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UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

SUBSIDIARY BODY FOR IMPLEMENTATION
Twentieth session
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Item 7 of the provisional agenda
Capacity-building

Additional information relating to the comprehensive review of the implementation of the framework for capacity-building in developing countries

Submissions from Parties

The Conference of the Parties (COP), by its decision 9/CP.9, requested the secretariat to prepare a paper, with technical appendices, on the range and effectiveness of capacity-building activities in developing countries aimed at implementing decision 2/CP.7, for consideration by the Subsidiary Body for Implementation (SBI) at its twentieth session, this paper and its technical appendices to be based on the terms of reference contained in annex III of the report of the SBI on its eighteenth session (FCCC/SBI/2003/8). By the same decision, the COP also invited Parties to submit to the secretariat, by 15 February 2004, their views on additional information in a format to be guided by the above-mentioned terms of reference as an input to the paper and its technical appendices.

The secretariat has received six such submissions. In accordance with the procedure for miscellaneous documents, these submissions are attached and reproduced[*] in the language in which they were received and without formal editing.

[*] These submissions have been electronically imported in order to make them available on electronic systems, including the World Wide Web. The secretariat has made every effort to ensure the correct reproduction of the texts as submitted.

CONTENTS

PAPER NO. 1: BHUTAN

INFORMATION ON CAPACITY BUILDING SUBMITTED BY THE ROYAL GOVERNMENT OF BHUTAN

The Royal Government of Bhutan would like to contribute information on the capacity building programmes implemented in Bhutan and lessons learned with a view towards providing information on the range and effectiveness of capacity-building activities in developing countries aimed at implementing decision 2/CP.7.

Description of Capacity Building Programmes implemented in Bhutan

A Global Environment Facility (GEF)/United Nations Development Programme (UNDP) enabling activity produced the first national communication and greenhouse gas inventory for Bhutan. The top up funding activity of the GEF/UNDP continued with the work carried out in the preparation of the first national communication. Several capacity building activities were implemented to support sectoral experts in the area of climate change assessment in Bhutan.

Preparing a national communication and inventory has contributed towards building capacity for climate change in Bhutan. There is now greater awareness and understanding climate change and vulnerability among the various sectors in Bhutan and the general population as a result. These exercises also demonstrated that the required expertise and resources to examine and address many issues associated with climate change were non existent or limited in Bhutan.

A GEF/UNITAR project was implemented specifically to increase the capacity of the National Focal Agency in Bhutan to access and use climate change information available on the World Wide Web. This assistance has enabled the National Focal Agency to access UNFCCC documents and other related material available online.

Several bilaterally assisted projects have also addressed specific vulnerability assessments such as Hazard Zoning mapping of dangerous glacial lakes, with assistance from the Governments of Austria, India, and Japan. An assessment of the impacts on rice production and socio-economic assessments in Bhutan through the Netherlands Climate Change Studies Assistance Program (NCCSAP) is also under implementation. Such activities through the engagement of sectoral experts contribute to increasing capacity in understanding climate change in relation to specific sectors.

A regional training workshop for the preparation of National Adaptation Programmes of Action (NAPA) for Asian Least Developed Countries (LDC) was organized in Bhutan in September 2003 by the LDC Expert Group (LEG). This activity specifically targeted focal persons responsible for preparing NAPAs in their respective countries.

Lessons Learned

Through the implementation of the various activities mentioned above, several lessons have emerged:

Providing institutional support is as important as providing training to relevant target groups. Most of the momentum in Bhutan for engaging in climate change has been supported through GEF supported enabling activities. With the completion of these projects, national focal agencies are not able to continue to engage in climate change activities because of lack of resources and other pressing work commitments. We are of the view that providing institutional support will put in place an organization

and mechanism for coordination of climate related concerns in Bhutan. This would mean significant institutional development and capacity building inputs to enable a national level organization to attain a position where it can take on the increasing workload necessitated by demands from multilateral environmental agreements.

Support for national focal agencies to maintain an office or secretariat to conduct activities such as advocacy would also facilitate awareness within the country and also encourage greater participation of parties in responding to calls for views such as this.

Although some of the activities in the past have provided financial resources to conduct various assessments, the lack of local experts has meant that international or regional experts have had to be engaged. Such arrangements do not facilitate capacity building in the country. Support for relevant research institutions or even scholarships to produce relevant experts at the country level would help build institutional capacity.

Greater support to participate in international workshops and negotiations is also crucial as many developing countries, especially LDCs are severely handicapped by the number of delegates that they can send to international negotiations and workshops. Such constraints, where participation is limited to a single delegate make it difficult for a country to build capacity to effectively participate in such forums.

PAPER NO. 2: IRELAND ON BEHALF OF THE EUROPEAN COMMUNITY AND ITS MEMBER STATES.

Submission by Ireland on behalf of the European Community and its Member States.

This submission is supported by Poland & Slovenia.

Dublin, February, 2004

Comprehensive Review of the Framework for Capacity Building in Developing Countries

Introduction

The European Community and its Member States appreciate the work of the secretariat in carrying out the comprehensive review of the framework for capacity building in developing countries. The following information is submitted in response to paragraph 2 of the Capacity Building Decision taken at COP9, which calls for additional information on capacity building activities in developing countries to be compiled in a paper with technical appendices.

The EU is actively engaged in Capacity Building activities within the framework of the Convention through the financial mechanisms of the Convention, multilateral and bilateral funding. This submission describes the CB activities undertaken by the EC and its Member States and evaluates the factors contributing to their ownership, sustainability and impact. It also identifies the scope of these activities in addressing the key areas for capacity building[1] and highlights gaps and obstacles to the process. The submission is based on information provided by the European Commission and the Member States on a total of 80 programmes supporting capacity building in the context of climate change.

Many of the climate change related capacity building activities supported by the EU are integrated into development cooperation sector programmes such as energy, environment and agriculture, or as prioritised by developing countries through their nationally owned strategies, such as poverty reduction strategies. Although climate specific programmes such as those on adaptation and energy efficiency are supported by the EU, the focus will continue to be on strengthening capacity across the board, through nationally identified priorities.

We believe future reviews should consider how developing country demand for climate change related capacity building is being communicated and, if applicable, identify obstacles to these demands being met.

[1] as listed in paragraph 15, Annex 3, FCCC/SBI/2003/8

This submission focuses on principles and recommendations for capacity building. It examines the factors affecting the quality and effectiveness of capacity building activities in the area of climate change, based on EU experience. Issues outlined in the Terms of Reference for the comprehensive review of the Capacity Building Framework[2] are addressed throughout the submission.

The annex to the submission presents eight key examples of the different types of capacity building activities supported by the EU, with programme specific information on the needs addressed, the extent and variety of stakeholders, results, impacts, constraints and sustainability (as outlined in UNFCCC/SBI/2003/8, Annex III). Reference to older activities permits us to drawn on evaluation documents which provide a full assessment of the strengths and weakness of completed and ongoing actions and contribute information on best practice, lessons learned and innovative approaches.

EU orientations on capacity building

The EU considers capacity building an essential part of sustainable development and recognises the need for capacity development to minimise and adapt to the adverse effects of climate change. Climate change needs to be incorporated into all sectors of development planning if the poverty cycle is to be broken in the World's poorest nations.

The EU welcomes the GEF "Strategic Approach to Enhance Capacity Building"[3] and appreciates the work carried out under the Capacity Development Initiative (CDI). The principles and modalities presented in the GEF strategic approach correspond with the EU position on Capacity Building within UNFCCC. The EU subscribes to the following key principles:

1. Country-driven approaches which ensure national ownership.
2. Capacity building activities based on self-assessment of needs as articulated *inter alia* in Poverty Reduction Strategy Papers (PRSPs) and involving multiple stakeholders.
3. Emphasis on programmes with embedded capacity building components rather than specific capacity building projects.
4. Programmes targeting capacity building can be carried out where it is proven that capacity building activities are not covered by regular programmes or where added value is demonstrated.
5. Incorporate capacity building needs into poverty reduction strategies and national sustainable development planning and sectoral planning.
6. Capacity Building programmes may target government, civil society and private sector.
7. Incorporate capacity building into all programmes from the initial planning phase to final evaluation. The growth of capacity throughout the programme cycle should be carefully monitored.
8. Promotion of programme approaches rather than project based approaches to enhance sustainability and develop capacity across the board
9. Emphasis on the process of capacity building rather than short-term programme outcomes.
10. Encourage self-help at country and regional level – evidence of actions to identify and address capacity building needs will stimulate further action by donors and the private sector (e.g. completed NAPAs and NCSAs, South-South exchanges of information and experience, training programmes and centres of excellence).

[2] UNFCCC/ SBI/2003/8, Annex III
[3] GEF/C.22.8, October 17 2003

These key principles support the incorporation of capacity development into all development programmes (including those addressing climate change), allowing a "learning by doing" approach. In this way, capacity building becomes a process within a programme, rather than an end in itself, resulting in more wide-ranging and enduring outcomes.

An examination of the scope of capacity building needs presented in paragraph 15 of the Framework for Capacity Building in Developing Countries annexed to 2/CP7 suggests that the capacities required to deal with climate change may be located in central government ministries, in local government, in government-related institutions or parastatals, in communities or in the private sector. Meteorological, hydrological and agricultural observation and research stations for instance, have a key role to play but they operate within the constraints faced by many government institutions in developing countries, e.g. shortages of material and financial resources and inadequate salaries. Capacity building programmes which fail to recognise these constraints will not be sustainable.

In many developing countries, public sector reform programmes are underway aimed at improving the efficiency and effectiveness of the public service. Raising awareness regarding the key role to be played by the types of institutions mentioned above in relation to climate change, will ensure that they are included and benefit from broader, well-supported and resourced capacity building programmes. For these reasons the EU strives to integrate a climate perspective into poverty reduction strategies and mainstream development programmes.

Capacity building is a crosscutting issue in many sectors of UNFCCC, from policies and measures to LDCs, and technology transfer to emissions trading. In this way NAPAs and National Communications are a useful way of identifying capacity building needs across the board. The advent of National Capacity Self Assessments (NCSAs) provides another opportunity for developing countries to identify their capacity building priorities. The EU supports this process through the provision of funding to the GEF and looks forward to the outcomes of the NCSAs initiated so far.

Summary of experience from capacity building programmes carried out in developing countries

a) Types of capacity building activities supported by the EU

A wide variety of capacity building programmes are supported by the EU, covering a cross-section of capacity development needs. The main capacity building needs addressed through EU projects are listed below and respond to the needs identified in the Annex to 2/CP7.

1) Technical capacity – particularly in the areas of meteorology, hydrology, preparation of National Communications, emissions inventories, and vulnerability and adaptation assessments.
2) Institutional capacity - enabling local, regional and national authorities and civil society to respond to disasters, to adapt to climate change and to plan and adopt mitigation measures. Strengthening the capacity of national focal points e.g. in negotiating skills.

3) Research and systematic observation – involvement of all sectors of society in recording information on climate and natural resources (e.g. rainfall, fish landings, soil quality, crop yields and vegetation cover). Strengthening research capabilities in academic institutions. Development of new and appropriate technologies (renewable energies, flood control measures etc.)
4) Vulnerability and adaptation assessment – the use of community-based techniques to measure and record information and assess vulnerability to climate change. Training of technicians to better assess the risks faced due to climate change.
5) Integration of adaptation responses into national development strategies - building capacity to respond to climate change events. Reducing the risk of climate impacts on infrastructure investments (climate proofing). Disaster preparedness, use of traditional knowledge and new technologies, coordinated regional response etc.
6) Enabling environments and technology transfer – Introduction of appropriate technologies to aid adaptation (flood control systems, emergency shelters etc.) and mitigation (energy efficiency, reforestation etc). Strengthening capacity to adopt and maintain new technologies.
7) Clean Development Mechanism (CDM) – capacity development to enable developing countries to negotiate and manage CDM projects.
8) Education and raising awareness – from universities to primary schools and NGOs to community groups. Increasing awareness of the causes and effects of climate change and possible responses.

b) Types of stakeholders

A wide variety of stakeholders are targeted by the capacity building programmes supported by the EU and this is an important factor affecting the sustainability of actions. To ensure effective programme delivery and sustainable outcomes capacity building activities must involve all sectors of society and levels of authority. For example, a programme with the objective of enhancing capacity to adapt to climate change at local level could involve community groups who are directly involved, local and regional authorities responsible for the area, NGOs, the private sector, academic institutions, and national level government agencies and decision makers.

The key stakeholders addressed by EU capacity building programmes are government officials and technicians, scientists, local and regional authorities, the private sector, NGOs, local communities and the general public through awareness raising campaigns.

c) Key results and impacts

Evidence from programmes supported by the EU indicates overall positive outcomes. Many programmes which were initiated before 2/CP7 have been fully evaluated allowing detailed analysis of both results and impact. For newer projects initiated since 2/CP7 we may have to wait a little longer for an exhaustive evaluation of the impacts.

The programmes outlined in section 2 attest to the overall success of capacity building programmes. There are many examples of the replication of programme activities, the expansion and enlargement of activities due to positive outcomes and host country demand, and the perpetuation of activities beyond the lifetime of the initial programme.
In addition, there are concrete examples of increased capacity to record data and manage data bases, to operate and maintain high-tech equipment, to predict extreme events, to assess vulnerability and to plan and cope with disasters. This is accompanied by strengthened community capacity to manage natural resources, to respond in emergencies and to mitigate risk. At national level, programmes targeting capacity building in the public sector to aid the preparation of National Communications, NAPAs, emissions inventories and CDMs have benefited both the countries involved and the UNFCCC process as a whole.

d) Constraints and obstacles

The constraints and obstacles to the capacity building process are numerous and diverse and have a significant impact on the sustainability of outcomes. The main obstacles encountered can be summarised as follows:

i) Lack of an integrated / cross-sectoral approach – Climate change needs to be addressed throughout the public sector in order to achieve a consolidated approach.
ii) Lack of high level political commitment – which leads to financial instability as predictable resourcing is not provided for in central budgetary processes.
iii) Communication difficulties – this refers to communication between the agencies, institutions, government departments, NGOs or community groups involved in the capacity building activity. For instance, technical data can be difficult to obtain. It also refers to the difficulties encountered in securing cross border and inter-regional cooperation.
iv) Complex institutional policies including overly-bureaucratic systems and difficulties in identifying key actors for training opportunities.
v) Lack of awareness – while climate change remains low on a countries list of development priorities it is difficult to make significant progress. This is also reflected in awareness raising activities in civil society, where climate change is rarely attributed significant importance.
vi) Difficulties in targeting the most appropriate candidate for training activities and difficulties in reaching people outside capital cities and across the range of government ministries and departments.
vii) Failure by donors to adequately integrate climate change into development cooperation policies and programmes.

e) Factors affecting impact and sustainability

Many of the capacity building activities described in section 2 resulted in sustainable impacts as mentioned in the paragraph on results and impacts. Numerous factors affecting sustainability are identified in the programme descriptions and several of these have been touched upon in the section on

obstacles and constraints. In addition the following have been identified as key factors affecting sustainability.

1. Capacity building activities in the public sector should be an integral part of overall public sector reform processes. In the interests of sustainability, it is important that response to climate risks be mainstreamed within nationally owned strategies such as poverty reduction strategies and into existing projects and programmes relating to the range of government ministries. Climate-specific projects are more successful when they establish policy links to other ministries such as agriculture, water, energy and finance.

2. Capacity building should involve both institutional and human resource development. These, combined with the external financial and technical support, are usually required to achieve sustainable results.

3. Institutional capacity building should involve decision-makers at the highest level. This is necessary to ensure the ongoing support for capacity development after the initial programme has finished.

4. In local and regional scale programmes it is essential to have appropriate regional and national authorities and institutions on board to assure full acceptance and support of the initiative.

5. Both donors and host countries must adopt a long term approach to capacity development and this requires financial sustainability, ultimately supported by national policies and budgets that reflect national policy priorities.

6. The issue of climate change is multi-sectoral and requires the participation of a wide variety of stakeholders to be successful in the long term.

7. Capacity building activities should be country and demand driven in order to assure the level of support needed to make their outcomes sustainable.

8. Without the financial resources, spare parts and know-how necessary to maintain equipment and new technologies the outcomes of programmes are limited to the short-term programme impacts, and are unlikely to be sustained in the long-term.

9. The loss of trained staff to take up more attractive offers outside the public sector results in a brain drain and compromises future capacity development.

10. Without well functioning institutional, policy and legal frameworks, efforts to build capacity are limited to those directly involved in the CC process and broader policy level outcomes are unlikely.

11. Absence of political stability or the existence of security problems affects sustainability.

Annex 1 – Review of capacity building activities in developing countries

Examples of the main types of capacity building projects supported by the EU in developing countries are provided.

Background information

The following examples are representative of a total of 80 submissions from Member States and the European Commission and correspond to the typology of capacity building activities described on pages 3 and 4 of this submission. Representative examples were chosen in order to limit the size of the EU submission and to facilitate the work of the secretariat.

Each type of activity is represented at least once and there is considerable overlap as individual projects tend to address several capacity building needs. Education and awareness-raising are common actions throughout the examples and are not singled out in any one of the sample programmes. The text in *italics* in the section 'Key capacity building needs addressed' in each of the following tables indicates the main capacity building need addressed, and corresponds to the typology presented in pages 3 and 4 of the submission.

It should be noted that of the 80 programmes considered, the majority addressed technical and institutional capacity building. Although a wide range of capacity building activities are addressed, demand from developing countries is greatest for these two activities.

Project Title: **Options for Greenhouse Gas Emissions in Jiangsu - Zhejiang - Shanghai – District**	
Host Country: China	Partners: German development cooperation (GTZ), Government of Province Zhejiang, People's Republic of China; Environmental Science and Engineering Institute at the Zhejiang University, Hangzhou
Financial support: 350 000 Euro	Project period: December 1994 - April 1997
Key CB needs addressed: *Research and Systematic Observation* GHG inventory, national communication, enabling environment	
Project Objectives: The Sino-German Joint Project has provided detailed information to supplement other studies required as a background for the national communication document.	
Description of project activities: The project has resulted in an inventory of GHG, furthermore it has identified technological options to reduce emissions in the provinces of Zhejiang and Jiangsu as well as in the Greater Shanghai Area. Additionally, strategies were developed which will convert these options into actual measures for the reduction of greenhouse gas emissions.	
Extent and variety of stakeholders: 15 researchers from University for the study and 20 energy experts from various energy intensive industries and the power sector.	
Key results and impacts achieved: Good and detailed understanding of mitigation option in the regional industry and power sector.	
Constraints and obstacles encountered: Researchers had problems in communicating their research results for mitigation options to experts in industry and the power sector	
Assessment of impact and sustainability: Project was followed up by feasibility study for heat and power cogeneration in industrial parks.	

<table>
<tr><td colspan="2">Project Title:
Training Program on Energy and Sustainable Development</td></tr>
<tr><td>Host Country:
People’s Republic of China</td><td>Partners:
• Italian Ministry for the Environment and Territory
• Chinese Ministry of Science and Technology (MOST)
• Venice International University (VIU)
• Agrinnova of Turin University</td></tr>
<tr><td>Financial support:
1,073,400 Euro</td><td>Project period:
6 months (Oct. 2003- Mar. 2004) + 6 months (2005)</td></tr>
<tr><td colspan="2">Key CB needs addressed: Institutional Capacity Building
Institutional CB and education</td></tr>
<tr><td colspan="2">Project Objectives:
The main objectives of the program are the following:
• Raising awareness, understanding and scientific knowledge of climate change and its impacts and countermeasures
• Advocating more widespread use of renewable energy technologies, particularly wind, solar, Biomass, biogas and energy efficient wood stoves
• Encouraging the development of policy options and practical actions for energy conservation in industry, building, and transportation sectors.
• Encouraging public support of sustainable energy development
• To share the Italian experience in Energy Policies with special reference to rural areas and renewable energies;
• To discuss different technologies with regard to the rational use of energies resources;
• To strengthen the understanding and exchange of the information, products and technologies with respect to above sectors between Italy and China;
• To enhance the capabilities of the Chinese personnel employed by MOST in the fields of Environment Protection and Sustainable Development;
• To reinforce the scientific, technological and commercial co-operation between experts and decision makers from Italy and China;
• To explore areas of possible future co-operation on clean, new and renewable energy between Italy and China.</td></tr>
<tr><td colspan="2">Description of project activities:
Participants to the training are Chinese experts and officials on policy and commercialization study in the fields of clean, new and renewable energy; management officials and experts from government, organizations and enterprises / companies; R & D institutions and manufacturers.
The first and second course has been held in October 2003, Beijing and in January 2004, Rome.
<u>Future Steps:</u>

The next third sessions of the Training on Sustainable Development and Energy will be held in March 2004.</td></tr>
</table>

Extent and variety of stakeholders: • National Public Officers • Local Public Officers • Professors, Researchers and Experts from several Chinese Universities • Graduate and Postgraduate Students • The participation of other stakeholders will be promoted
Key results and impacts achieved: • 120 people trained on Energy and Sustainable Development issues. The program achieved such positive results that the Italian Ministry for the Environment and Territory decided to organize another Training Program (with different courses) in late 2004. • Participation of stakeholders • Dialogue between the countries and stakeholders • Country-driven approach
Constraints and obstacles encountered: No particular obstacle has been encountered neither during the organization nor during the implementation of the training courses.
Assessment of impact and sustainability: Project ongoing – final results of evaluation not yet available.

Project Title: **PRECIS (Providing Regional Climates for Impacts Studies)**	
Host Country: U.K.	Partners: UK government departments (DEFRA, DFID) The Hadley Centre Academic institutes in many countries, including India, China, Panama, Mexico, El Salvador, Costa Rica, Cuba, Jamaica, Barbados, Trinidad and Tobago, Perú, Senegal, Zimbabwe, Kenya, South Africa, Zambia, Nigeria, Seychelles, Niger, Algeria, Hungary, Israel and Brazil.
Financial support: £ 310,000 Sterling (461,424 Euro)	Project period: 2000 - Ongoing
Key CB needs addressed: *Vulnerability and Adaptation Assessment* Institutional Capacity Building, vulnerability and adaptation assessment, National Communications.	
Project Objectives: Giving developing countries the capability of producing their own high-resolution climate change scenarios for use in vulnerability assessments, using an accessible version of the Hadley Centre's Regional Climate Model (RCM) to downscale global model output, rather than relying on results from modelling centres in developed countries. Providing training and advice on the use of the model and the interpretation of its output.	
Description of project activities: Porting the Hadley Centre's RCM from the supercomputer platform to run on PCs under the Linux operating system. Designing, coordinating and delivering a training course designed to ensure users are aware of the uncertainties and limitations of models such as PRECIS, as well as their application. Identifying workshop participants (ideally institutes with links to the UNFCCC's National Communications process and to government policy-making). Promoting collaboration between participants in a region. Providing continuing support to users running the model via a website (www.precis.org.uk) and a helpdesk.	
Extent and variety of stakeholders: Institutes in many countries have received the model and training, including India, China, Panama, Mexico, El Salvador, Costa Rica, Cuba, Jamaica, Barbados, Trinidad and Tobago, Perú, Senegal, Zimbabwe, Kenya, South Africa, Zambia, Nigeria, Seychelles, Niger, Algeria, Hungary, Israel and Brazil. A wide range of specialisms has been represented amongst the course participants, from meteorology to civil engineering.	
Key results and impacts achieved: Several countries (including India, South Africa, China, Niger) have made substantial progress in producing regional scenarios.	
Constraints and obstacles encountered: Lack of funding has delayed and restricted the distribution of the model. Lack of computer processing capacity for running the model, facilities for storing the output data and human resources have all been encountered in target countries.	

Assessment of impact and sustainability:
Climate scenarios are still in production and thus their effectiveness in informing policy decisions has yet to be demonstrated. We try as far as possible to establish links with the policy-making community by publicising PRECIS at events such as the CoPs, and inviting, where possible, scientists with links to the policy-making process. However we cannot fund the scientists' own travel and subsistence costs, whether to the U.K. or (ideally) regional centres, so their ability to attend often depends on their finding funding from other sources. Since running the first formal workshop in February 2003, the content and the sequence in which the material and practical sessions are presented have evolved in response to participant feedback. We are now establishing the most effective methods of supporting users running the model and ensuring effective collaboration.

<table>
<tr><td colspan="2">Project Title:
Preparedness to Climate Variability and Global Change in Small Islands Developing States in the Caribbean Region</td></tr>
<tr><td>Host Country: Guyana, Trinidad and Tobago, Grenada, St. Vincent and the Grenadines, Barbados, Bahamas, Cuba, St. Lucia, Commonwealth of Dominica, Montserrat, Antigua and Barbuda, St. Christopher and Nevis, Anguilla, Dominican Republic, Haiti, Jamaica, Turks and Caicos Islands and Netherlands Antilles</td><td>Partners: Government of Finland, National Meteorological Institutes, Caribbean Institute of Meteorology and Hydrology (CIMH)</td></tr>
<tr><td>Financial support: 3.83 million Euro</td><td>Project period: 2001-2004</td></tr>
<tr><td colspan="2">Key CB needs addressed: Technical Capacity Building
– Improvement of technical equipment
– Improvement of data management systems
– Improvement of level of profession
– Increasing the awareness of public and decision makers</td></tr>
<tr><td colspan="2">Project Objectives:

Provide tools for better planning for sustainable development in the Caribbean region by strengthening the National Meteorological Services (NMSs) of the region so that they will be capable of providing the information needed for planning purposes at national and international levels. Moreover, the countries will obtain the information and expertise necessary to become capable of fulfilling their international commitments such as to the United Nations Framework Convention on Climate Change (FCCC), Convention to Combat Desertification (CCD), and Convention on Biological Diversity (CBD).</td></tr>
<tr><td colspan="2">Description of project activities:

– Improvement of the telecommunication systems on national and regional levels;
– Rehabilitation and upgrading of the observing network;
– Renovation of the regional technical laboratory for the calibration and maintenance of instruments;
– Upgrading of the database management systems;
– Implementation of data rescue programmes; and
– Training and awareness building.</td></tr>
<tr><td colspan="2">Extent and variety of stakeholders:
NMSs of the SIDS in Caribbean, and CIMH</td></tr>
<tr><td colspan="2">Key results and impacts achieved:
– improved telecommunications to ensure reliable transmission of data and information within the region and to international centres;
– rehabilitated and upgraded observation network that provides good quality data for different meteorological and climatological applications;
– established regional technical laboratory that provides calibration and maintenance services for the whole region and thus ensures sustainability of the improvements of the observation network;
– database management brought up-to-date;
– meteorological data rescued in digital form;</td></tr>
</table>

– enhanced knowledge on modern meteorological and climatological methods and tools, increased number of professional men and women in the NMSs, and improved status of the NMSs in the society.
Constraints and obstacles encountered: It would important to increase the interest of some key regional actors in the project.
Assessment of impact and sustainability: – Expensive purchased equipment very much needed, but its future maintenance requires both financial and human resources – Trained staff may leave for other jobs

Project Title:
Start-Up CDM in ACP Countries (SUSAC)

Host Country:
Zambia, Senegal, Uganda

Partners:
- European Commission
- Institute for Energy Economics and the Rational Use of Energy, University of Stuttgart
- University of Zambia (Centre for Energy, Environment & Engineering in Zambia/CEEEZ)
- ENDA Third World (Senegal)
- Dept of Meteorology, Ministry of Natural Resources, Uganda

Financial support:
952,338 Euro

Project period:
Duration 24 month, end of implementation 28/02/2002

Key CB needs addressed: *Clean Development Mechanism*
Institutional capacity building, human capacity building, enabling environments, technology transfer, research, CDM, decision-making, education, dissemination and awareness raising

Project Objectives:
To identify, develop and promote pilot CDM projects to 'kick-start' CDM & create new development paradigm for technology transfer, finance, clean economic growth that meet national objectives, with verifiable environmental, energy & developmental baselines. Put in place national focal point secretariats to co-ordinate various national stakeholders, identify & address key institutional, training & public awareness needs, develop macro-baseline information & mechanism (including MESAP RES) for identifying projects & setting their baselines, developing clearinghouse through secretariats to verify, validate & certify investments from GHG environmental & developmental/equity points of view, to attract international investors & donor support to expand CDM as means.

Description of project activities:

- Put in place national CDM secretariats as apex, focal organisations for national & international stakeholders
- Develop consensus on role of national secretariats through workshops, public discussions, InterNet for a;
- Define co-ordination role of secretariats through workshops with key national stakeholders (including private sector, banks, investors, etc.)
- Set national CDM Web sites & project Web site for presenting project results, for presenting case studies, other materials for international review & comment, and to attract international investment;
- Conduct training on development of baselines for project identification using MESAP/RES, GHG & development impact, verification; modes & means for national in international certification; means to identify best projects & attract investment;
- Define initial pilot CDM projects & develop macro-baseline framework, and specific project baselines with GHG, development, economic & financial costs & benefits using MESAP RES;

• Hold international workshops in the 3 ACP countries involving potential international investors, bilateral & multilateral donors, national stakeholders; • Identify pipeline projects using MESAP & other national tools • Develop case studies based on pilot projects & pipeline projects; • Develop verification, certification & validation procedures involving key national & international agencies that are streamlined yet achieve UNFCCC & national objectives • Hold international seminar to present results; present case studies & project results for international review & comment on project's Web sites; • Develop national action plans for encouraging and promoting qualified investments under CDM.
Extent and variety of stakeholders: • Level 1 – ACP national government, private sector & NGO stakeholders; • Level 2 – ACP national businesses, shareholders; employees; local communities; local authorities; • Level 3 – private sector, financial sector, local development agencies, local NGOs.
• Key results and impacts achieved: • Institutional frameworks have been established in Zambia and proposals submitted in Uganda. In Senegal, ENDA was able to provide support to the activities already underway to develop a CDM institutional framework; • Improved understanding of the CDM process and how to develop projects that meet sustainable development goals whilst remaining attractive to investors; • Increased human capacity with regard to preparation for concrete CDM projects thanks to the learning by doing approach (project identification, assessment and approval in each country); • Increased awareness among policy makers and civil society through workshops and seminars held in each country; • Awareness raised amongst potential international investors such as financiers, utilities, equipment suppliers and insurance companies; • Awareness of the CDM Susac project and the experiences within the project were presented at COP 6 and COP 7 side events.
Constraints and obstacles encountered: • Difficulty to engage private sector at an early stage. Only interest once concrete proposals have been developed; • Lack of capacity among local stakeholders to understand, assess, develop and present projects; • Lack of basic data and efficient systems to manage them; • Lack of guidelines (from the UNFCCC) for project developers to implement Monitoring and Verification Plans.
Assessment of impact and sustainability: The project has aimed to ensure sustainable capacity building. It has transmitted skills and know-how through "apprenticeship" or "on-the-job" training. The effectiveness of this capacity building has been dependent on a clear understanding of existing capacities relative to the proposed role in the CDM process. The involvement of local expertise has been recognised and experiences have taken place.

<table>
<tr><td colspan="2">Project Title:
Consolidation of an Innovative Approach to Capacity Building in the SADC Rural Energy Sector</td></tr>
<tr><td>Host Country:
Tanzania
South Africa
Swaziland</td><td>Partners:
Government of the Netherlands
ESAMI (Tanzania)
MEETI (South Africa)
MANANGA (Swaziland)
The SADC Energy Commission, Luanda fulfills a monitoring and liaison role.</td></tr>
<tr><td>Financial support:
Euro € 1.763.820</td><td>Project period:
third phase 2004 - 2008
(previous phase 2000-2003)</td></tr>
<tr><td colspan="2">Key CB needs addressed: Enabling Environments and Technology Transfer
Institutional CB, tech transfer, enabling environments</td></tr>
<tr><td colspan="2">Project Objectives:
In the first and second phase of the project (1994-1998 and 2000-2003) a transfer took place of knowledge from a Dutch university to ESAMI to enable them to give courses on Energy and Environment independently.
The present project covers a third phase which will serve to continue, consolidate and refine the achievements made during the previous two phases, plus a number of new elements that are designed to increase geographical coverage and ensure long term sustainability.
1. Human resource development for rural energy and environmental management.
2. Consolidate and update the training program (core curriculum) to contribute to building professional competence in energy issues in the SADC region.
3. Further institutionalise the outputs of Phase I and II in the SADC regional energy policy at national and rural levels.
4. Strengthen rural energy and environmental planning/management capacity and ownership at national and rural levels.
5. Broaden the base of participating institutions and hence ownership of the project: additional implementing institutions (Eduardo Mondlane University EMU in Mozambique, another one for East Africa).
6. Strengthen collaboration between Energy Contact Points in the SADC region to reflect structural and institutional changes that have taken place within SADC.
7. Strengthen long term sustainability and self-financing capacity of the implementing institutions in the SADC region by exploring new markets and products and targeting of the private sectors in the SADC countries as crucial stakeholders for the provision of energy in the region.
8. Contribute to the NEPAD aims by building linkages to NEPAD initiatives in rural energy policies and projects.
9. Build linkages to other institutions involved in energy issues in the regions: ADB, UNDP, WB, and to explore synergies.</td></tr>
</table>

Description of project activities: A substantial number of participants (589) will be trained at different levels in order to contribute to the creation of a critical mass of high level government officials, policy makers and implementers in the region to contribute to the achievement of the overall objective of sustainable energy provision in the SADC region. Furthermore the activities include institutional capacity building and marketing of university courses, translation of course syllabi into electronic form, developing new modules, including a new institution, the Eduardo Mondlane University for course delivery to cater to a Portuguese speaking target group (Portuguese is one of the official SADC languages), as well as identify an organisation in East Africa to extend the courses to a few East African countries.
Extent and variety of stakeholders: Stakeholders include management institutes, government officials, students and university staff
Key results and impacts achieved: Up till now more than 1000 decision makers have been trained and four institutes are capable of giving training in the field of Energy & Environment. Previously students had to go to Europe to receive such a kind of training.
Constraints and obstacles encountered: The most important issue is the communication between the organizing institutes, SADC and the institute which manages the project (ESAMI). Enough time and effort has to be put in for consultation.
Assessment of impact and sustainability: The impact is large. In a mid-term review it appeared that the more than 600 already trained participants in majority used the knowledge in their daily work. One of the objectives of this phase of the project is to consolidate the achievements and it is expected that after this third and final phase the institutes will be able to continue on their own.

Project Title:
Tanga Coastal Zone Conservation and Development Programme

Host Country: Tanzania	Partners: Development Cooperation Ireland, IUCN, Government of Tanzania
Financial support: €5 million	Project period: 1994-present

Key CB needs addressed: *Vulnerability and Adaptation Assessment*
Institutional capacity building, vulnerability and adaptation assessment, research and education.

Project Objectives: To enhance the well-being of coastal communities by improving the health of the environment they depend on and by diversifying the options for using coastal resources.

The coastal environment is changing due to the direct (destruction of reefs due to dynamite fishing, deforestation etc.) and indirect effects (coral bleaching and changing erosive forces due to climate change) of human activity. The problems are addressed through the adoption of coastal management plans.

Description of programme activities:
Development Cooperation Ireland supports the implementation of this programme in partnership with the IUCN and the Government of Tanzania. The programme responds to declining fish yields, destruction and bleaching of coral reefs, and a serious reduction in the area of mangroves and coastal forest.

The central approach of the programme is Community Based Natural Resource Management (CBNRM). This involves local communities and the decentralised local authorities in a process of Integrated Coastal Management. Beach Management Units and Fisheries Protection Units have been established as part of the process and in recent years the focus has been on establishing community management authorities and formalising management plans with the relevant authorities.

Capacity building activities have focused on the following areas:

- Training for members of the local communities and district officials in reef and fish monitoring, mangrove monitoring, patrolling and recording (e.g. fish landings)
- Training in participative mapping of coastal resources
- Capacity building for district authorities and communities on coastal management and the development of coastal management plans.
- Development of an environment curriculum for primary schools

Extent and variety of stakeholders:
The stakeholders comprise members of the community (including fishermen, women, farmers and illegal firewood collectors) and members of the local authorities including fisheries and forestry officials and district administrators and representatives.

An emphasis is placed on including all possible users and controllers of coastal resources in order to assure the viability of management plans and the subsequent protection and wise use of coastal resources.

Key results and impacts achieved: Community management of the coastal fisheries and mangrove swamps has been very successfully promoted. Tanga is the only region of Tanzania in which the area under mangrove has increased over the past ten years. Fish stock levels have improved and dynamite fishing has virtually been eliminated. The health of the coral reefs is constantly monitored. Coral bleaching which is thought to be related to climate change has been observed but to date, the reef has recovered from such events in a matter of weeks. Programme activities have been integrated into District development plans and the districts in which the programme is located contribute towards the financing of programme activities. From 2004 onwards the districts will take over the financing of the core elements of the programme, namely patrolling and reef monitoring. This indicates the ability of the districts to successfully manage their resources using the tools introduced during the programme, and their ownership of the process through learning by doing approaches to capacity building.
Constraints and obstacles encountered: The main constraints to the process has been the fact that at national level the Coastal Management Plans have not been endorsed by the Directors of Forestry and Fisheries. While there is consensus and formal recognition of the plans at local level this has yet to happen at the national level. The reasons for this constraint are being discussed in the hopes of locating the project in a wider coastal management programme and formalising the content of the local management plans.
Assessment of impact and sustainability: The engagement of the district authorities, both physically and financially, in the coastal management process demonstrates the sustainability of the Tanga programme. However, formal recognition of the management plans at national level is required if long-term sustainability is to be maintained.

<table>
<tr><td colspan="2">Project Title:
Comprehensive Disaster Management Programme
Component 4b: Establishing an integrated approach to climate change risk management at national and local level</td></tr>
<tr><td>Host Country: Bangladesh</td><td>Partners:
Government of the United Kingdom (DFID), Government of Bangladesh (Ministry of Environment and Forests MoEF - primary agency), UNDP.</td></tr>
<tr><td>Financial support:
US$2,056,900</td><td>Project period:
Feb 2004-Feb 2007</td></tr>
<tr><td colspan="2">Key CB needs addressed: Institutional capacity building
• Building institutional capacity through strengthening national climate change focal point and establishing a climate change cell to effectively co-ordinate climate change activities, including National Communications, CDM, NAPA, and wider mainstreaming activities;
• Building institutional capacity across government through establishment of a climate change training primer;
• Building the enabling environment for appropriate adaptation to climate change across different scales of government, community and private sector initiatives;
• Strengthening and integrating national vulnerability and adaptation assessment;
• Identification, planning and implementation of sustainable livelihood adaptation activities;
• Collating existing research and where appropriate undertaking further research on climate impacts;
• Improved decision-making capacity, including staff training and assistance for participation in international negotiations;
• Education and awareness-raising on climate issues through production of a variety of products of differing technical content targeted to key audiences. These include primary and secondary government ministries and departments, regional, district, upazila and union parishad level government, down to village level Disaster Management Committees;
• Improving information coordination and dissemination on climate change, including establishment of a library within the climate change cell.</td></tr>
<tr><td colspan="2">Project Objectives:
Establish a mechanism that co-ordinates national climate change activities and facilitates management of long term climate risks and uncertainties as an integral part of national development planning as well as supporting other measures to deliver anticipatory disaster management.</td></tr>
<tr><td colspan="2">Description of project activities:
• Development of a climate programme as part of core MoEF / Dept of Environment business; Establishing a climate cell to co-ordinate relevant activities;
• Improving understanding and awareness of climate impacts and responses through research and planning, and implementation
• Promoting the mainstreaming of climate change risks into development initiatives.</td></tr>
<tr><td colspan="2">Extent and variety of stakeholders:
Government Ministries and Departments, Local government, NGOs, University and research sector, civil society, donor institutions.</td></tr>
</table>

Key results and impacts achieved: The climate change component of the CDMP is designed to enhance the capacity of the Government of Bangladesh to understand, analyse, evaluate and adapt to risks posed by climate change. Through the establishment of a permanent climate cell, it will strengthen the role of government in coordinating climate-related activities, including NAPA and National Communications within UNFCCC, general awareness-raising, cross-government coordination, and further research. The Climate Cell will also provide a focus for awareness raising and dialogue on climate change across national and local government, and with NGOs and civil society. Despite its infancy, this programme has already raised awareness of climate issues and the need to tackle them across a wide range of government activities. Programme development has helped raise profile of Bangladesh participation in UNFCCC.
Constraints and obstacles encountered: Too early to judge
Assessment of impact and sustainability: Too early to judge

Project Title: **Netherlands Climate Change Studies Assistance Programme (NCCSAP)/phase II**	
Host Country: Bolivia, Ghana, Senegal, Suriname, Yemen, Bhutan, Mongolia, Colombia, Mali and 5 countries still undecided.	Partners: various institutions in countries concerned
Financial support: € 6.700.000	Project period: 2002-2007
Key CB needs addressed: *Integration of adaptation responses into national development strategies* National communications, GHG inventories, vulnerability and adaptation (V&A)assessments, research and systematic observation, institutional capacity building, enabling environments	
Project Objectives: Supporting a number of developing countries in preparing, formulating, implementing and evaluating their policy regarding climate change, with the perspective of enabling them to so independently in the future.	
Description of project activities: Undertake studies based on PRSP's, UNFCCC guidelines for National Communications (NC's), IPCC guidelines etc. on future adaptation and mitigation needs, GHG inventories, vulnerability assessments; organise workshops, supply technical assistance; exchange experiences with other countries.	
Extent and variety of stakeholders: Policy makers, scientists, business people and NGO's in the selected developing countries.	
Key results and impacts achieved: Production of high quality NC's, high quality V&A assessments, enlarged constituency regarding climate change, sharing of experiences with other parties.	
Constraints and obstacles encountered: Inability of national ministries to take involvement significantly beyond their own stakeholder group and to raise greater awareness of the climate change issue.	

PAPER NO. 3: JAPAN

Japan's submission on capacity building, 17 February 2004

Introduction

The government of Japan addresses the capacity building needs of developing countries under the UNFCCC through its ODA schemes. This paper first presents two initiatives under Japan's ODA, which contribute to building capacity in developing countries, and then two specific project examples for further discussions with fellow UNFCCC parties.

1. Initiatives in the global environmental issues

A Kyoto Initiative

In December 1997, on the occasion of the third conference of the parties to the UNFCCC in Kyoto Japan, the government issued the "Kyoto Initiative" to assist developing countries in combating global warming. It announced to (1) train 3000 people in developing countries in the fields of air pollution, waste disposal, energy saving technologies and forest conservation and afforestation in the five years beginning in the fiscal year 1998, (2) grant ODA loans with the most concessional terms available internationally to actively promote cooperation in the fields of energy saving technologies, new and renewable energy sources and forest conservation and afforestation, and (3) use technology and know-how acquired in the process of combating Japan's own pollution and energy problems.

B EcoISD (Environmental Conservation Initiative for Sustainable Development)

In August 2002, on the occasion of WSSD, Japan established the "Environmental Conservation Initiative for Sustainable Development (EcoISD)", replacing the former initiative (Initiative for Sustainable Development toward the 21st Century), so as to carry out more effective and efficient environmental co-operation.

This new initiative indicates policies for Japan's support to developing countries in order to tackle the vast areas of environmental problems such as efforts to address global warming, pollution control, fresh water issues and conservation of natural environment. These policies include (1) human resources development totaling 5,000 in the environmental field over a five-year period from the fiscal year 2002, (2) provision of yen loans with the most concessional terms for projects in environmental fields, (3) enhancement of Japan's grant aid for global environment, (4) promotion of wide-ranging collaboration with international organizations, and (5) further improvement of evaluation methods in order to make the ex-post evaluation of Japan's environmental ODA more effective.

2. Project examples for the implementation of initiatives

Initiatives presented in the last section were implemented through seminars and bilateral ODA projects. Among various examples of seminars and projects, the government of Japan is pleased to present the following two examples to be examined under the comprehensive review.

A Annual Climate Change Seminars

(i) General description of the project

The government of Japan has been implementing annual training courses on climate change since 1992, inviting government officials from developing countries working on the climate change. By January 2004, there were 209 graduates from 42 countries (see Annex I).

To gather participants for the course, the local Japanese Embassy sends course information to a number of developing country governments. Those governments interested in sending its officials to the seminar send an application form. Each year, 10 to 15 officials take part in the 6 to 8 weeks course in Japan at the cost of the Japanese government. At the end of the course, a certificate is issued to the successful participants. Participants are under the age of 45, highly educated. The gender ratio has been 29% female participants to the total so far.

In Japan, different levels of the society contribute to the course organization (see Annex II). The central as well as prefecture and municipal governments offer lectures on their legislation and administration. There are a number of research institutions and universities which send lecturers to the course. Japanese industries, such as power companies, steel industry and manufacturers, receive the course participants at their plants. The course also organizes side events introducing Japanese language and culture where local NGOs play a major role.

There are two different types of courses (see Annex III). One focuses more on the compilation of national inventories, and the other on the technological solutions to address climate change. The former started in 1992 with a regional focus on Asia and the Pacific, titled "seminar to cope with global warming in the Asia Pacific region." After its success, a new course was launched in 1997, with a global focus, titled "strategies on climate change and development of national inventories." The latter started in 1998, titled "technology for GHGs emission mitigation." Last year, it was revised to focus more on implementing the Kyoto Mechanism, titled "capacity building for policy makers regarding global warming (Kyoto Mechanism)." Each course has been reviewed every five years, and some course subjects have been updated to reflect the requests from the participants of earlier courses.

(ii) Achievements through the implementation of the project

Inferring from the qualitative analysis of questionnaires from the participants at the end of the course (see Annex IV), the project has been valuable for the capacity building of both Japan and participating countries. Most participants expressed that they acquired additional knowledge and skills which would be useful for their government to implement UNFCCC and its Kyoto Protocol. Therefore the project was beneficial for the developing countries of their origin. At the same time, participants expressed that they were inspired by the policies and measures implemented by the Japanese government and industries. They saw good practices in place and working in Japan. In this sense, the project was beneficial for Japan to share its domestic experience in addressing climate change with a wider, international audience. Many participants then requested of the Japanese government further collaboration with their own government in order to implement those advanced technologies. This is good for both developing countries and Japan where interested parties of the Kyoto Protocol could collaborate through the Kyoto Mechanism and other ODA schemes.

More specifically, the course on national inventories has provided participants with the knowledge and skills to compile national GHG inventories and develop national strategies to address climate change. The course on technology for GHG mitigation acquainted participants with a range of technological possibilities to address climate change. These specific benefits, however, are difficult to measure in a tangible manner.

In terms of responding to the needs of capacity building in developing countries, the course "strategies on climate change and development of national inventories" addresses the scope of 15 (c), (e), (f) and (n) in the Annex of Decision 2/CP.7. The course "technology for GHGs emission mitigation" and "capacity building for policy maker regarding global warming (Kyoto Mechanism)" address the scope of 15 (h), (j), (l) and (n).

From a different perspective, the course has provided Japanese collaborators with opportunities of capacity building to present their experience in addressing climate change to a wider audience. Such opportunities will remind them that their contributions to energy efficiency or their work to develop inventories are indeed valuable for global benefits and not only for Japan.

B Economic diversification project in Saudi Arabia

(i) General description of the project

The annex of decision 2/CP.7, capacity building in developing country, stipulates that its initial scope of needs and areas includes "the needs arising out of the implementation of Article 4, para 8 and 9, of the Convention." In light of this, Japan is pleased to present its efforts to promote economic diversification of developing countries. The Saudi Japanese High Automobile Institute (SJAHI) Project aims to provide basic knowledge on theory and practical technology, as well as education of the code of

conduct as technician, namely sorting and keeping materials and tools in order, keeping the factory clean and orderly, and behaving with professionalism in order to provide qualified Saudi mechanics to the Saudi labor market, and to train Saudi automobile mechanics, to meet international standards. Above all, it is expected that the whole automobile labor market will benefit from the project, taking into consideration that the main objective is to promote “Saudization”, i.e. employment of Saudi Arabian people in the sector.

(ii) Details of the project

The period of cooperation between Saudi Arabia and Japan is five years starting from September 2001. The Government of Saudi Arabia donated land for the project, with a total area of 72,580 m^2. Both JADIK (Japan Automobile Distributers in the Kingdom) and JAMA (Japan Automobile Manufacturer’s Association) finance the construction of SJAHI building, while the Government of Japan through JICA will provide the following:
(1) Dispatch of Japanese experts for technology transfer.
(2) Machinery, equipment and materials necessary for the implementation of the project.
(3) Training in Japan for the Saudi instructors and officials in charge of the project.

The construction completed in April 2002. The commencement of the schoolwork was the scholastic year of September 2002. The education level of SJAHI will be that of technical college of two-year course. The educational objective is the provision of practical technical training for the automotive service technicians, while the technical level of the graduates will be equivalent to the national license of third grade automobile mechanics in Japan.

The students of the institute are high school graduates. At the beginning, the institute receives 5 classes with 200 students in each grade. The training in Japan has been provided to the institute staff members and instructors. There is an opportunity for outstanding students to be assigned after graduation as instructors in the institute, and consequently there will be a chance for those instructors to study in Japan.

Annex I: Course participants

Course	A					B						C					D	
Fiscal year	92	93	94	95	96	97	98	99	00	01	02	98	99	00	01	02	03	
Asia																		
Bangladesh	1	1		1			1			1			1	1				7
China	1	1		1	1	1		1		1	1	1	1	1	1	1		13
India	1	1	1	1	1	1	1	1		1		1	1	1				12
Indonesia	1	1	2	1	1	1	1	1	1	2	2		1	1		1	1	18
Korea	1	1	1	1	1	1	1					1						8
Laos																	1	1
Malaysia	1	1	1	1	1	1	2	1				1	1	1	1			13
Maldives				1			1											2
Mongolia						1	1											2
Nepal						1												1
Pakistan	1	1	1	1	1	1	1	1		1		1	1		2			13
Sri Lanka									2									2
Thailand	2	1	1	1	1	1	2	1	2	2	2	2		1	2	2	1	24
The Philippines	1	1	1	1	1		1	2	1			1	1	2	2	1	1	17
Vietnam			1	1			1										1	4
Pacific Islands																		
Fiji			1	1	1					1		1						5
Kiribati					1													1
Palau											1							1
Samoa					1	1	1				1							4
Tonga				1	1		1											3
Tuvalu					1													1
Latin America and Caribbean																		
Argentina						1				1	1		1		1	1	1	7
Brazil						1	1	2	1	1		1			1		1	9
Chili						1					1	1			1		1	5
Columbia								2		1								3
Mexico									1			1			1			3
Paraguay								1		1								2
Peru						1					1							2
Venezuela						1												1
Africa																		
Central Africa								1										1
Egypt												1		1			1	3
Ethiopia									1									1
Kenya								1	1		1							3
Madagascar											1							1
Senegal									1									1
Uganda							1											1
Zimbabwe														1		1		2
Middle East, Europe																		
Latvia									1									1
Saudi Arabia													1					1
Turkey										2	3					2	1	8
Uzbekistan											1							1
Yemen									1									1
Total	10	9	10	13	13	15	17	15	13	15	16	13	9	10	12	9	10	209

A: Seminar to cope with global warming in the Asia Pacific Region

B: Development of national inventories and strategies on climate change

C: Technology for GHG emission mitigation

D: Capacity building for policy makers regarding global warming (Kyoto Mechanism)

Annex II: Agencies and organizations which contributed to the course "Technology for GHG emission mitigation" in the fiscal year 2001

Organizer:
- JICA, Chubu International Center

Implementing agency:
- International Center for Environmental Technology Transfer

Collaborating organizations:

Government agency
- Chubu Bureau of Economy, Trade and Industry, METI
- Environmental Division, Mie prefecture
- Nagoya City

Research institutions
- National Institute of Advanced Industrial Science and Technology
- Institute for Global Environmental Strategies
- Central Research Institute for Electric Power Industry
- Fuel Cell Development Information Center
- Citizens Environmental Foundation, Tokai branch
- International Center for Environmental Technology Transfer

Universities
- Saitama University
- Mie University

Private sector
- Nihon Kohkan Co.
- Chubu Electric Power Co., Inc.
- Nippon Steel Co.
- Oji Paper Co.
- Cosmo Oil Co., Ltd.
- Toyota Motor Co.
- Toho Gas Co.
- PE Asia Co.

Annex III: Fact sheet on the JICA group seminars on climate change

A. Group seminar focusing on national inventories

Project duration:

1992-1996 Seminar to cope with global warming in the Asia Pacific region
1997-2002 Strategies on climate change and development of national inventories

Course objectives:

To assist developing countries in fulfilling the responsibilities under the UNFCCC,

- by providing developing country officials with the latest scientific and technical findings on climate change, and
- by equipping developing country officials with skills to compile national GHGs inventories and to develop national strategies on climate change.

Discussion topics:

Overview of the policy framework to address climate change
(a) Japan's policy to address climate change
(b) UNFCCC and its Kyoto Protocol, and
(c) Kyoto Mechanism and CDM projects;

Compilation of the national inventories,
(a) the guideline for national communication of non Annex I countries,
(b) estimation of GHGs and compilation of inventories;

Development of national strategies
(a) vulnerability assessment and adaptation measures,
(b) GHGs mitigation measures,
(c) Japan's policy measures to address climate change;

Course outputs: country report and national action plan
Course duration: 8 weeks
Participants for each course: approx. 15
Total number of participants: 146
Number of countries participated: 38

B. Group seminar focusing on mitigation measures

Project duration:

1998-2002 Technology for GHG emission mitigation
2003- Capacity building for policy maker regarding global warming (Kyoto Mechanism)

Course objectives:

To assist developing countries to achieve GHG mitigation

- by acquainting developing country officials with good practice examples from the Japanese industry sector, and
- by fostering innovative ideas of developing country officials for policy making and implementation of new technology.

Course output: national action plan
Discussion topics:

Overview of the GHGs mitigation measures
Technologies to save energy and resources implemented by the industrial sector
(a) Power plants
(b) Paper mills
(c) Steel plants

Technologies to save energy and resources in the household sector
(a) Public transportation system and regional development
(b) Vehicles fueled by cleaner energies
(c) Climate change strategies by local government

Technology development to introduce non-conventional sources of energy and to mitigate GHGs

(a) Fuel cells
(b) Renewable energies
(c) Recycling

The following topics are included from year 2003:

Kyoto Protocol and the rules set by the Kyoto Mechanism

The role of developing countries in promoting CDM projects

Course duration: 8 weeks
Participants for each course: about 10
Total number of participants: 63
Number of countries participated: 20

Annex IV: Feedback from the participants[1]

A. Strategies on climate change and development of national inventories

1. The most useful topics covered by the course

1998

- IPCC working group
- Common but differentiated responsibilities of developed and developing countries
- GHG mitigation policies
- Science of the climate change
- Technology development for new source of energies
- Energy saving measures
- Vulnerability assessment and adaptation assessment in the coastal zones
- Application of the AIM model
- Guideline on national communication for non Annex I countries
- Modern methodology and technology in addressing climate change
- Calculation of GHG emissions

1999

- GHG mitigation policies in different sectors (transport, industry, commerce etc.)
- Measures to enhance CO2 sinks
- Impact assessment
- Field trips to industrial facilities
- GHG inventory submission as the Kyoto Protocol commitment from developing countries
- Energy efficiency
- Technical cooperation
- Compilation of inventories
- Impacts of climate change on water resources, forest and human health
- Zero emission
- Preparation of national communication
- CO2 monitoring
- Recycling of solid wastes
- International framework to address climate change
- Japan's ODA and its focus on the environment
- Cleaner power generation by natural gas
- Japan's policies to achieve Kyoto targets

2000

- Renewable energy
- Impacts of climate change in Japan
- Use of the AIM model
- Japan's policies to address climate change
- IPCC
- Energy efficiency and energy saving
- Latest findings on climate change
- The use of computer and software
- Field trips to the Japanese industry

2001

- Kyoto Protocol
- Global trends in energy supply and demand
- Calculation of GHGs

[1] This annex is based on anonymous information gathered from the JICA's summary of the consolidated questionnaires, which have been filled in and returned at the end of each course by participants. It covers from 1998 to 2002 for the "strategies on climate change and development of national inventories," from 1999 to 2002 for the "technology for GHGs emission mitigation," and 2003 for the "capacity building for policy maker regarding global warming (Kyoto Mechanism)."

- Emissions trading
- Compilation of the GHG inventories
- National communications
- Energy efficient power plants
- Technology
- The use of AIM-END model
- Vulnerability and adaptation

2002

- Japan's ODA and its focus on the environment
- CDM
- Adaptation
- GHG mitigation measures
- Technology transfer
- Human resource development
- Computer exercise to compile the GHG inventory
- Measures related to Montreal protocols
- Calculation of GHGs
- Renewable energies
- IPCC
- Renewable energies
- National communications from NAI
- Vulnerability and adaptation
- Compilation of inventories
- AIM model

2. Topics to be added or to be reinforced in future courses

1998

- National communications
- Compilation of the GHG inventories (estimation of the emission factors)
- Development of climate change strategies in developing countries
- Use of the software to calculate the GHG emissions from major sectors
- Use of AIM model and the interpretation of the results
- Observation of the climate variation in Japan
- Basics on the climate change
- Characteristics of the GHGs
- Methodologies on the climate change

1999

- Innovation in manufacturing process
- Compilation of the GHG inventories
- Costs and benefits of the climate change strategies
- Impacts of climate change on biodiversity
- Adaptation assessment on human health and water supply
- Meteorological devises to monitor the climate change
- Modeling and simulation exercise using computer software
- Environmental monitoring and the quality of available data
- Time series analysis of the meteorological data

2000

- Estimation of emission factors
- Compilation of inventories
- Renewable energy
- Environmental auditing

- Public awareness
- Strategies to address climate change
- Computer exercise to compile inventories with the IPCC format
- Computer simulation with a model using scenarios

2001

- Visit to the nuclear power plant
- Visit to the meteorological agency
- Vulnerability and adaptation
- Environmental education
- Impacts of climate change on habitat

2002

- CDM projects in developing countries
- Practical information on the CDM
- New technologies to address climate change
- Intellectual Property Rights and technological transfer
- Field trip to steel plants with environmental protection measures
- Case study discussion on climate change
- Information and communication technology
- GIS and satellite technology
- Fiscal policy to address climate change
- Raising awareness of policy makers on the environmental issues
- Adaptation
- Development of scenarios
- Emission trading
- JI and CDM

3. Request on future cooperation between Japan and developing countries

2000

- Energy saving technology
- GHG mitigation technology
- Monitoring on the GHG emissions
- Policy formulation to address climate change
- Vulnerability assessment
- Urban planning and land use planning
- Capacity building on environmental economics and auditing
- Technology transfer in the area of research, industry, transport, health, irrigation, road construction, solar energy
- Capacity building on health, agriculture and against illiteracy
- Rural development for small-scale farmers
- Education to implement Kyoto Protocol

2001

- Economic cooperation to fully utilize the abundant natural resources
- Technical cooperation and capacity building
- Power generation, disaster prevention and meteorological services
- Training programme and lecturers
- Human resource development
- More advanced trainings in NIES
- Focus on vulnerability and adaptation
- Air pollution
- Education
- Short-term dispatch of technical experts on climate change

2002
- Additional information on climate change in Spanish
- Human resource development
- Youth exchange programme
- Provision of low-cost sanitation and portable water in rural areas
- Human resource development to diffuse energy efficiency measures in households
- Human resource development in priority areas such as agriculture, water resources, health and energy
- Vulnerability and adaptation
- Technological transfer

B. Technology for GHGs emission mitigation

1. The most useful topics covered by the course

1999
- Cleaner production
- Renewable energy
- Micro cogeneration system
- Principles on new energy
- CO2 emission reduction in the incinerator power plants
- Mass transportation system

2000
- Overview on climate change
- GHG mitigation technology
- Technologies to save energy
- Renewable energies
- Microenergy system
- Cleaner production
- Japan’s use of energy and its sources
- Mass transportation system
- Hybrid cars

2001
- Power generation from waste incinerator and recycling
- Energy saving measures in power generation, industry, transport and household sectors
- Renewable energies
- Technologies for recycling
- Waste management
- Environmental housekeeping accounting
- Energy Saving Managers’ certificate
- Overview of Japan’s energy and power sources
- Technologies for cleaner production
- Cogeneration
- GHG Mitigation measures
- General discussion on the climate change

2002
- Japanese legislation on the rational use of energy
- Recycling of wastes and energy at the public broadcast company
- Cleaner production
- Energy saving technologies in industrial and household sectors
- Policies and measures to mitigate GHGs
- Mitigation measures implemented by industries by saving energy and resources
- General discussion on the global warming

- Energy Saving Managers' certificate
- New source of energy

2. Topics to be added or to be reinforced in future courses

1999

- Biomass energy
- Cleaner production in medium and small enterprises
- How each company financed the investment in developing new energy and the installation of new technology
- Field trip to cement and petrochemical plants to learn the latest technology development
- Life Cycle Assessment from raw materials to the final products
- Top-runner criteria for technology assessment

2000

- Technical training on GHG mitigation technology
- Management of the urban transportation system for GHG mitigation
- End-of-the-pipe management
- Japan's history in pollution abatement, and the reasons for its success
- Biomass energy
- Scientific findings on climate change
- Socioeconomic assessment on climate change
- Monitoring GHG: equipments, technology and interpretation of results
- Ozone depleting substances

2001

- Topics specifically tailored to developing country needs
- Group discussions after each lecture
- Forest management and CO2 sinks
- Communication strategy on climate change
- Calculation of GHG emission
- Appropriate technology for developing countries
- Energy Saving Manager system
- Measures to address climate change in agriculture sector
- Field trip to medium and small size enterprises
- Renewable energies

2002

- Impacts of climate change on agriculture, forestry and land use change
- Environmental protection measures implemented by plants producing cements
- GHGs inventory
- Energy balance and energy resources
- Guidance to improve operations at existing manufacturing plants

3. Requests on future cooperation between Japan and developing countries

2000

- Human resource development: technicians
- Research projects on environmentally friendly transportation system
- Technical training
- Installation of waste incinerators
- Energy efficiency
- New technology

2001

- Technology transfer
- Exchange programme for technology transfer

- Technology and knowledge transfer on energy savings
- Fact finding research for project implementation in developing countries
- Awareness raising for environmentally conscious production methods
- Advance of technology

2002

- Capacity building to the CDM national offices
- Information sharing on new technologies
- Specialized seminars on GHG emissions, environmental monitoring and air pollution abatement technology
- Hazardous waste management, including oil leak and acid rain
- Pollution abatement
- Increase the numbers of participants to this seminar from each country

C. Capacity building for policy maker regarding global warming (Kyoto Mechanism)

1. The most useful topics covered by the course

- Energy saving and energy conservation
- Kyoto Protocol and the role of developing countries in implementing CDM projects
- Use of new energy
- New technology for GHG mitigation
- CDM
- DNA
- project document for the CDM
- Prototype Carbon Fund
- GHG mitigation measures
- Energy and resource saving measures implemented in the steel industry

2. Topics to be added or to be reinforced in future courses

- Details on JI and on emissions trading
- Exercise to draw up a project design document for CDM
- Exercise to calculate GHG emissions
- Nuclear power plants
- Global energy supply and demand and the global warming

3. If the participants achieved a better understanding of the following topics:

(i) The scientific aspects of climate change

	5 (fully achieved)	4	3	2	1 (not at all)
before	2	1	5	1	1
after	5	5			

(ii) GHG mitigation measures

	5 (fully achieved)	4	3	2	1 (not at all)
before			8	1	1
after	5	5			

(iii) Kyoto Protocol and the Kyoto Mechanism

	5 (fully achieved)	4	3	2	1 (not at all)
before	1		7		2
after	5	4	1		

(iv) The role of developing countries in implementing CDM projects

	5 (fully achieved)	4	3	2	1 (not at all)
before		1	7		2
after	5	4	1		

PAPER NO. 4: NEPAL

Views of Nepal on "Capacity building"

This paper is based on the document FCCC/SBI/2003 1.29, paragraph 2(b)

Nepal welcomes the COP decision on comprehensive review of the implementation and its effectiveness of the framework for capacity building in developing countries at regular intervals.

Nepal recognizes the significance of capacity building. It is an essential component of an integrated approach to national sustainable development, which embraces both needs to adapt to climate change and to take action towards achieving the ultimate goal of the convention. Such an approach will enable country like Nepal whose economy is in transition to fulfil their obligation under the convention and participate effectively. However Nepal needs assistance for undertaking a self-assessment of capacity building needs.

Nepal is in the process of conducting analysis, evaluating various policy and technology options for addressing its climate change obligations, in the process of making a decision to ratify the Kyoto Protocol.

Nepal emphasizes on capacity building and generation and sharing of information so as to develop her negotiating capacity diplomatically on sound technical basis. Nepal stresses on adaptation of long-term approach to capacity building within a broader sustainable development context, only workshop and seminars do not contribute to the effective broader capacity development plans. Nepal also emphasizes in the importance of promoting cross connection synergies in capacity building activities to promote efficiency and quality.

PAPER NO. 5: UNITED REPUBLIC OF TANZANIA ON BEHALF OF THE GROUP OF 77 AND CHINA

ADDITIONAL INFORMATION ON CAPACITY BUILDING BY THE UNITED REPUBLIC OF TANZANIA ON BEHALF OF G77 AND CHINA

The United Republic of Tanzania wishes to submit the following contributions towards the implementation of the review of the Capacity Building Framework as respond to decision .../CP.9: Capacity Building.

Tanzania on behalf of the G77 and China, feels that so far there has not been adequate implementation of decisions 2/CP.7 and 3/CP.7.

The agreed scope of the Capacity Building activities that needed implementation has not been addressed adequately. The following is the analysis of some of the weakness into the implementation of decison. 2/CP 7:-

I. Institutional capacity building, including the strengthening or establishment, as appropriate, of national climate change secretariats or national focal points (para 8)

1. As it was noted by the G77 and China at COP 8 and 9, it appears that most of the activities/ programme contained in the Marrakech Accords have not been adequately implemented

2. Most developing country UNFCCC Focal Point still have no capacity. In most developing countries, there is no difference in terms of institutional capacity that can be attributed towards decision 2/CP 7. Capacity Building assistance in the context of decision 2/CP7 must be over and above the available ODA. However, in reality ODA is going down. In any case immediate support is still a problem and institutional capacity building to address climate change in a comprehensive manner still suffer from uncoordinated and insufficient both technical and financial assistance.

II. Enhancement and/or creation of enabling environment (paras 10 and 11)

3. There are still inadequate enabling environments in most developing countries. The available assessments has shown that there is no need for further assessment on the requirements to strengthen national institutions and develop human resources for creation of enabling environments for parties participate effectively in the UNFCCC and Kyoto Protocol processes.

Developed countries should assist in strengthening the systematic and institutional levels of capacity building. Various assessments that have been undertaken and the ongoing assessments such NCSA do provide enough information in this regards.

4. Many developing countries have undertaken a number of institutional restructuring in order to accommodate global issues. Financial and technical support is important in order to create enabling environment to accommodate climate change in the national development processes.

III. Greenhouse gas inventories, emissions database management, and systems for collecting, managing and utilizing activity data and emissions factors

5. Much as many developing countries have started to build capacity through processes of national communications there is a lot of capacity gaps existing in terms of data base management and managing and utilizing available data and emissions factors.

IV. Clean Development Mechanism

6. Tanzania believes that most developing countries still need capacity building in order to participate actively in CDM. Many countries do not have Designated National Authority (DNA) and where they exist they are still very weak. A special initiative or programme for strengthening of DNA in developing countries, should be undertaken in respond to 2/CP 7 and should focus both the public and private sectors.

CONCLUSION

It is clear from the available submissions and document that Capacity Building Framework as per 2/CP7 has not enjoyed the attraction as envisaged when the decision was made at Marrakech.

Many of the reported activities are testimonial dating as far back as the 1990s and do not necessary respond to 2/CP7. Activities undertaken in developing countries in order to respond to Capacity Building must be country-driven comprehensive, with the agreed scope, consistent and must respond to the immediate and urgent needs of a particular developing country party.

Developed countries still need to do more if climate change has to be addressed comprehensively with the adequate involvement of all countries rather reporting for the sake of fulfilling the reporting agreements under the Convention.

PAPER NO. 6: UNITED STATES OF AMERICA

U.S. Submission on Capacity Building

20 February 2004

The United States is pleased to provide the Secretariat with additional information as an input to the Secretariat's paper, and its technical appendices, on the range and effectiveness of capacity-building activities in developing countries aimed at implementing decision 2/CP.7.

We anticipate that this latest paper by the Secretariat will represent another constructive component of the comprehensive review of the implementation of the capacity building frameworks, and thus will be critical to our ability to generate meaningful results from this process, recognizing that the country driven approach of capacity building means that one size may not fit all.

We believe that the capacity-building framework for developing nations annexed to decision 2/CP.7 can serve as a useful tool to help bring country-driven priorities to the attention of those bilateral, multilateral and international organizations in a position to respond.

Making progress on capacity building is paramount to all Parties, and the United States believes that continued collaboration would help us to accomplish our mutual goal of effective implementation by the Parties of the UN Framework Convention on Climate Change.

The scope and range of U.S. capacity building activities related to climate change are very broad. In light of this, we have highlighted illustrative examples of our work in lieu of a comprehensive listing of U.S. of activities. We believe a comprehensive approach to presenting U.S. capacity building activities would be informative; however, we anticipate that our more selective approach will best serve the needs of the Secretariat. We believe this method will avoid overloading report drafters with voluminous additional materials, but will still provide significant quantities of information that is not yet reflected in existing reports.

In addition, for the Secretariat's ease in using this information for its paper and technical appendices we have provided relevant highlights of our work in a format keyed to the extent possible to the sub-paragraphs of paragraph 15 of COP decision 2/CP.7, as found in document FCCC/CP/2001/13/Add.1.

The United States appreciates the opportunity to share its views on this matter and to provide the attached information.

Attachment: Highlights of U.S. Capacity Building Activities

Highlights of U.S. Capacity Building Activities

a) Institutional capacity building including the strengthening or establishment, as appropriate, of national climate change secretariats or national focal points.

Institutional Capacity Building: Establishing National AIJ Offices and Disseminating a Manual on AIJ programs

The United States sponsored targeted workshops in Central and South America aimed at capacity building to support human and institutional efforts to build knowledge on the activities implemented jointly (AIJ) pilot phase. Countries wishing to participate in the AIJ pilot phase benefited from the establishment of national AIJ programs/offices, thereby complying with the UNFCCC requirement that the countries officially approve AIJ projects and report annually on the accumulated experience. National programs also ensured the compatibility of projects with national sustainable development priorities and helped market specific types of projects internationally.

These particular workshops promoted a multi-sectoral, inclusive and transparent approach to the development of a national AIJ program with the capacity to evaluate and officially accept AIJ projects, based upon a countries' economic, environmental, social and political development priorities. The workshops also provided an opportunity for governmental officials, representatives of the nongovernmental organization (NGO) community, and the private sector to engage in an open and constructive dialogue on AIJ and on the experiences of other AIJ initiatives. These workshops took place in Guatemala, Bolivia, Ecuador, Costa Rica, as well as other Central and Latin American countries.

The aforementioned workshops also provided an opportunity to disseminate a U.S.-funded manual, produced by an NGO – the Center for Sustainable Development in the Americas (CSDA). This manual on AIJ, which served as a reference tool for Latin American countries in establishing national AIJ offices, was translated into Spanish and distributed to over 400 individuals in the region. A revised manual was distributed several years later, and included: lessons learned in the process of establishing programs; updated country and contact information; a list of AIJ projects submitted to the FCCC; descriptions of commonly used carbon quantification and monitoring methodologies; and an expanded glossary of terms.

b) Enhancement and/or creation of an enabling environment.

The South African Solar Water Heating (SWH) Technology & Energy Savings Campaign

The United States has supported a public outreach campaign in South Africa to increase end user familiarity with solar water heating technology and associated energy savings. Additional activities included workshops and briefings to encourage support for SWH among municipal housing authorities and financing institutions in South Africa. As a result of this campaign, over 100 households expressed interest in purchasing solar water heaters in the near term, and Durban Metro Housing Authority has reiterated their desire to bundle SWH into their offerings for new low-cost home construction.

In building on this momentum, the United States, through its implementing partner, Winrock International, developed a solar hot water heating pilot program and scale-up strategy for South Africa. This strategy includes among other targeted activities, project site visits with decision makers at housing and energy agencies and finance organizations to secure buy-in and commitment, community meetings, public "demo days," as well as printed brochures, posters, and advertisements to raise awareness. Over 1,000 people received individual briefings and/or participated in "community demo days."

The intended institutions and beneficiaries of these efforts include residents of low cost homes in urban and peri-urban townships who are 85% reliant on coal and kerosene for cooking and water heating, municipal housing authorities and their provincial/national counterparts who are ultimately responsible for delivery of 150,000 – 300,000 new low cost homes each year, and indigenous manufacturers and distributors of low-cost solar water heating units and suppliers of LP Gas and related cooking appliances.

Ultimately this strategy will provide results that go beyond the provision of SWH systems, including:

- Municipal housing authorities made aware of the importance of better thermal energy service delivery for improving livelihoods.
- Increased community and housing authority awareness of clean and affordable water heating and cooking options.
- Improved consumer and supplier access to financing for clean energy appliances.
- Commercial marketing/ distribution/maintenance infrastructure strengthened.

c) National communications.

The U.S. Country Studies Program

Beginning in 1993, the U. S. Country Studies Program (USCSP) provided technical and financial support to fifty-five countries to enhance their capacity to address the issue of climate change and to participate more fully in the international response to this issue. Many of these countries have indicated that this support contributed significantly to their initial National Communication.

More specifically, the USCSP provided financial support, training, technical assistance, computer equipment, data, analytical tools, and information services to assist countries:

- inventory their emissions of greenhouse gases;
- assess their potential vulnerability to climate change and approaches for adapting to such change;
- identify and evaluate options for controlling these gases or increasing sinks thereof;
- develop national plans for responding to climate change;
- assess related technological needs; and
- increase public understanding of climate change.

Handbooks to guide studies, state-of-the-art simulation models, and analytical methodologies and tools were tailored to meet the needs of the countries. Training was provided in ten global training workshops and over twenty regional workshops. Individuals trained in these workshops led training workshops in their individual countries. In total, over 3000 analysts received training. In addition, fifteen senior officials from the participating countries helped shape the Program by working for a number of months each with the Country Studies Management Team in Washington.

Building on the work of the analysts from developing and transition countries more than three hundred and fifty publications and journal articles were produced, including ten guidance documents, sixty workshop and conference proceedings, more than one hundred and sixty country reports, and seventeen special journal editions. Much of the material included in the country reports was later reflected in countries' national communications.

The USCSP coordinated its activities with the UNFCCC Secretariat, the United Nations Environment Programme, the United Nations Development Programme, the Global Environment Facility, and numerous other multilateral and bilateral institutions and programs.

Efforts are now underway to make the extensive information generated by the USCSP available electronically as a continuing reference to interested countries.

d) National climate change programs.

Climate Change Center- India

The Climate Change Center (CCC) at Development Alternatives (DA) in India works on global environmental issues, such as climate change, global conventions and protocols, sea level rise, depletion of ozone layer, and various issues pertaining to trade and global environment. The CCC was initially set up with the support of the United States to facilitate and coordinate projects as part of the Activities Implemented Jointly (AIJ) pilot phase under the UNFCCC. This concept was further translated into action by the United States during its Climate Change Outreach and Awareness Activity (CCOA) project, for which DA was a partner. Upon successful completion of the CCOA project, the formal establishment of the CCC was initiated with the Greenhouse Gas Pollution Prevention (GEP) project. Over the last few years, the CCC has been fully operational. The main functions of the CCC are research and analysis, facilitation of climate change mitigation projects, and outreach and awareness.

Recent accomplishments include:

- Recommended to be the South Asian Resource Center on Climate Change;
- Developed a series of toolkits and a portfolio of climate change mitigation projects;
- Established methodologies and procedures to incorporate sustainable development goals in climate change mitigation projects;
- Developed training modules for trainers on sustainable development indicators;
- Created awareness and capacity among stakeholders such as the business sector, grassroots NGOs and regulatory authorities.

In the future, the CCC plans to develop a portfolio of climate change mitigation projects in the field of renewable energy, energy efficiency and policy analysis and advocacy in the field of climate change.

e) Greenhouse gas inventories, emission database management, and systems for collecting, managing, and utilizing activity data and emission factors.

Improving Regional and National Capacity in National Greenhouse Gas Inventories in Central America

The purpose of this three-year project, which began in 2003, is to raise the quality of greenhouse gas (GHG) inventories in the Central American region, and to assist in the application of IPCC Good Practice Guidance. Each Central American country has prepared a GHG inventory as part of its initial National Communication to the UNFCCC. Previous GHG inventories have been consistent with the methods and formats specified in the Intergovernmental Panel on Climate Change (IPCC) Guidelines, but in some cases countries used the most basic (Tier 1) methods with default emission factors.

The project includes the national inventory teams of all seven Central American countries, along with local researchers, academics, and government officials. The project has two main components.

Component 1 – National Inventory Systems: U. S. experts will work collaboratively with inventory experts in Central America to build a sustainable national inventory system in each country as a key component of the greenhouse gas inventory work. Upon completion of this component each country will have improved capacity to retain the expertise and experience necessary to prepare future GHG inventories.

Major activities will include:

- A key source analysis;
- A description of institutional arrangements;

- A source-by-source background document;
- An inventory improvement plan; and
- An archiving system.

Component 2 – Improving Quality of National GHG Inventory Inputs: Efforts to increase the quality of GHG inventory data inputs will focus on land-use change and forestry, agricultural soils (carbon and N_2O), landfill methane, and enteric fermentation. These source categories were identified by Central Americans governments as priorities for improvement. In some cases, estimation models will be adapted to Central American conditions and training will be provided to Central American experts in using those models.

f) Vulnerability and adaptation assessment.

Adaptation to Climate Change in Hermosillo, Mexico

Beginning in 2001, the United States collaborated with Mexico's National Institute of Ecology (INE), the National Autonomous University of Mexico (UNAM) and the Colegio de Sonora to study adaptation options to reduce the potential effects of climate change on water resources in northern Mexico. The study focused on the capital city of Hermosillo in the State of Sonora.

The main objectives of the project were to:

- Identify and evaluate adaptations to the potential impact of future climatic change on water resources;
- Work with stakeholders on identifying, analyzing, and prioritization of adaptation options to address vulnerabilities to climate variability and change; and,
- Develop and apply a process for examining adaptation to climate change that could be applied elsewhere in Mexico.

Researchers from UNAM and the Colegio de Sonora conducted an initial assessment of water/climate concerns in Hermosillo and possible adaptation options through a series of informal interviews with water managers, water user associations, representatives of different water consuming sectors (e.g., agricultural unions), local environmental officials and nongovernmental agencies. A workshop was held with these and other stakeholders, and narrowed the types of adaptation to be considered to:

- Encouraging wiser use of water by consumers;
- Using better building materials in homes to reduce energy and associated water use; and,
- Improving management of extreme precipitation events to reduce flooding and increase water supplies.

The options were elaborated; their costs, feasibility and effectiveness were evaluated; and a second stakeholder workshop was held. Participants in the workshop qualitatively evaluated each option based on the following criteria: 1) the efficiency of the project in addressing future water concerns; 2) the time frame in which results could be expected; 3) the cost; 4) the general viability; 5) the actors who would need to take responsibility for implementation; and 6) other impacts (positive or negative) that might be expected from the project. Participants also ranked the options according to which one was most important to implement given the current water problems in Hermosillo, as well as under the two climate change scenarios presented in the workshop (i.e., "warmer and wetter" and "warmer and drier").

The results of the effort were shared at a policymakers workshop in Mexico City in January 2004. It is expected that lessons learned in the project will serve as constructive input into additional vulnerability and adaptation projects in Mexico.

g) Capacity building for implementation of adaptation measures.

Coastal Resources Management Program (CRMP)

The United States has implemented a number of Integrated Coastal Management (ICM) programs, including the Coastal Resources Management Program (CRMP). The CRMP has operated in the Dominican Republic, Ecuador, El Salvador, Egypt, Indonesia, Jamaica, Kenya, Mexico, Tanzania, Thailand, and the Philippines. CRMP projects promote increased governance, public participation and stewardship toward the management of multi-sectoral activities within coastal zones and surrounding watersheds, helping to address a variety of climate-related threats to coastal and marine biodiversity and resource dependent communities.

While providing extensive technical assistance and research addressing coastal zone management needs, the CRMP helped generate significant practical tools, e.g., coastal maps, program performance management guidelines, community coastal zone management strategies, national ICM policies, and best management guidelines in aquaculture, mariculture, and tourism development. The CRMP also supported outreach on best practices through reports, journals, publications, CD-ROMs, email list serves, and Web sites.

In Indonesia, human activities have contributed to sediment starvation, accompanying beach erosion, and destruction of more than 44,000 km^2 of mangroves since 1975. Rising sea levels, are expected to further stress this ecosystem by negatively impacting productivity of mangrove forests and slowing renewal of wetlands, the biological buffer against storms and breeding grounds for many valuable fish species.

Working in North Sulawesi, Lampung, and East Kalimantan, the CRMP enabled coastal communities in Indonesia to sustainably manage coastal resources totaling some 1,845,000 hectares. The project motto, "From Local Action to National Practice," was showcased in Blongko, a small coastal village of 1,250 people on the northwest shore of North Sulawesi who live near the water and depend on coastal resources for their food and livelihood. The community had long recognized the importance of their local fisheries, mangroves, and reefs, but was uncertain what actions to take to protect these valuable resources. CRMP sponsored an exchange visit to the highly successful marine sanctuary at Apo Island in the Philippines. This exposed Blongko villagers to successful, community-based conservation activities and motivated them to take action locally. The project also successfully helped the village government and community develop a long-term plan to protect marine resources, and trained fishers and farmers in resource surveying and mapping techniques. Significantly, the local community made all key decisions regarding sanctuary location and usage rules.

By promoting community ownership of the marine sanctuary, the U.S. has encouraged Blongko's residents to take a more active role and greater responsibility for protecting and sustaining the marine resources that directly affect their day-to-day lives. Today, the village's coastal ecosystem is healthy and productive, and is rimmed by thick mangroves.

h) Assessment for implementation of mitigation options.

Integrated Environmental Strategies

The U. S. Government's Integrated Environmental Strategies (IES) Program provides direct technical assistance to developing countries in identifying and implementing harmonized technology and policy measures in order to achieve local public health, economic and environmental objectives that also result in significant greenhouse gas (GHG) reductions.

The goals and objectives of the IES program are to:

- Provide tools and approaches to help analyze and quantify environmental (air quality and associated greenhouse gas), public health, and economic co-benefits;
- Improve analytical methods for co-benefits analysis;
- Provide the information necessary for consideration of global issues in local energy and environmental policy initiatives;
- Build expertise in integrated energy and environmental analysis; and
- Promote implementation of measures and policies with multiple benefits.

Analyses are adapted to the unique needs and interests of policymakers and researchers in the host countries. In-country research teams, guided by in-country policymakers and assisted by U.S. counterparts, identify key policy objectives and a range of potential conventional and innovative policy measures. The team develops an analysis of the potential co-benefits of the mitigation strategies and a relative ranking of measures to inform policy decisions. Stakeholder involvement is promoted throughout the project-management process. For example, in the IES-Philippines project in Manila, stakeholders representing local and national governments, research institutions, civil society, and industry were involved in an initial meeting in February 2003 to determine the scope of the project. In December 2003, after the project team conducted its detailed analysis of Manila's transportation sector, those stakeholders were invited to return and to participate in another workshop to learn about the results of the IES analysis, and to provide input on the recommendations developed by the project team.

Government agencies and research institutions in Argentina, Brazil, Chile, China, India, Mexico, the Philippines and South Korea are participating in the IES program. Work began in Santiago, Chile, in March 1999, with a team analysis of the impacts on public health from measures in the fuel switching, building energy efficiency and transport sectors that would improve air quality and reduce associated GHGs. CONAMA-RM (the regional environment authority), acknowledging the link between air quality and GHGs, applied for $5 million from the Global Environment Facility to integrate GHG reduction measures into the Urban Transport Plan for Santiago. CONAMA-RM has recognized the significant capacity built through the project by awarding lead project officers a five-year contract as a "Center of Excellence" to continue their air quality analysis.

i) Research and systematic observation, including meteorological, hydrological and climatological services.

Enhancement of Developing Country Capacity Through the Committee on Earth Observation Satellites

During its Chairmanship of the Committee on Earth Observation Satellites (CEOS) November 2002 to November 2003), the United States placed a high priority on enhancement of Earth observation capacity in developing countries. The United States led a successful CEOS WSSD follow-up program, bringing together more than 25 team members from space agencies and international organizations around the world to focus on five key linkages between the use of space based data and sustainable development. These linkages reflect priorities for the space community in the WSSD Plan of Implementation, and include: 1) capacity building; 2) water resource management; 3) disaster management and conflicts; 4) climate change; and 5) global mapping, land cover change, and GIS.

In addition, in cooperation with UNESCO and CSIR, a South African NGO, the United States funded a workshop in October 2003 in Stellenbosch, South Africa. Workshop participants represented over 40 academic, NGO, and government experts from Africa and around the world and developed a comprehensive set of Earth observation capacity building principles to guide the future efforts of the CEOS and the space community. Key goals of these principles were to ensure the incorporation of

opportunities for developing countries to benefit from Earth observation operations, products and services, and to enhance developing country capacity. The United States also played a leading role in the workshop, and in an indication of the excellence of the principles developed by workshop participants, they were adopted as drafted at the workshop during the CEOS Plenary in November 2003. Furthermore, these principles made a strong contribution to the development of the Earth Observation Summit's Group on Earth Observation (GEO) Draft Report – Capacity Building Subgroup Chapter.

The United States continues to play a key role in the CEOS WSSD follow-up program, and serves as a CEOS Co-chair to the GEO Subgroup on Capacity Building. The United States is also actively involved in the CEOS Working Group on Education, Training and Capacity Building. This subgroup has helped consolidate education materials and resources from the space community, so they can readily be made available for education and training purposes.

j) Development and transfer of technology.

Collaboration with the Government of Ghana

Through the Climate Technology Initiative (CTI), an integrated program of technical support and training was provided by the United States to the Ghanaian Environmental Protection Agency and other Ghanaian stakeholders related to its technology needs assessment and technology transfer implementation activities. The U.S. trained a broad range of Ghanaian stakeholders on technology transfer under the UNFCCC and elements of the technology needs assessment process in the Handbook on Methodologies for Technology Needs Assessment. Training in technology transfer methodologies and options was also provided to stakeholders working on their Action Plan for the Global Village Energy Partnership under the WSSD. Complementary activities included meeting facilitation, presentations, and collaboration with government officials, NGOs, businesses, and local commercial banks, thus enhancing participants' abilities.

Key results and impacts included:

- Analyses developed collaboratively as part of initial actions driven by the needs assessment played a significant role in policy discussions leading to the elimination of all Ghanaian tariffs and value-added taxes on compact fluorescent lamps (CFL).
- The lead Ghanaian partner emerged – partly due to the experience gained through this needs assessment work – as a recognized international expert in climate change technology transfer and the needs assessment process.
- Ghanaian partners gained experience in developing UNDP/GEF proposals through collaboratively writing one in support of the CFL promotion program.
- Technical support provided in this effort helped Ghana emerge as one of the leading country partners in the Global Village Energy Partnership under the WSSD.

All relevant stakeholders were engaged, including:

- All government agencies with relevant portfolios, including energy, environment, electric utility sector, technology standards, planning, trade, health, education, agriculture, water supply, and scientific/industrial research;
- NGOs in key roles in energy and environmental affairs;
- Ghanaian private sector partners in heavy industry, fuel supply, renewable energy supply, finance and real estate, and lighting equipment;
- Industrial and commercial trade associations;
- Academic energy and environmental researchers; and
- Ghanaian commercial banks.

Strong in-country leadership was critical to this program's success. The Ghanaian team effectively deployed support available under the GEF "top-up" fund for Technology Needs Assessment, and stakeholder in-kind contributions leveraged by donor resources contributed to the effort. Nonetheless, lack of available domestic financial support necessarily limited the scope of the needs assessment effort. Continuing the robust stakeholder engagement achieved will be dependent on maintaining momentum and progress toward tangible results.

k) Improved decision-making, including assistance for participation in international negotiations.

Capacity Building in the Andean Region

Working with The Nature Conservancy, the United States helped the Andean region build capacity to promote long-term conservation, sustainable development and climate protection through forest-based activities under the UNFCCC. Activities included conducting a GHG inventory and projections for Bolivia; providing technical assistance to the Bolivian government regarding the treatment of land-use change and forestry projects under the UNFCCC; and drafting analytical papers on related issues.

Leading land use experts were commissioned to write analytical papers and explore key issues relevant to the development of climate change mitigation projects in the land use, land-use change, and forestry (LULUCF) sector. The papers presented cutting-edge research and analysis on permanence, leakage, and scale.

"Carbon Accounting, Trading and the Temporary Nature of Carbon Storage" assessed various approaches to address sequestration-related permanence issues. The paper reviewed several approaches to account for this risk, including the "Colombian Proposal," and analyzed the financial implications of each.

"Scale of Land Use, Land-Use Change and Forestry in Developing Countries for Climate Mitigation" analyzed the potential for LULUCF projects in developing countries to "swamp the market" for carbon credits, reducing investment in energy sector projects.

"Understanding and Managing Leakage in Forest-Based Greenhouse Gas Mitigation Projects" reviewed the potential for LULUCF projects to lead to unanticipated shifts in carbon benefits outside the project boundary, and options to anticipate, minimize, and account for negative leakage.

These analytical papers helped form the basis of a technical workshop entitled, "Leakage, Permanence, and Scale: Addressing Technical Issues in Forest-based Projects for Climate Change Mitigation." Regional experts from Latin America were invited to participate in this workshop, with a focus on the Andean region. The purpose of this meeting was to:

- Disseminate findings from the three analytical papers;
- Share technical information and understanding;
- Build links for future cooperation between the U.S. and Latin America on the treatment of LULUCF activities in climate change mitigation strategies.

This work enhanced Andean negotiators' abilities to apply their knowledge and experience in the development of their countries' climate change policies, and in the UNFCCC negotiations related to LULUCF activities.

m) Needs arising out of the implementation of Article 4, paragraphs 8 and 9, of the Convention.

Tri-National Rio Lempa watershed

In the Rio Lempa watershed, shared by El Salvador, Honduras, and Guatemala, the United States has partnered with the Central American Integration System (SICA) Secretariat and the Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), working to increase the information base for disaster management and response in these countries with areas prone to natural disasters. Its support for the development of a Geographic Information System (GIS), installation of a network of automatic river gauges, weather stations, satellite dish and forecast center has enhanced the capacity of Central Americans to analyze and transmit data on climate and hydrologic conditions. For example, the capability to analyze watershed information in real time allows the forecast center to model current river flow, manage reservoir levels, and serve as an early warning tool for both floods and droughts.

The National Weather Service Forecast System (NWSRFS) consists of a network of automatic river gauges, and weather stations installed in El Salvador, Honduras and Guatemala, a satellite dish (e.g. antenna) and forecast center. This network of stations and gauges transmit data on climate and hydrologic conditions. A hydrologic model developed for the Río Lempa basin installed at the forecast center in El Salvador uses this information to generate forecast products. These include current river flow, likelihood and extension of floods, and reservoir-level forecast. The forecast system is an invaluable tool for reservoir and overall water management in times of both droughts and floods, and may be used as an early warning tool for floods.

The watershed-level GIS organizes spatial information in digital form that is conducive for analyses. The information layers include maps of landslide and flood prone areas, soils, vegetation, land-use and municipal boundaries among others. The GIS is a powerful tool for policy-level watershed management planning.

As a result of this U.S. sponsored work with SICA in the Rio Lempa watershed, the Ministers of Environment from Honduras, Guatemala, and El Salvador signed an inter-institutional cooperation agreement to enhance coordination of watershed management and disaster mitigation activities. This agreement, the first of its kind in Central America, identifies the Plan Trifinio Secretariat as the entity responsible for promoting the institutionalization of the tools developed by the post-Hurricane Mitch activity and coordinating watershed management activities as they relate to disaster mitigation.

In order to reduce further community vulnerability to the potential threats posed by climate change, follow-up work has included the installation of telemetric stations and development of a natural resources strategic management plan for the watershed. In addition, the forecast center was moved from the Rio Lempa to the Servicio Nacional de Estudios Territoriales (SNET) offices in San Salvador, El Salvador.

n) Education, training, and public awareness.

The GreenCOM Project

Since 1993, the United States has funded the GreenCOM Project – in cooperation with the Academy for Educational Development (AED). GreenCOM's mission is to empower people and communities to make changes necessary to protect and conserve their environment through participatory communication strategies, tools and methodologies. GreenCOM has addressed environmental policy, community natural resource management, sustainable agriculture, coastal and forest management, biodiversity/wildlife conservation, water use/conservation, energy efficiency, clean production, solid waste management, sustainable tourism, illegal logging, and protected area management.

GreenCOM uses Strategic Participatory Communications (SPC), a process catalyzing complementary actions by multiple actors towards a common purpose. It is strategic, using research to strengthen the decision making process and to customize solutions. This process is highly participatory, involving stakeholders from the outset in identification of options and negotiation of solutions. SPC advocates a constructivist approach that values and builds on local knowledge and capabilities, and increases capacity for informed decision making on natural resource management. In addition, this process supports communication and education efforts by creating effective messages and utilizing efficient communication channels to broaden the impact of a project by expanding project reach, involving people in policy, and accelerating the flow of information among stakeholders to facilitate dialogue and decision making.

Key accomplishments include:

- Developed cross-cutting innovative partnerships and coalitions.
- Strengthened effective citizen constituencies for decision-making and action.
- Increased private sector involvement to build economic bases for sustainable environmental resource use.
- Generated demand for, approval of, and compliance with policies, technologies, and services.
- Accelerated and improve the flow of information among actors and stakeholders.
- Promoted solutions including economic opportunities, equity, and sustainable resource use.
- Accelerated adaptation and adoption of new technologies, alternative income generation activities, and natural resource management best practices.
- Facilitated civil society participation in the development of new policies.
- Strengthened local governmental capacity to manage resources more effectively.
- Strengthened capacity of NGOs, governmental institutions, and private sector.
- Helped communities ensure real and lasting impacts on issues.

GreenCOM has been conducted in over 30 countries, including Bolivia, Ecuador, Egypt, El Salvador, Guatemala, Indonesia, Jordan, Mexico, Nepal, Panama, Peru, Philippines, and Tanzania.

o) Information and networking, including the establishment of databases.

Climate Compendium

Through support from the United States and Canada, the International Institute for Sustainable Development (IISD) in conjunction with the Climate Change Knowledge Network (CCKN) developed the Climate Compendium – a comprehensive and interdisciplinary information tool that seeks to channel, condense and consolidate the latest and best information on climate change in political, economic, scientific and legal fields. The website is: http://cckn.net/compendium/.

The intent of the Climate Compendium is to be a central, electronic resource for climate change information in five broad areas: 1) International Climate Negotiations; 2) Domestic Policy and Implementation; 3) Business and Technology; 4) Scientific Research and Climate Change Impacts; and 5) Related Conventions and Agreements. These areas reflect the wide range of topics encompassed in the issue of climate change, as well as to make the information easier to find, organize and understand.

The Climate Compendium is a useful resource for researchers and negotiators from developing countries. It has proven to be a source of international climate change negotiations information, useful for understanding the historical and current issues affecting the state of play in the UNFCCC, and provides NGOs with a valuable medium to share the latest analyses and research emerging from their organizations. It represents an excellent opportunity for collaboration and information sharing that would not otherwise be available.

A total of seven research papers were commissioned and completed from organizations based in Africa, Eastern Europe, and South America. The researchers wrote papers focused on issues or concepts of importance to their regions, communities or organizations. The papers were reviewed by an advisory panel prior to acceptance for publication and then distributed through several different channels.

The papers were posted online, distributed and promoted through the Climate-L email listserv and officially released during one of the UNFCCC negotiation sessions. The papers addressed a range of issues and have attracted a significant amount of interest. In addition, the papers contributed to the capacity development and the ability of the researchers and the research organizations they are affiliated with, to contribute to the UNFCCC process in several ways. The papers have highlighted specific regional or national challenges developing countries face with regard to climate change impacts or climate change policy development. Certain papers have been republished in peer-reviewed journals and reached new audiences in that manner, again highlighting the knowledge available on subjects of relevance to developing country researchers and negotiators. Finally, several of the papers have led to the development of new project proposals or potential collaborative opportunities based on the topics or issues raised. The Climate Compendium continues to be a resource for all interested in furthering their understanding and knowledge.

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