assistance Committee
EE	Energy Efficiency
ETS	Emissions Trading Scheme
EU	European Union
FCPF	Forest Carbon Partnership Facility
FDI	Foreign Direct Investment
GDP	Gross domestic product
GEF	Global Environment Facility
IADB	Inter-American Development Bank
IEA	International Energy Agency
IEEP	Institute for European Environmental Policy
IMF	International Monetary Fund
JICA	Japan International Cooperation Agency
KfW	Kreditanstalt für Wiederaufbau
LDCF	Least Developed Countries Fund
MDBs	Multilateral Development Banks
MDGs	Millennium Development Goals
MRV	Measurement, reporting and verification
NAMA	Nationally Appropriate Mitigation Action
NGO	Non-governmental organization
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
PLAID	Project-Level Aid Database
PPCR	Pilot Programme for Climate Resilience
R, D &D	Research, Development and Demonstration
RE	Renewable Energy
REDD	Reducing Emissions from Deforestation and Degradation
SAARC	South Asian Association for Regional Cooperation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SCCF	Special Climate Change Fund
SEFI	Sustainable Energy Finance Initiative
SPREP	South Pacific Regional Environment Programme
UN	United Nations
UNCTAD	UN Conference on Trade and Development
UNDP	UN Development Programme
UNEP	UN Environment Programme
UNFCCC	UN Framework Convention on Climate Change
U.S.	United States

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