

Annex VII. Country presentations on CDM

Bangladesh

(Mr. B.D. Rahmatullah, Power Cell, Power Division, Ministry of Power, Energy & Mineral Resources & Ms. Shireen Sayeed, UNDP Bangladesh)

CDM institutional framework: Bangladesh has set up a two tier Designated National Authority (DNA): The first tier, located at the Ministry of Environment and Forest, is the secretariat or operational body of the DNA and performs all CDM related activities including preliminary approval of CDM projects through a CDM Committee. Universities and NGOs are strongly involved in the CDM Committee. The second tier, the CDM Board, gives final endorsement of the approved projects. The Principal Secretary to the Prime Minister, who has jurisdiction over all secretaries of different ministries, is the head of the CDM Board, which ensures high-level attention and working inter-ministerial coordination.

Potential & Priority CDM sectors: Priority sectors for Bangladesh include waste management, such as methane recovery from landfill, composting of urban solid waste and biogas from a wide variety of wastes (i.e. poultry droppings, tannery waste, effluent from food processing industries, human excreta, and sewage); renewable energy technologies, such as solar home systems (SHSs) in off-grid areas; efficient brick manufacturing; and sugar co-generation.

CDM Projects to date: There are currently two large-scale and nine small-scale projects in the pipeline and one under validation; and two energy sector projects, developed by the Bangladesh Center for Advanced Studies, a SHSs in rural off-grid areas with a total investment of US\$ 15.33 million, and an efficient lighting project in rural areas (using CFL) with a total investment of US\$ 3 million.

CDM & Sustainable Development: National procedures for evaluation and approval of CDM projects have been established and interim sustainable development criteria for the evaluation of CDM projects have been developed. In addition, the Bangladesh Government is planning a study 'National Strategy for the Development of CDM', which will assess the issues and opportunities presented by potential international markets for GHG offset through the CDM, and to evaluate processes and methodologies to facilitate implementation of CDM.

Next steps for improving CDM policies and strategies: The Government is interested in improving inclusion of government institutions, private sector and NGOs; improving capacities of national professionals on CDM technical issues, baseline studies, research and monitoring; technical assistance to project participants in project preparation, developing business plans, and making CERs purchase agreement with potential investors and buyers.

UNDP's role: In Bangladesh, UNDP has played a decisive role in initiating a CDM infrastructure, launching the first CDM projects and in building up trust with investors. Capacity-building support provided by UNDP ranged from the establishment of a DNA to the development of scenarios and various documentation (PIN, PDD), and the validation of two projects. Initial problems such as a high country risk assessments by investors due to lack of trust were eased through UNDP interventions and eventually allowed to attract US \$ 10 million for the two projects. The two projects are located in Dhaka, one on 'Landfill Gas Extraction and Utilization' to solve waste disposal problems and ground & surface water pollution (registered September 17, 2005), and another one on 'Composting of Organic Waste' (validation completed and presently submitted for registration), being the first CDM composting project globally.

China

(Mr. Wang Shu, Office of Climate Change Coordination Committee, National Development and Reform Commission & Mr. He Ping, UNDP China)

CDM institutional framework: The Chinese CDM structure consists of the National Development and Reform Commission (NDRC), which is China's DNA for CDM and also chairs the National Coordination Committee on Climate Change (NCCCC), composed of 17 ministries. The Executing Agency is the Office of National Climate Change Coordination Committee.

The responsibilities of the DNA include the acceptance of CDM project applications, approval of CDM project activities (jointly with two ministries), on the basis of the conclusion made by the CDM Board, issuance of approval letters on behalf of the Government, supervision of implementation of CDM project activities, the establishment of a CDM project management institute in consultation with other departments, and other relevant issues. The National CDM Board consists of 7 ministries and reviews and makes decision on CDM project activities and reports to the Committee on CDM project activities.

CDM approval process: It takes less than two months to receive the approval letter on the status of approval. To set up a legal guidance for application, implementation and management of CDM projects, so-called 'measures for operation & management of CDM projects' were issued and entered into force on October 12, 2005.

Priority & potential CDM sectors: Priority sectors include energy efficiency improvement, development and utilization of new and renewable energy, and methane recovery and utilization (% of revenue delivery by project type: HFC and PFC decomposition projects: 65%; N₂O decomposition projects: 30%; other types: 2%.

CDM projects to date: So far, five CDM projects have been successfully registered with the CDM EB; 22 projects have been approved by CDM Board; 11 projects have acquired the Letters of No-objection; and 8 projects are in the pipeline. The estimated total amount of CERs produced by the projects approved so far is about 300 million ton CO₂e, mostly by 6 HFC-23 projects. The areas mainly focused on are wind power, small scale hydropower, landfill gas recovery and utilization, as well as HFC-23 decomposition.

CDM and poverty linkages: The number of CDM projects, and capital flow, respectively, has been increasing, which is diverted also for poverty reduction efforts. Most of the approved projects are renewable energy projects with useful poverty reduction effects. Problematic so far is the concentration of most CDM projects in the economically more developed Eastern provinces, which requires more promotion of CDM projects in the poorer parts of the country (Western and Central provinces).

An interesting pro-poor CDM case study has been the *Xiaogushan Hydropower Project*, located in Zhangye City, Gansu Province, the second poorest province. The project owner is the Xiaogushan Hydropower Co. Ltd., CER buyer is the World Bank. The project has an installed capacity of 98MW, and yields CER 327,300tCO₂e/year. Its contribution to poverty reduction consists of increased income for the local government and residents (13,000,000 US\$ revenue from sale of CER), increased power supply for local village and improved livelihoods of villagers (357 GWh of clean power per year supplying for Zhangye Grid contributes to local education, sanitation, and public facility - a commitment by the project owner); improved local employment (3,000 positions during construction, 100 long-term positions during operation and maintenance), and improvement of local transportation system (change from seasonal passable road to year-round passable road Reduction of local environmental pollution).

Next steps for improving CDM policies and strategies: China is seeing demand for improving the local capacity on CDM, especially in poorer regions; is increasingly assessing the contribution to sustainable development of CDM project applications; is interested in encouraging more CDM projects in priority areas more helpful for poverty reduction; is planning to establish a CDM fund from delivery of CER revenue, which will be used for adaptation and response to climate change; and is exploring broad-scale cooperation with different organizations to expand pro-poor CDM project development.

UNDP's role: UNDP China's role concentrated initially largely on capacity-building efforts, including the strengthening of Government and stakeholder abilities through "learning by doing" with on-the-ground pilot activities; and disseminating information on the CDM to industry and other interested parties since 2001. China's first EB registered CDM project, a wind power project, was strongly supported by UNDP. Currently, UNDP China, in cooperation with the government, is launching a national MDG-Carbon Facility, stepping into a new role as facilitator of carbon trading.

UNDP China and MDG Carbon Facility: Initial efforts to date include the preparation of PINs for the UNDP MDG Carbon Facility (11 PINs have been submitted, with diversified project types including renewable energy projects, energy efficiency projects, methane recovery and utilization. The PINs will also be tabled to potential multinational private investors.). The MDG Carbon Facility Project is set up as a National Execution (NEX) project from 2006-2009 with an initial confirmed budget of about \$3million from UNDP, bilateral donor and private sector. In addition, a CDM Team is being established within UNDP China to provide advisory support to the Facility, including a core group within the E & E Team to lead activities, and members from various teams within the office to provide critical support to the process on specific focuses such as MDG-poverty issues, private partnership, outreach etc. A Country Office Support mechanism is also under consideration to help provide Implementation Support Services (ISS) to implement large-scale CDM projects which may result from the MDG Carbon Facility. Besides the development of a portfolio of operational MDG Carbon projects that provide a broader range of MDG dividends, UNDP China also plans to facilitate Public Private Partnerships by establishing a "Climate Exchange". The Climate Exchange is envisioned as a derivative/ commodity exchange platform for buying/selling of carbon between local and multinational companies. This will bring about a more systematic platform for engaging private investments and supporting a more systemic and lower-risk approach to trading.

Philippines

(Ms. Joyceline Goco, Head, Inter-agency Committee on Climate Change Secretariat, Environmental Management Bureau of Environment and Natural Resources & Ms. Imee Manal, UNDP Philippines)

CDM institutional framework: The Department of Environment and Natural Resources (DENR) is designated DNA since 2004 (Presidential Executive Order No. 320). The overall CDM institutional landscape consists of a CDM Steering Committee (chaired by the DENR and including private sector and NGOs); a Technical Evaluation Committee for Energy, a Technical Evaluation Committee for Waste Management and a CDM Secretariat. In August 2005, an administrative order on the rules and regulations governing the implementation of the DNA was issued.

CDM project approval process: The approval process aims at enriching practical & holistic development interventions and emplacing transparent, credible and efficient procedures conducive to investments. The various steps include a first evaluation of the PDD by a technical evaluation committee as well as an endorsement by the CDM Steering Committee, and the final approval decision is taken by the DNA.

Potential & priority CDM sectors: CDM is seen in general as an opportunity to achieve investment targets in priority sectors, such as, energy efficiency, transport and afforestation/reforestation. CDM is also considered a tool to be used to address unsustainable growth, socio-economic development and poverty alleviation.

CDM Projects to date: The NorthWind Bangui Bay Project, a 33MW wind turbine power plant owned by the NorthWind Power Development Corporation, is the first approved CDM project in the Philippines. It is an example of a project with poverty reduction benefits, with a yield of 51,855 tCO₂-e/yr. It has multiple sustainable development impacts, ranging from advancing other indigenous renewable energy sources to improved tourism development to improved livelihoods for fishermen.

CDM & Sustainable Development: The Medium Term Philippine Development Plan for 2004-2010 sets as principal target to overcome poverty through the promotion of livelihood, strengthening of education, attainment of fiscal stability, decentralized development and sustainable development. One of its sub-goals includes implementing at least 10 CDM project activities. As a unique feature, the Philippines have developed specific sustainable development criteria for CDM projects which promote sustainable use of natural resources, improve in particular local-level environmental quality; and comply with national environmental policies and standards (including EIA). Approved are only CDM project activities that are aligned with Government's priority development strategies, plans and programs. Project developers have to prepare a PPD specifying the sustainable development impacts (environment, social, economic) of the proposed CDM project activity according to the developed criteria catalogue.

Next steps for improving CDM policies and strategies: So far, challenges with CDM projects have been encountered with technical gaps in baseline determination and monitoring methodologies, which has stalled the development of priority sectors. Other issues to be tackled in the future include lack of capacity to develop bundled projects for various sectoral scopes; timely updating in light of the quickly evolving international rules as well as developments in national policies, laws, rules and regulations, which require continuous capacity building to manage the complex CDM process; the evaluation of sustainable development benefits needs to be further refined; limited capacity of relevant groups such as sector-specific/ industry associations, rural cooperatives and NGOs to develop CDM projects across the country; limited pool of locally based qualified CDM advisors to assist in CDM project development; and absence of locally based operational entities that can provide competitive validation and verification services.

UNDP's role: UNDP's support in the Philippines has been crucial as the organization helped conceptualizing and establishing the national DNA in 2002, financially supported by the Dutch Government.

Bhutan

(Mr. Tshering Tashi, Joint Director, National Environment Commission & Ms. Seeta Giri, UNDP Bhutan)

CDM institutional framework: The National Environment Commission (NEC) is the CDM DNA.

CDM projects to date: So far, Bhutan has a number of first CDM pilot projects, which include a 70 kW, Micro Hydro Project in Chendebji, financed by E7 Fund and approved by Japan as ANNEX 1 country, with an estimated environmental benefit of 500 tons CO₂ sequestration; a feasibility study conducted for the Dag achhu run-of the-river Hydropower plant with installed capacity 107 MW; and a pilot forestry CDM project (concept note prepared to date), a partnership between Enviro-trade (UK), Edinburgh Center for Carbon Management, and a Bhutanese Consulting.

Experiences from the implementation of the Chendebji CDM demonstration project have shown that the electrification of these 50 households, 5 institutional buildings and one tourist resort took a long time from concept stage to implementation, CDM administrative costs were expensive and modalities complex. Poverty reduction benefits are hoped to be seen in an improvement in education and living standards; better health conditions, and environmental benefits from the reduction of firewood use and consequently reduced deforestation and soil erosion.

Next steps for improving CDM policies and strategies: The Bhutan Government currently considers a number of steps to further its national CDM process. While the NEC should continue as focal agency, it also should strengthen coordination with stakeholders. In addition, there is the need for developing a full National Strategy for CDM and further capacity-building of human resources and public awareness. Of particular interest for Bhutan is the bundling of CDM projects (for reduction of transaction costs), which is high on the CDM agenda. It is further planned to develop more pilot projects (learning by doing effect) to provide better guidance in evaluating cost/benefits of carbon projects for project developers. The Government of Bhutan expressed interest in further UNDP advisory services for DNA capacity development; awareness and education on CDM for relevant stakeholders; and the formulation of a national CDM strategy.

Cambodia

(Mr. Sum Thy, Head of Climate Change Office, Ministry of Environment & Ms. Eeva Harma, UNDP Cambodia)

CDM institutional framework: The Cambodian Climate Change Office (CCCO), part of the Ministry of Environment, was established in 2003 to coordinate the implementation of climate change related activities and acting as the [DNA Secretariat](#). The CCCO has been working since to establish the institutional arrangements for CDM. With donor support from Japan through IGES and the Dutch Government through UNEP-RISO, Cambodia has developed its CDM-related technical and institutional capacity. The CDM institutional set up includes the inter-ministerial DNA Board, chaired by the Ministry of Environment, the DNA Secretariat (CCCO), and technical Inter-Ministerial Working Groups on energy and forestry (and others, if necessary). The TWG include various university staff.

CDM project approval process: A PDD will be first submitted to and screened by the DNA Board and if accepted, forwarded for an in-depth review to various Technical Working Groups. The TWG will initiate public consultations and issue an assessment report as basis for a final decision/approval to be taken by the DNA Board.

CDM projects to date: Cambodia has currently various CDM projects under consideration, including a finalized PDD for Angkor Biocogen Power Project, a rice husk cogeneration project of 1.5 MW (benefits: saving 280 kT CO₂ e over 7 years); and various PIN for: a methane capture project in the Landfill of Stung Meanchey (benefits: saving 858 kT CO₂ e over 10 years); the GERES CFSP Improved Cookstove programme (dissemination of 18,000 improved cookstoves saving emissions from use less wood fuel); and the National Biodigester Programme, (dissemination of 17,500 quality biodigesters with GHG emission reduction for 7 years is 512 ktCO₂-equivalent). Other projects are under consideration (e.g. large piggery biogas projects and cement plant design alterations to reduce emissions).

A CDM project with multiple poverty reduction benefits is the National Biodigester Programme, a commercial and structural deployment of domestic biodigester technology, with a dissemination target of 17,500 quality biodigesters. The project developer is the Netherlands Development Organisation (SNV) and the Ministry of Agriculture Forestry and Fisheries, currently discussing CER sale to World Bank Carbon Fund. Locally, it reduces dependency on fuel wood, improves health and sanitation conditions especially for women and children, and increases production of high quality organic fertilizers and reduces the pressure on forest resources. Globally, it reduces greenhouse gas emissions, by moving from existing manure management practices (which are anaerobic and emit methane) to the digestion, capture and burning of methane, reduces the emissions from burning of non-renewable fuel wood and uses organic fertilisers which increase soil carbon sequestration and displace the N₂O emissions from existing chemical fertiliser use.

UNDP' role: To date, the CDM process in Cambodia has been largely supported by bilateral donor organizations (the Netherlands, Japan, IGES) and the World Bank, focusing on awareness raising, capacity-building and dialogues. UNDP so far has not played a role in the Cambodian CDM process, but the Cambodian Government has signaled interest in exploring a partnership. Possible areas for cooperation could include: further DNA capacity strengthening and CDM promotion; identify relevant projects that are in line with MDG Carbon Fund; develop legal instruments and guidelines relate to CDM project implementation; identify priorities and opportunities for CDM projects (energy, forestry); and provide support to CDM project developers.

Pakistan

(Mr. Khizar Hayat, Joint Secretary (International Cooperation)/DNA, Ministry of Environment & Mr. Sajidin Hussain, In-charge CDM Cell, Ministry of Environment)

CDM institutional framework: The Ministry of Environment is CDM DNA, and a CDM Cell has been set-up in the Ministry to facilitate the CDM activities in the country. In addition, two high level Committees are involved in CDM decision-making procedures. A CDM Steering Committee, which meets at least quarterly, provides policy advice and guidance, reviews progress and ensures inter-ministerial coordination. The PM Committee on Climate Change, a Policy and Review Forum on climate change, provides substantial input. At the operational level, the CDM Secretariat (chaired by a Joint Secretary, Ministry of Environment, and qualified experts of the CDM Cell) facilitates the overall CDM process (awareness raising, capacity building, establishing liaison) and national approval of CDM projects. For technical expertise, three technical committees on Energy Efficiency/ Renewable Energy, Waste Management/Chemical Process and Agriculture, Forestry and Livestock Promote have been set up (to meet on need basis), advising on CDM projects and assisting project sponsors in developing CDM projects, if required.

CDM project approval process: Pakistan has adopted a simplified CDM project approval model, which allows for short approval processes. Project proponents submit the CDM project to the DNA, where the proposed CDM project will be qualitatively assessed by the CDM Cell against the National CDM Criteria. A Letter of approval will be issued by DNA usually within one month of project submission.

Potential & priority CDM sectors: Pakistan allows unilateral, bilateral and multilateral CDM projects for the following sectors: energy (renewable/alternate energy, energy efficiency/conservation, and fossil- fuel cogeneration); waste management (landfill gas capture; recycling; energy from solid waste); transportation (alternative fuel vehicles, mass transit systems, cleaner engines, CNG); industrial processes (cement, fertilizer, textile etc.); land use and forestry (watershed management, sustainable forest management, afforestation and reforestation); and agricultural and livestock practices.

CDM & Sustainable Development: A CDM Operational Strategy has been approved by the Government, which specifies sustainable development criteria for CDM projects to ensure consistency with national laws, sustainable development policies, strategies and plans; tax and credit sharing policies; and the project approval process. The Tax and Credit Sharing policies indicate that no income tax or duty on transfer/ sale of CDM emission credits has to be paid; credits are to be awarded fully to the project sponsors and banks and other financial institutions are to be encouraged to provide special incentives to the investors. There are no obligations of the Government to the investors other than CERs.

Next steps for improving CDM policies and strategies: Pakistan is looking into awareness-raising and capacity-building activities at institutional level, as awareness of CDM even within the Ministry of Environment is low.

Papua New Guinea

(Tony Torrea, UNDP Papua New Guinea)

CDM framework development: Papua New Guinea's CDM strategy is currently at an infancy stage. Interim DNA of PNG for the CDM is the Department of National Planning and Rural Development. The country has launched a National Energy Policy, which promotes rural electrification and renewable energies and focuses on alternative affordable energy development. In light of this emerging energy policy framework, the Government would welcome the development of a CDM infrastructure. Challenges include in particular institutional barriers (lack of human resources) and weak data basis.

Potential /priority CDM sectors: Papua New Guinea sees opportunities in particular in the energy sector (hydro power, solar, wind, biomass, biogas, thermo power) and forestry. The country has above all abundant and diverse potential sources of standing carbon sink (forests, est. 33m ha of natural forest), sea grass beds; coral reefs; annual carbon sequestration rate of 112,457 kt of carbon).

CDM projects to date: In December 2005, a Letter of Approval was provided from the Department of National Planning and Monitoring for the Lihir Geothermal Power Project. This project will reduce 278,904 metric tonnes CO₂ equivalent per annum. The project is expected to be CDM registered beginning of 2006.

Sri Lanka

(Mr. Ajith de Silva, Deputy Director, Ministry of Environment)

CDM institutional framework: Sri Lanka has developed an elaborated CDM framework and institutional structure, which includes a national framework policy on CDM and the establishment of two national CDM Study Centers at two leading Universities. The Climate Change Secretariat (CCS) is DNA for CDM activities. A National Experts Committee (NEC) was set up that evaluates CDM projects and makes recommendations to the DNA. The national CDM study Centre advises project proponents and the CCS on all issues on CDM. The Ministry will also establish an inter-ministerial Emissions Trading Exchange (ETX).

Potential & priority CDM sectors: Important sectors that are closely linked with CDM project potential include industrial sector; agriculture; energy (biomass, petroleum, hydro-electricity); waste sector; transport; plantations.

Proposed CDM project to date: Sri Lanka has so far developed only CDM proposals and concept papers. Project proposals include various mini hydro power plants; a wind power plant and an organic waste treatment plant. Concept papers have been developed for power generation and manufacture of coconut shell Charcoal; briquetting of saw dust; carbon trading for rubber growers and disposal of solid waste generated in the city of Colombo. The projected electricity demand for Sri Lanka in 2010 is: 18800 GWh. Additional energy requirements are approx. 13200 GWh (some of these energy may be produced as CDM projects). Existing scrub and chena lands (1.7 million ha) may be partly used for CDM afforestation projects.

CDM & Sustainable Development: The National CDM Policy is designed to contribute to sustainable development and participation in CDM projects have to in line with existing sectoral policies, such as EIA process. CDM projects will also be encouraged to include elements that would contribute to poverty reduction and employment generation.

Next steps for improving CDM policies and strategies: Challenges so far encountered in the CDM process range from lack of strategic approach to analyse the CDM potential of various sectors; inadequate awareness on CDM concept and its benefits, particularly at highest political decision making levels; inadequate institutional structures both at private and public sector in order to address the various CDM project development cycles; inadequate national technical capacity for CDM project development and insufficient human resources in the sector; lack of CDM market strategy for the effective participation in the international market including strong negotiation skills and legal capacity; and inadequate financing mechanism for CDM project development and investment. Sri Lanka currently plans to improve the infrastructure for promoting and handling CDM projects though developing a full programme to promote and actively seek out CDM projects; simplifying and improving procedures for processing project applications, for registering and monitoring in-country project activities and for authorizing verification organizations that validate and certify CDM projects; setting clear guidelines on the selection and priority areas for projects and producing a list of non-eligible activities; development of baselines for various sectors; providing better information about project and financial opportunities to in-country project developers; and identifying promising project types and associated social, economic and environmental impacts.

Fiji

(Mr. Peceli Nakavulevu, Principal Scientific Officer, Fiji Department of Energy & Ms. Asenaca Ravuvu, UNDP Fiji)

CDM institutional framework: The CDM process in Fiji is currently under development, and a DNA has not been formalized yet. The current CDM focal point is the Director of Environment, Ministry for Local Government Housing, Squatter Settlement and Environment.

CDM projects to date: Several arrangements for registration of the Vaturu and Wainikasou Hydro Projects for 'certified emission credits' under CDM are currently being finalized and are expected to provide nearly US\$0.6 m over a 7 year period, (expected to be backdated to July 2005). Other potential projects under discussion include a land filling waste management project (by a Malaysian consultant group); forest harvesting and reforestation (by a local consultant); and several ADB initiatives.

CDM and Sustainable Development & poverty linkages: Fiji's poverty level is estimated at 25% and the country has prioritized poverty alleviation through various government programmes (i.e. SDP Medium Term Strategy). The existing Poverty Reduction Strategy indicates multiple entry points for potential CDM projects with poverty reduction benefits, including energy, rural and outer island development, water & sewerage; agriculture, education, health, marine and forestry resources.

Malaysia

(Ms. Noorly Akmar Ramli, Malaysia Energy Center (PTM) & Mr. Asfaazam Kasbani, UNDP Malaysia)

CDM institutional framework: The Ministry of Natural Resources and Environment (NRE) is the DNA, appointed in May 2003. A National Committee on CDM including a Secretariat, was established in May 2002, and is chaired by the Deputy Secretary General, NRE and includes further members from Government sector and NGOs. The National CDM Committee is supported by several Technical Committees (i.e. on Energy & Forestry) and CDM Technical Committee Secretariats. A National Steering Committee on Climate Change with stakeholder representation is another supporting CDM mechanism. A CDM approval structure was put in place and broad national criteria endorsed.

CDM project approval process: Malaysia has set up an elaborated multi-tier approval process with thorough technical assessments and compliance checks- and balances. The project developer submits an initial PIN to the national DNA which undertakes a screening whether the PIN complies with national CDM criteria. If the PIN is accepted, it undergoes an in-depth technical assessment by a respective sectoral technical CDM secretariat, which formulates a recommendation for a Technical Committee, which in turn submits a recommendation to the National CDM Committee. A letter of Approval is issued by the DNA.

CDM projects to date: Malaysia has so far 1 CDM EB registered CDM project; 5 projects approved by the national DNA and five projects validated; and 45 CDM project applications in general, divided into nine large-scale and 26 small-scale projects. This includes 35 PIN and 10 PDD. Nine projects are generating more than >100,000 ER. None of the projects have more than 10 participants/owner. CDM projects by sector indicate a majority of proposals on renewable energy, in particular biomass waste/biogas projects (56%); followed by landfill (9%) and transportation (7%) and energy efficiency (7%) . CDM projects are largely driven by the private sector; UNDP does not play a prominent role in the national CDM process.

CDM & Sustainable Development: Malaysia is currently trying to integrate CDM into the policy formulation in the energy sector RE/EE component, with support of its CDM Phase II project, funded by DANIDA, a continuation of a previous CDM Capacity Building project.

CDM and poverty linkages: Most of the CDM project applications so far indirectly indicate linkages to poverty alleviation e.g. through new employment and job opportunities created for the local community. Malaysia considers CDM types of projects targeting rural/remote communities as those that would provide the most poverty reduction benefits, but project costs tend to be high and project developers do not see financial benefits. Example of projects which would benefit rural communities but require financial assistance would include solar rural electrification projects in remote areas, such as Sabah and Sarawak.

Next steps for improving CDM policies and strategies: Malaysia seeks improvement of its CDM process and looks into strengthening the capacity of the CDM Secretariat.

Samoa

(Ms. Sili'a Kilepoa Ualesi, Energy Coordinator, Ministry of Finance)

CDM institutional framework: The Government is currently considering the establishment of a DNA and other institutional mechanisms.

Potential & priority CDM sectors: Preliminary Samoa considers in particular its energy sector as CDM project relevant, including renewable energy technologies such as hydro, biomass, solar, and wind ; Geothermal Energy; Hydro; Ocean Based Energy Technologies; as well as energy efficiency and conservation programs.

CDM and Sustainable Development & poverty linkages: Samoa is over 99% electrified, and everyone has access to health and education services, telecommunication and transport, and most people have access to water supply. A National Energy Policy has been developed and is soon expected to be endorsed by the government. With the support of UNDP as well as other partners, resource assessments and feasibility studies for some renewable energy sources have been undertaken and renewable energy and energy efficiency programs initiated.

Next steps for improving CDM policies and strategies: The implementation of Samoa's National Energy Policy is priority to establish a working framework. Challenges for CDM project implementation is seen in unclear land issues; adverse environmental impact of projects; no clear legislations for some of the sectors (only related Acts and Policies), e.g. there is no overall Energy Act only related Acts and Policies below such as the Electric Power Corporation (EPC) Act.

Solomon Islands

(Mr. John Korinihona, Director of Energy)

CDM institutional framework: The Solomon Islands are currently in the process of discussing the establishment of a DNA, which hasn't been formalized yet. It is proposed to anchor the DNA in the Dept of Meteorology. Other potential stakeholders include the Dept. of Environment and Forestry, Dept. of Mines and Energy, Dept. of Commerce, Industries and Employment. To speed up the CDM legislation and policy formulation process, it was agreed that CDM related issues will be incorporated into existing legislations of relevant departments. The formulation of policy and drawing up of CDM framework will be done by the Dept. of Meteorology through assistance from Climate Change experts from Papua New Guinea and inputs from various departments.

Potential & priority CDM sectors: The Solomon Islands consider the energy sector as prominent and strategic CDM area, and in particular rural electrification projects and rural renewable energy projects (biomass, solar, hydro) to facilitate adequate, reliable, safe and affordable supply of energy.

Next steps for improving CDM policies and strategies: The Solomon Islands see further need for discussions on CDM opportunities and overall capacity-building needs at all levels.

VietNam

(Mr. Hoang Manh Hoa, Senior Officer of the Designated National Authority for the CDM, Secretary of CDM National Executive and Consultative Board, Ministry of Natural Resource and Environment)

CDM institutional framework: The Ministry of Environment (MONRE) was assigned as CDM DNA. An inter-ministerial CDM National Executive & Consultative Board (CNECB) was established in April 2003, chaired by the Director General of ICD/MONRE. The DNA submits potential CDM projects to the CDM National Executive and Consultative Board for further evaluation. The CDM National Executive and Consultative Board holds three meetings each year, and provides guidance and evaluation for CDM projects. A National Expert Team (CD4CDM project), in cooperation with MONRE, supports CDM capacity-building within the country on various CDM aspects, ranging from public information and awareness raising, to capacity development on CDM for policy makers, DNA, stakeholders, to research and education and creating a pipeline of CDM eligible projects. Vietnam has formulated specific CDM project criteria, which encompass existing national sustainability criteria, specify additionality (environment impacts, GHG emission reduction); and ensure CDM financing criteria (no use of ODA). Priority criteria include that project results contribute to national sustainable development and are commercial viable.

CDM project approval process: Project developers submit a PIN to the DNA secretariat which undertakes a first screening whether the proposal corresponds to national CDM criteria. If endorsed, the PDD will be reviewed with support from the National Executive & Consultative Board (CNECB) and assessed again whether the national CDM are met.

CDM projects to date: So far, one CDM project is CDM EB registered, five CDM PDD projects have been approved by the DNA, one PDD has been submitted for review; five PIN have been approved; and numerous projects are currently being formulated and developed. The approved projects range from oil field project to a gas recovery and utilization project, a model project for increased brewery energy efficiency; to two hydroelectricity projects and one mini Hydro Power Station Rehabilitation project. The PDD project currently under consideration includes an anaerobic Wastewater Treatment and Energy Recovery Project. Approved PIN range from a model coconut biodiesel development, a LPG application development for road means of transport, a waste treatment complex; a wind farm to a gas collection and power generation landfill project.

Potential & priority CDM sectors: Vietnam is seeing potential in particular in the energy, waste management and forestry areas, ranging from energy efficiency, conservation and saving; small and medium hydro power; fuel switching; methane recovery and utilization from waste disposal sites, coal mining and wastewater treatment; to associated gas recovery and utilization by oil production activities; and afforestation and reforestation.

CDM implementation barriers: The awareness and knowledge of CDM issues among managers, policy makers, experts, enterprises, general public, private sector, NGOs is still limited; lack of a national education strategy and programme on CDM issues; lack of skilled experts; lack of experiences; lack of financial resources for CDM activities; lack of an appropriate institutional and legal framework for promoting CDM activities; CDM issues are not still integrated into development strategy, programmes and plans of concerned Ministries, Agencies and local Authorities; knowledge, skills and professional capacity of DNA staff need to be improved; cooperation between MONRE, DNA and other related Ministries, Agencies, organizations and private groups needs to be more consolidated and developed.

Next steps for improving CDM policies and strategies: The Vietnam Prime Minister issued a Directive No. 35/2005/-TTg in October 2005 on the implementation of Kyoto Protocol to the UNFCCC.

The next CDM activities in Viet Nam are as follows: developing the plan on KP implementation for the period of 2006 - 2010, with specified priority fields in accordance with the national socio-economic plan of Vietnam for the period of 2006 - 2010; carrying out studies and forecasting the trade markets for "Certified Emission Reductions (CERs)"; giving guidance to Agencies, organizations, enterprises, and companies on developing CDM projects in Vietnam; integrating CDM issues into activities to implement other environmental international conventions and commitments; carrying out propaganda and public awareness raising on responsibilities and opportunities of the implementation of the KP and CDM projects; reviewing related legal documents and submitting to the competent authorities for supplementation modification with a view to promoting and facilitating the implementation of CDM activities in Viet Nam; developing projects on "financial mechanism for CDM projects" stipulating incentives on tax, interest rate, government's credit subsidy for domestic and foreign organizations, investors, and private enterprises who invest into CDM projects in Vietnam; developing a plan on attracting domestic and foreign investment capital into CDM projects in the field of energy, industry, transportation, agriculture, forestry and waste management; integrating CDM implementing activities into national, sectoral, local development strategies and plans; considering and issuing the amendments, supplementation of policy to encourage the active participation of project developers, investors in the CDM activities; creating favorable conditions for Agencies, organizations, CDM project developers, investor, enterprises including private sector, and NGOs to develop CDM projects in Vietnam; improving capacity for DNA staff, CNECB members and several Departments; strengthening cooperation between MONRE, DNA and concerned Ministries, Agencies, organizations, institutes, research centers; and developing international cooperation.

Maldives

(Mr. Amjad Abdulla, Deputy Director, Strategic Policy, Ministry of Environment, Energy and Water, Maldives)

CDM institutional framework: The CDM process in the Maldives is currently under development and still at an infancy stage. A National CDM authority is still to be formally established, but the Ministry of Environment, Energy and Water will be the designated DNA. The Chairperson of the National Commission for the Protection of the Environment (NCPE) will be National Focal Point. The Head of Policy and Planning Division of MEEW currently functions as Secretariat to coordinate the structuring of CDM operation and management. So far, draft CDM Sustainable Criteria have been formulated, a draft CDM Approval process developed, and a draft list of documents for submission coordinated (including application form; participation qualifications etc.).

Indonesia

(Mr. Agus Wahyudi)

CDM institutional framework: Indonesia has established a broad-based inter-ministerial CDM Commission as DNA, which is supported by a CDM Secretariat and a Technical Team, which in turn is backed by an expert group and stakeholder consultations.

CDM project approval process: A mature approval process foresees the submission of a PIN/PDD to the DNA, which requests and receives inputs and recommendations from various technical evaluation groups and committees before further processing. A stakeholder consultation is added before a project is rejected or approved by the DNA.

CDM projects to date: 9 Medium to Large Projects, over 100.000 tons potential emissions reduction and 4 Small-scale projects below 100.000 tons emission reductions.

Next steps for improving CDM policies and strategies: Indonesia will look into improving awareness and capacity building; intermediate entities that can provide capital and consultative services to CDM project development; and improved collaboration and coordination among relevant agencies and stakeholders.

Nepal

(Mr. Batu Krishna Uprety, Chief, Environment Assessment Section, Ministry of Environment, Science and Technology)

CDM institutional framework: The Ministry of Environment, Science and Technology (MoEST) has very recently been designated as DNA, in December 2005. The future structure of the DNA and the national approval process are currently worked out/under development. The proposed institutional CDM structure foresees the set up of an inter-ministerial National CDM Steering Committee, chaired by MoEST, and complemented by stakeholders including 2 experts, NGO, private, academic and banking sectors. The DNA will be supported by a Secretariat and a Technical Advisory Committee. The Secretariat is to provide services on environmental assessment; environmental standards and monitoring and environment promotion and awareness.

CDM project approval process: The proposed CDM approval process envisions the following procedure: project developers submit a PIN for a first review to the DNA Secretariat, which will decide on further processing or objection. If positively reviewed, a full PDD should be submitted by the project developer to the DNA Secretary. The secretariat will then ask for an evaluation report from a Technical Advisory Committee and will make this assessment report and the PDD available for public comments. In addition, the PDD will be screened whether it meets national CDM criteria. If assessed positively, a letter of approval will be issued by the DNA.

Potential & priority CDM sectors: Nepal considers in particular the following sectors as priority areas for CDM projects: fuel substitution from fossil fuels and decentralized renewable energy (micro-hydro, biogas, solar PV); hydropower; solid waste; agriculture; forestry; cement, brick and other industries (hotels, noodles, dairy, metal, dyeing).

CDM projects to date: Despite an only recent designation of a national DNA, Nepal has already been actively engaged in preliminary CDM project developments. So far, five PINs have been prepared (these projects range from solar, cooking stoves, transportation, landfill solid waste management, to brick kiln) and one has been completed (improved water mill); one PDD has been validated (biogas sector partnership) and one is being revised (AEPC/REDP-MHP project); two pre-feasibility studies have been undertaken (hydropower for export and electric train) and one has been completed (trolley bus) and one study is on-going (community forestry). Two CDM projects were recently registered, notably a biogas CDM partnership (registered 27 December 2005), a partnership between the Nepali Alternative Energy Promotion Center (AEPC) and the Community Development Carbon Fund of the World Bank (at \$7/t CO₂). The expected net emission reductions over the first 7 year crediting period are estimated at 657,000 tons CO₂.

CDM and Sustainable Development & poverty linkages: Nepal's ongoing Tenth Plan (2002-'07) strives to achieve poverty reduction from 38% to 30% by 2007. The main policy focus of the long-term planning lies on social sector development, rural infrastructure including energy services, agriculture and environment conservation. The implementation of a sustainable development agenda as part of this overall national programming emphasizes the promotion of environment-friendly technologies, energy efficiency, clean energy and rural energy services and reserves a role for carbon trading as tool for resource management and for poverty reduction.

Next steps for improving CDM policies and strategies: Nepal sees three major challenges which require improvements and further strengthening regarding its current CDM policies and processes: 1) Internationally, the government is interested in seeing further development with regard to improved transparent and easy validation and approval process on CDM projects; minimizing costs accrued from CC effects in low income countries/low GHG emitters; and reduced preparatory costs for PIN and PDD

and requirements for advance payment. 2) At regional level, the country will concentrate on developing and implementing joint projects; replacing thermal power with clean energy (hydro-power); improving data situation by generating data and information and sharing; and developing a regional voice with common understanding on regional issues. 3) At country-level, a policy focus will be on awareness raising; elaborating on policy and strategy formulation and implementation; improving the institutional set-up and strengthening human resources. Nepal sees an urgent need for further capacity building in the following areas: negotiation and formulation skills of project developers including consultants & NGOs for developing PINs and PDD and carrying out cost-benefits analysis. Capacity-building is further needed for of academic institutions and Government (DNA, other ministries and departments) for evaluations of PIN/PDD, decision time, and negotiation. In addition, current transaction cost for CDM projects preparation and documentation and necessary pre-investments are another challenge.