ODA AND CLIMATE CHANGE FINANCE

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OFFICIAL DEVELOPMENT ASSISTANCE AND CLIMATE CHANGE FINANCE

A Discussion Paper
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Introduction

Discussions on poverty reduction, human development, and human security are considered incomplete without incorporating the "climate change factor". In view of this, typhoons, global warming, floods, landslides and other natural disasters can no longer be regarded simply as *force majeure* issues.[1] As Christian Aid (2006) puts it: "The potential ravages of climate change are so severe…it could nullify efforts to secure meaningful and sustainable development in poor countries. At worst, it could send the real progress that has already been achieved spinning into reverse. No other single issue presents such a clear and present danger to the future welfare of the world's poor." Indeed, "climate change has become the defining generational challenge for the international community."[2]

With anthropogenic climate change sticking like the proverbial knife at our throats, the avowed role of official development assistance (ODA) was highlighted once more. Due to its versatility, ODA—one of the pillars of the "Financing for Development" architecture—is a *de facto* item in the list of ready financial sources for climate change-related programs and activities.[3] As Yvo de Boer, Executive Secretary of UNFCCC acknowledged: "With appropriate policies and/or incentives, part of the additional investment and financial flows needed could be covered by the currently available sources" (e.g., ODA and foreign direct investments). In the main, what is actually required to address climate change, de Boer adds, is a "judicious interplay of tools at our disposal including carbon markets, the financial mechanism of the Convention, ODA, national policies and, in some cases, new and additional resources" (UNFCCC 2007). Specifically, Article 11, paragraph 5, of the Convention states that "developed country Parties may also provide and developing country Parties avail themselves of, financial resources related to the implementation of the Convention through bilateral, regional and other multilateral channels."

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[1] "Insurance companies anticipate a significant rise in climate-related losses over the next decade, which could top the one-trillion dollar mark in a bad year," according to the 2008 edition of the *World Economic and Social Survey* (DESA 2008). See, for instance, Evan Mills, "Responding to climate change – the insurance industry perspective," 26 November 2007, available at: http://www.climateactionprogramme.org/features/article/responding_to_climate_change_the_insurance_industry_perspective/

[2] Department of Economic and Social Affairs, *World Economic and Social Survey 2008: Overcoming Economic Insecurity*, E/2008/50/Rev.1, United Nations, New York, 2008.

It is impossible (for practical reasons) to exempt ODA in the list of sources for climate change-related finance. For one thing, the proliferation of new climate funds is not intended to supplant the ODA system (in fact, the new climate finance architecture is being built along the ODA line). The much-welcome climate-related funds are viewed as a complement rather than a substitute to or replacement for ODA and vice versa. As it stands, however, the volume of new and emerging climate-related funds is still relatively puny compared to the required amount. It is not far off that, in the meantime, the burden to fill the gap will fall on ODA's shoulders—a scenario that will certainly affect the delivery of climate-neutral human development objectives.

It should be added that the climate change agenda has attached itself to the ODA system. The World Bank has estimated that approximately 20 to 40 per cent of activities financed by official development assistance and concessional finance are sensitive to climate risks. According to the 2008 IMF report[4], climate-proofing ODA and the most exposed concessional financing investments are estimated to cost from US$4–US$8 billion annually.

[3] "ODA as defined by the Development Assistance Committee of OECD comprise of those flows to developing countries, territories and multilateral institutions provided by official national agencies mainly for the promotion of economic development and welfare. It includes technical cooperation assistance. ODA is concessional in nature with a grant element of 25 per cent or more. ODA grants made by Governments or official agencies are transfers, in money or in kind, for which no repayment is required (unrequited official transfers)." Adopted from UNESCAP, *Implementing the Monterrey Consensus in the Asian and Pacific Region: Achieving Coherence and Consistency*, UN Economic and Social Commission for Asia and the Pacific, 2005. Fukuda-Parr (2007) pointed out that: "The current consensus objective of development aid in the international community is to reduce poverty in general and to achieve the Millennium Development Goals (MDGs) in particular. But the objectives of aid can be defined in many ways, and have in fact varied over time with shifting priorities within the international community about the ultimate ends of development and the means of advancing these ends." See Sakiko Fukuda-Parr, *Rethinking the Policy Objectives of Development Aid: From Economic Growth to Conflict Prevention*, Research Paper No. 2007/32, UNU-WIDER, June 2007. See also, Conference Report, "What do we want from ODA? Different tools for different jobs: Disaster, Security, Development, Research, and?", sponsored by L20, Center for Global Studies, Center for International Governance Innovation, United Nations University, 10-11 November 2005. Available at: http://www.l20.org/publications/Phase%20III/ODA/Petra%20Report%20Dec6.pdf

[4] See, World Bank, *An Investment Framework for Clean Energy and Development: A Progress Report*. Prepared for the Development Committee, 2006. http://siteresources.worldbank.org/DEVCOMMINT/Documentation/21046509/DC2006-0012(E)-CleanEnergy.pdf

Needless to say, official development assistance is expected to "play a critical part in laying the foundation for any active global regime on climate change" (Drexhage 2005). We still have to find out, though, how to operationalize this—especially if we have to conscientiously consider the attainment of Millennium Development Goals, and given that for the past two decades, there has been a noticeable decline in the overall levels of ODA. We can only hope that this trend would be reversed in light of the commitments spelled out in the Convention and the Protocol. In the meantime, lingering questions urgently beg for answers: Would donors actually "bankroll climate-change related activities in addition to the financing they are already providing through ODA"?[5] How "can it be ensured that financing for climate issues is incremental to, but integrated with, ODA?"[6] Is there a need to rethink/redefine the primary objectives of ODA in light of the interlinked bio-physical-socio-economic complexities of climate change? How can ODA be best utilized for climate change mitigation and adaptation?

In this paper, an overview of issues related to the ODA-Climate Change interface will be presented in an attempt to explore the implications of current climate change financing initiatives on development assistance. In so doing, it hopes to inform and situate current discussions and initiatives that have long sought for reforms in the effectiveness, inclusiveness and sustainability of foreign aid.

[5] This question was inspired by Drexhage, 2005: "The commitments laid out in the Convention and the Protocol appear to many, particularly in the NGO and developing country communities, to formally oblige Organisation for Economic Cooperation and Development (OECD) countries to 'bankroll' climate-change related activities in addition to the financing they are already providing through ODA."

[6] Tony Blair, *Breaking the Climate Deadlock: A Global Deal for our Low-Carbon Future*, Report submitted to the G8 Hokkaido Toyako Summit, June 2008.

SECTION 1
THE ROLE OF ODA IN ADDRESSING CLIMATE CHANGE

The Bali Action Plan (2007) states that "improved access to adequate, predictable and sustainable financial resources and financial and technical support, and the provision of new and additional resources, including official and concessional funding for developing country Parties" (among other things) is necessary in addressing climate change mitigation and adaptation.

Stern (2007) called on the "rich countries to deliver on Monterrey and Gleneagles commitments on ODA in context of extra costs of development arising from climate change."

FINANCING IN THE BALI ACTION PLAN

1 (e) Enhanced action on the provision of financial resources and investment to support action on mitigation and adaptation and technology cooperation, including, inter alia, consideration of:

(i) Improved access to adequate, predictable and sustainable financial resources and financial and technical support, and the provision of new and additional resources, including official and concessional funding for developing country Parties.

(ii) Positive incentives for developing country Parties for the enhanced implementation of national mitigation strategies and adaptation action.

(iii) Innovative means of funding to assist developing country Parties that are particularly vulnerable to the adverse impacts of climate change in meeting the cost of adaptation;

(iv) Means to incentivize the implementation of adaptation actions on the basis of sustainable development policies;

(v) Mobilization of public- and private-sector funding and investment, including facilitation of carbon-friendly investment choices;

(vi) Financial and technical support for capacity-building in the assessment of the costs of adaptation in developing countries, in particular the most vulnerable ones, to aid in determining their financial needs.

- adapted from Harmeling and Bals, Germanwatch March 2008

While the UNFCCC (2007) acknowledged that the "primary objective of ODA is to alleviate poverty", it observed that "some of the funding is invested in new facilities or spent in ways that contribute to climate change mitigation or adaptation"—whether via GEF; the multilateral development banks such as the World Bank and the Asian Development Bank; and bilateral ODA (Porter et al. July 2008).

ODA FOR CLIMATE CHANGE MITIGATION

Providing development assistance for renewable energy is not a new phenomenon. Between the 1970s and 1980s, "many development assistance agencies attempted to promote small-scale renewable-energy technologies such as biogas, cooking stoves, wind turbines, and solar heaters in developing countries" (Martinot et al. 2002).

CLIMATE CHANGE MITIGATION AND ADAPTATION AS ADDITIONAL COSTS

The financial costs of climate change mitigation and adaptation are relatively massive, running in the tens of billions of dollars (that, for sure, could be used instead for other developmental purposes).

The cost estimates associated with mitigating carbon emissions vary widely: from a range of less than $10 billion per year to over $200 billion per year (2005 dollar equivalent or $2005) depending on assumptions and the carbon dioxide target. A central estimate for stabilizing at 550 ppm (parts per million) would be about $60 billion per year ($2005) (WB 2006).

The 2007 UNFCCC report estimated that global additional investment and financial flows of USD 200–210 billion will be necessary in 2030 to reduce global GHG emissions by 25 per cent below 2000 levels.* Most recent UNFCCC estimates of additional investment and financial flows needed are "about 170 per cent higher" than the 2007 report, mainly due to higher projected capital costs for energy supply facilities (UNFCCC 2008).** "Almost half of the additional global investment and financial flows would be needed in developing countries" (UNFCCC 2008). For instance, the Asia-Pacific region needs around $8-9 trillion for the period 2006-2030, for the financing of low-carbon, sustainable energy sources.***

Meanwhile, estimates of additional cost burdens for developing countries just to "climate-proof" investments range from US$ 10–40 billion yearly (World Bank 2006), which is roughly equivalent to around 10-40 percent of net ODA (IMF 2008).The UNDP (2007), for its part, "estimates an annual cost of climate-proofing development investment, by 2015, of around US$44 billion per annum, with an additional US$2 billion to strengthen disaster response—and a further annual US$40 billion in strengthening social safety nets" (cited in IMF 2008). The UNFCCC

(2007), meanwhile, estimates "an annual investment cost for agriculture, health, water and coastal protection, of around US$40 billion per annum by 2030" and around US$8–US$130 billion annually for additional infrastructure needs (cited in IMF 2008).

The no mitigation scenario, as presented in *The Stern Review on the Economics of Climate Change*, calculates the damage to about at least five percent of the global gross domestic product (GDP) every year.****

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** According to the UNFCCC (2008): "The estimated USD 200–210 billion of additional investment and financial flows cover only the initial capital cost of new physical assets. Costs for capacity-building or creating the enabling environment needed to implement new technologies are not included." And that: "The mitigation cost estimates present aggregated cost of use of different mitigation technologies with model determined levels of technology use."*

*** UNFCCC, Investment and financial flows to address climate change: an update, Technical paper, FCCC/TP/2008/7, 26 November 2008.*

**** UNESCAP. Energy Security and Sustainable Development in Asia and the Pacific, Bangkok: UN Economic and Social Commission for Asia and the Pacific, April 2008.*

***** Cited in Annett Möhner & Richard J.T. Klein, The Global Environment Facility: Funding for Adaptation or Adapting to Funds?, Climate & Energy Working Paper, Stockholm Environment Institute, June 2007. Available at: http://www.sei.se/editable/pages/sections/climate/publications/climate_energy_working_moehner_klein.p*df

After the 1992 Rio Earth Summit came "new forms of multilateral assistance for renewable energy, which included about $600 million in grant assistance by the Global Environment Facility, $2 billion in loans from the World Bank (aided by its new Asia Alternative Energy Unit), and new initiatives by the UN Development Programme. Many of these projects were designed to promote sustainable technology diffusion and markets by removing key barriers related to skills, financing, institutional and business models, and policies."[7] Martinot et al. (2002) computed that from 1980 to 2000, official development assistance for renewable energy alone totaled about $3 billion, most of which went for geothermal, wind, and small hydro technologies.[8]

The DAC Secretariat (in their review of bilateral and multilateral ODA commitments targeting the objectives of the Rio Conventions for the period 1998-2000) estimates that total "climate change-related aid" over the period of 1998-2000 stood at $8.1 billion – $2.5 billion in 1998, $3.2 billion in 1999, and $2.4 billion in 2000 – averaging $2.7 billion per year (with the bulk of aid in support of the Rio Conventions extended by aid agencies).[9] This represented 5,124 individual projects, covering energy, transport, agriculture, forestry and general environmental protection. The regions receiving the largest amount of bilateral financial resources were Africa and Asia and the Pacific, which between then received more than 60% (UNFCCC 2004; DAC Secretariat 2002). The DAC Secretariat defines "climate-change-related aid" as "activities that contribute to the objective of stabilization of greenhouse gas (GHG) concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system by promoting efforts to reduce or limit GHG emissions or to enhance GHG sequestration." The DAC Secretariat emphasized that "the data do not permit making any statements on whether these commitments were "new and additional" as stipulated by all three Conventions".

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[7] Martinot et al., "Renewable Energy Markets in Developing Countries,"*Annual Review Energy Environment*, 2002. 27:309–48

[8] "Estimate based on donor statistics from the Organization for Economic Co-Operation and Development, which do not separate small from large hydro" (Martinot et al. 2002).

[9] According to the DAC Secretariat, figures are approximate (best estimates). Moreover, DAC Members annually allocate approximately, "USD 700 million for desertification-related aid and USD 1 billion for biodiversity-related aid. Taking into account aid in support of the Conventions extended through multilateral agencies (approximately USD 450 million per year) and the fact that bilateral aid activities have been reported as targeting more than one Convention, DAC Members ' total commitments for activities that target the Rio Conventions (at least significantly) are of the order of USD 4 billion per year" (DAC Secretariat 2002). However, the DAC Secretariat commented that: "Not all members report on the climate change marker (and other markers), which complicates data analysis."

Highlights of the DAC Secretariat Study
Aid Targeting the Objectives of the Rio Conventions 1998-2000
OECD, August 2002

- "In value terms, close to 90% of climate-change-related aid was reported in the sectors of transport, energy, agriculture, forestry and general environmental protection. The sectoral breakdown based on the number of projects reported shows that energy, forestry and general environmental protection were the main activity areas, whereas transport projects were few in number and financed by only a few donors. The general environmental protection category included a large number of relatively small technical co-operation interventions.

- "Climate-change-related aid in energy, forestry, general environmental protection and, to a lesser extent, transport represented a significant share of total aid in these sectors (44%, 48%, 43% and 21% respectively). In all other sectors (including agriculture, rural development, water supply, industry) the share was small.

- "Japan, Germany and the United States accounted for 87% by value of the total. The share of climate-change-related aid in total bilateral ODA was largest for Germany (followed by Japan, Finland and Norway). In addition, the Netherlands and the United Kingdom reported a relatively large number of activities. Other Members' data seem to indicate little emphasis on climate change in bilateral ODA programmes. All in all, climate-change-related aid represented 7.2% of Members' total bilateral ODA commitments in 1998-2000.

- "In value terms, three-quarters of reported climate-change-related activities were for Asia. Examination of the number of activities reveals that interventions are fairly evenly distributed between Africa, Asia and Latin America. Also, a large number of small-value activities are global in nature (i.e. not targeted to any particular recipient, and reported under "developing countries, unspecified").

- "Multilateral ODA commitments relevant to the Rio Conventions* amounted to USD 1.4 billion in 1998-2000 i.e. some USD 450 million per year. While these data should be taken into account when presenting statistics on Members' total aid in support of the Conventions, it might be observed that multilateral aid does not reflect donors' policy priorities in the same way as bilateral aid. In the short and medium terms, DAC Members' core contributions to the multilateral agencies of which they are Members reflect their national income (i.e. each Member pays a share of these agencies' budgets in relation to its GNI) rather than their policy priorities."

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**Members' contributions to the Global Environmental Facility (GEF - relates inter alia to the Conventions on biodiversity and climate change; 75% of contributions reportable as ODA) and the Montreal Protocol (relates indirectly to climate change; 100% ODA eligible) in 1998-2000 (DAC Secretariat 2002).*

The Renewable Energy Policy Network for the 21st Century (REN21) reported that: "Multilateral, bilateral, and other public financing flows for new renewables in developing countries (overseas development assistance) grew significantly during 2005–2007, exceeding $600–700 million per year. In addition to infrastructure investments, a significant portion of these funds supports training, policy development, market facilitation, technical assistance, and other non-investment needs."[10]

The three largest sources of funds are the Germany's KfW Entwicklungsbank (development bank)[11], the World Bank Group, and the Global Environment Facility (GEF). KfW committed 210 million Euro ($300 million) to renewables in developing countries in 2007, including both public budgetary funds and separate market funds. KfW's "Special Facility for Renewable Energies and Energy Efficiency," established in 2005 to provide concessional loans as part of Germany's international development cooperation, was extended in 2007 to provide a total of 1.3 billion Euro ($1.8 billion) for the period 2005–2011 (original funding was 500 million Euro, or $700 million, for the period 2005–2009)."[12]

"The World Bank Group committed $220 million for new renewables plus $690 million for large hydropower using its own funds in fiscal 2007. It also committed an additional $130 million in GEF co-financing. Total World Bank commitment for renewables in fiscal 2007 was about $1.2 billion (including carbon finance); almost double the average amount for the previous two fiscal years. World Bank funding is expected to continue increasing through fiscal year 2009 consistent with the Bank's pledge made in Bonn, Germany, in 2004 to increase support for renewables and energy efficiency by 20 percent annually during the fiscal period 2005–2009. (In fact, by mid-2007, the end of fiscal year 2007, the cumulative target through 2009 was almost fully achieved.) Private-sector co-finance also expanded significantly through the World Bank Group's International Finance Corporation" (REN 21 2008).

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[10] See REN21, *Renewables 2007 Global Status Report* and Paris: REN21 Secretariat and Washington, DC:Worldwatch Institute, 2008.

[11] "The German Development Finance Group (KfW) is the leading funder of renewable energy projects in the developing world along with the Global Environment Facility. The KfW – Entwicklungsbank committed 170 million Euro toward renewables and energy efficiency in 2005." From: Canadian Renewable Energy Alliance, *International Cooperation in Renewable Energy and Energy Efficiency – Moving Toward a Sustainable Future*, August 2006

[12] REN21 used $1.40 as the euro conversion rate.

"The GEF has allocated an average of $100 million each calendar year for the past several years to co-finance renewable energy projects implemented by the World Bank, United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), and several other agencies. Indirect or associated private-sector co-financing is often several times greater than the direct finance from these agencies, as many projects catalyze private investment. Recipient-country governments also contribute co-financing" (REN 21 2008).

Germany, Denmark and the Netherlands "are at the forefront in terms of official development assistance (ODA) that supports renewable energy programs."[13] Other donor countries "have either highlighted energy or access to sustainable energy as one of their ODA priorities or have renewable energy development programs, including Austria, Finland, France, Japan, Sweden and the United States. The EU launched an Energy Initiative (EUEI) for Poverty Eradication and Sustainable Development at the WSSD. This initiative aims to support improved access to sustainable energy services in developing countries, in particular by maximizing energy efficiency and increasing the use of renewable energy."[14]

According to Doornbosch and Knight (2008), "International public finance institutions currently receive most of their funding for climate change mitigation projects from contributions from governments' national budgets. Major trust funds, such as the newly created World Bank Climate Investment Funds and the GEF Trust Fund rely on donor country pledges, especially the G8 and EU. For example, 58 percent of the 4th replenishment to the GEF Trust Fund (for financial years 2007 to 2010) and 58 percent of the World Bank's IDA-15 replenishment (for the financial years 2008 to 2010) come from EU countries."[15]

[13] See, for example, the Danish Cooperation Fund for Renewable Energy and Energy Efficiency in Rural Areas (REACH) and the Dutch Cooperation Fund for Promotion of Renewable Energy and Energy Efficiency (PREGA), which were both lodged in the Asian Development Bank. Meanwhile, the "Federal Ministry of Economic Cooperation and Development (BMZ) and its partners, KfW Entwicklungsbank (development Bank) and the Germany Agency for Technical Cooperation (GTZ), are currently supporting 132 clean energy projects (renewables) in 50 countries ("Global partnerships for clean energy," available at www.magazine-deutschland.de)

[14] Canadian Renewable Energy Alliance, *International Cooperation in Renewable Energy and Energy Efficiency – Moving Toward a Sustainable Future*, August 2006

[15] Doornbosch R and Knight E. 2008. *What Role For Public Finance In International Climate Change Mitigation*, Paris: OECD

Moreover, REN21 (2008) reported: "Other sources of public financing include bilateral assistance agencies, United Nations agencies, and the contributions of recipient-country governments to development assistance projects. Several agencies and governments are providing aid for new renewables in the range of (typically) $5–25 million per year, including the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), the Inter-American Development Bank (IDB), UNDP, UNEP, the U.N. Industrial Development Organization (UNIDO), Denmark (Danida), France (Ademe and FFEM), Germany (GTZ), Italy, Japan (JBIC), and Sweden (Sida). Other donors contributing technical assistance and financing on an annual basis include the UN Food and Agriculture Organization (FAO), Australia (AusAid), Canada (CIDA), the Netherlands (Novem), Switzerland (SDC), and the United Kingdom (DFID). Some of these donors are establishing specific-purpose investment funds and credit lines that combine additional private financing,"

According to the UNFCCC (2007): "Much developing country financing, other than in developing Asia, comes through a combination of ODA and loans from the World Bank and regional development banks. Most of the investment in renewable energy and energy efficiency occurs in OECD countries; ODA funding for renewable energy is less than 4 per cent of the total ODA flows. LDCs, such as in sub-Saharan Africa, and smaller developing countries, still attract limited private sector investment and continue to rely on ODA and soft loans from IFIs such as the World Bank."

With respect to the transport sector, the UNFCCC (2007) pointed out that "Although ODA currently constitutes a significant source of fund for transport (USD 10 billion per year); it is directed to a wide range of transportation unconnected to GHG mitigation. By continuing and expanding on efforts to bring climate change strategies into transport sector ODA, the role of ODA in meeting the mitigation scenario for the transport sector might be significant." However, the UNFCCC (2007) admits that "most of the investment in transport mitigation in developed and developing economies will, however come from the private sector."

Climate change (owing perhaps to the fact that it is not a traditional ODA item) "has traditionally received little attention from international donor organizations and governments" (Huq et al. 2006).[16] Even multilateral development banks such as the World Bank and IMF "give little consideration to climate issues in their projects" (Huq et al. 2006).[17] Parks, et.al. in their book *Greening Aid? Understanding the Environmental Impact of Development Assistance* (Oxford University Press, 2008) reported that "donors rarely entirely follow through with big promises of environmental foreign assistance." [18] While the authors pointed out that the level of so-called green aid may have risen, it is far outpaced by environmentally damaging "dirty" aid. In fact, their study (covering more than 400,000 projects dating back to the 1970s, and worth more than $2.3 trillion of foreign aid) showed that the big chunk of "projects labeled "environmental" actually do more eco-harm than good" (Friedman, 16 June 2008). About "$30 billion a year is spent on projects that have harmful environmental consequences, like mass transportation, forestry, mining or logging of old-growth forests" (Friedman, 16 June 2008). On the other hand, overall environmental aid "levels off just below $10 billion annually, about 10 percent of all foreign aid" (Friedman, 16 June 2008).[19] It is hoped that with the mainstreaming of climate change issues into development financing, this trend would show improvements.

[16] For instance, a review of 136 projects in Africa funded by the German donor (GTZ) found no references to climate change (Klein, 2001).

[17] See, for instance, Nakhooda, Smita. *Correcting the World's Greatest Market Failure: Climate Change and the Multilateral Development Banks*, World Resources Institute Brief, April 2008; and Sohn, Jon, Smita Nakhooda, and Kevin Baumert. *Mainstreaming Climate Change Considerations at The Multilateral Development Banks*, World Resources Institute Brief, July 2005

[18] Lisa Friedman, "Green Aid: New book finds most foreign environmental aid 'dirty', ClimateWire, E&E Publishing Service, 16 June 2008. See, Bradley Parks, Robert Hicks, J. Timmons Roberts and Michael Tierney, *Greening Aid? Understanding the Environmental Impact of Development Assistance*, Oxford University Press, 2008

[19] "Denmark has historically been the largest donor of green aid, giving $181.26 per capita in environmental aid during the latter half of the 1990s. It is followed by Norway, Germany, the Netherlands and Japan. The United States ranks 13th, giving $16.38 per capita in environmental aid. Meanwhile, the top ten recipients of environmental aid are: China, India, Brazil, Mexico, Indonesia, the Philippines, Egypt and Argentina," reported Friedman (16 June 2008).

ODA for Adaptation to Climate Change

It is in the area of climate change adaptation that the role of ODA can be easily defined. The UNFCCC (2008) reported that: "besides financing under the Convention and its Kyoto Protocol, a number of Annex I Parties have proposed that bilateral and multilateral ODA has a role to play in financing adaptation, in line with the provision of Article 11, paragraph 5, of the Convention." Klein (2001) explained that "there are three ways in which adaptation to climate change is relevant to ODA projects:[20]

- "The risk of climate change to the ODA project and its deliverables (such as water supply, infrastructure, food security, human health, natural resources management and protection against natural hazards);
- "The vulnerability to climate change of the community or ecosystem that is intended to benefit from the ODA project;
- "The possible effects of the ODA project and its deliverables on the vulnerability of communities or ecosystems to climate change."

Some even consider that "adaptation should be treated as part of/factored into all development assistance activities that are climate sensitive/ sustainable development in all developing countries."[21] Levina (2007) computed that about 60% of all ODA could be relevant to building adaptive capacity and facilitating adaptation, while about 30-40% of ODA is sensitive to climate risks (Agrawala/OECD 2005). "The contribution of ODA to building adaptive capacity in the most vulnerable countries is therefore significant, particularly given that around 90% of all foreign flows into LDCs is constituted by ODA" (Huq and Ayers 2008).

[20] Klein, R.J.T., 2001: Adaptation to Climate Change in German Official Development Assistance—An Inventory of Activities and Opportunities, with a Special Focus on Africa. Deutsche Gesellschaft für Technische Zusammenarbeit, Eschborn, Germany. Cited in Klein et al. February 2007, Tyndall WP 102 (portfolio screening).

[21] TERI, *Adaptation to Climate Change in the context of Sustainable Development —background paper*, available at: www.teriin.org/events/docs/adapt.pdf

ODA Sensitive to Climate Change and ODA Potentially Relevant for Adaptation, 2000-2005 (USD Billion)

Year		2000	2001	2002	2003	2004	2005
ODA Total	All developing countries (all sectors)	56,436.5	55,364.3	64,779.1	90,568.2	98,347.9	121,725.6
ODA relevant to adaptation	ODA into sectors potentially relevant to adaptation	36,401.4	36,607.6	41,636.2	52,453.6	64,091.7	71,643.2
	Share of ODA potentially relevant to adaptation	64%	66%	64%	58%	65%	59%
ODA sensitive to climate change	ODA into sectors sensitive to climate change	22,556.49	22,325.27	22,743.63	27,295.16	31,420.00	41,089.39
	Share of ODA into sectors sensitive to climate change	40%	40%	35%	30%	32%	34%

Source: Levina 2007, citing OECD DAC Creditor Reporting System (CRS) database
Note: ODA figures in this table represent ODA commitments rather than actual disbursements (however, the share of ODA potentially relevant to adaptation would probably be the same if ODA disbursement numbers were taken).

In recent years, donor organizations and governments have set their eyes on incorporating climate change into their development programmes (Agrawala 2004). "Key organizations and donors such as the World Bank, GTZ, the Norwegian Agency for Development Cooperation (NORAD), the United Kingdom Department for International Development (DFID), and Canadian International Development Agency (CIDA) are now investigating the linkages between climate change and development assistance" (Huq et al. 2006). In April 2006, the Development and Environment Ministers of OECD Member Countries adopted the *Declaration on Integrating Climate Change Adaptation into Development Co-operation*, committing that "they will work to better integrate climate change adaptation in development planning and assistance, both within their own governments and in activities undertaken with partner countries" and work to (among other things):

- "Identify and use appropriate entry points for integrating adaptation to climate variability and climate change into development co-operation activities, including country assistance strategies, sectoral policy frameworks, Poverty Reduction Strategies, long-term investment plans, technical consultations and sector reviews, as well as strategic and project-level environmental impact assessments";

- "Assist developing country partners in their efforts to reduce their vulnerability to climate variability and climate change, to identify and prioritize adaptation responses, and, where necessary, to help integrate such considerations within a wide range of sectoral interventions and projects, in line with the principles and objectives of the *Paris Declaration on Aid Effectiveness*; and

- "Where relevant and appropriate, assist developing country partners in the implementation of their National Adaptation Programmes of Action (NAPAs)".

Japan International Cooperation Agency (JICA), another aid agency, has also begun to mainstream adaptation in their operations but progress is far from adequate (Klein et al. 2007). One report pointed out that "JICA's efforts in mainstreaming climate concerns in various sectors through its ODA included reviewing conventional assistance and listing past projects which had adaptation benefits but were not implemented" as "adaptation projects."[22] Moreover, Gigli and Agrawala (2007) concluded (based on a survey of 26 bilateral and 10 multilateral donor agencies) that "international donors made significant progress in recognizing the importance of climate risks in their development co-operation policies, but translating such concerns into operational practices remains a difficult challenge" (Ancha Srinivasan and Uchida, 2008).

The World Bank, for its part, crafted a Clean Energy Investment Framework (CEIF), with adaptation as one major component.[23] Reports have it that the "CEIF is expected to generate up to an additional US$ 12 billion annually from the private sector and official agencies." It is expected that there will be an increase for grant funding for adaptation projects from US$ 5 million in 2006-2007 to USD 60 million in 2008-2009 (covering about 40 projects in 30 countries). Another US$ 550 million is "expected to be leveraged through the International Bank for Reconstruction and Development (IBRD), International Development Association (IDA) and other funding."[24]

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[22] Ancha Srinivasan and Toshihiro Uchida, "Mainstreaming and Financing of Adaptation to Climate Change," in *The Climate Regime Beyond 2012,* IGES, February 2008
[23] See also, Burton, I., and M. van Aalst. 2004. *Look Before You Leap: A Risk Management Approach for Incorporating Climate Change Adaptation in World Bank Operations.* Draft prepared for the Climate Change Team.
[24] Ancha Srinivasan and Toshihiro Uchida, "Mainstreaming and Financing of Adaptation to Climate Change," in *The Climate Regime Beyond 2012*, February 2008)

STATEMENT OF PROGRESS ON INTEGRATING CLIMATE CHANGE ADAPTATION INTO DEVELOPMENT CO-OPERATION

(adopted by the members of the Development Assistance Committee at the DAC High Level Meeting, Paris, 21 May 2008)

- Many development co-operation agencies and Multilateral Development Banks have taken formal commitments to integrate climate change concerns as part of their operations.
- Donor agencies and International Financial Institutions have made considerable progress in raising awareness among their staff of the risks posed by climate change and the importance of integrating climate change into development activities. Several donor agencies have also made special efforts to discuss these issues with their partners in the context of policy dialogues at various levels.
- Many donor agencies and International Financial Institutions have begun to systematically assess the climate vulnerability of the various activities that they support, with a view to building in corrective precautionary measures as needed.
- Some donors have begun working with vulnerable communities to build resilience into development projects and encourage integration of National Adaptation Plans of Actions (NAPAs) with Poverty Reduction Strategy Papers (PRSPs).
- Detailed assessments of climate change-related vulnerabilities have been conducted in many developing countries.
- Donor agencies have developed tools and methodologies to assess climate vulnerabilities and to identify adaptation options in development policies, plans, programmes and projects. These tools, which build on existing approaches such as Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA), should be shared to reduce redundant efforts.

Many advocates agree on the need for mainstreaming adaptation concerns in developmental policy. As ODA covers several adaptation-relevant sectors/ areas (agriculture, water resources, health, coastal resource management) that are directly impacted by climate change, the integration of adaptation concerns in ODA policies and programmes by developed countries was recommended (Bratasida and Sari 2005). To put it in another way, since "adaptation actions would have to be conceived and implemented within the context of national planning (the so-called adaptation-development continuum), "additional" ODA is regarded "as a good starting point for addressing adaptation."[25]

[25] Asian Perspectives on Climate Regime Beyond 2012: Concerns, Interests and Priorities, Jung et al, 2005 IGES

Möhner & Klein (2007) described the relative complexity of ODA for adaptation purposes. To wit:

> "In view of the fact that the current global funds for adaptation are not only technically but also financially inadequate (World Bank, 2006b; Bouwer and Aerts, 2006; Oxfam International, 2007), the question arises as to whether or not alternative arrangements for adaptation funding, such as bilateral and multilateral official development assistance (ODA), could address the concerns of developing countries and better meet their needs. On the one hand, the amount of money provided by ODA is much larger than what is available under the global funds; on the other hand, adaptation would have to compete with other, more immediate development priorities. In addition, ODA has its own set of eligibility and disbursement criteria, on which developing countries have limited influence. Moreover, support for adaptation is a commitment under the UNFCCC, whereas ODA is voluntary. Financially and technically adequate global funds for adaptation are crucial if international climate policy after 2012 is to be a truly global endeavor, whereby global funds serve as a catalyst for providing additional resources from bilateral and multilateral sources."

Related to this, four international funds have been established for raising the finance needed for developing-country adaptation:

- ***The Least Developed Countries Fund***, in operation under the Global Environment Facility (GEF) since 2001, is for addressing LDCs' most urgent and immediate adaptation needs. It relies on voluntary contributions for funding.
- ***The Special Climate Change Fund***, operational under the GEF since 2005, is for funding adaptation planning and technology transfer in all developing countries. It also relies on contributions for funding.
- ***The Strategic Priority on Adaptation***, set up by the GEF in 2006 as a three-year initiative to pilot capacity-building adaptation measures, is funded by $50m from GEF Trust Funds.

- ***The Adaptation Fund***, which is not yet operational, will fund 'concrete' (actual) adaptation measures in developing countries. At start up, its main flow of funds will come from a 2 per cent levy on carbon credits generated under the Clean Development Mechanism (CDM). The CDM aims to promote carbon-cutting energy investments – financed by rich-country companies – in developing countries.

Available and Planned Bilateral and Multilateral Funds

"In addition, several bilateral and multilateral funding initiatives have been launched recently with the specific aim of addressing climate change or broader global environmental issues with a significant climate change component" (UNFCCC 2008).

New bilateral and multilateral climate-related funding initiatives

	Estimated level of funding (millions)	USD million eqa	Purpose	Type	Period	Nominal annual level of funding (USD million)
Bilateral initiatives						
Cool Earth Partnership (Japan)	USD 10 000	10 000	A, M,	G, L	2008–2012	2 000
ETF-IW (United Kingdom)	GBP 800	1 182b	A, M	G, L	2008–2010	394
Climate and Forest Initiative (Norway)c			M	G, L		<600
UNDP-Spain MDG Achievement Fund	EUR 90	114	A, M	G	2007–2010	28.5
GCCA (European Commission)d	EUR 60	76	A, M	G	2008–2010	25.3
International Climate Initiative (Germany)e	EUR 600	764	A, M	G	2008–2012f	153
IFCI (Australia)	AUD 200	132	M	G	2007–2011	26.4

Continuation - New bilateral and multilateral climate-related funding initiatives

	Estimated level of funding (millions)	USD million eqa	Purpose	Type	Period	Nominal annual level of funding (USD million)
Multilateral initiatives						
UN-REDDg	USD 35	35	M	G	Not available	Not available
Forest Carbon Partnership Facility (World Bank)h	USD 300	300	M	G, L	2008–2020	23
Climate Investment Funds (World Bank), includes	USD 6 341	6 341			2009–2012	1 558
Clean Technology Fund	USD 4 334	4 334	M	G, L		
Strategic Climate Fund includes	USD 2 006	2 006		G, L		
Forest Investment Programme	USD 58	58	M	G, L		
Scaling-up Renewable Energy	USD 70	70	M	G, L		
Pilot Programme for Climate Resilience	USD 240	240	A	G, L		

Source: Porter G, Bird N, Kaur N and Peskett L. 2008. New Finance for Climate Change and the Environment. The Heinrich Boll Foundation and WWF, World Bank. 2008. Trustee Report Financial Status of the CIF. CTF/TFC.1/Inf.2. As presented in UNFCCC 2008.
Abbreviations: A = adaptation, ETF-IW = Environmental Transformation Fund – International Window, G = grants, GCCA = Global Climate Change Alliance, IFCI = International Forest Carbon Initiative, L = loans, M = mitigation, MDG = Millennium Development Goals, UN-REDD = United Nations Collaborative Programme on Reduced Emissions from Deforestation and Degradation.

a Valued at exchange rates available on 14 November 2008.
b It is expected that most of the finance available under this initiative will be channeled through the Clean Investment Funds of the World Bank.
c <http://unfccc.int/files/meetings/ad_hoc_working_groups/lca/application/pdf/norway_accra.pdf>.
d <http://ec.europa.eu/development/policies/9interventionareas/environment/climate/climate_en.cfm>.
e <http://www.oecd.org/dataoecd/38/61/40633487.pdf>.
f During 2008–2012, funding for the initiative will be generated from auctioning 10 per cent of allowances from the European Union emissions trading scheme. Larger amounts of funding can be expected from 2013 onwards, with up to 100 per cent auctioning.
g <http://www.undp.org/mdtf/un-redd/overview.shtml>.
h <http://wbcarbonfinance.org/Router.cfm?Page=FCPF&ItemID=34267&FID=34267>.

Main Sources of Climate Financing
Projected Annual Funding, FY 2009 (projections)

Fund Type/Source	Amount (US $)
Mitigation	
Carbon Market (CDM/JI)	5 billion (for FY 2009)
GEF	250 million (for FY 2009)
Adaptation	
Adaptation Fund	100 million (for FY 2009)
UNDP	190 million
EU Global Climate Alliance	300 million (Euros)
Global Facility for Disaster Reduction and Recovery (GFDRR)	70 million
Both	
World Bank Group (IBRD/IDA/IFC/MIGA)	1.9 billion (for FY 2009)
Climate Investment Funds (by all MDBs)	5-10 billion (for three years)
Other MDBs Financing	3 billion (for FY 2009)

Source: Michele de Nevers, 29 May 2008, www.worldbank.org/climateconsult

Clearly, "the new bilateral and multilateral initiatives will provide significant annual funding for mitigation" (UNFCCC 2008). On the other hand, "the amount of funding for adaptation that will be available from current sources and the new initiatives is much smaller" (UNFCCC 2008)—around $500 million to $1 billion per year. The obvious point is that "current and planned resources are insufficient to adequately respond to the identified adaptation needs and mitigation potential, which are estimated to amount to hundreds of billions of United States dollars" (UNFCCC 2008)[26] or in other words, "the funds that Parties are willing to commit to fighting climate change are out of all proportion to the scale of the challenge."[27]

[26] Other initiatives such as the Global Index Reinsurance Facility (GIRIF) of the International Finance Corporation, the Global Facility for Disaster Reduction and Recovery (GFDRR) of the World Bank, and the International Strategy for Disaster Reduction Asia & Pacific (ISDR-AP) "may also be utilized to fund adaptation efforts indirectly. It is important, therefore, to develop synergies between financial instruments available through the UNFCCC and the Kyoto protocol, and those available under non-UNFCCC mechanisms. Initiatives to proactively involve the business sector, especially the insurance sector, in adaptation at both the international and national levels are also necessary." From: Ancha Srinivasan and Toshihiro Uchida, "Mainstreaming and Financing of Adaptation to Climate Change," in *The Climate Regime Beyond 2012*, February 2008)

[27] Rob Bradley and Jonathan Pershing, "Conclusion", in Bradley, R. and K. Baumert (eds.), *Growing in the Greenhouse: Protecting the Climate by Putting Development First* . Washington, D.C.: World Resources Institute (WRI), 2005.

SECTION 2
ODA FLOWS AND CLIMATE CHANGE MITIGATION AND ADAPTATION IN THE PHILIPPINES

"Official development assistance funds", along with "market-based incentives, subsidies and innovative lending schemes", are some of the financing mechanisms that the Philippines' Presidential Task Force on Climate Change Mitigation and Adaptation (PTFCC)[28] plans to tap in order to "finance massive infrastructure and technical requirements of projects that will be needed to address the causes and effects of climate change." The plans include "mitigation interventions in the areas of energy generation, energy efficiency and transport/consumer behavior", as well as "adaptation responses to address vulnerabilities of specific sectors and areas especially on disaster-prone settlements, high-risk population centers, and food production areas".

Although contributing very little greenhouse gas emissions that give rise to global warming, scientific studies profess that the Philippines can look forward to catastrophic consequences resulting from climate change, thus underscoring the importance of a sound response framework and action plan to address this situation. Currently, there are as yet no definite estimates on how much the country will need to finance its mitigation and adaptation pursuits but it is easy to project that it will run into billions of dollars. Socio-Economic Planning Secretary Ralph Recto has said that the combined impact of flash floods, typhoons and dry spells on the Philippine economy from 1995 to 2007 amounted to P115 billion. Typhoon Frank alone, which hit the country last June 2008, caused P13.2 billion worth of damages in infrastructure and agriculture[29]. For financing its targets to achieve the Millennium Development Goals[30], UNDP commissioned studies in 2002 approximate that costs would amount to P2.8 trillion from 2002-2015 (Manasan 2002) or US$ 6.5 billion annually for the next ten years (Philippines Sustainability Watch Network 2005).

[28] The PTFCC was created in 2007 to address the impacts of climate change, paying particular attention to ensuring compliance to air emission standards and combating deforestation and environmental degradation. It is made up of a number of government agencies, business and civil society representatives and headed by DOE Secretary Angelo Reyes. This statement announcing government's plans to tap ODA funds for various climate change initiatives was made during the Albay Climate Change Adaptation Summit in October 2007.

[29] De Castro. Isagani Jr., *Climate Change Poll: 54% blame man; 23%cite God,* abs-cbnNEWS.com/Newsbreak, 8 August 2008

[30] Millennium Development Goals include (1) eradication of extreme poverty and hunger, (2) achieve universal primary education, (3) promote gender equality and empower women, (4) reduce infant and child mortality, (5) improve maternal health, (6) combat HIV-AIDS, malaria and other infectious diseases, (7) ensure environmental sustainability, and (8) develop a global partnership for development.

The Philippines
HIGHLY VULNERABLE TO CLIMATE CHANGE

Although its emissions of greenhouse gases (GHG) have been noted as 'on the rise' from energy use and land use changes, the Philippines remain a relatively minor contributor to global GHG emissions—accounting for less than 1 ton of CO2 per capita per year. However, it is highly vulnerable to current and future risks associated with climate change owing to:

- **Location and geography**. The Philippines is one of the world's most natural disaster-prone countries, predisposed to climate-related disturbances such as tropical cyclones, rising sea levels and the periodic El Niño/La Niña weather events. It lies along the western rim of the Pacific Ring of Fire, a belt of active volcanoes and major earthquake faults, and the Pacific typhoon belt. About 70 percent of the country's municipalities are located in the country's discontinuous coastline, which at 32,400 kilometers, is the longest in the world. In the 1999 Philippine Initial National Communication on Climate Change (PINCCC), it was observed that sea levels have risen by almost 15 cm. in a 40-year period beginning in 1960.
- **People's dependence on climate-sensitive sectors**. Majority of the Philippine population rely on agriculture and fisheries, to survive. Agriculture, fishery, and forestry continue to compose 18 percent of the economy and serves as the foundation for the country's agro-industrial and agro-services sectors (World Bank 2007). Agriculture is the main livelihood base for 35 percent of the country's labor force, while some 60 percent of the country's coastal population is dependent on marine resources for a living. The World Bank calculates that 85 percent of the country's gross national product comes from sectors at risk from rising temperatures and weather variability.
- **Poverty and environmental degradation**. It is mostly the poor who are in disaster-prone and environmentally fragile areas. At the same time, natural hazards contribute to further degradation and poverty, thus, creating a vicious cycle of poverty, environmental degradation, and vulnerability to natural disasters. Poverty incidence remains to be high and have even recently worsened in the Philippines. About 32.9 percent of the country's population was living below the poverty line in 2006, up from 30 percent in 2003 and nearly equal the poverty incidence in 2000 (30 percent). Thus, the number of poor has increased by over 5.4 million individuals from 2003 to reach 27.6 million in 2006.

Some expected impacts of climate change include changes in agricultural yields for crops such as rice and maize. Changes in land use, as a consequence, of changes in rainfall pattern that will push people to migrate to higher elevations where soil is less fertile causing the rate of conversion of forest to agricultural lands to increase and subsequently increasing greenhouse emissions. Coastal area resources (such as mangroves) and communities will be affected by sea level rises. Similarly, water resource availability is impacted by dramatic El Niño events, and infectious diseases may appear with more frequency.

-cited by Peralta (2008); Rincon and Virtucio,(2008)

Disregarding questions on propriety, using ODA funds for climate change adaptation and mitigation invites both suspicion and concern by itself. This, given the fact that studies conducted over time and by various sources—including government investigators and independent reviewers here and abroad—arrive at a consensus on ODA's failure to deliver on its promises to achieve poverty and development goals. The 2008 Citizen's Report on Official Development Assistance[31], which synthesizes findings on various Philippine ODA studies, affirm that "the volume of evidence, which includes reports by the Commission on Audit, show the preponderance of irregularities and corrupt practices as well as misdirected, ill-conceived projects that were wasteful, useless and burdensome for the people. These are compounded by ODA's declining levels, diminishing human development shares, continuing marginalization of grants in favor of loans, bias for the more developed regions and longstanding implementation problems."

The question therefore remains: how can it be ensured that ODA allotted for climate change adaptation and mitigation will not reprise the inadequacies and failures of the system?

ODA IN THE PHILIPPINES: FUNDING CLIMATE CHANGE?

The track record of ODA flows in the Philippines show that development funds may well have been used to finance projects that served to exacerbate social injustice and encourage environmental degradation. This ultimately promoted climate change through massive deforestation and emissions of large concentrations of toxic compounds, including greenhouse gases, into the atmosphere.

***Dirty and socially unacceptable projects*.** Since the 70s until the present, civil society organizations and local communities have assailed the government and donors such as the World Bank and the Asian Development Bank (ADB), among others, for implementing debt-driven infrastructure projects and dirty industries that displace communities and harm the environment. Concessional loans and grants were utilized to fund big dams, coal power plants and nuclear plants or advanced extractive industries such as oil, coal and gas. Recent projects funding agrofuel/biofuel production threatens to result in more massive land use conversions including deforestation, involuntary displacement of communities and food insecurity[32].

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[31] ODA Watch Philippines, *Time to Dismantle the Roots of Evil A Citizens' Report on Official Development Assistance*, March 2008

[32] See position papers and media releases of Philippine NGOs such as the Freedom from Debt Coalition, Integrated Rural Development Foundation, Center for Environment Concerns, among others.

Tadem (2007)[33], in his study on official development assistance in the country from 1986 to 2006 reports that "large infrastructure and power projects, many of which are ODA-funded, often endanger the environment and cause physical dislocations of communities, especially indigenous peoples." He identified at least nine (9) large-scale ODA projects as socially and environmentally harmful. These include the (1) San Roque Multi-Purpose Dam Project funded by the Japan Bank for International Cooperation (JBIC); (2) Agno River Integrated Irrigation Project funded by a concessional loan from the government of China; (3) Leyte Industrial Development Estate funded by JBIC, which housed a copper smelter plant, a fertilizer plant, and a mining firm; (4) the Calabarzon Industrial Zone whose master plan was funded by a JICA grant; (5) MWSS Umiray River Diversion Project funded by ADB; (6) Pampanga Delta Development Project, again funded by JBIC; (7) Umiray River Diversion Project funded by the ADB; (8) the Calaca Coal-fired Thermal Power Plant of the National Power Corporation (currently privatized and funded by the ADB); and various infrastructure projects in Manila financed by JBIC.

The Ecological Waste Coalition of the Philippines, Inc.' 2007 expose' [34] on Austrian-made incinerators is another example. This Austrian project for the establishment of waste disposal facilities and upgrading of the medical equipment standard in Department of Health (DOH) hospitals involved the purchase of 26 incinerators that were supplied to the DOH and distributed throughout the various DOH-controlled hospitals nationwide. To finance the project, the Philippine Department of Finance entered into a buyer export credit facility agreement with Bank Austria Aktiengesellschaft on March 31, 1997 with a total cost of ₱ 503,647,200 in 1996. The loan, with an interest rate of 4 percent per year, is to be paid off by the government until 2014 in 24 equal semi-annual payments. Emission tests conducted by DOH and the World Health Organization in several facilities showed excessively high emissions that were way off the limits set by the Clean Air Act: nine times the limit for particulate matter, twelve times the limit set for hydrogen chloride, almost double the limit for lead and a whopping 870 times the limit for dioxins and furans. Although it was laudable that the DOH eventually decommissioned all incinerators, the loan for its purchase presents an onerous burden for the country. Since 2002, the Philippines is allocating a little less than $ 2 million a year to pay for the loan's principal and interest—a 2-million dollar obligation of the country until 2014.

[33] Tadem, Eduardo. *Development Down the Drain: The Crisis of Official Development Assistance to the Philippines,* published by ODA Watch and Social Watch Philippines, March 2007. The study looks at a total of US$37.9 billion ODA funds provided the Philippines by various donors from 1986 to 2006, including some new loan approvals worth at least $1.26 billion in 2007.

[34] Ecological Waste Coalition of the Philippines, Inc. *Toxic Debt The Onerous Austrian Legacy of Medical Waste Incineration in the Philippines,* 2007

Link between sectoral GHG emissions and ODA allocation. Besides dirty and socially unacceptable projects, a comparison of major sources of greenhouse gas (GHG) emissions in the Philippines with ODA sectoral allocation over recent years show that sectors and subsectors where significant increases in GHG emissions were noted also enjoyed the most shares of ODA fund allocation.

The table below shows that the country's GHG emissions have been on the rise both from energy use and land-use changes:

PHILIPPINES GHG EMISSIONS BY SECTOR, 1990, 2000, 2004

	1990		2000		2004		Change 1990-2000
Sector	**MtCO2**	**%**	**MtCO2**	**%**	**MtCO2**	**%**	
Land use change & forestry*	79.4	66.9	94.9	55.9	na	Na	20%
Energy	36	30.4	68.9	40.6	72.6	91.8	91%
Electricity & Heat	14.2	11.9	26.8	15.8	28.9	36.5	89%
Manufacturing & Construction	8.3	7	9.2	5.4	11.2	14.1	11%
Transportation	6.2	5.2	23.5	13.9	25.4	32.1	279%
Other fuel combustion	7.4	6.2	9.4	5.5	6.8	8.6	27%
Fugitive Emissions	0	0	0	0	0.3	0.4	0%
Industrial processes	3.2	2.7	6	3.5	6.5	8.2	88%
TOTAL	**118.6**		**169.8**		**79.1**		**43%**

Source: Climate Analysis Indicators Tool (CAIT) Version 5.0 (Washington, D.C.: World Resources Institute, 2008) as cited by Rincon & Virtucio
** Data on land use and forestry are generated every ten years, hence the 'data gap' for 2004*

In 2000, land-use change and forestry was responsible for 55.9 percent of GHG emissions, while the energy sector was responsible for 40.6 percent (with electricity and heat, and transportation the most significant GHG emission contributors). The sub-sector with the most significant rise in GHG emissions is the transport sector (279 percent), followed by electricity (89 percent), industrial processes (88 percent) and land-use change and forestry (20 percent) (CAIT 2008).

On the other hand, Tadem (2007) in his ODA study notes the following observations on sectoral and sub-sectoral allocation of ODA[35]:

- Infrastructure (which comprise of energy, power and electrification; transportation; water resources, social infrastructure and lately the communications sub-sectors) had the biggest and increasing average share of total ODA followed by agriculture, agrarian reform and natural resources; and industry and services sector.

  "From 2000 to 2006, ODA commitments for infrastructure averaged a share of 65.28 percent of total ODA. This constituted a 15.2 percent increase compared to infrastructure's share of 50.1 percent during the 1987 to 2000 period. Agriculture, natural resources and agrarian reform had the second largest average share of 17.43 percent for 2000-2006. Industry and services was third with an average share of 8.14 percent, while social reform and community development was fourth with an average share of 7.85 percent. At the bottom of the list was governance and institutional development with an average share of 1.46 percent". Total allotments for the combined agriculture, land reform and industrial development sectors showed an increase to 25.3 percent from the 1986-2000 shares of 21.23 percent[36]".

- Transportation; agriculture and agrarian reform; energy, power and electrification were the top three subsectors with the biggest ODA allocation.

[35] In his report, Tadem notes that for "human development" there was a significant decrease in ODA commitments in the 2000-2006 period (7.85 percent) compared with the already minuscule 1987-2000 share of 10.95 percent. "It also appears that the increase in shares for infrastructure support, and agricultural and industrial development came at the expense of the human development component of ODA. The lowest points were in the years from 2000 to 2002, when 'human development ' took in an average share of only 5 percent per year. Although the average share eventually doubled between 2003 to 2005, the pattern bodes badly for complying with Philippine MDG targets by 2015."

[36] Tadem again notes that except in the case of "infrastructure support," there is some difficulty in comparing the 2000-2006 data with the 1986-2000 figures because NEDA had renamed the categories in 2001. Previously, "agricultural and industrial development" were lumped together. "Social reform and community development" was previously known as "human development." Previously separate categories such as "commodity aid," "integrated area development", and "disaster mitigation" have presumably been integrated into one of the new categories.

"In terms of subsectors, transportation had the biggest allocation of 42.17 percent as of December 2006, a 59 percent increase from the 1994-2000 shares of 26.46 percent. Agriculture and agrarian reform were in second place with 14.18 percent but this was a sharp decline from the previous share of 22 percent. Energy, power, and electrification were in third with 6.72 percent, a decline from 14.39 percent in 1994-2000. Water resources were close behind with 6.47 percent even as its share declined from its previous allotment of 12.25 percent. Education and manpower development was fifth with 5.8 percent, a modest increase from its previous share of 4.13 percent. Environment and natural resources was sixth with 4.07 percent, a decline from 5.82 percent. As expected, other human development related subsectors fared badly with health, population and nutrition with a mere 3.8 percent, and social welfare and community development with only 2.1 percent."

Sectoral Shares Of ODA Commitments, 2000-2006

Sector	Net Commitment							
	2000	2001	2002	2003	2004	2005	2006	Average
Infrastructure Support	66 %	69 %	63 %	69 %	68 %	65 %	57%	**65.28 %**
Agriculture, Natural Resources, and Agrarian Reform	16 %	16 %	21 %	17 %	17 %	17 %	18%	**17.43 %**
Industry and Services	10 %	9%	9%	5%	5%	8%	11%	**8.14%**
Social Reform and Community Development	5%	5%	5%	9%	8%	10 %	13%	**7.85%**
Governance and Institutional Development	3%	1%	2%	0%	2%	2%	.23%	**1.46%**

Source: NEDA Annual ODA Portfolio Reviews as cited by Tadem 2007

Sectoral Allocation of ODA, 1987-2000 (In US$million)

	1987-2000	
Sector	**Amount**	**Percent Share**
Infrastructure Support	13,931.46	50.06
Agri-Industrial Development	5,906.64	21.23
Human Development	3,047.05	10.95
Development Administration	1,058.21	3.80
Commodity Aid	702.08	2.52
Integrated Area Development	974.93	3.50
Disaster Mitigation	256.79	0.92
Others	1,950.40	7.01
TOTAL	**27,827.56**	**100.00**

Source for basic data: NEDA Public Investment Staff as cited by Tadem, 2007

Disaggregated Sectoral Allocation of ODA Commitments (As of December 2006 and 1994-2000)

Sector/Sub-sector	As of December 2006		1994-2000	
	US$ m	% Share	US$ m	% Share
Agriculture, Agrarian Reform, and Natural Resources	**1,734.66**	**18.25**	**3,711.71**	**27.82**
Agriculture and Agrarian Reform	1,347.88	14.18	2,935.05	22.00
Environment and Natural Resources	386.78	4.07	776.66	5.82
Industry, Trade and Tourism	**1,052.30**	**11.07**	**612.65**	**4.43**
Infrastructure	**5,461.15**	**57.45**	**8,017.34**	**60.00**
Communications	29.8*	0.3	135.48	1.01
Energy, Power, and Electrification	638.71	6.72	1,919.81	14.39
Social Infrastructure	198.57	2.09	0.60	0.00
Transportation	4,009.21	42.17	3,530.70	26.46
Water Resources	614.66	6.47	1,634.49	12.25
Social Reform & Community Development (Human Development)	**1,236.26**	**13.00**	**1,316.32**	**9.86**
Education and Manpower Dev.	551.68	5.8	51.27	4.13
Health, Population, and Nutrition	359.15	3.8	283.75	2.12
Social Welfare and Community Development	196.58	2.1	20.53	0.15
General Social	100.0	1.1	460.77	3.45
Shelter & Urban Development**	28.85	0.3	--------	----
Governance and Institutions Development (Political governance)	**21.9**	**0.23**	**467.81**	**3.50**
Others	**-------**	**------**	**528.89**	**3.95**
TOTAL	**10,194.1**	**100.0**	**13,341.04**	**100.00**

Source of basic data: NEDA Annual ODA Portfolio Reviews as cited by Tadem, 2007
* As of Dec. 2005. this category is missing in the 2006 Report.
** This is a new category introduced in the 2006 Report.
Note: "Others" include disaster mitigation and integrated area development.

ODA FOR ADDRESSING CLIMATE CHANGE: SCOPE AND RESPONSIVENESS

The groundbreaking Environmental Aid Project produced by the PLAID database[37] identified the Philippines among the top ten recipients of environmental and climate aid during the last decade. Data provided by the country's Environmental Management Bureau (Merilo, 2008) attest to at least 212 completed foreign-assisted projects and 34 more currently on-going (*see Annex 5 for the list*), besides the 25 grant-assisted capacity building endeavors specifically for addressing climate change that government has undertaken since 1989 in cooperation with concerned international development agencies. These include the following:

- *Sustainable Development Priorities through the Philippine Agenda 21*, 1989, eventually became the basis for the Philippine Strategy for Sustainable Development and the Philippine Agenda 21after 1992 Earth Summit;
- *US Country Studies Program*, 1990 (National Emissions Inventory);
- *Climate Change Project*, ADB, 1991 (Rapid assessment of vulnerable sectors);
- *National Greenhouse Gas Inventory*, 1994 (under the US Country Studies Program; updated and incorporated in the Philippines' Initial National Communication to the UNFCCC;
- *Asia Least Cost Greenhouse Gas Abatement Strategy (ALGAS) Project*, 1995-1998 (GHG mitigation assessment covering 12 Asian countries) implemented by the UNDP and executed by the ADB, costs $9.5 million; ADB provided supplemental funding of $592,000. This project identified mitigation options for the Philippines;

[37] *Project-Level Aid* or PLAID is the groundbreaking interdisciplinary data collection initiative covering more than 427,000 individual development finance projects in developing countries. This endeavor was launched in 2003 by the College of William and Mary and Brigham Young University. The first research undertaking using the PLAID database is the Environmental Aid Project that identified and analyzed foreign assistance for the environment and whose findings are contained in a book co-authored by Parks, Tierney, Hicks and Roberts entitled *Greening Aid: Understanding the Environmental Impact of Development Assistance* published recently by Oxford Press. It was found that the Philippines ranked 6th among the top recipients of environmental aid during the late 90s.

- *GHG Abatement Awards*, 1998 (recognition of companies voluntarily reducing GHG emissions) with the assistance of USAID and US-EPA;

- *A Study on Capacity Development on the Clean Development Mechanism* (study of policy, program and legal framework, priorities and opportunities for CDM cooperation in the Philippines) funded by the UNDP;

- *National Action Plan on Climate Change* (framework plan providing specific guidance on mitigation priorities) funded by the USAID. This project designed some "no regrets" mitigation measures;

- *Enabling Activity on Climate Change*, 1998 (training courses on GHG inventory) sponsored by the GEF. This capacity-building project targeted various government institutions to prepare its initial national communication to the UNFCCC;

- *The Strategic Objective Agreement 5 or the Philippine Climate Change Mitigation Program*, 1998-2001 (GHG reduction program promoting clean energy, eventually establishing the Climate Change Information Center) implemented by the DOE in coordination with the IACCC;

- *Institutionalization of the GHG Inventory and Public Awareness*, 2001 (consultative conferences and Trainers' Training on GHG inventories);

- *Promotion of Renewable Energy, Energy Efficiency and GHG Abatement*, 2002 (capability building to promote renewable energy/ energy efficiency) implemented by the DOE, funded by ADB;

- *Capacity Development for the Clean Development Mechanism in the Philippines* (awareness raising & capacity building program targeting various stakeholders in the CDM) funded by the Dutch Government, executed by the UNEP-RISO and implemented by the IACCC through the CCIC;

- *Establishment of the CDM National Authority, Operational Framework and Support Systems for the Philippines* (groundwork for the formal implementation of the CDM in the Philippines) funded by the Dutch Government thru the UNDP;

- *Conduct of Public Awareness Campaigns on Climate Change*, including groundwork for the ratification of the Kyoto protocol (ratified 2003);

- *CDM Support Program* (a technology transfer research and needs assessment and project feasibility studies for 5 CDM projects in the country) funded by the New Energy and Industrial Technology Development Organization (NEDO) of Japan;

- *The WSSD Type II – Asia Capacity Building Initiative* (capacity building for staff of the Philippine DNA for CDM, the National Solid Waste Management Commission Secretariat and the DOE) with financial assistance from the Japanese Ministry of Economy, Trade and Industry;

- *Integrated Capacity Strengthening for the CDM*, 2004-2006 (workshops and technical tutorials) conducted by the Institute for Global Environmental Strategies (IGES) of Japan for the Japanese Ministry;

- *Developing Local, National and Regional Capacities to Sustain Climate Change Initiatives in the Philippines and East Asia* funded by USAID in collaboration with the IACCC;

- *Philippine Greenhouse Gas Accounting and Reporting Program* (voluntary program for GHG accounting and reporting for businesses and organizations operating in the Philippines) a collaborative project by DENR, DOE, the World Resources Institute (WRI), the World Business Council for Sustainable Development (WBCSD), the Philippine Business for the Environment (PBE), and Klima Center;

- *Capacity Building for CDM Project Development Activities (Carbon Finance Assist Program)*, 2007, funded by the World Bank and implemented by Klima Center.

- *Regional Review of the Economic Cost of Climate Change in Southeast Asia*, 2008 (on-going study on the economic costs and benefits of unilateral and regional actions on mitigation and adaptation) implemented by ADB and funded by the British Government) and costing $904,200;

- *Other projects* include research on methane emissions from rice paddies by the International Rice Research Institute (IRRI), socio-economic impact studies by the International Geosphere and Biosphere Program (IGBP) and public awareness campaigns and policy studies by the Philippine Network on Climate Change (PNCC).

Weak 'response-ability'. Despite all these enabling activities, various studies assessing how government is addressing the issue of climate change have pointed out that "capacities to assess and respond to mitigation and adaptation needs remain weak" (Peralta, 2008). Moreover, experts have noted that policies and programs currently in place betray either a lack of appreciation for the issues at hand or a disjointed, if not incoherent and non-participatory institutional response in facing the challenges brought on by climate change.

Some Results of Studies Appraising Government's Response to Climate Change

ARE WE READY FOR CLIMATE CHANGE?

- The 2004–2013 Philippine Energy Plan (PEP) targets the expansion of new and renewable energy sources by 53 percent of the country's total energy requirements in 2013 from 51 percent in 2004. However, it encourages prospecting and maximizing the use of indigenous coal for power generation and continues to offer a package of incentives for the expansion of investments in fossil fuels that contribute to climate change (Peralta, 2008).
- The country has participated in the Clean Development Mechanism (CDM) since 2003. As of February 15, 2008, 16 CDM projects have been registered with the DENR and are expected to prevent the emission of 481,863 tons of CO2 per year (DENR 2008), equivalent to only 1 percent of the country's annual CO2 emissions. The UNFCC says the Philippines accounts for only about 1.64 percent of the more than 1,222 CDM-registered projects globally. A study by the Asian Institute of Management Policy Center in June 2008 states that "CDM is good for the Philippines but is only an intermediate solution until such time that national policies sufficiently respond to the challenges of climate change" (Tuazon). It recommends an evaluation of CDM projects' net effects; a consideration that CDM may be a temporary solution; establishment of a local carbon fund or a common pool of financial resources that can help jump- start clean technologies that are CDM-worthy or the provision of local tax incentives for organizations running CDM projects; among others.
- Experts appraising the 2004–2010 Medium-term Philippine Development Plan (MTPDP) reports that it hardly takes into account the looming challenges of climate change (Lasco et al. 2007). They conclude that "national decision makers do not see climate change as a high priority issue in the context of national development plans yet because attention is more focused on actual destruction caused by climate hazards. Peralta (2008) says MTPDP (as well as the PTFCC's Climate Change Strategic Framework) cites the importance of reducing and managing climate-related risks in agriculture but there are hardly any measures proposed to build climate resilience in the agriculture and fishery sector.
- The Philippine Clean Air Act was passed in 1999, while the Bio-fuels Act was adopted in 2006 to pursue energy efficiency and cut emissions. Last October 2008, the Renewable Energy Act was signed into law to promote the development and commercialization of renewable energy resources, providing incentives to firms that invest in the sector. However, very little has been done on mainstreaming an ecologically friendly land-use policy given the fact that land use is one of, if not the foremost source of GHG emissions in the country.
- Lasco, et.al (2007) notes there are 195 presidential decrees, republic acts, executive orders, government agency administrative orders and memoranda, and LGU ordinances and proclamations on the environment but "not many of these laws address even in the slightest the growing concerns brought about by the increasing trend of climate change, climate variability, and risks." Peralta (2008) citing this study adds that "a general review of the country's climate-change policies and development plans gives a sense that the issue remains peripheral to the government's macroeconomic goal of achieving sustained economic growth."

- The Philippines' adaptation policies tend to be concentrated on lowering risks and responding to natural disasters, especially those associated with tropical cyclones, as evidenced by several flood-management infrastructure projects being undertaken (Lasco et al. 2007). The province of Albay, which was hardest hit by typhoons in 2006, is the first local government to work on disaster- and climate-proofing. The 2007 Albay Declaration calls for the improvement of evacuation sites, the introduction of climate change education in school curricula, and training of local officials in disaster preparedness.
- Peralta (2008) notes a disproportionate focus on mitigation, especially on the promotion of renewable energy. The "energy bias" is apparent in the fact that the PTFCC is currently chaired by the Department of Energy (DOE) even though AO 171 creating the taskforce states that it shall be chaired by the DENR. Furthermore, the "energy bias" is reflective of a preference for "hard" scientific and technology-based solutions over "soft" policies that address socio-economic needs and differences (Lambrou and Piana 2006).

Lasco, et.al.[38] in their review of natural resource policies, some of which had been enacted since 1976 (*see Annex 4*) as it relates to climate change concluded that:

- Policies, programs, and actions relating to natural and agricultural resources management are barely designed to address the mitigation of and/or adaptation to the impacts of climate change.
- The policies and programs, while emphasizing a specific sector, may inadvertently impact positively or negatively on other sectors.
- Concerns and issues often arise from policy implementation by government agencies in-charge.

[38] Rodel D. Lasco, Roberta Gerpacio, Patricia Ann J. Sanchez, and Rafaela Jane P. Delfino. *Philippines Policies in Response to a Changing Climate: A Review of Natural Resource Policies,* 2007.

- Usually, results and benefits monitoring and evaluation are found to be insufficient after the implementation of policies and programs have began. For this reason, empirical evidences of policy impacts vis-à-vis sectoral baseline status are currently unavailable.
- Currently available and accessible data and information relating to environment and environment degradation are yet to be systematically linked or attributed to the trends of climate change in the Philippines.

A separate review also conducted by Lasco, et.al.[39] (*see Annex 4*) on how far climate change has been mainstreamed into key national development plans and programs (this includes the Medium Term Philippine Development Plan (MTPDP), the Millennium Development Goals and Philippine Agenda 21) as well as a survey of government officials' and other stakeholders' perceptions on the issue yielded the following findings:

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- Climate change adaptation has not been mainstreamed in the Philippines.
- Whenever climate change is recognized, the focus has been more of mitigation especially now with rising interest in the CDM.
- Because of the geographical location, there is more emphasis on adaptation to risks associated with current climate variability and extremes (e.g., tropical cyclones).
- Clearly, national decision makers do not yet see climate change adaptation as a high priority issue in the context of national development plans, and climate change adaptation has not been mainstreamed in the Philippines.

[39] Rodel D. Lasco, Florencia B. Pulhin, Patricia Ann Jaranilla-Sanchez, Kristin Garcia and Roberta Gerpacio. *Mainstreaming Climate Change Adaptation in The Philippines* , 2007.

Meanwhile, Peralta (2008)[40] observes that the interests and expressed needs of people—especially the rural poor and marginalized groups such as women—are missing in the various climate change-related plans, programs and financing initiatives put forward by the government, international financial institutions, and donors. She underscored the "lack of appreciation of how the allocation of subsidies and incentives to large-scale renewable energy projects (e.g., mega-hydro dams and wind-harvesting projects) could have adverse gender and other social implications versus other GHG abatement projects with potentially strong poverty-alleviation outcomes (e.g., community forest-management and agro-forestry schemes). Likewise, the current focus on investing in mitigation—instead of a more balanced approach that simultaneously promotes investments in adaptation—may not necessarily represent the best use of scarce government resources. From the point of view of the rural poor and women, the protection of their livelihoods and sources of sustenance are paramount, entailing adaptation measures that build-in climate resilience in agriculture and fishery; ensure people's access to potable water and other necessities; and provide social insurance and protection, among others."

Peralta also pointed out that "courting more ODA, which is often in the form of loans rather than grants to finance climate-change projects would add to the country's already heavy debt burden. At the same time, obligations to raise foreign-exchange revenues to service debt and its interest, primarily through expanding exports, could make it difficult for the country to begin to pursue a low carbon growth trajectory. At the very minimum, this points to an urgent need for new, additional, and non-debt-creating sources of climate change-related finance."

Disproportionate focus on mitigation. Even if the Philippines is a minor emitter of GHGs, most climate change related projects funded by ODA are focused on mitigation, largely in the energy sector's promotion of renewable energy.

A USAID study on clean energy in Asia found that the ODA portfolio for the Philippines had a total commitment of US$10.2 billion as of December 2005. "Majority of these funds go to the infrastructure sector, which includes transportation as well as energy, power, and electrification. In 2005, the

[40] Athena Peralta.
Gender and Climate Change Finance A Case Study from the Philippines, published by the Women's Environment and Development Organization and the Heinrich Boell Foundation, 2008.

infrastructure sector received US$6.6 billion, or 65 percent of the total ODA portfolio, of which the transportation sector had the highest share. The energy, power and electrification sector got the lowest share (around 4 percent)[41]." The table below identifies the key ODA agencies in the Philippines and the corresponding programs and projects that they have implemented since early 2000.

Summary of ODA Activity in Clean Energy

Donor	Programs/Projects
The World Bank (WB)	1. Capacity Building for CDM Project Development Activities (Carbon Finance Assist Program, 2007) 2. Rural Power Project (2004-2009) 3. Support for Strategic Local Development and Investment (2006-2012) 4. Laguna de Bay Community Carbon Finance Project (Carbonshed Project, 2006-) 5. Electric Cooperative System Loss Reduction Project (2004-2011)
Asian Development Bank (ADB)	6. Renewable Energy and Livelihood Development Project in Negros Occidental (2004-2008) 7. Rehabilitation of Renewable Energy Projects for Rural Electrification and Livelihood Development (2003-2005) 8. Mindanao Basic Urban Services Sector Project (MBUSS, 2002-2007) 9. Metro Manila Air Quality Improvement Sector Development Program 10. Institutional Strengthening for the Development of the Natural Gas Industry (2003-2006)
United Nations Development Programme (UNDP)	11. Capacity Building to Remove the Barriers for the Development of Renewable Energy Projects (CBRED, 2003-2008) 12. Philippine Efficient Lighting Market Transformation Project (PELMATP, 2005-2010) 13. PV-Wind Diesel Hybrid System (2001-2004) 14. Renewable Energy-based Village Power System

[41] USAID-Asia, *Ideas to Action: Clean Energy Solutions for Asia to Address Climate Change Annex 4 Philippines Country Report,*2006.

Continuation - Summary of ODA Activity in Clean Energy

Donor	Programs/Projects
Japanese International Cooperation Agency (JICA)	1. Sustainable Improvement of Renewable Energy Development in Village Electrification (2004-2009) 2. Japan Grass Roots Grand Aid Program 3. Mahagnao Micro-Hydro Demonstration Project (2001-2005) 4. Electrification of Upland Dwellers in Northern Luzon
Japan Bank for International Cooperation (JBIC)	5. Environment Infrastructure Support Credit Program (closed in 2006) 6. Local Government Units Support Credit Program (2000-2005) 7. North Luzon Wind Power Project 8. Tongonan Geothermal Power Plant Construction 9. Tiwi Geothermal Power Plant Complex Rehabilitation
United States Agency for International Development (USAID)	10. Alliance for Mindanao Off-Grid Renewable Energy (AMORE I, 2002-2009) 11. Philippine Environmental Governance (ECOGOV 2, 2004-2009) 12. Energy and Clean Air Project (ECAP, 2004-2008) 13. Alliance for Mindanao Off-Grid Renewable Energy (AMORE, 2004-2009) 14. Sustainable Energy Development Project (SEDP, 1999-2008) 15. Developing Local, National and Regional Capacities to Sustain Climate Initiatives in the Philippines and East Asia (KLIMA, 2000-2007) 16. Sustainable Energy Development Project (1999-2006) 17. Developing Local, National, and Regional Capacities to Sustain Climate Initiatives in the Philippines and East Asia (2000-2005) 18. Philippine Energy Partnership Program (PEPP, 1998-2007)
EC-ASEAN Energy Facility (EAEF)	19. Feasibility study for distributed generation and renewable energy portfolio of a distribution utility: A case study in the Philippines (2005-2006) 20. Increasing access to local sources of financing for renewable energy investments and design of innovative financing instruments: case study in the Philippines, exchanging experiences with Thailand, and applicability of European approaches (2005-2006) 21. Capacity Building for Calaca, Batangas Local Governments Unit, Public Market Vendors and Households to Operate a Biogas Facility: Learning from European and ASEAN/Thai Best Practices (2006) 22. Capacity Building for Wind Project Developers, Providers of Engineering Consulting Services and Government Planners on the Conduct of Project Preparatory Activities for the Development of Wind Power Projects in the Philippines and Vietnam and Adopting European and International Standards (2006) 23. Innovative Financial Scheme for Sustainable Development of Renewable Energy Projects in Rural Areas in Vietnam, the Philippines, and Indonesia (2004-2006) 24. Rice Husk Power Plants in Indonesia, the Philippines, and Vietnam (2004-2005)
EC EU-ASIA PRO ECO	25. Biowaste Reuse in Southeast Asian Cities (2005-2006) 26. Greening the Philippine Industries with the ECOPROFIT Approach: Regional partnership, capacity building and training program approach for the industries within the Central Luzon Region in the Philippines (2006-2008)
Danish International Development Agency (DANIDA)	27. 25-MW Northwind Bangui Bay Wind Power Plant (2004-)

Source: USAID ECO-Asia Clean Development and Climate Program, 2006.

The USAID survey noted that donor activity under the sector is largely going to projects on renewable energy, clean transport and energy efficiency. The paper categorized ODA-funded projects in ***renewable energy*** and further observed that assistance is mostly focused in power generation and electrification. These include:

- *Infrastructure investment loan programs for local government units* such as the World Bank's "Support for Strategic Local Development and Investment Program" that provides loans through the Land Bank for infrastructure projects identified by local government units to enable them to comply with the requirement for municipal solid waste management plans. Another example is the ADB's "Mindanao Basic Urban Services Sector Project", whose lending component is implemented by the Land Bank while the Department of Interior and Local Government manages the capacity building components.

- *Off-grid rural electrification projects of remote communities combined with livelihood activities* are supported by the ADB, UNDP and JBIC. Also USAID's program, the "Alliance for Mindanao Off-Grid Renewable Energy" (AMORE) that has already provided electricity access to close to 300 barangays in Mindanao using solar home systems, solar PV charging stations, and micro-hydro facilities.

- *Small to large-scale on-grid applications, most of which include a CDM or carbon market component* such as the "North Luzon Wind Power Project*", which* is partly funded by JBIC, and the *25 MW Northwind Bangui Bay Power Plant, which is* mainly financed by DANIDA. The emission reduction credits that would be generated by these projects will be purchased by the World Bank's carbon funds.

- *Capacity building to remove barriers for developing and financing renewable energy projects* include UNDP's five-year "Capacity Building to Remove Barriers in Renewable Energy Development" (CBRED) project that aims to increase the capacity of various stakeholders of renewable energy development, from policy-makers to project developers and financiers. Also, the European Commission through the EU-ASEAN Energy Facility has financed projects to

- *Renewable energy-based ODA projects that fall into one or two of the above-mentioned categories*. These include the World Bank's "Rural Power Project", implemented by the DBP, which provides loans to small-scale off-grid and on-grid renewable energy projects and has a capacity-building component for electric cooperatives, local government units, and other potential private sector investors. The EUASEAN Energy Facility has also financed a project to undertake feasibility studies of renewable energy based distributed generation projects.

Included under ***clean transport*** are projects like the ADB's "Metro Manila Air Quality Improvement Sector Development Program," which is supporting both infrastructure investment and capacity building needs of Metro Manila to implement its Air Quality Action Plan; the USAID's "Energy and Clean Air Project" that supports energy, environment, and transport agencies to improve policy frameworks and increase awareness on clean energy and transport; and the ADB's "Institutional Strengthening for the Development of the Natural Gas Industry," which aims to strengthen the institutional capacity of the Department of Energy to promote the development of the natural gas downstream industry.

ODA projects that promote ***energy efficiency*** include the World Bank's "Electric Cooperative System Loss Reduction Project" that supports investment and aims to strengthen capacity of electric cooperatives in the country to improve energy efficiency in distribution. The UNDP is running the GEF-funded "Philippine Efficient Lighting Market Transformation Project" (PELMATP), a five-year program to remove barriers for the widespread utilization of energy efficient lighting systems. The EC through the EU-Asia Pro Eco Program is funding a project to increase the capacity of selected Philippine industries to adopt the ECOPROFIT approach.

ODA-funded programs in the environment sector with climate change mitigation components include projects such as JICA's "Project for the Enhancement of Community Based Forest Management in the Philippines" and the ADB's "Metro Manila Air Quality Improvement Sector Development Project" (DENR component).

Recent adaptation interventions. Meanwhile for adaptation, most observers have deplored the lack of concrete projects, given the Philippines' vulnerability to climate change. Most observers agree that adaptation projects given aid are geared more towards disaster risk reduction rather than protecting agricultural and coastal livelihoods, building food security and ensuring people's access to basic needs (Peralta 2008, Lasco et.al. 2007). Furthermore, donors have only just begun to include adaptation in their project portfolios for the country and on-going adaptation interventions have just recently started.

Major Climate Change Adaptation Projects in the Philippines

Name of project	Donor	Features
Mainstreaming Disaster Risk Management Proponent: NEDA Status: On-going	GEF	• Guidelines on the preparation of disaster risk management components of regional/local physical framework and land use plans • Enhanced capacities of regional/local planners in incorporating disaster risk management in physical framework and land use plans • 16 regional and local plans using disaster risk management guidelines • Communication strategy plan highlighting best practices
Philippine Climate Change Adaptation Program Phase 1 Proponent: DENR Status: on-going Cost: US$ 283,000 Project Preparation grant, US$ 5 M GEF grant, with US$ 150,000 co-financing by ProVention Consortium	World Bank-GEF	• Improved coordination of adaptation policy through clarity in the institutional structure • Cost-effective climate risk reduction in key productive sectors • Strengthening proactive disaster management • Enhanced provision of scientific information for climate risk management
Enabling Activity for the Preparation of the Second National Communication to the UNFCCC Proponent: DENR Status: Ongoing	GEF	• E valuation of national circumstances • Updating of the inventory of GHGs for the year 2000 • Assessment of needs, barriers & opportunities for mitigation & adaptation technologies & methodologies & capacity building • Assessment of potential impacts of climate change in selected areas • P reparation and submission of the Second National Communication
Strengthening the Philippines' Institutional Capacity to Adapt to Climate Change (NEDA and DENR) Cost: $8 million grant from Spain, coursed through the Millennium Development Goals Achievement Fund	Approved for funding through UNDP	• Climate risk reduction mainstreamed into key national and selected local plans and processes • Enhanced national and local capacities to develop, manage, and administer projects addressing climate change risks • Improved coping mechanisms improved through pilot adaptation projects

Source: Peralta, 2008; UNDP; DENR

The US$ 5 million GEF-funded "Philippine Climate Change Adaptation Project Phase 1" seeks to develop and demonstrate the systematic diagnosis of climate-related problems and the design of cost-effective adaptation measures, while integrating climate risk awareness and responsiveness into economic and operational planning, particularly in agriculture and natural resources management. Parallel project preparation activities included a study funded by a grant from the ProVention Consortium worth US$ 150,000 that seeks to quantify and model risks in agriculture and related sectors (e.g. water, natural resources) as well as produce information that will enable stakeholders to make informed decisions on adaptive measures to climate change and integrate these with disaster risk reduction plans/programs. The project is led by the DENR in partnership with the Department of Agriculture, PAGASA, National Disaster Coordinating Council, and others.

The US$ 8 million UNDP-funded "Strengthening the Philippines Institutional Capacity to Adapt to Climate Change" is a 3-year joint program of the NEDA and DENR to determine vulnerability of critical sectors of the Philippines to climate change and strengthen the country's adaptive capacity by enhancing the planning, programming and implementation capacities of key stakeholders. It will be undertaken in five adaptation demonstration projects where test systems for potential upscaling and replication will be developed. Three out of the five demonstration projects are in the Bicol region. According to NEDA Director Ralph Recto, this program also seeks to be a "strategic exercise for government to mainstream and integrate climate change adaptation policies and strategies" in the Medium-Term Philippine Development Plan.

Besides these, other reported ODA-funded adaptation projects and activities (completed and on-going) include the following:

- The *Coral Triangle Initiative* is a new multilateral partnership endeavor that seeks to help safeguard the marine and coastal resources of the Eastern Pacific (Rincon and Virtucio, 2008).

- *Technical Assistance to Support Local Government Capacity to Manage Natural Disaster Risks in the Philippines (Phase I)* aims is to contribute to strengthening the capacities of Philippine institutions at the local level to reduce vulnerabilities to the impacts of natural disasters and manage related risks. The program will focus on approximately 10 most vulnerable LGUs identified by a risk mapping exercise and consultation process with LGUs and the Government of the Philippines (GoP) to ensure that capacities and tools are made available to these LGUs to manage disaster risks. This is a program of the World Bank Office in Manila (WBOM) and the Global Fund for Disaster Risk Reduction (GFDRR), World Bank, Washington D. C. (Villarin, et.al. 2008)

- Last May 2008, a *Regional Workshop for City Planners* was held to look into existing policy and operational work addressing the potential impact of climate change-related events in cities, including outlining the main actors, institutions (including national and city governments), existing partnerships and networks, and their implementation capacity. A *pilot testing of the World Bank-developed "Practitioner's Handbook for Reducing Vulnerability to Climate Change Impacts and Related Natural Disasters in East Asia"* was also undertaken among the participating city planners. The handbook contained good practices as well as prescribed steps to be taken at the city level to reduce the risk of disasters and impacts of climate change. This workshop was conducted by the UN/ISDR together with CITYNET and the World Bank's East Asia Sustainable Development Department, in partnership with the GFDRR (Rincon and Virtucio, 2008).

- *Strengthening Climate Change Resilience in the Integrated Natural Resources & Environmental Management (INREM) Sector Development Program* is an ADB Small Grant for Adaptation Project costing US$100,000 to increase resilience by upland communities in the Philippines to localized climate impacts in fragile mountain ecosystems and river basins; and reduce overall vulnerability in the Northern Luzon and Mindanao (possibly Visayas) watershed-dependent loan areas by expecting to institutionalize adaptive practices in country partnership strategy-led interventions, thus ensuring overall environmental and loan sustainability (ProVention Consortium, 2008).

- *Developing Local, National and Regional Capacities to Sustain Climate Change Initiatives in the Philippines and East Asia (DEVCAP Project)* supported by the United States Agency for International Development (USAID) in coordination with the Philippine Inter-Agency Committee on Climate Change (IACCC) is a three-year project that conducts public awareness activities, briefings and training courses on various aspects of climate change. Specifically, the project involves broadening and fortifying the resource base needed to sustain climate change initiatives; increasing access to information and

helping build the knowledge pool that will enable effective participation in climate change activities; and facilitating the forging of linkages/networks of actors engaged in climate change (KLIMA, 2008)

- *Study on Comprehensive Flood Mitigation for Cavite Low in the Republic of Philippines* supported by JICA (DAC, 2006).

- A DENR media release last February 2009 also reported on the selection of the Philippines for a United Nations project that will assess the financing needs to implement mitigation and adaptation measures in dealing with climate change. The project is entitled the *National Economic and Environmental Development Study* (NEEDS), and is being implemented by the United Nations Framework Convention on Climate Change (UNFCCC) in nine pilot countries worldwide, in preparation for the 15th Conference of Parties of the UNFCCC and the 5th Meeting of Parties to the Kyoto Protocol to be held in Copenhagen, Denmark in December 2009.

Sources of Mitigation and Adaptation Financing in the Philippines

Important sources of mitigation finance include:

- Clean Development Mechanism (CDM) projects
- Global Environment Facility (GEF), jointly administered by UNDP, UNEP and the World Bank
- Loans from international and regional banks
- Official development assistance (ODA)
- The World Bank's Carbon Finance Facility, which is supporting 7 CDM-related projects in the Philippines, mainly dealing with wind and geothermal power generation (World Bank 2008)
- The Asian Development Bank (ADB) has also financed several initiatives including the Rehabilitation of Renewable Energy Projects for Rural Electrification and Livelihood Development (Kubo 2005)

Financing for adaptation interventions is currently sourced from government funds as well as multilateral and bilateral loans and grants. Bilateral donors are only beginning to include adaptation in their project portfolios for the country, one example is the Japan International Cooperation Agency and Japan Bank for International Cooperation funded Iloilo Flood Control Project (JBIC 2004).

Source: Peralta, 2008

Other recent reports cited the USAID's plans to disburse some US$73 million to boost the Philippines' energy and environment programs in the coming six years. Renewable energy projects, a rural electrification grant and two new biodiversity conservation projects will stand to benefit from this fresh funding, according to NEDA Director Ralph Recto. The assistance will also back natural resources protection as well as climate change-related initiatives including solid waste management, watershed protection, and rainwater conservation (PIA, 2009).

While these may be considered welcome developments, issues related to generating and mobilizing needed funds to finance climate change mitigation and adaptation needs remain as a daunting challenge fraught with controversy and urgency at the national and global scale. Besides ODA, GEF, the CDM and other facilities from multilateral institutions, revenue-raising strategies for climate financing in the country are still being deliberated upon by policymakers. Some of the suggestions include tapping and/or utilizing mechanisms such as the Climate Change Fund, Solidarity Fund, Climate Change Insurance Fund, International Air Travel Adaptation Levy; as well as the imposition of cap and trade schemes, pollution taxes and various international carbon taxes. One strategy proposed by a senate bill[42] even includes the privatization of public enterprises and lands to generate public revenues. All these proposals merit a close and thorough study by various stakeholders.

[42] Senate Bill 2583 substituting SB 1890, 2336 and 2388, *An Act Mainstreaming Climate Change into Government Policy Formulations, creating for this purpose the Climate Change Commission and for other purposes,* Section 17.

Section 3
ODA and Climate Finance: Enduring Issues and Concerns

Additional resources needed for mitigation and adaptation measures needed to tackle climate change have been described as "unprecedented" (with additional needs for public sector investments even exceeding the entire current ODA flows!) while "current climate-related financial flows to developing countries—including the GEF, Clean Development Mechanism (CDM), and other sources—cover only a tiny fraction of the estimated amounts that developing countries would need over several decades" (WB Group 2008).

It goes without saying that, given this tight financial situation, ODA in general stands as one of the crucial kegs in the current climate financing architecture. Nonetheless, the "question whether climate financing should be eligible as official development assistance (ODA) is still controversial" (Pegels 2008). Pegels[43], in her paper *Leveraging Private Investment in Climate Change Mitigation*, pointed out that "industrialized countries have a strong interest in climate finance being regarded as ODA. One of the main arguments they advance is that climate change is a core developmental issue and climate financing should therefore be part of ODA. It may indeed often be difficult to distinguish climate projects from development projects. This is especially true of climate change adaptation, but also of mitigation (e.g. rural electrification using renewable energies)."

The following discussion highlights some of the issues attendant to the discussion of ODA and climate-related financing.

The issue of "Additionality"

If climate change mitigation and, most especially, adaptation are treated as additional costs of development, then it simply follows that additional funds are needed to address them (i.e., above and beyond existing ODA for developing countries). Nonetheless, "the question of whether the resources provided to the new funds by bilateral donors will be additional to existing

[43] Dr. Anna Pegels is an economist in the Department of "World Economy and Development Financing", German Development Institute.

ODA commitments" still remains (Porter et al. July 2008).[44] As currently formulated, the phrase "new and additional" could be interpreted in three ways (Harmeling and Bals 2008):

1) Additional to existing adaptation financing provided by developed countries;
2) Additional to existing ODA flows;
3) Additional to existing ODA commitments (0.7% target).

The common or preferred (if not the desired) interpretation (mostly by development NGOs) is the third case (Harmeling and Bals 2008). This is primarily due to the belated recognition of climate change as a threat to development (i.e., climate change has not been caught yet by the development radar in the 1970s, when the 0.7% target was set). In addition, from an ecological or climate debt standpoint, it is widely recognized that the donor countries are "those that have contributed most to the problem" through their accumulated (historical) emissions, thus, they "have a responsibility to cover the costs of coping with the consequences of climate change" (Harmeling and Bals 2008).

China, Colombia and other Parties that address the issue of additionality in their submissions on the Ad Hoc Working Group on Long-term Cooperative Action (AWG-LCA) apparently take the second sense, to mandate that financial contributions by the developed countries be *"additional to ODA"* (Harmeling and Bals 2008). Dr. Yogesh Vyas, Lead Environmentalist at the African Development Bank maintained, as a first-hand knowledge (and echoing the views of the World Bank), that with respect to the Climate Investment Funds (CIFs): "Yes, they are new and additional to existing levels of Official Development Assistance (ODA). It is expected that most donors will include contributions to the CIFs in their ODA reporting."[45] On the other

[44] Article 4.3 of the UNFCCC commits Annex II countries to 'provide new and additional resources to meet the agreed full incremental cost of implementing measures…'including 'preparing for the adaptation to climate change'. In addition, Article 4.4 states that Annex II countries 'shall also assist the developing country Parties that adaptation to those adverse effects.' Adapted from, Sven Harmeling and Christoph Bals, Adaptation to Climate Change –Where Do We Go From Bali? An Analysis of the Cop13 and the Key Issues on the Road to a New Climate change Treaty, Briefing Paper, Germanwatch, March 2008

[45] "MDBs Discuss Climate Investment Fund Activities-Interview with Mr. Yogesh Vyas, Lead Environmentalist, OIVP," 06 November 2008, Available at: http://www.afdb.org/portal/page?_pageid=293,174339&_dad=portal&_schema=PORTAL&press_item=30762106&press_lang=us

hand, donor governments may face "political opposition" at home if international funding contributions for climate change mitigation and adaptation "cut too deeply into domestic budget spending." As argued by Doornbosch and Knight (2008), "In a political sense, therefore, "new" and "additional" revenue sources are defined as stemming from new revenue-raising instruments," which is, in a way, an extended interpretation of the additionality principle.[46]

Reports have it that "developed country ministers are not yet resolved on how much increase in ODA spending would be acceptable" (Schroeder and Okereke, 2008). Some would even hazard that "too much funding can be more harmful than too little." Not surprisingly, it remains "unclear how the extra funding would be sourced, whether through taxation of the CDM, or as China is proposing, a levy on GNP of 0.5 percent," similar to the 0.7 percent of GNP "ODA commitment made by the industrialized countries decades ago" (Schroeder and Okereke, 2008). Drexhage (2005) believes that "it is unlikely that we will see any strong reversal in the decline in total ODA funding, even accounting for climate-change-related activities"—perhaps a more realistic, albeit pessimistic, view.

Presently, "all international adaptation funding instruments—except the recently operationalized Kyoto Protocol Adaptation Fund—are replenished through ODA-type bilateral donations" (Müller 2008). Nonetheless, "because common definitions and baseline data" are still lacking, "it is difficult to know" how much of the donors' climate-related aid "relabels or replaces pre-existing programs" or whether it constitutes "new and additional resources"[47] (or as Doornbosch and Knight (2008) put it, "it will be difficult to accurately assess which sources of finance are truly new and additional and which are, for example, redirected forms of ODA"). As argued by the International Council on Human Rights Policy (2008): "The practical content of "additionality" (to use the jargon) has remained elusive…partly because there is no clear baseline, since few wealthy countries have reached the agreed international aid target of 0.7% of GDP (gross domestic product), and partly because very little adaptation funding has ever materialized."[48]

[46] Doornbosch R and Knight E. 2008. *What Role For Public Finance In International Climate Change Mitigation*, Paris: OECD

[47] Adopted from, U.S. Congress, Office of Technology Assessment, *Development Assistance, Export Promotion, and Environmental Technology—Background Paper, OTA-BP-ITE-1O7.* Washington, DC: U.S. Government Printing Office, August 1993. The DAC Secretariat emphasized that "the data do not permit making any statements on whether these commitments were "new and additional" as stipulated in the UNFCCC.

[48] International Council on Human Rights Policy, *Climate Change and Human Rights: A Rough Guide*, 2008.

"Unfortunately," says the World Resources Institute (2000), the lack of an "agreed-upon ODA baseline from which to assess additionality" will "not help resolve this concern of many developing countries." And "without such a baseline, an ODA additionality test is unlikely to influence public sector behavior." Using the 0.7 percent of GDP pledged by industrialized countries as the "only obvious and objective benchmark from which to judge such an additionality" is "likely to prove unpopular."[49]

This becomes more complicated since "in practice, although tracked separately, development assistance agencies generally count adaptation funding, such as that provided to the Least Developed Countries Fund and the Special Climate Change Fund, as part of their ODA."[50] For instance, "the German government and the German Parliament explicitly express their objective to use funding instruments discussed in the adaptation context to raise Germany's ODA share, which still lags far behind the 0.7%" (Harmeling and Bals 2008). In mid-2007, "Oxfam found that in almost all cases climate-related finance was being counted as part of existing assistance, with only the Netherlands explicitly committing to providing climate-related finance in addition to the 0.7 percent of national income as aid" (Porter et al. July 2008).

As the debate rages on, "many stakeholders now argue that adaptation financing should not be counted as ODA, since climate change is seen to be an additional burden that is primarily caused by the developed world. In this sense, support by developed countries is judged as a compensation for harms, but not as aid" (Harmeling and Bals 2008). As OXFAM (May 2007) argued: "Adaptation finance must be accounted for separately from development assistance…because rich countries' responsibility to finance developing-country adaptation is *additional* to and *distinct* from their role in providing ODA (italics in the original).

In addressing climate challenge (i.e., an environmental goal), we have to admit that sacrifices have to be made but not to the extent of compromising the attainment of concrete human development goals (e.g., MDGs, basic needs, etc). After all, highlighting the need for urgent climate financing does not necessarily mean a shift of priorities in development financing. For traditional aid institutions that have goals such as poverty alleviation and

[49] World Resources Institute, *CDM Design Notes*, August 2000

[50] See John Drexhage, Deborah Murphy, and Jenny Gleeson, *A Way Forward: Canadian perspectives on post-2012 climate policy*, International Institute for Sustainable Development, 2008. Available at: http://www.iisd.org/publications/pub.aspx?pno=965

human welfare improvement, the advise of the International Development Committee (House of Commons) to the World Bank, for instance, stresses the point succinctly: "the urgency of climate change does not lessen the blight of poverty and we believe that the Bank's primary focus must remain on poverty reduction and development."[51]

For this reason and more, the principle of financial/investment additionality must be emphasized.

ECOLOGICAL DEBT

Some thoughts that may be considered in future climate-change negotiations by developing countries like the Philippines

- Ecological debt has been defined as comprising ecological damages caused over time by a country to other communities of people or countries through its production and consumption patterns; and the exploitation or use of ecosystems or ecosystem goods and services by a country over time at the expense of the equitable rights of other countries, communities, or individuals (Paredis et al. 2004).
- A recent study concludes that through disproportionate emissions of GHGs alone, rich, industrialized countries have imposed climate damages on poor countries equivalent to US$2.3 trillion, which is considerably greater than the latter's current foreign debt (Srivanasan et al. 2008).
- The concept of ecological debt reverses traditional debtor and creditor positions of countries, with potentially transformative implications for power relations between rich and poor countries, as well as between the rich and poor within countries.
- Oxfam (2007) has developed an *Adaptation Financing Index* that is grounded on "the polluter pays" as well as capacity-to-pay principles. According to the index, the United States and European Union nations ought to contribute over 75 percent of the annual US$50 billion needed for adaptation in developing countries, while Australia, Canada, Japan, and Korea ought to provide 20 percent of the amount. Such compensatory finance must be in addition to—and not counted as—ODA.
- The recognition of the concept also entails the unconditional cancellation of illegitimate financial debts being claimed from poor countries in order to free-up resources for mitigation and adaptation.

Peralta, 2008

[51] House of Commons International Development Committee, *DFID and the World Bank* , Sixth Report of Session 2007-08, London: The Stationery Office Limited, 5 March 2008

ODA DIVERSION

Closely related to the issue of additionality is the concern about possible or potential ODA diversion that may arise in the name of climate-related financing (i.e., ODA for climate-neutral human development targets might be rechanneled or redirected towards mitigation and/or adaptation).[52] In view of the "adaptation-development" nexus, some advocates are amenable (especially those from LDCs and SIDS or small island developing states) "that a certain share of proceeds from ODA should be allocated for adaptation."[53] By marrying climate-related goals with human development goals, prudent and efficient use of ODA might be achieved. As there is really no competition between the two objectives, integrating climate change-related funding into the overall development financing system is, therefore, as some advocates would agree, a sound proposition.

Still, such assertion does not automatically justify the allocation of ODA funds for climate-related activities. After all, we can always construct meaningful associations (whether direct or indirect) between the heightening climate-related risks and the attainment of human development objectives. But this alone would not warrant that we readily throw ODA for carbon capture or renewable energy projects and/or building more dikes at the expense of building more classrooms and/or taking care of the nutritional needs of the poor or constructing sanitation facilities and hospitals. The primary concern is that no matter how crucial the climate change factor is in the development

[52] Dutschke and Axel Michaelowa (2003) presented four types of diversion (specifically with respect to funding mitigation): (1) *Diversion of purpose*, such as when ODA is used for direct acquisition of certified emission reductions (CERs) while still being reported as ODA, especially in the case of developing countries that do not regard climate change as top priority, given more pertinent concerns about food and water security, and poverty alleviation (i.e., mitigation projects are not necessarily the most efficient solution for the said problems); (2) *Financial diversion*, resulting in ODA reduction for cases wherein ODA has been used for CDM project financing and CER procurement (the amount of which has to be deducted from the specified ODA); (3) *Sectoral diversion* , which is akin to the diversion of purpose, and occurs when ODA investment has been directed into sectors that are most likely to produce CERs, like waste disposal or large-scale energy production, when the most pressing necessities may lie in other areas, like social infrastructure and education; and (4) *Regional diversion*, wherein ODA investments flow to countries where there is wide opportunity for gaining carbon credits, at the expense of marginalized, cash-strapped nations. See Michael Dutschke and Axel Michaelowa, *Development Aid and the CDM- How to interpret "Financial Additionality"*, HWWA Discussion Paper 228, Hamburg Institute of International Economics (HWWA) International Climate Policy, May 2003.

[53] Ancha Srinivasan, "Adaptation to Climate Change", Chapter 6, *Asian Aspirations for Climate Regime Beyond 2012,* Ancha Srinivasan ed., Institute for Global Environmental Strategies, November 2006

equation, "climate change related activities would not usually be considered as having the highest potential impact on poverty" (Michaelowa and Michaelowa 2005) and that with respect to development prioritization, providing the basic human needs are more pressing and urgent in a world of scarcity. In the case of the MDGs, for instance, Michaelowa and Michaelowa (2005) concluded that: "All in all, the available evidence shows that only few areas exist in which climate and development priorities truly overlap."[54]

Even the World Bank Group (2008) admitted that "Diversion of resources from other development programs" [might occur] "unless additional funding is made available" and emphasized that resources additional to the present levels of official development assistance (ODA) are needed "so as not to compete with achieving the MDGs."

In view of this, the additionality principle must be upheld, that is, finance for adaptation (and to some extent, mitigation) must be over and above of existing aid commitments. As OXFAM (May 2007) explains: "Adaptation finance cannot be re-branded or diverted from aid commitments, and must be reported systematically and transparently. In line with the 'polluter pays' principle, it is owed not as *aid* from rich country to poor country, but as *compensatory finance* from high-emissions countries to those most vulnerable to the impacts" (italics in the original). Therefore, OXFAM argues that any climate-related financing mechanism "must ensure a reliable flow of funds independent from current ODA."

The British think-tank Development Initiatives likewise argued that the costs of climate change adaptation and mitigation "should not be taken from the resources needed to promote poverty reduction and economic growth in

[54] Axel Michaelowa and Katharina Michaelowa, *Climate or development: Is ODA diverted from its original purpose?*, HWWI Research Paper No. 2, HWWI (Hamburgisches WeltWirtschaftsInstitut or Hamburg Institute of International Economics) Research Programme, International Climate Policy, November 2005.

For a concrete example of the tension between human development financing and climate change-related financing, see Hugh Williamson, "Aids cash could be switched to climate change fight," Financial Times.com, 6 July 2007, available at: http://www.ft.com/cms/s/0/2da1749a-2b5a-11dc-85f9-000b5df10621.html?nclick_check=1 ; and "A dollar more for climate change adaptation, a dollar less for health," IRIN humanitarian news and analysis, UN Office for the Coordination of Humanitarian Affairs, 9 July 2008, available at: http://www.irinnews.org/Report.aspx?ReportId=79164

developing countries." The group recommends that "the 2010 and 2015 (ODA) targets should be explicitly defined net of any funding for climate change adaptation and mitigation, and that donors should publish information about aid that enables progress towards the targets to be tracked on this basis."[55]

The issue of ODA diversion is crucial in light of the fact that "for many people in developing countries climate change is not at the forefront of their concerns" but rather only "one of many factors which keeps them in poverty" (Klein et al. 2007, cited in Okubo and Michaelowa 2008). Indeed, the "adaptive capacity of affected poor communities clearly needs to be increased, but it is important to acknowledge that the impacts of climate change on people's lives and livelihoods and the needs will vary greatly depending on their existing vulnerabilities" (Klein et al. 2007, cited in Okubo and Michaelowa 2008).

Realistically, however, it appears that some ODA would inevitably be allocated for adaptation, at least in the short to medium-term—as "a more effective use or reallocation of current ODA for both mitigation and adaptation would be necessary in the future to complement the slow progress in operationalization of the SCCF and LDCF."[56] This begs the question: why not improve instead the governance of the SCCF and LDCF?

"The difficulties of disaggregating the costs for adaptation activities from normal development activities may make the aid diversion issue prominent in the adaptation funding area", aver Porter et al. (July 2008). If there is any consolation, Harmeling and Bals (2008) sense that "although many adaptation strategies overlap with general development objectives, and integrated approaches are principally preferable to stand-alone adaptation projects, large-scale diversion of promised ODA to adaptation is unlikely, since even without climate change the development challenges covered by the ODA fund are already daunting enough."[57] Yet, "it is still unclear how donor agencies will ensure that aid diversion does not occur as a result of these new funds" (Porter et al. July 2008). Clearly, "climate-related finances will need to be classified and reported separately from developmental aid transfers" (Porter et al. July 2008).

[55] Development Initiatives, "Are donors on track to meet their commitments to increase aid?" Memorandum submitted to the House of Commons-International Development Committee, 5 January 2009, available at: http://www.devinit.org/PDF%20downloads/development%20initiatives_memo%20to%20idc%20on%20financing%20for%20development.pdf

[56] Jung et al, *Asian Perspectives on Climate Regime Beyond 2012: Concerns, Interests and Priorities*, IGES, 2005

[57] Sven Harmeling and Christoph Bals, *Adaptation to Climate Change –Where Do We Go From Bali? An Analysis of the Cop13 and the Key Issues on the Road to a New Climate Change Treaty*, Briefing Paper, Germanwatch, March 2008

Should ODA be used for the Clean Development Mechanism (CDM)?

Closely linked to the issue of additionality and ODA diversion is the concern regarding the utilization of ODA for CDM financing.[58] Renewable energy, energy efficiency and other GHG abatement measures are being considered as targets for ODA (in recognition of the role played by renewable energy and energy efficiency not only in maintaining energy security but also in alleviating and/or eradicating poverty). Specifically, ODA is being tested as a source of financing for the Clean Development Mechanism (CDM).[59] Besides, a portion of existing ODA is already committed for energy projects (mitigation-related).

The reactions about the said issue are mixed at least, silent at most. Some countries have pointed the obvious issue of "possible diversion of ODA to acquire CERs (certified emission reductions) by Annex I parties" while other countries "were open to the possibility of using ODA for underlying project finance or enabling environment to implement the CDM."[60] As explained by Dutschke and Michaelowa (2003): "The rationale for looking into direct ODA

[58] "The Clean Development Mechanism (CDM), defined in Article 12 of the Protocol, allows a country with an emission-reduction or emission-limitation commitment under the Kyoto Protocol (Annex B Party) to implement an emission-reduction project in developing countries. Such projects can earn saleable certified emission reduction (CER) credits, each equivalent to one tonne of CO2, which can be counted towards meeting Kyoto targets" (a CDM project activity might involve, for example, a rural electrification project using solar panels or the installation of more energy-efficient boilers). "The mechanism stimulates sustainable development and emission reductions, while giving industrialized countries some flexibility in how they meet their emission reduction or limitation targets." Source: http://unfccc.int/kyoto_protocol/mechanisms/clean_development_mechanism/items/2718.php.

[59] The Japan-supported 120-megawatt Zafarana Wind Farm in Egypt is regarded as the first ODA-financed CDM project. Remember that "financial additionality is one element of the additionality concerns; it originally meant that no public money that would have been spent anyway on climate-related action in developing countries could be relabelled as CDM. This originates in the fear of LDCs that the continuation of ODA flows could be linked to their acceptance of CDM projects" (*ala* conditionality). "But ever since Kyoto, Japan had shown its intent to use official development assistance (ODA) for CDM projects," Dutschke and Michaelowa (2003) pointed out.

[60] Jung et al, *Asian Perspectives on Climate Regime Beyond 2012: Concerns, Interests and Priorities*, IGES, 2005

in CDM projects is that it may increase the chance to attract private sector investment in neglected regions and in specific project types and modalities with a high contribution to sustainable development, but which would not be profitable enough for private investment alone. This may be due to the high CDM transaction costs, to a lack of institutional capacity, to the small project size, to the large number of stakeholders, or the fact that in terms of CO_2 reduction the options favored by the host country are not the most profitable ones."[61]

Dutschke and Michaelowa (2003) added that "ODA may leverage private CDM investment" in least developed countries and that "ODA has the chance to promote project types the private sector would rather not invest in, especially small community-based projects and advanced technology developments."[62]

One main objection that was raised against the concept of JI/CDM pertains to the p*otential aid reduction*. "There is a fear that CDM will provide industrial countries further excuses to reduce Official Development Assistance (ODA), replacing it with "emission reduction" aid. It is argued that ODA should not be replaced at all, and that emissions transaction funding should flow from the private sector sources in developed countries."[63]

[61] Michael Dutschke and Axel Michaelowa, *Development Aid and the CDM- How to interpret "Financial Additionality"*, HWWA Discussion Paper 228, Hamburg Institute of International Economics (HWWA) International Climate Policy, May 2003

[62] Michael Dutschke and Axel Michaelowa, *Development Aid and the CDM- How to interpret "Financial Additionality"*, HWWA Discussion Paper 228, Hamburg Institute of International Economics (HWWA) International Climate Policy, May 2003. The International Conference for Renewable Energies (*Policy Recommendations for Renewable Energies,* Bonn, 4 June 2004) supported the view that the bilateral and multilateral development assistance (ODA) should focus on catalytic funding of renewable energy programmes. To wit: "Capacity building and catalytic financial leverage to extend energy services from renewable energy sources are key priorities. They should be provided in parallel with the creation and extension of micro-finance schemes that target consumers and small-scale businesses. Governments must take care to encourage, rather than undermine, the development of markets through the use of such subsidies, particularly with regard to renewable energy technology exports to developing countries. Public-private partnerships are a successful means for developing such markets and should be further expanded."

[63] Marc D. Stuart and Pedro Moura-Costa, *Climate Change Mitigation by Forestry: a review of international initiatives*, Discussion Paper, Policy That Works for Forests and People Series No. 8, International Institute for Environment and Development, 1998.

In 2001, the Conference of the Parties to the UNFCCC at its Meeting in Marrakesh, Morocco, agreed *"that public funding for clean development mechanism projects from parties in Annex 1 is not to result in the diversion of official development assistance and is to be separate from and not counted towards the financial obligations of Parties included in Annex I".* In turn, the Chair of the DAC (OECD) forwarded a decision in 2004 that allows for ODA to be used in CDM projects as long as the value of any CERs received in connection with an ODA financed CDM project leads to a deduction of the equivalent value from ODA.[64] The DAC Chair recommendation also states that "the CDM Board, at the time of considering a proposed CDM project that includes ODA financing, would seek an affirmation (project by project) from the donor that public financing does not result in the diversion of ODA."

In effect, as Michaelowa and Michaelowa (2005) pointed out, "almost all climate change related activities in developing countries can be financed with development assistance" since "the practical definition adopted in April 2004 by the OECD Development Assistance Committee (DAC) only excludes those CDM activities which governments directly use to purchase CERs. This implies that alternative interpretations of additionality, in particular a quantitative minimum requirement for traditional development assistance, oriented either at the baseline of current spending or at the 0.7% target, has effectively been ruled out. The consequence is that there is no limitation to the use of ODA funds for climate related activities."[65]

[64] OECD, *ODA Eligibility Issues for Expenditures under the Clean Development Mechanism*, A Proposal by the Chair of the Development Assistance Committee. DAC/CHAIR(2004)4. DAC High Level Meeting, 15-16 April 2004. "CERs resulting from ODA-financed CDM projects should be considered as a return to the donor and give rise to a deduction from ODA flows. Conversely, if instead of receiving CERs, a donor has agreed with the host country not to receive any of the generated CERs, or if the project does not generate CERs (e.g. a capacity development activity), no deduction would be necessary."

[65] Axel Michaelowa and Katharina Michaelowa, *Climate or development: Is ODA diverted from its original purpose?*, HWWI Research Paper No. 2, HWWI (Hamburgisches WeltWirtschaftsInstitut or Hamburg Institute of International Economics) Research Programme, International Climate Policy, November 2005

Nevertheless, there is an observation that the "dominant priority of bilateral development agencies is generally *adaptation* to climate change, with support for the CDM seen as a secondary activity" (Cosbey et al. May 2005). This is because adaptation is "viewed as being more consistent with these agencies' development goals and priorities, such as supporting achievement of the Millennium Development Goals." Moreover, some development agencies assess that "support for credit generation activities is inconsistent with achieving their overall goals and objectives—that facilitation of CDM projects falls outside the scope of their mandated activities." After all, development agencies have a mission "that goes far beyond climate change activities." Therefore, "other things being equal, they are more likely to directly finance projects, or project components, with high sustainable development benefits rather than trying to achieve these objectives indirectly through the CDM."[66]

Still some advocates argue that since the major human development goals are still not being met, "using traditional sources of funding such as official development assistance" for mitigation in general, and CDM in particular, "would not be appropriate."[67]

Mainstreaming adaptation into ODA projects

While the role of ODA in mitigation activities may be somewhat limited especially with respect to the overall official development tract (after all, as most mitigation measures are purely market-based and/or already spearheaded by the private sector and is hinged largely on the CDM-JI-carbon finance model), the function of ODA with respect to adaptation financing is significant. Nonetheless, issues remain (as initially discussed above) as to whether ODA for adaptation purposes should be incorporated or merged in the current development assistance architecture or to develop a separate, more robust fund mechanism for adaptation measures alone.

On the one hand, ODA donors "may believe that it is better to mainstream development funding to avoid separate tracks and to merge ODA and climate adaptation funding" (Schroeder and Okereke 2008). As Klein (2008) observed, "Mainstreaming adaptation into development makes common sense from an operational perspective and also from a development policy perspective.

[66] Cosbey, Aaron et al., *Realizing the Development Dividend: Making the CDM Work for Developing Countries*, Phase 1 Report – Prepublication Version, International Institute for Sustainable Development, May 2005

[67] Bradley, R. and K. Baumert (eds.),*Growing in the Greenhouse: Protecting the Climate by Putting Development First*, Washington, D.C.: World Resources Institute (WRI), 2005.

After all, the integration of similar policy objectives into one operational programme leads to a more efficient use of financial and human resources than if adaptation were designed, implemented and managed separately from ongoing development planning and decision-making. It reduces transaction costs and improves the effectiveness of aid."

But Klein (2008) also admitted that "from a climate policy perspective mainstreaming creates a dilemma." For one thing, mainstreaming "could be interpreted by developing countries as a ploy by the developed countries to abandon their obligations" (Schroeder and Okereke 2008). Adaptation funding is "seen by most developing countries not as a matter of 'donations' but as one of costs imposed by developed countries, and as such as debt incurred by them" (Müller 2008), i.e. adaptation financing, must be seen "as compensation rather than development aid" (Pegels 2008). "Accordingly, neither of the traditional ODA funding modes (grants or concessionary loans), are seen to be appropriate payment modes. Funding is expected, and must be 'acceptable', in the sense of being not only appropriate, but new and additional, predictable, equitable, and adequate" (Müller 2008).[68]

On the other hand, donor countries, "while agreeing to accept their responsibility to provide financial help in principle," were "concerned that adaptation to climate change could become a bottomless pit, or a "black hole", absorbing a disproportionate amount of development assistance funds. Nor was it clear how adaptation funds could best be used."[69]

Huq and Ayers (2008) pointed out that: "This is problematic for financing adaptation through development assistance: while there is clearly a role for development institutions in enhancing adaptive capacity, responsibility for adaptation does not lie with these institutions, particularly where it may compete with other development objectives in partner countries. Before considering how adaptation can be mainstreamed into development polices, programmes and projects, it is therefore important to distinguish the role of development institutions from the formal climate change institutions of the UNFCCC in this regard."

[68] Porter et al. (July 2008) mention that: "The greater ease of classifying finance for specific adaptation projects as additional, compared with finance for climate-proofing development interventions, may contribute to further divisions between these two approaches and result in a tendency toward more project-based approaches."

[69] Burton, I., S. Huq, B. Lim, O. Pilifosova, and E.L. Schipper, "From impacts assessment to adaptation priorities: the shaping of adaptation policy," *Climate Policy* 2, no. 2: 145-159, 2002.

It goes without saying that a "concerted research effort is needed to answer questions concerning the efficiency and effectiveness of mainstreaming, barriers to and opportunities for mainstreaming, the accountability of industrialized countries with respect to their commitments under the United Nations Framework Convention on Climate Change and, ultimately, the practical desirability of mainstreaming adaptation into ODA" (Klein 2006). Moreover, there is also a "need to explore synergies between adaptation, disaster risk management and development" and that projects should "explicitly consider impacts of climate change in their design and implementation."[70]

The commonly held view is that "integrating climate change adaptation into development work should not detract from existing development priorities" (Huq and Ayers 2008) and that **"the mainstreaming process should be done in a transparent manner"** (Klein et al. 2007). In other words, "where conflicts arise between climate change and development incentives, development priorities must not be compromised. It is also important that development assistance is not seen as an opportunity to 'plug the gap' in UNFCCC processes that are falling short on providing adequate support for adaptation. The role of ODA in facilitating adaptive capacity is therefore distinct from the formal Convention processes" (Huq and Ayers 2008).

[70] Ancha Srinivasan and Toshihiro Uchida, "Mainstreaming and Financing of Adaptation to Climate Change," in The Climate Regime Beyond 2012, IGES, February 2008

Cross-sectoral linkages and cooperation

The climate change challenge calls for heightened dialogue, cooperation and coordination between and among the various stakeholders, specifically the environment/climate change campaigners, the human development sector, the financial sector (including donors), the scientific community and political actors.[71] The interdependence and synergy among them becomes preponderant especially with respect to the enormity of the climate change conundrum and in dealing with the issues of climate/ecological debt, climate justice, and so-called "Green Development Rights".

Admittedly, the issue of climate governance is complex and warrants a separate discussion paper. It goes without saying that the utilization of ODA for climate-related activities must be hinged on a clear and comprehensive climate governance framework that in turn is anchored on the national development agenda. The aid effectiveness framework, highlighting country ownership, CSO participation, donor coordination, aid harmonization, "portfolio screening" and ODA climate-proofing, should also be promoted. With respect to the mobilization of resources, the following standards are reiterated (UNFCCC 2008):

> "(a) **Adequate.** Resources are adequate if they are sufficient to cover the relevant costs of adapting to the adverse effects of climate change; undertaking nationally appropriate mitigation actions; and ensuring the technology cooperation required for the first two elements;
>
> "(b) **Predictable.** Predictability of resources is important not only for proper planning and sequencing of adaptation and mitigation actions, but also for ensuring that the financing

[71] See, for instance, Saleemul Huq, "Development sector must engage on climate change," Available at: http://www.scidev.net/en/climate-change-and-energy/opinions/development-sector-must-engage-on-climate-change.html. See also "Mitigation from a Cross-Sectoral Perspective" Barker, T., I. Bashmakov, A. Alharthi, M. Amann, L. Cifuentes, J. Drexhage, M. Duan, O. Edenhofer, B. Flannery, M. Grubb, M. Hoogwijk, F. I. Ibitoye, C. J. Jepma, W.A. Pizer, K. Yamaji, 2007: "Mitigation from a cross-sectoral perspective", In *Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [B. Metz, O.R. Davidson, P.R. Bosch, R. Dave, L.A. Meyer (eds)], Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

> arrangements are able to address the varying and heterogeneous adaptation requirements and mitigation actions. There is therefore a greater emphasis on the non-discretionary nature of the financing arrangements. Conversely, the predictability of resources may be ensured by seeking options that do not rely on voluntarily transferred national funds but emphasize automaticity and defined or mandated contributions;
>
> "(c) **Equitable.** Any process of generating revenue will do so through imposing financial burdens, and therefore the issue of equitable sharing of this burden among relevant actors becomes significant for the acceptability of the revenue option. In the context of climate change, the key burden-sharing principle is that of common but differentiated responsibilities and respective capabilities, as enshrined in Article 3, paragraph 1, of the Convention;
>
> "(d) **New and additional.** In the light of the large disparity between requirements for funding to address climate change and the level of resources currently available to meet those requirements, the Bali Action Plan reiterates the need for the generation of new and additional resources. Funds sourced internationally through market-based mechanisms and taxation are, by definition, new and additional. Whether national contributions are new and additional depends on whether they are drawn from conventional fiscal revenue, and possibly count towards a country's ODA commitment, or whether they constitute new revenue from taxes on fossil fuels or GHG emissions."

In view of the foregoing, advocates must reach a consensus on what to do with ODA in light of the mitigation and adaptation needs, while broadening the campaign for additional funds. Striking a balance between mitigation and adaptation programs, projects and activities is an imperative, as well as implementing strict environmental standards. ODA advocates and climate campaigners should be wary of fund shuffling and so-called "climate change-washing". Part of the work, of course, is ensuring that ODA projects do not contribute anymore to climate change. Corollary to this is the logical call for the repeal of all "toxic debts", "dirty aid" and other odious and illegitimate loans.

Michael Tierney (co-author of *Greening Aid*), reminds that: "Any post-2010 global climate accord is going to be much more expensive and it's certain, a component of that…is going to be using official assistance to provide the lubrication, the grease to do a deal, to come to a cooperative agreement to address these global problems."

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ANNEXES

OVERVIEW OF CLIMATE CHANGE IMPACTS AND INITIATIVES IN THE PHILIPPINES

ANNEX 1
INTERNATIONAL INITIATIVES TO ADDRESS CLIMATE CHANGE

- The World Meteorological Organization (WMO) organized the ***World Climate Conference***, the first ever international meeting that tackled the issue of climate change, on February 12-23, 1979 in Geneva.
  - Studies presented in the conference identified human activities as the leading cause of increased concentrations of CO2 in the atmosphere that resulted in global warming.
  - The Declaration of the World Climate Conference highlighted the urgent need to use existing knowledge of climate and mainstreaming it in the planning process for social and economic development. The declaration also urged governments to identify and prevent human induced changes in the climate. The World Climate Programme (WCP) was also created.
- The ***Toronto Conference on the Changing Atmosphere*** in 1988 further advanced the debate on climate change and recommended the need for states to come up with a comprehensive global framework to address the issue.
- The United Nations General Assembly adopted ***Resolution 43/53***, which recognized climate change as a common concern for mankind.
- Also in 1988, the ***Inter-governmental Panel on Climate Change*** **(IPCC)** was established by the WMO and United Nations Environment Programme.
- The ***Second Climate Conference*** was held on 29 October to 7 November 1990 in Geneva.

  - It was an important step towards a global climate treaty. The IPCC's *First Assessment Report* had been completed in time for this conference. The scientists and technology experts at the Conference issued a strong statement highlighting the risk of climate change.
  - The Conference issued a *Ministerial Declaration* only after hard bargaining over a number of difficult issues; the declaration disappointed many of the participating scientists as well as other observers because it did not offer a high level of commitment.
- The IPCC issued their ***First Assessment Report*** **(AR1)** in 1990, where they concluded that the world is becoming warmer. They called for strong policy action and economically sound steps that the world should undertake at once to reduce future warming. This report influenced the United Nations to call for an international agreement to curb global warming.
- The ***United Nations Framework Convention on Climate Change*** **(UNFCCC)** was one of the results of the first Earth Summit in 1992. The UNFCCC's main objective is the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to insure that food production is not threatened, and to enable economic development to proceed in a sustainable manner."
  - The Convention is a voluntary, non-binding agreement among parties to reduce greenhouse gas concentrations. *A principle of "**common but differentiated responsibilities**"* is introduced, which means that there are responsibilities that are common to all Parties and there are responsibilities that only certain parties must do.

    A division of parties was introduced where ***Annex I Parties*** are the developed countries, most Organization for Economic Co-operation and Development (OECD) countries and economies in transition of the former Soviet Union and Eastern Europe, and ***Non-Annex I Parties*** are the developing countries.

- Within the Annex I Parties there are 24 Parties referred to as ***Annex II Parties*** who are the more developed countries, Annex 2 Parties have a particular obligation to provide "new and additional financial resources" to developing countries as assistance in dealing with climate change under Article 4.3 of the UNFCCC, and to "promote, facilitate and finance, as appropriate, the transfer of, or access to" climate-friendly technologies

- ***The Kyoto Protocol.*** The UNFCCC Conference of the Parties (COP) had its first meeting in 1995 at Berlin, Germany. It concluded that obligations of developed countries were inadequate in responding to climate change. A negotiating process was thus initiated which culminated with the adoption of the Kyoto Protocol on Climate Change in Kyoto, Japan on 10 December 1997.

  - The Kyoto Protocol's main feature is that it sets binding targets for 37 industrialized countries and the European Union for reducing GHG emissions by an average of 5% against 1990 levels that these countries should achieve within the commitment period of 2008-2012. It established individual legally binding targets for Annex I parties to reduce their greenhouse gas emissions.

  - Under the treaty, countries must meet their targets primarily through national measures. However, the Kyoto Protocol offers countries an additional means of meeting their targets by way of three market-based flexibility mechanisms– the Clean Development Mechanism (CDM), Joint Implementation, and Emissions Trading.

  - In early 2001, the Bush Administration decided to abandon the negotiating process supposedly because it was too costly for the US economy and unfair for excluding developing countries. Nevertheless, the negotiations continued and were completed that same year in Morocco with the adoption of the Marrakech Accords.

    The requisite for the Protocol's entry into force is that at least 55 countries representing at least 55% of the global GHG emissions ratify it. According to Article 25 of the Protocol,

  - it enters into force "on the ninetieth day after the date on which not less than 55 Parties to the Convention, incorporating Parties included in Annex I which accounted in total for at least 55% of the total carbon dioxide emissions for 1990 of the Parties included in Annex I, have deposited their instruments of ratification, acceptance, approval or accession." (Of the two conditions, the "55 parties" clause was fulfilled on May 23, 2002 when the government of Iceland ratified. Following ratification by Russia on November 18, 2004, satisfying the 55% clause, the Kyoto Protocol entered into force on February 16, 2005. As of April 2008, a total of 178 countries have ratified the agreement, representing over 61.6% of emissions from Annex I countries.

- During COP 8, Parties agreed to the Delhi Declaration on Climate Change and Sustainable Development (decision 1/CP.8), highlighting the importance of adaptation which is "of high priority for all countries." Adapting to climate change continued to be a principal issue during negotiations, resulting to the Buenos Aires Programme of Work on Adaptation and Response Measures (decision 1/CP.10) at COP 10 in 2004.

- The Fourth Assessment Report of the IPCC, released in September 2007, presented the latest and most authoritative scientific position ever on the reality of climate change and the obvious influence of human activities on the global climate system.

- The Nobel Peace Prize was awarded in Oslo jointly to former U.S. Vice-President Al Gore and the IPCC. Global public awareness on climate change was at its highest, owing to the incredible success of Gore's film *An Inconvenient Truth*.

- In the **Bali Conference** in December 2007, the ***Bali Action Plan*** was forged after the near breakdown of the conference when U.S. dropped its last minute demands and agreed with the new deal only after a torrent of outrage and disappointment came from other delegations and after much pleading from U.N. Secretary General Ban Ki-Moon. ,

  - The Bali agreement launched a two-year negotiating process, popularized as the "Bali Roadmap," which aims to secure a new climate treaty by 2009. Thus, the Bali Roadmap will involve substantive negotiations in 2008 to produce an international

binding agreement on exactly how countries will meet their "common but differentiated responsibilities" in fighting climate change.

- The Ad Hoc Working Group on Long-term Cooperative Action, tasked with implementing the Bali Roadmap, has begun work with four major meetings in 2008, with the first held in Bangkok last April, the second in June, a third one in either August or September, followed by a major meeting in Poznan, Poland in December 2008 in conjunction with COP-14. The negotiation process is scheduled to conclude in 2009 at a major summit in Copenhagen, Denmark.

- The target is for the new deal to be ratified by all countries by 2012, when the first phase of the Kyoto Protocol expires. Negotiations will be anchored on four main pillars.

    - ***Mitigation*** will be at the center of the deal as the first pillar. Industrialized countries, which are historically responsible for the vast majority of GHG emissions, are expected to cut their emissions by as much as 40% by 2020, while developing countries are expected to pursue more climate-friendly development strategies.

    - ***Adaptation***, the second pillar, has finally been focused on after decades of being disregarded in the negotiations.

    - The third pillar of the roadmap is ***financing***. A key feature of the Bali deal is the commitment from the developed countries to operationalize financing for adaptation so as to be accessible to developing countries and to help them adapt to the threats of rising sea levels, more frequent extreme weather events, declining crop yields, and increased migration. It also lays down the case for appropriate mitigation actions by developing countries, subject to technology transfer and financing.

    - The fourth pillar is aimed at helping poorer nations cut their emissions through the ***transfer of technology***.

- Bali also marked the agreement on the mechanism for governing and administering the ***Adaptation Fund***, which was set up under the Kyoto Protocol to help poor countries cope with climate change. The Fund will be taken from a levy of two percent on CDM projects. Another important decision in Bali was to include the new regime on emissions from deforestation and land degradation, which account for 20% of global emissions; these were excluded from existing mechanisms.

Source:

In the Eye of the Perfect Storm: What the Philippines should do about Climate Change*, Working Paper by Jose Ramon T. Villarin, Ph.D. S.J., Ma. Antonia Y. Loyzaga, and Antonio G.M. La Viña, J.S.D., with Emmi B. Capili, Sandee G. Recabar, Donna Lyne S. Sanidad, Naderev M. Saño and Deanna Marie P. Olaguer. July 2008*

ANNEX 2
PROBABLE IMPACTS OF CLIMATE CHANGE: PHILIPPINE PERSPECTIVE

Climate change's impact on the Philippines is most often associated with extreme weather disturbances such as typhoons and floods, which, in turn, affect many other sectors of economic life. With 50.3 percent of its total area and 81.3 percent of the population vulnerable to natural disasters, the Philippines is considered a natural disaster hot spot. About 85.2 percent of its US$86 billion annual GDP is endangered as it is located in areas of risk (World Bank 2008). Since 2000, approximately 3 million people have been affected by various disasters annually.

CLIMATE VARIABILITY

- ***Changes in Temperature***

  - General circulation models (GCM) used in the Philippines' Initial National Communication on Climate Change (PINCCC,1999) predict an average increase of 2 to 3°C in annual temperature in the country should a doubling of CO2 in the atmosphere occur. Major impact areas include eastern Mindanao, portions of Samar, Quezon, western Luzon, Metro Manila, and other highly urbanized areas.

  - However, the Climatic Research Unit of the World Wildlife Fund (CRU-WWF) expects the Philippines to warm more slowly than the global average mainly due to it's location in a tropical ocean. They believe that its future warming will be uniform throughout the islands and throughout the year. They estimate that it will proceed at a rate of between 0.1°C/decade to 0.3°C/ decade.

- ***Changes in Precipitation***

  - The GCMs mentioned above predict rainfall to increase in many areas of the country under the same CO2 scenario. For instance, a 60 to 100 percent increase in annual rainfall is projected in the Central Visayas and Southern Tagalog provinces, including Metro Manila. Meanwhile, an increase of 50 percent or less is predicted in the other areas of Luzon, Samar, and the central and western parts of Mindanao. On the other hand, a decrease in annual rainfall is expected for other sections of the country such as northern and eastern Mindanao and parts of western Luzon.

  - The CRU-WWF, likewise, predicts average annual precipitation increases in the Philippines by the 2050s with some seasonal differences. The drier seasons of December-February and March-May are expected to become drier still, while the wetter seasons of June-August and September-November will become wetter. The projected rainfall increases ranged from a low of about 5 per cent, which is not much larger than changes in 30-year average rainfall totals that may be caused by natural climate variability, to as high as 20 per cent.

- ***Sea Level Rise.*** About 70% of the country's 1,500 municipalities are along the coast, drawing from the abundant resources offered by the coastal zone and near-shore areas. A significant rise in sea level would affect most provinces, including the top economically productive provinces. A 40-year observation of 5 primary tidal gauge stations in the country (Manila, Cebu, Davao, Legazpi and Jolo) showed an increase in sea level near 15 cm, the lowest expected sea level rise (SLR) set by IPCC at the end of the next century. This could be an indication that SLR is now occurring in the Philippines. This is supported by the findings of the two Global Sea Level Observing System (GLOSS) sites in the Philippines (in Manila and Legaspi City). These GLOSS sites observed a small rise in relative sea-level before the 1960s and then a more rapid increase of between 20cm and 40cm up to 1997 (CRU-WWF,1998). The more recent trend may be partly attributed to excessive land reclamation and possible subsidence. Nevertheless, the residual rise in sea level around the Philippine coast is likely caused by warmer ocean waters and melting glaciers in the world's mountain areas.

  - Coral reefs and wetlands that are already heavily stressed may not be able to keep pace with changes in sea level and mangroves may not survive changes in sediments and salinity. In 1992, using topography as the sole basis for evaluation, the National Mapping and Resource Information Authority (NAMRIA) of the Philippines estimated that a SLR of 100 cm will inundate a total area of 129,114 ha affecting approximately 2 million people.

- The CRU-WWF estimated that a 30cm rise in sea-level (which may be reached by 2045) would regularly inundate over 2,000 hectares of the Manila Bay area threatening about 0.5 million people. Meanwhile, a 100cm rise in sea level (which may be reached by about 2080) would threaten over 5,000 hectares of the Bay affecting over 2.5 million people. These risks would be further enhanced if sea surges associated with intense storm activity were to increase. The most densely populated areas of Malabon and Navotas in the Bay area would experience more frequent inundation under these circumstances.

Impact of Climate Change by Sector

Climate change is mostly felt through temperature, precipitation and sea level variations, which, in turn, impacts agriculture through crop yields, irrigation demands; forestry by changes in forest productivity, forest composition; water resources through variability of water supply and quality; coastal areas by erosion of beaches, inundation of coastal areas; species and natural areas through shifts in ecological zones, loss of habitat and species; as well as health impacts through infectious diseases, air quality-respiratory illnesses and water-related mortality.

- ***Agriculture***. A large part of the adverse impact on economic development and poverty reduction of increasing climate change-related risks were felt through their interrelated effects on agriculture, land/soil quality and forest cover. It should be noted that about 35 percent of the country's 33.7 million employed labor force (January 2008 Labor Force Survey) are dedicated to agricultural, fisheries, and forestry activities and are likely to suffer losses, along with their dependents, on the occurrence of soil degradation, flooding, drought and high temperatures.

  The 1982-83 and 1997-98 El ENSO (El Niño-Southern Oscillation) events, which induced prolonged wet and dry seasons, caused a large drop in agricultural production and contributed to the sharpest falls in GDP in the past decades. The 1997-1998 El Niño resulted in a 6.6 percent GDP contraction in agricultural production and the decline in construction and construction-related manufacturing by 9.5% (Republic of the Philippines 1999). The estimated damage due to 1990-2003 ENSO-related drought was estimated to be more then US$ 370 million (Lasco et al. 2008). Typhoons, floods and drought caused 82.4 percent of total rice losses between 1970 and 1990 (Lasco *et al.* 2007). Rice yield losses of 65 percent, 81 percent and 52 percent (in 1973, 1983 and 1990, respectively) have been linked with wet season cropping due to El Niño. Drought in the latter part of 1989 and first half of 1990 reduced agricultural production, damaging some PhP 365 million worth of crops and causing an estimated opportunity loss of PhP1.2bn in *palay* production and P 808 million in corn production (NEDA undated in World Bank 2004).

  - The impact from tropical storms can be so severe for the agricultural sector that in 2006 storm Milenyo caused damages of PhP 3.9 million (Lasco *et al.* 2007).

  - Simulations for the major rice growing regions of Asia have shown that for every 1ºC rise in temperature rice yields decrease by 7 percent. In the Philippines, simulation models have shown that rice yields can vary from 6.6 percent increase to 14 percent decline for every 1ºC rise in temperature (Lasco *et al.* 2006).

- ***Forestry and land use***

  - Changes in precipitation may also cause a re-composition and re-distribution of forest types.

  - The PINCCC (1999) predicted that a decrease in soil moisture in drier areas may accelerate forest loss while increase in precipitation could increase run-off resulting in soil erosion and flooding. For example, dry forests could be eliminated with a 25 percent increase in precipitation, while rain forest types could significantly increase (Lasco *et al.* 2007).

  - This may also affect the livelihood of those communities dependent on forests, causing migration of populations.

- ***Coastal Areas, Marine Resources, and Fisheries.*** While mangroves are able to cope with sea level rise of up to 12 cm over the next 100 years, mangroves populations are steadily decreasing in quantity and quality due to overcutting, land clearing and habitat conversion (Perez undated). Capili, et al (2005) pointed out that, in the recent years, reefs in poor condition increased to 40% in the last 20 years due partly to ocean warming.

Coral bleaching and fish kills were observed in Silaqui Island and Bolinao while the coastal areas in the Visayas were affected by bleaching. A significant decrease (up to 46%) in live coral cover was observed after the 1997-98 bleaching event in the country. It was noted that the highly bleached areas in the country coincided with areas of poverty and dense populations.

- Shelter and security are issues of concern especially in areas affected by sea-level rise.

- In cases where construction of man-made barriers will not suffice, relocation of inhabitants will be the most likely option. Coastal erosion has been observed along the 60 km long coast of southern La Union, Philippines.

- ***Water Resources***

  - Using GCM results, Jose and Cruz (1999) found that changes in rainfall and temperature will be critical to future inflow in two major reservoirs, Angat and Lake Lanao; with rainfall variability having a greater impact than temperature variability. In both locations, runoff is likely to decrease in the future and be insufficient to meet future water demands.

  - Other factors deemed as contributing to the impacts of climate change on water resources include degradation of water areas, unchecked extraction of groundwater, and pollution due to industrialization, saltwater intrusion and sedimentation of reservoirs. Saltwater intrusion has been reported to be evident in nearly 28 percent of coastal municipalities in Luzon, 20 percent in the Visayas, and almost 29 percent in Mindanao (Rellin et al., 1999 as cited in Perez, 2002).

  - In the Pantabangan-Carranglan watershed that services a total area of about 103,000 ha across 24 municipalities in Nueva Ecija, Bulacan and Pampanga provinces, 1980-2000 data show that observed stream flow closely follows the pattern of monthly rainfall averages for both the wet and dry seasons. ENSO events also appear to affect the pattern of stream flow, as the significant rise and drop of the hydrograph coincided with the strong ENSO events of 1982-83 and 1997-98. The changes in climate (rainfall and temperature) could translate to about 17 percent increase in wet season stream flow and a decrease of around 35 percent in dry season stream flow of PCW (Lasco et al 2006).

- ***Health impact***

  - The First National Communication Report 2000 correlated the incidence of different diseases in five provinces and a city in the Philippines with various indicators of climate change. Diseases such as nutritional deficiencies, malignant neoplasms (cancer) and mumps had more than 50 percent correlation with climate change factors. Those between 30 to 50 percent correlation include tuberculosis, meningococcemia, tetanus, chicken pox, influenza, bronchitis, pneumonia, whooping cough, hepatitis, diarrhea, dengue, cholera and viral encephalitis.

  - Diarrhea and malaria are the two main diseases affected by climate change in the region (Ebi 2008). Data from the Department of Health showed how malaria cases (more than 1,500 recorded cases) and other diseases increased in 1998, a year when temperature rose as a consequence of El Niño (Global Health Monitoring 2008).

  - The estimated mortality attributable to climate change in 2000 for the Western Pacific (which includes the Philippines) was of 2160 deaths per million population (Ebi 2008).

Source:

Climate Change in the Philippines: A Contribution to the Country Environmental Analysis Draft for discussion by Maria Fernanda Garcia Rincón and Felizardo K. Virtucio, Jr. June 2008

ANNEX 3
PHILIPPINE GOVERNMENT'S RESPONSE TO CLIMATE CHANGE

- In 1991, the Philippines began to address the issue of climate change in its thrust to achieve sustainable development with the formulation of the ***Philippine Strategy for Sustainable Development*** (PSSD). Thereafter, the country officially adopted ***Philippine Agenda 21***.

  - PA 21 serves as the overarching framework to lay down the national agenda for sustainable development for the 21st century geared towards having a "harmonious integration of a sound and viable economy, responsible governance, social cohesion and harmony and ecological integrity to ensure that development is a life-enhancing process. The ultimate aim of development is human development now and through future generations" (Merilo 2008).

- The *Earth Summit* in 1992 recommended the active participation of citizens along with governments in implementation of the Rio Summit agreements. The ***Philippine Council for Sustainable Development*** **(PCSD)** was created on September 1, 1992, as a multi-stakeholder participatory body, through Executive Order No. 15 in order to chart environment and sustainable development (SD) initiatives in the country.

  - The PCSD is headed by the Director-General of the National Economic and Development Authority (NEDA) as Chairperson, and the Secretary of the Department of Environment and Natural Resources (DENR) as Vice-Chairperson. The membership of the Council is composed of various departments of the government and groups/organization from the civil society.

  - One of the PCSD's main functions is to establish guidelines and mechanisms to operationalize the sustainable development principles embodied in the Rio Declaration and incorporate them in the preparation of the Medium-Term Philippine Development Plan at both the national and local levels.

- Government's commitment to address global environmental issues was further manifested by its support to the *United Nations Framework Convention on Climate Change* (UNFCCC) and by being a signatory to at least ten international conventions.

  - The Philippine was one of the first countries to set up a national committee to discuss and develop positions on climate change prior to the establishment of the Intergovernmental Negotiating Committee, which then negotiated the UNFCCC (Merilo 2008).

  - The UNFCCC ratified on April 15, 1998, committed the country to the provisions set for a Non-Annex 1 Party, to curb GHG emissions, even when the Philippines, does not have any responsibility or commitment to reduce or limit its anthropogenic emissions of greenhouse gases (Merilo 2001).

  - The DENR is the technical focal point recognized by the UNFCCC and international community while the Department of Foreign Affairs (DFA) serves as the political focal point.

- In 1990 and 1994, the Philippines conducted a ***National Greenhouse Gas Emissions Inventory***. This process led to ***the First National Communication on Climate Change*** in May 2000 funded by GEF. This initial communication highlighted the 1994 GHG emission inventory and reports the country's efforts on mitigation and adaptation, vulnerability assessment and information, training and awareness.

- After signing the ***Kyoto Protocol*** on August 2, 1994, which was later ratified on November 20, 2003, the Philippines set out to participate in the ***Clean Development Mechanism (CDM)*** of the Kyoto Protocol.

- More recently (2007), the ***Presidential Task Force on Climate Change Adaptation and Mitigation*** (PTFCC) was created thru AO 171 to promote national projects, programs and actions on climate change. The functions of the PTFCC include:
  - Conduct rapid assessments on the impact of climate change, particularly on vulnerable sectors such as: water resources, agriculture, coastal areas, terrestrial and marine ecosystems;
  - Ensure compliance to air emission standards and combat deforestation and environmental degradation;
  - Undertake and initiate strategic approaches and measures to prevent or reduce GHG emissions;
  - Conduct nationwide massive and comprehensive public information and awareness campaigns;
  - Design concrete risk reduction and mitigation measures and adaptation responses, especially on short-term vulnerabilities on sectors and areas where climate change will have the greatest impact;
  - Collaborate with international partners to stabilize GHG emissions and
  - Integrate and mainstream climate risk management into development policies, plans and programs of the government.

  The Secretary of the Department of Energy (DOE) serves as the Chair while the Secretary of the DENR serves as the Vice Chair of the PTFCC. The IACCC is the technical arm of the PTFCC. The PTFCC prepared the first draft of the ***Philippine Climate Change Strategic Framework and Action Plan*** in October 2007 that provides the strategic directions it will take to address climate change-related development issues.

- An ***Advisory Council on Climate Change Mitigation, Adaptation and Communication*** (IACC) to the PTFCC is composed of leading CC experts in the country. The IACC is the technical arm of the PTFCCC, established to coordinate the government and non-government sectors and formulate positions to the Climate Change Convention negotiations (Tarradell 2004).

- In term of access to information, **Klima Climate Change Center**, serves as the national body to disseminate information on climate change, raise awareness, conduct relevant research, and support national capacity building.

- ***National Development Plans***

  - The ***Medium Term Philippine Development Plan*** (MTPDP) for 2004-2010, the primary document that guides national development programs, mentions the potential of participating in the CDM and emerging carbon market (National Economic and Development Authority 2004). It also refers to Disaster Risk Reduction (DRR) measures (Lasco *et al.* 2007) that was incorporated as one of the priority concerns in the Government's 10-Point Action Plan for Effective Governance (United Nations 2007). Similarly, in at least four chapters, the government addresses the needs of victims of disasters.

    - The recent MTPDP, 2004-2010 mid-term updating exercise shows more mention of climate change in the updated document. Climate change was mentioned in the Green Philippines chapter and was also mentioned in the Agribusiness chapter; firstly, in the context of S&T-based innovations in the sector, especially for mitigation, and, secondly, in the call for the adoption of climate change adaptation models/technologies for agriculture.

  - In the energy sector, the major programs center on energy efficiency as well as promotion and use of new and renewable energy (NRE) sources. Under the ***Philippine Energy Plan (PEP) – 2004 to 2013***, the NRE sources are envisioned to contribute significantly to the country's electricity requirements. The primary energy supply from NRE by 2013 is projected to increase to 53 percent of the total supply (400.91 MMBFOE) from 51 percent of total supply (273.98 MMBFOE) in 2004.

- The Philippines' ***Midterm Progress Report on the Millennium Development Goals*** suggested that climate change create an opportunity for the Philippines' to channel large-scale debit-for-equity programs to reforestation, clean water, irrigation and food production programs. In other words, climate change is seen to have a devastating impact on the attainment of the MDGs mostly through a series of natural disasters, and, therefore, the report highlights the importance of climate change adaptation and long-term disaster risk management (NEDA 2007).

- **Local Government Units** (LGUs). Some LGUs, especially those in the disaster-prone areas, have been active in the promotion of climate change risk management.

  - The ***National Conference on Climate Change Adaptation*** was convened in Legazpi City on October 22-24, 2007 by the Provincial Government of Albay in partnership with the Department of Environment and Natural Resources and the World Agroforestry Centre.

    - It was held to discuss the potential impacts of climate change to the Philippines, explore concrete adaptation options to current climate risks and future climate change, and to discuss the policy implications of climate change to local government units.

    - The major output was the crafting of the *Albay Declaration on Climate Change* and was subsequently submitted to President Arroyo. The Province of Albay is now pursuing follow-through activities within the framework of the declaration, which includes working on a plan of action to prioritize climate change adaptation in the national agenda; promote climate proofing development through multisectoral participation in the national strategic framework.

Source:

Climate Change in the Philippines: A Contribution to the Country Environmental Analysis Draft for discussion by Maria Fernanda Garcia Rincón and Felizardo K. Virtucio, Jr. June 2008

ANNEX 4
SOME PHILIPPINE POLICIES AND LEGISLATIVE PROPOSALS ON THE ENVIRONMENT AND CLIMATE CHANGE

A. SOME PHILIPPINE NATURAL RESOURCE POLICIES AND THEIR IMPACTS

Philippine Policies	Brief Policy Description	Impacts Relating to Climate Change, Philippine Policies Brief Policy Description Variability or Risks	
		Positive	Negative
Dec 1976: Presidential Decree No.1067 – The Water Code of the Philippines	Revises and consolidates the laws governing the ownership, appropriation, utilization, exploitation, development, conservation, and protection of water resources	The law provides institutional mechanism for wise use of water resources which enhances resilience and ability to adapt to the impacts of climate change on water.	None. Climate change not explicitly considered.
June 1977: Presidential Decree No. 1152 – Philippine Environment Code	Establishes specific environment and natural resource management policies and prescribes environment quality standards	Promotes environmental protection which indirectly enhances resilience to climate risks.	None
June 1978: Presidential Decree No. 1586 – Establishment of the Environmental Impact Statement System of the Philippines	Pursues comprehensive and integrated environmental protection supporting socioeconomic development	The Environmental Impact Assessment (EIA) system provides a good platform for the inclusion of climate risks to projects.	Currently, climate change is not explicitly included in the guidelines.
Dec 1985: Presidential Decree No. 2001 – Program to Withdraw the Use of Tetraethyl Lead (TEL) in Gasoline	To eliminate the use of tetraethyl lead (TEL) in gasoline, in order to safeguard human health against poisoning from lead particulates in the air	Prevents illnesses related to lead exposure, thereby indirectly enhancing adaptive capacity of the people to climate hazards.	None

Continuation: Some Philippine Natural Resource Policies and their Impacts

Philippine Policies	Brief Policy Description	Impacts Relating to Climate Change, Philippine Policies Brief Policy Description Variability or Risks	
		Positive	Negative
June 1988: Republic Act (RA) No. 6657 Comprehensive Agrarian Reform Program (CARP)	Promotes a more equitable distribution and ownership of all public and private agricultural lands; among others.	Can provide farmer beneficiaries with incentives to invest in farm development and/or modern production	Cultivation of marginal lands by resource-poor farmers makes the natural ecosystem and local community more vulnerable to the landowners to invest the proceeds of the program in promoting industrialization, employment and privatization of public sector enterprises technologies that can minimize the impacts of climate change impacts of climate variability. Landlord-farmer contracts negating land reform can mean low income for the farmers, leaving them little resources to cope with climate risks.
1997: Republic Act No. 8435 -- Agriculture and Fisheries Modernization Act (AFMA)	Prescribes a set of policies and programs to modernize the Philippine agriculture and fisheries sectors	Imply the design of adaptation strategies to address environmental threats brought by climate change	*Absence* of mitigating actions Production intensification goals may increase pressure on forest and mangrove areas, making these more vulnerable to climate-related risks.
1998: Republic Act No. 8550 -- The Philippine Fisheries Code	Rational and sustainable development, management and conservation of fishery and aquatic resources in Philippine waters	By rationalizing use of aquatic resources, enhances the resilience of natural and social systems to adapt to future climate change.	None.

Continuation: Some Philippine Natural Resource Policies and their Impacts

Philippine Policies	Brief Policy Description	Impacts Relating to Climate Change, Philippine Policies Brief Policy Description Variability or Risks	
		Positive	Negative
Presidential Decree 705 -- The Revised Forestry Code of the Philippines	Provides the country's fundamental forestry laws and policies; reinforced the use of license/ lease agreements to utilize natural resources	Includes a provision aimed at preventing flooding and excessive soil erosion and maintaining the hydrological integrity of watersheds	The increase in the number of TLA holders led to increased deforestation
DENR Administrative Order No. 15-90 - Regulations Governing the Utilization, Development and Management of Mangrove Resources	To sustain optimum productivity by conserving, protecting, rehabilitating and developing remaining mangroves, more with corporate collaboration than individual initiatives	Enhances the protective capability of mangroves against strong currents, winds and high waves	None
June 1992: Republic Act No. 7586 – National Integrated Protected Areas System (NIPAS) Act	Regarded as the main strategy in biodiversity conservation through the establishment of a comprehensive system of integrated protected areas	Conservation strategies may increase the resilience and adaptive capacity of the local community to climate-related risks	None
1995: Executive Order No. 263 – The Community-Based Forest Management (CBFM) Program	Integrated and unified different upland community programs and projects to ensure the sustainable development of forest land resources	CBFM program provides economic benefits to communities with appropriate market linkages, making them less vulnerable to climate variability	None
1997: Republic Act No.8371 – Indigenous People's Rights Act	Recognize, protect and promote the rights of indigenous cultural communities to their ancestral domains to ensure economic, social and cultural well-being	Could lead to capacity building of indigenous communities which will enhance their resilience to climate risks.	None

Continuation: Some Philippine Natural Resource Policies and their Impacts

Philippine Policies	Brief Policy Description	Impacts Relating to Climate Change, Philippine Policies Brief Policy Description Variability or Risks	
		Positive	Negative
March 1995: Republic Act No. 7942 -- Philippine Mining Act of 1995 and Presidential Decree 1899 – Establishing Small-Scale Mining as a New Dimension in Mineral Development	Promotes rational exploration, Development, utilization and conservation of all mineral resources, and safeguarding the environment and protecting the rights of affected communities	Increase income for small miners which could lead to greater ability to cope with climate risks.	Destruction of natural resources could lead to greater vulnerability to climate risks such as landslides and soil erosion.
1999: Republic Act No. 8749 – The Philippine Clean Air Act	A comprehensive national multi-sectoral framework for an air quality management program to reduce GHG emissions	Improved air quality helps reduce the negative impacts of climate variability on human health	None
Aug 2006: Green Philippine Highways Project .	Involves planting more than 500,000 ornamental and forest trees along a total of 3,439 kms. of major national highways from north to south Philippines	Trees ameliorate microclimate and possibly lead to health benefits, which enhances resilience to climate risks.	Unplanned tree planting near major roads could increase climate hazards such as falling trees during typhoons
Jan 2007: Republic Act No. 9367 – Biofuels Act of 2006	Promotes the use of alternative transport fuels	Will mitigate toxic and greenhouse gases (GHG) emissions	Could lead to monoculture plantations of biofuel crops which are more vulnerable to climate risks.
Feb 2007: Administrative Order No. 171 – Creation of the Presidential Task Force on Climate Change (PTFCC)	In general tasked to address the issue of climate change, mitigate its impact, and lead in adapting to these impacts	Will enhance institutions capacity nationwide to address climate change.	None
October 2007; Albay Declaration	Local government support to mainstream climate change adaptation to government programs and activities	Will catalyze the formulation of policies, programs and activities that is aimed at mainstreaming climate change adaptation	None
January 2008; Senate Bill 1890 A Philippine Climate Change Act	An act establishing the framework program for Climate Change, creating the climate change commission, appropriating funds therefore, and for other purposes	Will mainstream climate change adaptation into policies, programs and activities at the local and national level	Could conflict with the PTFCC and the IACCC on who should be the agency in-charge of such activities.

Results of Reviewing National Policies and Documents

MTPDP

The primary document that guides national development programs in the Philippines under the current leadership is the Medium Term Philippine Development Plan (MTPDP) for 2004-2010 prepared by the National Economic Development Authority (NEDA, 2004). While the MTPDP does not explicitly mention adaptation to climate change, there is a very strong commitment to address the impacts of climate-related hazards. This could form a viable entry point for mainstreaming climate change in the country.

MDG

The Millennium Development Goals (MDGs) were adopted in the 2000 Millennium Summit as part of the UN Millennium Declaration. The Philippine MDG does not contain any reference to adaptation to climate change, or even to climate variability and extremes.

PA 21

The Philippine Agenda 21 (PA 21) arose out of the Rio Earth Summit in 1992 and it was adopted as the national action agenda for sustainable development by presidential fiat in September 1996. In the entire PA 21 document, climate change was mentioned only once and this was in the context of freshwater ecosystems. While the Philippines had identified 153 sustainable development indicators (SDI), none addresses climate change adaptation.

Conclusion

As climate change impacts become more obvious, the need to mainstream adaptation in the national development agenda becomes pressing. Based on a review of the main development plans and interviews with key informants, climate change has not been mainstreamed in the Philippines. This is primarily because national priorities are biased towards more pressing concerns and the pervasive lack of awareness on the impacts of climate change to sustainable development. However, there are massive investments on infrastructure projects designed to adapt to climate-related hazards such as flood control. These projects could provide an entry point in integrating climate change adaptation.

Recommendations to address climate change in the Philippines:

1. Aggressive yet systematic information, education and communication (IEC) campaign about climate change, climate variability, and risks;
2. Participatory and multi-sectoral/stakeholder approach;
3. Climate change technology and policy impact assessment; and
4. Regular fund source and intensified fund generation for climate change-related activities.

There is no universally applicable list of climate change mitigation or adaptation policies, programs or practices because each will have to be evaluated for individual agricultural systems and settings, it is with growing importance that developing countries like the Philippines begin to seriously factor in climate change issues into the national stream of policymaking and development.

As the International Food Policy Research Institute (IFPRI) (2006) puts it, the challenge is to make climate change mitigation and adaptation in poor countries a higher priority. The countries that are most vulnerable to future climate change tend to be most overwhelmed by immediate development concerns.

Sources:

Philippines Policies in Response to a Changing Climate: A Review of Natural Resource Policies by Rodel D. Lasco, Roberta Gerpacio, Patricia Ann J. Sanchez, and Rafaela Jane P. Delfino

Mainstreaming Climate Change Adaptation in The Philippines by Rodel D. Lasco, Florencia B. Pulhin, Patricia Ann Jaranilla-Sanchez, Kristin Garcia and Roberta Gerpacio

B. Some Senate Proposals on Climate Change (14th Congress)

Bill No.	Title	Author/s	Status
SBN-2583 Climate Change Act of 2008	An Act Mainstreaming Climate Change Into Government Policy Formulations, Creating for This Purpose the Climate Change Commission, and for Other Purposes	Legarda, Loren B., Defensor Santiago, Miriam, Honasan II, Gregorio B., Cayetano, "Companera" Pia S., Aquino III, Benigno S., Escudero, Francis "Chiz" G., Enrile, Juan Ponce, Zubiri, Juan Miguel F., Lapid, Manuel "Lito" M.	Filed on September 2, 2008 Pending Second Reading, Special Order (9/2/2008) Referral: Committee Report 99 Environment and Natural Resources
SBN-2441 Climate Change Education Act of 2008	An Act Institutionalizing the Climate Change Education and Awareness Program and for Other Purposes	Lapid, Manuel "Lito" M.	Filed on July 14, 2008 Pending in the Committee (7/29/2008) Referral (Primary) Education
SBN-2388 Climate Change Educational Program	An Act Establishing the Climate Change Educational Program	Defensor Santiago, Miriam	Filed on June 10, 2008 Consolidated/Substituted in the Committee Report No. 99 (9/2/2008) Environment and Natural Resources
SBN-2359 Drinking Water Adaptation Research Act	Climate Change Drinking Water Adaptation Research Act	Defensor Santiago, Miriam	Filed on June 2, 2008 Pending in the Committee (6/3/2008) Primary committee Environment and Natural Resources
SBN-2336 National Climate Program Act of 2008	An Act Establishing the National Climate Program	Defensor Santiago, Miriam	Filed on May 28, 2008 Consolidated/Substituted in the Committee Report No. 99 (9/2/2008) Primary committee Environment and Natural Resources
SBN-2083: Low Carbon Economy Act	An Act to Promote a Low Carbon Economy Establishing for This Purpose the Emission Car-And-Trade System in the Industry Sector to Reduce Greenhouse Gas Emissions and Protect the Climate	Legarda, Loren B.	Filed on February 18, 2008 Pending in the Committee (2/19/2008) Primary committee Environment
SBN-1890 Philippine Climate Change Act of 2007	An Act Establishing the Framework Program for Climate Change, Creating the Climate Change Commission, Appropriating Funds Therefor, and for other Purposes	by Legarda, Loren B.	Filed on November 20, 2007 Consolidated/Substituted in the Committee Report No. 99 (9/2/2008)

B. Some House Proposals on Climate Change (14th Congress)

Bill No. and Status	Title	Author/s	Abstract
HB00400 Date Filed: 2007-07-02 Primary Referral: GOVERNMENT REORGANIZATION Bill Status: Pending with the Committee on GOVERNMENT REORGANIZATION since 2007-07-30	An Act Creating the Global Warming Commission, Prescribing Its Powers and Functions, and Appropriating Funds Therefor Short Title: "Philippine Global Warming Commission Act of 2007"	GOLEZ, ROILO S.	The bill seeks the creation of the Global Warming Commission that shall be responsible for the following, among others: a) ensure that the Clean Air Act is properly being implemented; b) recommend possible legislation, policies and programs on global warming or climate change; and c) represent the government in all international and regional meetings on global warming.
HB03279 Date Filed: 2007-12-12 Primary Referral: ECOLOGY Bill Status: Pending with the Committee on ECOLOGY since 2007-12-18	An Act Mandating the Adoption and Implementation of Ecological Sanitation as a Method of Sustainable Urban Development Program and Institutionalizing the Integrated Support and Facilities Towards Sustainable Urban Environment Development, Appropriating Funds Therefor and for other Purposes Short Title: "ECOSAN Act of 2007"	LIM, RENO G.	The bill aims to implement and institutionalize, at the level of local government units, programs that would increase awareness on climate change and global warming.
HB03291 Date Filed: 2007-12-12 Primary Referral: GOVERNMENT REORGANIZATION Bill Status: Pending with the Committee on GOVERNMENT REORGANIZATION since 2007-12-18	An Act Establishing the Framework Program for Climate Change, Creating the Climate Change Commission, Appropriating Funds Therefor, and for other Purposes Short Title: "Philippine Climate Change Act"	FUA, ORLANDO B.	The bill creates the Climate Change Commission that shall: a) monitor the implementation of the Clean Air Act of 1999; b) recommend legislation, policies, programs and budgets on climate change adaptation and mitigation; and c) disseminate information on climate change, among others.
HB03449 Date Filed: 2008-01-29 Primary Referral: BASIC EDUCATION AND CULTURE Bill Status: Pending with the Committee on BASIC EDUCATION AND CULTURE since 2008-02-05	An Act Providing for the Integration of Climate Change as a Subject in the Elementary, Secondary and Collegiate Curricula and Appropriating Funds Therefor	RODRIGUEZ, RUFUS B.	The bill proposes to include a subject on climate change in the curricula of all school levels.

Continuation: Some House Proposals on Climate Change (14th Congress)

Bill No. and Status	Title	Author/s	Abstract
HB04051 Date Filed: 2008-05-05 Primary Referral: GOVERNMENT REORGANIZATION Bill Status: Pending with the Committee on GOVERNMENT REORGANIZATION since 2008-05-07	An Act Establishing the Framework Program for Climate Change, Creating the Climate Change Commission, Appropriating Funds Therefor, and for other Purposes Short Title: "Philippine Climate Change Act of 2008"	ARROYO, IGNACIO T.	Creates the National Framework Program on Climate Change Mitigation, Adaptation and Communication. Is also establishes mechanisms to reduce greenhouse gas emissions from the energy, power, transport and manufacturing sectors; and institutionalizes the country's commitments to international efforts to address the problem of climate change.
HB04853 Date Filed: 2008-07-29 Primary Referral: GOVERNMENT REORGANIZATION Bill Status: Pending with the Committee on GOVERNMENT REORGANIZATION since 2008-08-05	An Act Establishing the Framework Program for Climate Change, Creating the Climate Change Commission, Appropriating Funds Therefor, and for other Purposes Short Title: "Philippine Climate Change Act of 2007"	GATCHALIAN, REXLON T.	Creates the National Framework Program on Climate Change Mitigation, Adaptation and Communication. Is also establishes mechanisms to reduce greenhouse gas emissions from the energy, power, transport and manufacturing sectors; and institutionalizes the country's commitments to international efforts to address the problem of climate change.

Sources:

Philippine House of Representatives website

Senate of the Philippines website

ANNEX 5
SOME PHILIPPINE FOREIGN-ASSISTED PROJECTS (ON-GOING AND COMPLETED) ON THE ENVIRONMENT AND CLIMATE CHANGE

A. LIST OF ON-GOING FOREIGN-ASSISTED AND SPECIAL PROJECTS AS OF DECEMBER 2007

	Project Title	Funding Source
Loan and Loans with Grants	1. Integrated Coastal Resources Management Project (ICRMP)	ADB/GEF
	2. Laguna de Bay Institutional Strengthening and Community Participation (LISCOP)	Netherlands Gov't.
	3. Land Administration and Management Program II (LAMP II)	AUSaid
	4. Metro Manila Air Quality Improvement Sector Development Project (MMAQISDP)	DENR Component ADB
	5. National Programme Support-Environment and Natural Resources Management Project	GEF
	6. San Roque Multi-Purpose Project (Itogon Integrated Watershed Mgt. Project)	DENR Component (Special Project) GOP
	7. Southern Mindanao Integrated Coastal Zone Management Project (SMICZMP)	JBIC
Grant Projects *Environment and Natural Resource Management*	8. Environment, Natural Resource Management & Rural Development (EnRD) Program	GTZ
	9. Partnership in Environmental Management for the Seas of East Asia	UNDP/GEF
	10. Philippine Environmental Governance Project II (Eco-Gov II)	USAID
	11. Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand	UNEP/GEF
Forestry	12. Advancing the Application on ANR for Effective Low-Cost Forest Restoration	FAO
	13. Laguna de Bay Community Carbon Finance Project	Japan Gov't. thru SPCCI/WB
	14. Project for the Enhancement of CBFM Program in the Philippines	JICA
Biodiversity	15. Samar Island Biodiversity Project	UNDP-GEF/TRAC
	16. Mainstreaming Ecotourism in the Community-based Natural Resources Management (National Ecotourism Programme – Phase II Project)	NZAID
Environment	17. Capacity Development Project on Water Quality Management	JICA
	18. Global Programme to demonstrate the viability and removal of barriers that impede adoption and successful implementation of available, non-combustion technologies for destroying persistent organic pollutants (POPs)	GEF/UNIDO
	19. Manila Third Sewerage Project (MTSP)	WB/GEF
	20. Ozone Depleting Substances Phase-Out Investment Program - Phase II	Multilateral Fund of the Montreal Protocol
	21. Support Program for Solid Waste Management for LGUs in the Visayas	GTZ

Continuation List of On-going Foreign-Assisted and Special Projects
As of December 2007

	Project Title	Funding Source
Coastal/ Marine	1. Bridging Consultancy (Support to Philippines Maritime Claims under UNCLOS)	NORAD
	2. Camiguin Coastal Resource Management Project (CCRMP)	NZAID
	3. Coastal Hazard Management Program	SIDA
Capacity Building	4. Environment and Natural Resources Capacity and Operations Enhancement Programme (ENR-CORE)	UNDP
Mapping	5. Enhancement of Hydrographic Capabilities for Navigational Safety	JICA
	6. The Study of Mapping Policy and Topographic Mapping for Integrated National Development Plan in the Republic of the Philippines	JICA
Ecosystem Research and Development	7. Demonstration and Application of Production and Utilization Technologies for Rattan Sustainable Development in the ASEAN Member-Countries	ITTO
	8. Research and Development Project on "Improving Financial Returns to Smallholder Tree Farmers in the Philippines (ACIAR/ASEM/2003/052)	Australian Gov't.
Project Preparation Technical Assistance	9. Climate Change Adaptation Phase I Project	WB/GEF
	10. Contaminated Sites Remediation Strategy - Persistent Organic Pollutants (POPs)	WB/GEF
	11. Globally Important Agricultural Heritage System - PDF-B	GEF/FAO
	12. Master Plan Study on Integrated Water Resources Management for Agusan River Basin	ADB
Other FAPs (DENR Component of Projects led by other GA	34. Southern Philippines Irrigation Sector Project - Watershed Management Sub-Component	ADB

B. List of Completed Foreign-Assisted and Special Projects

1. Abra Pine Plantation Development Project
2. Acquisition of Magnetic Observation Equipment Under JICA's Equipment Supply Program
3. ADB/Technical Assistance on Biodiversity Conservation and National Integrated Protected Areas Systems
4. Advisory Technical Assistance on Environmental Education
5. Advisory Technical Assistance on Environmental Education (Phase III)
6. After Care Program for the Japanese Technical Cooperation of the Forestry Development Project Watershed Management in Pantabangan and Carranglan
7. Air Quality Management for Metro Manila
8. Allah Valley Watershed Development Project
9. An Action Study to Develop a Training and Information, Education and Communications (IEC) Plan for Industrial Efficiency and Pollution Control
10. Application of an Integrated Exploration Strategy for Precious and Base Metal Mineralization in the Bicol Peninsula
11. Application of an Integrated Exploration for Precious and Base Metal in the Bicol Peninsula (PBMBP)
12. ASEAN Australian Coastal Living Resources Project (CLRP) (Phase I & II)
13. ASEAN Australian Tides and Tidal Phenomenon Regional Ocean Dynamics)
14. ASEAN Institute of Forest Management (AIFM) DENR Integrated Forest Management Project (INFOMAP) Phase II
15. ASEAN New Zealand Afforestation Project
16. ASEAN New Zealand Inter institutional Linkages Program, Project 2: Sustainable Integrated Rural Development (SIRD)
17. ASEAN New Zealand Inter Institutional Linkages Programme (Project 3 Forest Rehabilitation)
18. ASEAN US Watershed Project
19. ASEAN Forest Tree Centre (AFTSC) Project
20. Asia Pacific Agroforestry Network Philippine Secretariat (APAN Philippine Secretariat)
21. Assessment of the Marine Resources of Tikling Island: A Proposed Marine Park/ Reserve
22. Assistance in Reducing Mercury Emissions in Highly Contaminated Gold Areas in Mindanao - Phase I

Continuation List of Completed Foreign-Assisted and Special Projects

23. Aurora Integrated Area Development Project Watershed Management and Forestry Component) Phase I
24. Assessment of Capacity Building Needs For Biodiversity Conservation and Management in the Philippines (Add-On EA Project on Biodiversity)
25. Adoption and Implementation of an Appropriate System of Criteria and Indicators (C & I) for Sustainable Forest Management
26. ASEAN Regional Centre for Biodiversity Conservation (ARCBC)
27. Bioecological, Social and Economic Assessment of Assisted Natural Regeneration (ANR) as an Approach to Forest Cover Restoration
28. Bliss Waste Management Project
29. Buhi/Lalo Upland Development Pilot Project
30. Central Visayas Regional Project I
31. Coastal Environmental Management Plan
32. Coastal Zone Environmental and Resource Management Project (CZERMP)
33. Community Based Development and Management of Logged Over Areas Pilot Project
34. Conceptual Approach to the Development of Exploration Strategies for Gold Precious and Base Metal Mineralization in the Island of Catanduanes
35. Conservation of Priority Protected Areas Project (CPPAP)
36. Cordillera Highland Agricultural Resources Management Project (CHARM) -Reforestation Component
37. Community-Based Resource Management Project (CBRMP) Environmental Technology Transfer Component (Loan No. 4299)
38. Debt for Nature Swap Program
39. DENR Upland Development Program Stage III: Expansion Phase
40. Design for an Integrated Protected Areas System for the Philippines
41. Development of Bentonites for Use in Urban Project Bentoda
42. Development of Dessication and Moisture Standards for Selected Mangrove Species
43. Development of Mining Laws and Mineral Investment Promotion Programme
44. Developing Tropical Forest Resources Through Community-Based Forest Management (ITTO Project No. PD

Continuation List of Completed Foreign-Assisted and Special Projects

45. DOST-NASA PACRIM2 Project, MGB Component: "MASTER and AirSAR Data Integration for Environmental Studies in Cebu, Philippines"
46. Development and Implementation of the Pilot Project of the Forestry Statistics Information System (FSIS) - Phase I
47. Economic Valuation of Impacts of Environmental Degradation in Laguna Lake
48. Effects of Land Titling on the Adoption and Conservation Oriented Farming Technologies in the Uplands
49. Energy Sector Program Loan (DENR COMPONENT)
50. Enhancement of Reference Sections of Sedimentary Basins in the Philippines
51. Environmental and Natural Resources Accounting Project (Phase IV)
52. Environment and Natural Resources - Sectoral Adjustment Loan Program (ENR-SECAL)
53. EX SITU Genebank for Philippine Teak (Tectona Philipinensis)
54. ENR Shell Program: Environment & Natural Resources (ENR) Framework Development & Implementation
55. Enabling Activity for the Maintenance and Enhancement of National Capacities to Prepare the National Communication on Climate Change
56. Establishment of Clean Development Mechanism (CDM) National Authority, Operational Framework and Support Systems for the Philippines
57. Establishment of an ISO 14001-based Environmental Management System at the DENR
58. Establishment of a National Database System for Watershed Information and Development of Guidelines for Integrated Watershed Management Plans
59. Feasibility of the Limited Production Forest Concept In Critical Watersheds and Forest Reserve Areas
60. Feasibility Study on the Industrial Air Emission Source Project
61. Fisheries Sector Program Loan DENR Component
62. Forest Fire Management Project
63. Forestry Master Plan Phase I
64. Forestry Sector Project (ADB)
65. Formulation of a Master Plan for Mineral Resources Development in the Philippines
66. Forest Resources Assessment Project

Continuation List of Completed Foreign-Assisted and Special Projects

67. FS in the Philippine Projects & Activities Pursuant to the Country s Maritime Claims under the Law of the Sea
68. Forestry Sector Project (FSP)
69. Feasibility Study for Community-Based Forest and Mangrove Management Project in Panay and Negros
70. Geological and Geo Chemical Exploration of Panaon Island, Leyte (RP Korea Project)
71. Geological Assessment of Chromite, Platinum and Related Precious Metal Occurences in South Central Palawan and Northeastern Panay
72. Geology and Mineral Potential of the Malimono-Cabadbaran Area of the Surigao Mineral District, Philippine: a RP-Korea Joint Investigation Project
73. Governance and Natural Resources Management Sector Study
74. Human Resources Development in Environmental Planning and Management for Sustainable Development in the Philippines
75. IGCP 246 Project PANETS (International Geological Correlation Program)
76. Implementation of the Forestry Master Plan for the Philippines (2nd Phase)
77. Improved Productivity of Man made Forest thru Application of Technological Advances in Tree Breeding and Propagation (Forest Tree Improvement Project FORTIP)
78. Improving the Implementation of Environment Impact Assessment Project, Philippines
79. Industrial Efficiency and Pollution Control Project
80. Industrial Environmental Management Project (IEMP)
81. Industrial Forest Plantation Program
82. Industrial Restructuring Program (Environmental Management Phase II)
83. Industrial Restructuring Program: Environment Component
84. Industrial Waste Exchange in the Philippines (IWEP)
85. Information Technology Strategic Plan (ITSP)
86. Integrated Environmental Management for Sustainable Development (IEMSD)
87. Integrated Forest Protection Pilot Project
88. IPAS Training Program
89. International Coral Reef Initiative (ICRI) Secretariat
90. Initial Assistance to the Philippines to Meet its Obligations under the Stockholm Convention on Persistent Organic Pollutants

Continuation List of Completed Foreign-Assisted and Special Projects

91. Integrated Coastal Resources Management Project - Project Preparation Technical Assistance
92. Lake Bato Watershed Rehabilitation Pilot Project
93. Leachate Pollution from Open Dumping Sites in Metro Manila (Main Study)
94. Legislative Studies for the Integrated Protected Areas System of the Philippines
95. Livelihood Project for the On-Going Community Forestry Program (FS)
96. Local Development Assistance Program (Environment Sector)
97. Low Income Upland Communities Project (LIUCP)
98. Land Administration and Management Program (LAMP)
99. Ligawasan Marsh Biodiversity Conservation Project - Component of the River Basin and Water shed Management Program (RBWMP)
100. Magat Smallholder Agroforestry Pilot Project
101. Management, Supervision and Institutional Support to the IFP Program (Piggy backed to the IFP)
102. Mangrove Development Project (FS)
103. Manila Bay Monitoring Program (PART II)
104. Marikina Watershed Development Project, FS
105. Marine Environmental Masterplan for the Philippines
106. Metropolitan Environmental Improvement Programme (MEIP)
107. Mineral Exploration and Tectonics of Two Contrasting Geologic Environments in the Philippines
108. Mini Project Type Technical Cooperation in Hydrographic Surveying and Nautical Charting
109. Mining Titles Computerization Project (MTCP)
110. Monitoring of Land-use and Land Cover Using Remote Sensing and Geographic Information System
111. Motor Vehicle Emission Control and Establishment of Testing Center
112. Muleta Manupali Watershed Development Project
113. Metro Manila Solid Waste Management Program (Support to Republic Act 9003 - Solid Waste Management Act)
114. Master Plan Study for Integrated Watershed Management in Upper Magat and Cagayan River

Continuation List of Completed Foreign-Assisted and Special Projects

115. MGB-NASDA ALOS Project: “Analysis of Topographic and Geologic Terrain Features in Relation to Rapidly Developing Urban Areas in the Philippines”
116. Management, Risk Assessment and Capacity Building on Persistent Organic Pollutants
117. National Cartographic Center Project
118. Natural Resources Accounting Phase II
119. Natural Resources Accounting Project (Phase I)
120. Natural Resources Accounting Project (Phase III)
121. Natural Resources Management and Development Project (NRMDP)
122. Network for Industrial Environment Management
123. Natural Resources Management Program (NRMP)
124. National Integrated Protected Areas Programme (NIPAP)
125. NRMP-Philippine Environmental Governance Program (ECOGOV)
126. National Biosafety Framework for the Philippines (NBFP)
127. National Capacity Self-Assessment Project
128. Ozone Depletion Substances Phase out Country Program Preparation
129. Palawan Integrated Area Development Project - Land Classification Component
130. Palawan Integrated Area Development Project - Upland Stabilization Component
131. Palawan Integrated Area Development Project - Land Surveys and Titling Component
132. Pasig River Rehabilitation Program (Project Component River Rehabilitation Secretariat)
133. Pasig River System Rehabilitation and Restoration Project Preparation
134. Pasig River Rehabilitation Program (Project Component -River Rehabilitation Secretariat) Phase II
135. Philippines-Australia Human Resources Development (HRD) Project
136. Philippine Forestry Development Project in Ilocos Norte (PFDPIN)
137. Philippine-Korea Project On The Exploration of Submarine Placer Mineral Deposits Off Surigao Del Norte and Agusan Del Norte, Mindanao
138. Philippine Tarstier Conservation Project
139. Pilot Project on Community Based Management of Logged Over Areas

Continuation List of Completed Foreign-Assisted and Special Projects

140. Plantation Establishment of Cashew, Fuelwood Species and Essential Oil Producing Grass Following an Agroforestry Scheme for Profit and Conservation
141. Population Environment IEC Programme
142. Potential Non-Traditional Forest Products (NTFP) in Muleta Manupali Watersheds
143. Preparation of Industrial Common Treatment Facilities and Waste Abatement for Individual Enterprises
144. Preparation of Regional Resource Management Studies (ENR-SECAL)
145. Preparation for the Samar Island Biodiversity Project
146. Preparatory Assistance for the Empowerment of IPs for Sustainable Management of Ancestral Domains
147. Program Loan for the Forestry Sector
148. Project on Waste Minimization and Pollution Control for Small and Medium Enterprises (IWEP Phase II)
149. Private Sector Participation in Managing the Environment (PRIME)
150. Philippine-German Community Forestry Project - Quirino (CFPQ)
151. Pilot Study on the Formulation of Ecological Solid Waste Management Plan for Local Government Units in the Philippines
152. Pilot Study on Participatory Control of Burning and Timber Pouching in the Philippines
153. Public & Private Sectors Convergence for Solid Waste Co-Governance in Urban Poor Communities (PHI/02/G58)
154. Philippines-Canada Environmental and Economic Management Project (PCEEM)
155. Philippine Enabling Activity: Initial Assistance to the Philippines to Meet Its Obligations Under the Stockholm Convention on Persistent Organic Pollutants
156. Quarternary Geological Research Project/Geoscience for Coastal Environmental Study in the Philippines (GEOCES)
157. Quirino Community - Based Forestry Program: A Debt-For-Nature Swap Initiative (DFNSI)
158. Rainfed Resources Development Project
159. Regional Office Environment Project

Continuation List of Completed Foreign-Assisted and Special Projects

160. Research on Exploration Techniques for Rare and Precious Mineral Resources
161. RP-Australian Remote Sensing Project
162. RP-EC Cooperation Project for the Development of Marble
163. RP-France Geodynamics and Metallogenesis at Northern Luzon
164. RP-German Cebu Upland Project
165. RP-German Dipterocarp Management
166. RP-German Forest Resources Inventory
167. RP-German Industrial Pollution Control - Cebu Project
168. RP-Japan Crocodile Farming Institute Project
169. RP-Japan Forestry Development Project and Watershed Management
170. RP Japan Technical Cooperation Project
171. RP-NZ Bukidnon Industrial Plantation Project (Phases I & II)
172. RP-US Non Government Environmental Organizational Linkages
173. RP-ERSDAC: "The Cooperative Study on the Applications and Techniques using Remote Sensing Data for Monitoring and Mapping the Environment and Natural Resources in the Philippine Archipelago"
174. RP-JICA: Capacity Building for Environmental Management in Mining
175. RP-Japan: Application of Integrated Exploration Strategy for Precious and Base Metal Mineralization in the North Bicol Area (A Follow-up Study)
176. RP-ERSDAC: "The Cooperative Study on the Applications and Techniques using Remote Sensing Data for Monitoring and Mapping the Environment and Natural Resources in the Philippine Archipelago"
177. Safety and Control of Toxic Chemical and Hazardous Wastes
178. Seagrass Habitat Restoration Project
179. SEAMEO France: Methodology and Training and Monitoring of Deforestation Using Satellites
180. Second Palawan Integrated Area Development Project Survey and Land Titling
181. SSC Topo Mapping
182. Strengthening Environmental Impact Assessment Project

Continuation List of Completed Foreign-Assisted and Special Projects

183. Study of the Leachate Pollution from Open Dumping Sites in Metro Manila
184. Study on the Philippine Fault and Metallogenesis
185. Swedish International Development Cooperation Agency (SIDA) Project Technical Assistance to Develop GIS for Local Government Units
186. Strengthening Local Environmental Planning and Management (LOCAL-EPM)
187. Study on Capacity Building to Promote Clean Development Mechanism Projects in the Philippines
188. Strengthening Coordination for Effective Environmental Management (SEEM)
189. Support to the Implementation of Executive Order No. 247 in the Philippines
190. Sustainable Forest Management, Poverty Alleviation and Food Security in Upland Communities in the Philippines (Project PHI/O1/010)
191. Strengthening the Environmental Performance Monitoring and Evaluation System of the Philippine Environmental Impact Statement System (EIS) Project
192. TA for the Evaluation on Environmental Standards for Selected Industry Subsector
193. TA for Metro Manila Air Quality Improvement Sector Development Program
194. TA on Industrial Tree Plantation
195. TA on Rattan Plantation Development
196. TA on the Rationalization of the Wood Based Industries
197. TA on Waste Management Plan for Cebu
198. Third Davao Del Norte Irrigation Project Soil Conservation and Watershed Management Component
199. Timber Stand Improvement Project
200. Toxic Chemicals and Hazardous Wastes Management
201. Tree Improvement in Industrial Forest Plantation (Piggy backed to IFP)
202. Technical Assistance for Improving Biodiversity Conservation in Protected Areas in the Philippines (TABC) Phase II

Continuation List of Completed Foreign-Assisted and Special Projects

203. The Study on Mapping and Land Cover Assessment of Mangrove Areas in the Philippines
204. UNDP/FAO Bamboo Research and Development Project
205. UNDP/FAO Strengthening of the ISF Programme
206. Urban Air Quality Management Strategy in Asia (URBAIR)
207. Urban Forestry Program (FS)
208. Ulot Watershed Model Forest
209. Vehicular Emission Control Planning in Metro Manila (Phase I)
210. Vehicular Emission Control Planning in Metro Manila (Phase II)
211. Visayan Sea Coastal Resources and Fisheries Management Project (VisSea) -DENR Component
212. Water Resources Development Project - Watershed Management

Source:
Department of Environment and Natural Resources
Improvement Component (WRDP-WMIC)


Official Development
Assistance Watch