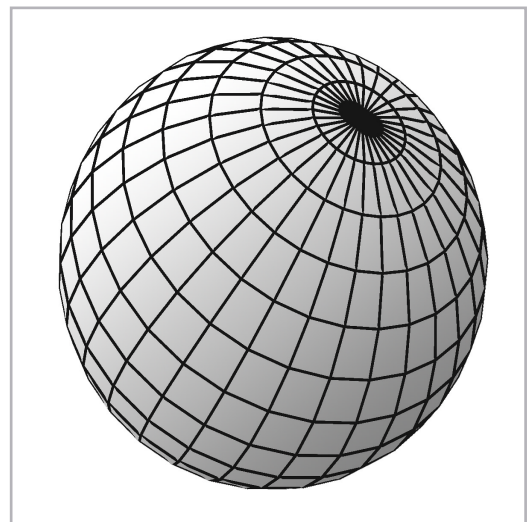
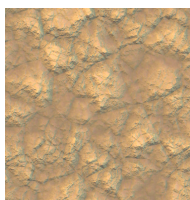
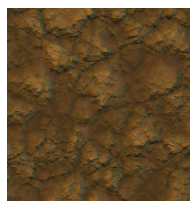
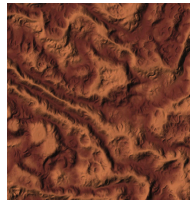
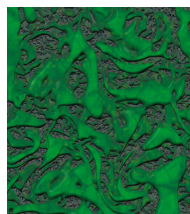
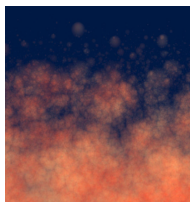
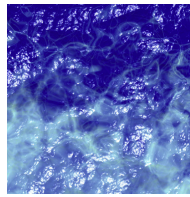
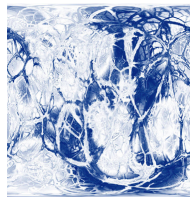


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Sudan
Tanzania

Bangladesh
China
India
Indonesia
Pakistan
Philippines
Sri Lanka

Brazil
Colombia
Costa Rica
Cuba
Guatemala
Mexico
Paraguay

Jordan
Lebanon
Syria
Yemen



WHO NEEDS WHAT TO IMPLEMENT THE KYOTO PROTOCOL?

AN ASSESSMENT OF CAPACITY BUILDING NEEDS IN 33 DEVELOPING COUNTRIES



UNITED NATIONS INSTITUTE
FOR TRAINING AND
RESEARCH

WITH

THE CONSORTIUM FOR
NORTH-SOUTH DIALOGUE
ON CLIMATE CHANGE

THE CONSORTIUM FOR NORTH-SOUTH DIALOGUE AND PARTNERSHIP ON CLIMATE CHANGE

The Consortium for North-South Dialogue and Partnership on Climate Change was formed in 1997 to promote North-South cooperation on climate change. The aim of this initiative has been to promote technology cooperation and stimulate new partnerships as the international community works to implement the United Nations Framework Convention on Climate Change (UNFCCC).

The founding members of the consortium include: the Bangladesh Centre for Advanced Studies (BCAS, Dhaka, Bangladesh); Coordenacao dos Programas de Pos-Graduacao de Engenharia, Universidade Federal do Rio de Janeiro (COPPE/UFRJ, Rio de Janeiro, Brazil); Environnement et Developpement du Tiers-Monde (ENDA-TM, Dakar, Senegal); the Pacific Institute for Studies in Development, Environment, and Security (Oakland, CA, USA); and the Woods Hole Research Center (WHRC, Woods Hole, MA, USA). Between 1998 and 2001, the Consortium grew to include the Andean Center for Economics in the Environment (ACEE, Bogotá, Colombia), The Lanka International Forum on Environment and Sustainable Development (LIFE, Colombo, Sri Lanka), and the Energy and Development Research Centre (EDRC, Cape Town, RSA). During 1999 and 2000, the events organized by the Consortium were jointly convened with, and co-sponsored by, the Climate and Energy Program of the Foundation for Business and Sustainable Development (FBSD), a project of the World Business Council for Sustainable Development (WBCSD). The work of the Consortium for North-South Dialogue and Partnership on Climate Change has been generously supported by the Royal Norwegian Ministry of Foreign Affairs, the Netherlands Ministry of Foreign Affairs, the German Technical Cooperation Agency (GTZ), the Canadian Department of Foreign Affairs and International Trade, Environment Canada, the European Commission, the Brazilian Ministry of Science and Technology, the US Agency for International Development, and the US Environmental Protection Agency.

Details about ENDA, EDRC, LIFE and ACEE can be found in the introductory chapter about the regional investigating institutions. The four other NSD project partners are described here.

WHO NEEDS WHAT TO IMPLEMENT THE KYOTO PROTOCOL?

An Assessment of
Capacity Building
Needs in
33 Developing
Countries

Geneva, October 2001

A report by

UNITAR with the Consortium for North-South Dialogue on Climate Change

Project GLO/00/144 - UNOG R165-R167 Project Manager: Annie Roncerel

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FOREWORD

There can be no doubt that the full engagement of developing countries in the Kyoto Protocol, as well as their continued contribution to the objective of the Convention, require a sustained effort by the international community to build their capacities at the local, national and regional levels. As repeatedly affirmed in the decisions of the Conference of the Parties to the UNFCCC, the terms of this effort need to be elaborated in partnership with its recipients and the provision of capacity-building adapted to suit their specific and diverse needs.

Late in 1999, the Global Environment Facility funded a Strategic Partnership with the United Nations Development Programme to develop a comprehensive approach on capacity building from the perspective of the three Rio Conventions, Climate Change, Biological Diversity and Desertification. Among the aims of this exercise, called the “Capacity Development Initiative” (CDI), was the identification of future crosscutting programmes of capacity building.

This survey has been conceived and carried out as a complement to the CDI. Its focus is on climate change, the Kyoto Protocol and its rulebook, coming near its definitive form after more than three years of intense negotiations. Particular attention has been given to the clean development mechanism, an innovative form of partnership where projects in developing countries benefiting sustainable development and the climate help developed countries reduce the costs of achieving their emission commitments.

The survey contains many insights on how to design and implement effective capacitybuilding programmes. It is grounded on the belief that the best way to find out what are the needs of developing countries is to ask them directly. We trust that it will be found particularly useful by multilateral and bilateral organizations contributing their resources and expertise to help developing countries combat climate change and adapt to its negative impacts.

We are very grateful to the United Nations Foundation/United Nations Fund for International Partnership, the governments of Canada and Norway and the US Agency for International Development for making it financially possible to conduct this important survey.

Marcel Boisard

Executive Director and
UN Assistant Secretary-General
United Nations
Institute for Training and Research

Michael Zammit-Cutajar

Executive Secretary and
UN Assistant Secretary-General
United Nations
Framework Convention on Climate Change

ACKNOWLEDGEMENTS

First and foremost, we thank those individuals—nearly 600 people in thirty-three countries—who participated in the interviews and completed the questionnaires. The results enabled UNITAR to establish a database, which is the basis of this inquiry.

Second, we express our appreciation for the outstanding efforts of the four coordinators of the regional investigating institutions who integrated the work of the survey country teams into a coherent picture for each region. Special thanks are due in this regard to Dr. Thomas Black-Arbeláez, Mr. Papa Cham, Prof. Ogunlade Davidson, Dr. Mohan Munasinghe, Dr. Youba Sokona, and Dr. Abdul Aziz Weshah. We also would like to thank the 33 national investigators who conducted the interviews for the regional investigating institutions and analyzed the questionnaires. These national experts combined an understanding of the climate issue as a problem of development strategy with an astute knowledge of local institutions. This combination led them to insights concerning the capacity-building needs of the countries under study. The names and affiliations of these national investigators are listed in chapter 5, which also contains the national summaries from each country.

We gratefully acknowledge the important inputs to this survey and final report from Dr. Saleemul Huq, Prof. Suzana Kahn Ribeiro, Prof. Emilio La Rovere, Dr. Atiq Rahman, Prof. Luis Pinguelli Rosa, Dr. Moussa Cisse, Mr. Libasse Ba; Ms. J. Amber Leonard, and Prof. Kilaparti Ramakrishna, all of whom are active members of the Consortium.

We also wish to acknowledge the important role played by Janos Pasztor, Coordinator of the Information and Outreach Programme of the UNFCCC and Gao Pronove who, very early in this process, recognized the need to carry out this survey and made every effort to facilitate its implementation. We also thank Tahar Haj Sadok and Dennis Tirpak of the UNFCCC.

We thank Ronald A. Kingham, Director of the Environment & Resources Center for his dedicated support to the technical aspect of the survey, Prof. Pier Vellinga, Director, and Els Hunfeld, his assistant, of the Institute for Environment Studies (Amsterdam) who kindly provided support to the project team during COP-6. We also thank Llalen Leander, Lorena Jaramillo, Vivian Rasakultai, Luke Peterson, and Andrea Pufahl from UNITAR who worked tirelessly to facilitate the final production of the report as well as Arnold Gallardo for his patient and creative artwork.

Finally, we are grateful to the United Nations Foundation (UNF) and the United Nations Fund for International Partnerships (UNFIP), the Royal Norwegian Ministry of Foreign Affairs, the Canadian Department of Foreign Affairs and International Trade (DFAIT), the US Agency for International Development (USAID), and the Swiss Agency for Environment, Forests and Landscape (SAFEL) for their vital support to the UNITAR climate change programme. Among those deserving special recognition are Amir A. Dossal, William Kennedy, Xiaodong Wang, Ambassador Ole Holthe, Ambassador Harald Dovland, Marte Gerhardsen, Georg Borsting, David Drake, Pierre Giroux, Sushma Gera, Ted Ferguson, David Hales, Ko Barrett, Virginia Gorsevski, and Eva Affolter Svenonius. Without the efforts of these people, our shared success and this contribution to the decision-making process at COP-6 and beyond would not have been possible.

ABBREVIATIONS

AIJ	Activities Implemented Jointly
ACEE	The Andean Center for Economics in the Environment
ALGHAS	Asia Least-Costs Greenhouse Gas Abatement Strategy (GEF project)
ANEEL	National Agency of Electric Energy (Brazil)
BCAS	Bangladesh Center for Advanced Studies
CBAP	Capacity Building Assessment Project
CDM	Clean Development Mechanism
CER	Certification of Emissions Regulations
COP	Conference of the Parties
COPPE	Graduate School and Research in Engineering (Rio de Janeiro)
DEAT	Department of Environmental Affairs and Tourism (South Africa)
DFAIT	Department of Foreign Affairs and International Trade (Canada)
EDRC	Energy and Development Research Centre, University of Cape Town
ENDA	Environnement et Développement du Tiers-Monde (Senegal)
ET	Emissions Trading
FDI	Foreign Direct Investment
GCEP	General Corporation for Environmental Affairs (Jordan)
GEF	Global Environment Facility
GHG	Greenhouse gases
IDA	International Development Agency (World Bank)
IDB	Inter-American Development Bank
IDEAM	Hydrology, Meteorology and Environmental Studies Institute
ILLUMEX	AIJ Project (Mexico)
IVIG	International Virtual Institute of Global Change
JI	Joint Implementation
LDC	Least Developed Country
LIFE	Lanka International Forum for Environment and Sustainable Development
MBA	Masters of Business Administration
MIND	Munasinghe Institute for Development
MOST	Ministry of Science and Technology (China)
NGO	Non-governmental organisation
NSD	North/South Dialogue
NSS	National Strategy Study
PEMEX	Mexican Oil Company
PRCEE	Policy Research Center for Environment and Economy (China)
R&D	Research and Development
SB13	Thirteenth Meeting of the UNFCCC Subsidiary Body
SDPC	State Development and Planning Commission (China)
SDPI	Sustainable Development Policy Institute (Pakistan)
SEPA	State Environmental Protection Administration (China)
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCC	United Nations Framework Convention on Climate Change
UNITAR	United Nations Institute for Training and Research
UNFIP	United Nations Foundation for Innovative Programs
USAID	United States Agency for International Development
WHRC	Woods Hole Research Center

1. Africa

Table 1.1:	Countries selected for the capacity needs assessment
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4. Middle East

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REGIONAL INVESTIGATING INSTITUTIONS



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Al-Shamil Engineering Office was the partner for this survey for Middle East countries. Al-Shamil is well informed and well connected with key stakeholders (governmental or non-governmental) working on climate, climate change and various other environmental issues in Arab developing countries. All these countries are highly vulnerable to climate change. Although climate change and environment are very important issues for the developing countries, these are still new subjects for some of them. Very recently however, Al-Shamil Engineering made the decision to establish itself as “Regional Center for the Environment and Climate Change” (RCECC).

The management team has an intensive background in the environment and climate change, which enables them to run the center in a professional manner. Staff is highly qualified and experienced to carry out studies in the field of the environment. The group of experts who stands behind this center participated during the last years in implementing a number of important studies such as baseline scenarios, greenhouse gases emission mitigation measures, impact of climate change on ground and surface water, capacity building needs for the developing countries in the Middle East Region.

In the future, the center will be involved in the climatic data collection from the Arab countries in the Middle East Region such as temperature, precipitation, evaporation, solar radiation, wind and others. The center will also make available climate and climate change studies, data of the environmental components such as physical, biological and socio-economic data environmental studies on national and regional levels in Middle East countries.

**THE ANDEAN CENTER FOR
ECONOMICS IN THE
ENVIRONMENT**



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The Andean Center for Economics in the Environment was to partner for this survey for Latin America and the Caribbean (LAC). The center offers professional training services, applied research, and consulting in the field of market-based regulatory solutions for public and private entities in developing countries. The economists, engineers and legal experts of the Andean Center have extensive experience with economic policies and programs within the LAC region, and can support clients in the design, implementation and operation of policies that can minimize the costs of attaining their environmental goals. The Center is specialized in two areas fundamental to developing nations in the short, medium and long term: the protection of fresh water resources and climate change. Locally, regionally and globally, economic instruments will play greater roles in environmental regulation, as is demonstrated by the adoption of an emissions offsets program in Santiago de Chile, water pollution charges in Colombia, and the Clean Development Mechanism in the Kyoto Protocol.

Training programs at the Andean Center are designed to address the needs of environmental professionals working in developing nations in the use of economic instruments and policies. Professionals working in the field of environmental regulation must be carefully trained in the design and implementation of market-based instruments in order to reach established goals at maximum benefit to society.

Applied research and consulting are focused on the design, implementation and administration of economic instruments in the LAC region. The Research program is geared to analyzing potential opportunities and constraints related to the use of market based systems, focusing primarily on emissions trading, pollution charges, and the CDM. Consulting services can effectively address the needs of regional organizations and institutions because of the Center's deep experience in similar institutional, cultural and economic contexts.



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ENDA TM - Environmental Development Action in the Third World is an international organisation with diplomatic status based in Dakar, Senegal. The organisation consists of several teams and programmes working in synergy. ENDA -TM is also part of a global network composed of decentralised nodes worldwide. The organisation is committed to struggle against poverty and aims at working with grassroots groups on the basis of their needs and objectives; contributing to the search for alternative development possibilities at all levels as well as to the various kinds of training programmes which will make this development possible; contributing to intellectuals and trained personnel's involvement in the setting up and implementation of development programmes, servicing the largest possible number of people.

The objectives and activities of ENDA Energy Programme -- one of ENDA -TM teams - are:

- to contribute to a better technical, economic and socio-cultural understanding of the energy situation in African countries, energy information systems, energy planning, energy management, rational energy use, and energy policy;
- to contribute to the identification of the conditions needed for increased dissemination of the most efficient energy technologies among the underprivileged groups;
- to analyse the relationships between energy, the environment and development, the problem of climate change and its relation to African development priorities (agriculture, forestry, energy);
- to help professionals in Africa mastering relevant tools and instruments in order to be able to analyse problems related to energy and environment in the continent;
- to contribute to strengthening co-operation and dialogue between African countries on the one hand and the Third World and the North on the other.

ENDA Energy Programme constantly put an emphasis on interactions between key elements namely research, action and training. Programmes and work are generally undertaken in collaboration with national and international organisations.

ENDA Energy Programme is extensively involved in climate change related work throughout the African continent, either at regional, national or local level. The ENDA Energy Programme was the Regional Partner for the CC: TRAIN Programme in Africa Phase II, implemented by UNITAR. This project focused on assisting developing country Parties to prepare their national communications as required under article 12 of the UNFCCC. In addition, from 1996 to 1998, ENDA Energy Programme was the regional coordinator of the GEF/UNDP Project on Building Capacity in Sub-Saharan Countries to respond to the UNFCCC. Participating countries in this project included Ghana, Kenya, Mali and Zimbabwe. The expertise acquired through these projects allows the team to provide technical assistance to countries in their preparation of national communications, in close collaboration with UNEP, UNDP and its National Communication Support Programme. This expertise is now being extended to issues related to the Clean Development Mechanism, AIJ and others.



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The Energy and Development Research Centre is one of the leading African energy and energy environment policy research, development and capacity-building institutions. The vision of EDRC is to undertake research that will improve the understanding of the energy needs, and challenges in Africa, including those

of South Africa, while identifying their linkages to development and the environment, and a search for innovative responses. They should contribute to improved social equity, economic efficiency and environmental sustainability in the energy sector through public-interest advocacy and effective communication for better policy-making, implementation; and educating, training and developing human resources in the energy sector.

Energy and Development Research Centre (EDRC) was established in 1989 within the Faculty of Engineering and Built Environment at the University of Cape Town. Since, EDRC has grown in both size and reputation, attracting funding support from a range of national and international sources to support its activities.

EDRC currently has a core staff of highly trained researchers, and support research and administrative staff. In addition, it works with numerous associates in South Africa, Africa, and internationally. EDRC is committed to undertaking high quality research that is relevant and useful; work that can affect society, the economy and the environment. The Centre's work is intrinsically cross-disciplinary, and reflects a problem-solving orientation. As a result of the post-graduate training programme located in the Centre, staff and postgraduate students interact dynamically and productively to create new understandings and knowledge of energy and development challenges that are pertinent to Africa.

EDRC has been involved in developing the ability of individuals and institutions to perform their respective functions effectively and efficiently in the area of energy and climate change. EDRC undertakes the design and implementation of training programmes that lead to both degree and continuation training programmes. Energy and Climate Change is now one of the four course modules in the post-graduate energy studies programme at EDRC in the Faculty of Engineering and Built Environment at the University of Cape Town. In addition to this programme that leads to masters and Ph.D degrees, EDRC undertakes targeted training courses in the area of climate change that are tailored to suit specific clients.



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LIFE is an apex non-governmental organisation, created by a coalition of senior decision makers from the business, government and NGO-academic sectors, to discuss issues of environment and sustainable development facing Sri Lanka. It serves as a neutral forum where such problems may be addressed and resolved in a non-confrontational and practical manner. LIFE undertakes a variety of public meetings, high-level discussions and research activities, to enhance awareness of, and commitment to, national sustainable development efforts. It helps to gather and disseminate timely, accurate and relevant information on environmental trends, conditions and status to opinion leaders; to interpret findings of environmental scientists and academics, and discuss their practical applications to sustainable development issues; and to encourage greater public participation in environment and sustainable development related decision-making.

The Munasinghe Institute for Development (MIND) was requested by LIFE to assist in the effort, after the initial agreement with the NSD and UNITAR. It is a private, non-profit organization, established to play a key role in nurturing communities of scholars who will address sustainable development issues worldwide, and explore viable means of achieving this goal in Sri Lanka without compromising its economic, environmental and socio-cultural integrity. Specific activities include bursaries, scholarships and fellowships to undergraduate and post-graduate students, book donations to libraries, research studies, seminars and workshops, and distance learning activities, in cooperation with both local and international partner institutions.

MIND facilitates research training in collaboration with government and non-government organizations, on topics relating to all aspects of sustainable development, especially climate change. These programs help aspiring researchers to formulate research proposals, present them to a panel of experts, and finally obtain funding for the studies. MIND also provides opportunities for undergraduate and postgraduate students enrolled in its scholarship and fellowship programs to participate at seminars and workshops to enhance their awareness on sustainable development issues. A recent example was the IPCC expert meeting on 'development, equity and sustainability in the context of climate change' organized by LIFE and MIND, held in Colombo in 1999. This activity not only contributed significantly to the work of the IPCC, but also led to the establishment of a Centre for Climate Studies within the Ministry of Science and Technology of Sri Lanka, to coordinate climate change studies nationwide.

OVERVIEW

INTRODUCTION

Timely and effective implementation of the United Nations Framework Convention on Climate Change (UNFCCC) and its offshoot - the Kyoto Protocol - by all Parties to the Convention, is crucial to effective stabilization greenhouse gas concentrations in the atmosphere and to achieving sustainable development in developing countries, the Non-Annex 1 Parties. Since the adoption of the UNFCCC, in Rio de Janeiro, Brazil, in 1992, developing countries have continuously emphasized the need for assistance to enable them to build capacity to implement the Convention effectively. The emergence of the Kyoto Protocol, in 1997, made the need for capacity building in developing countries even more urgent. Dialogue with Annex 1 Parties, concerning Non-Annex 1 Parties capacity-building needs, led to the adoption of Decision 10/CP.5 (Capacity Building for Developing Countries), at the Fifth session of the Conference of the Parties to the Convention (COP5), in November of 1999.

Further to that Decision, Parties mounted efforts, through the Convention's negotiation process, to prepare a comprehensive framework for capacity building in non-Annex 1 countries, for which the Convention secretariat has solicited inputs from all Parties and agencies. This Capacity Building Needs Assessment project was a joint effort of the United Nations Institute for Training and Research (UNITAR) and the Consortium for North-South Dialogue and Partnership on Climate Change. The goal was to elicit information that could be incorporated with other developing countries' views in the decision on capacity building being developed by Parties to the UNFCCC, as a follow-up to Decision 10/CP.5.

This survey received strong support from the Executive Secretary of the UNFCCC secretariat and from the Information and Outreach Programme of the UNFCCC when it was conceived mid-1999, to complement the GEF/UNDP Capacity Development Initiative (CDI) with a bottom-up, country driven and regionally focused assessment on the capacity-building needs of developing countries focusing on the Kyoto Protocol. Formally titled "Who Needs What to Implement the Kyoto Protocol? - An Assessment of climate change related capacity-building needs in 33 developing countries", the project will be referred to hereafter as the Capacity Building Needs Assessment Project (CBNAP).

The Climate Change programme of UNITAR managed of the funds received provided by the United Nations Foundation (UNF)/United Nations Fund for International Partnerships (UNFIP), along with the Royal Norwegian Ministry of Foreign Affairs, and the Canadian Department of Foreign Affairs and International Trade (DFAIT). The Pacific Institute managed the grant made available by the US Agency for International Development (USAID).

The Objectives

The overall goals of the project were:

- To elicit information about specific capacity-building needs in the selected developing countries;
- To act as a complement to the Capacity Development Initiative (prepared for the UN Development Program and the Global Environment Facility) by offering a bottom-up, country-driven assessment of capacity-building needs;
- To contribute to the decision-making process on capacity building at the Sixth Conference of the Parties (COP6) of the UNFCCC;
- To recommend actions to meet the identified capacity-building needs of developing countries

The specific goals of the project were to identify, from the perspective of a cross-section of stakeholders in a representative subset of developing countries:

1. The types and levels of capacity building activities needed in each country to strengthen national and regional responses to the risks of human-induced climate change
2. The most important gaps in existing capacity building efforts and the appropriate approaches for filling them
3. The critical target audiences for capacity building in each country
4. The most needed tools, skills, or competencies that, if reinforced through international collaborative efforts, would strengthen national responses to climate change.
5. The most important country-specific criteria for judging the success of capacity building activities

Methodology

The project involved a survey of views and perceptions held by stakeholders in developing countries from Africa, Asia, Latin America, and the Middle East. The project attempted to understand these views and perceptions using a survey methodology that involved a written questionnaire followed by an interview with approximately 15 stakeholders in each of 33 countries. After completion of the questionnaire, a national climate expert from each country conducted a structured dialogue with each stakeholder. The information from each set of questionnaires and interviews was collected and analyzed by the national expert and subsequently aggregated into regional summaries by the regional investigators. These summaries form the basis of the individual chapters of this volume.

The institutions described earlier in this report acted as the regional coordinating investigating institutions for this survey: namely Environnement et Développement - Tiers Monde (ENDA - TM) in Dakar, Senegal, in collaboration with Energy and Development Research Centre (EDRC) in Cape Town, for Africa; The Andean Center for Economics in the Environment (Bogotá, Colombia) in collaboration with the International Virtual Institute of Global Change (IVIG/COPPE) in Rio de Janeiro, Brazil for Latin America and Caribbean; The Lanka International Forum on Environment and Sustainable Development (LIFE, Colombo, Sri Lanka) in collaboration with the Munasinghe Institute for Development (MIND, Colombo, Sri Lanka) and the Bangladesh Center for Advanced Studies (Dhaka, Bangladesh) for Asia and Pacific and Al-Shamil Engineering in Amman for Middle East countries.

The Pacific Institute for Studies in Development, Environment and Security (Oakland, CA, USA) and the Woods Hole Research Center (Woods Hole, MA, USA) contributed as advisers and reviewers the final study.

The geographic coverage of the project included seven countries in Latin America, fifteen countries in Africa, seven countries in Asia, and four countries in the Middle East. Within each country, the national experts selected interviewees to represent a cross-section of stakeholder groups. The designated national investigators conducted about one-third of the interviews with senior officials in government ministries, about one-third with senior officials in the private sector and about one-third with representatives of non-governmental organizations that had been active in the national or international debate on climate change and development policy.

In each region, countries were selected for participation in the project to represent the range of development circumstances that face countries in all regions. In that regard, income level was one of the selection criteria within each region. The regional coordinating institution attempted then to select countries representing the following broad groups of countries:

- Least developed countries
- Middle income countries
- More economically advanced developing countries
- Island developing states

The survey questionnaire was developed during July and August, 2000 and was subsequently distributed to each selected country by the regional coordinators after some were translated into French and Spanish, as appropriate. Interviews were conducted during September and October. A first meeting with the four regional institutions involved in the survey took place in Lyon during the Subsidiary Bodies meetings of the UNFCCC (SB13). The project was also officially presented to country delegations at a side event at SB 13. The national reports were compiled into regional summaries between October and December 2000. The project team reported the initial results at a special seminar convened during COP6 (15 November 2000 in The Hague, the Netherlands). This publication is the final product of the project.

Key Results and Specific Actions

Reviews of the questionnaires and the interviews are summarized in the four regional chapters (Africa, Asia and Pacific, Latin America and Middle East) that follow. A fifth chapter provides a detailed summary of the 33 national reports. Finally the concluding chapter offers thoughts on the way forward regarding capacity-building issues in developing countries.

Analysis of the results obtained from the questionnaires and the interviews has led to several conclusions. First, the level of awareness concerning the general issue of climate change varies between regions. Detailed knowledge about the UNFCCC and the Kyoto Protocol is limited, both in terms of depth of understanding and breadth of distribution of information. Nonetheless, the desire for additional information, concerning the Convention, the Protocol, and the market-based mechanisms for encouraging new investment in efficient, low-emissions technologies is high. It is no surprise then that in all countries investigated for this assessment, the value and usefulness of capacity building is recognized and understood. As a consequence, the demand for additional capacity-building activities is, and is likely to remain, strong.

The most important conclusion of this assessment is that increased emphasis on capacity-building activities - in the widest sense of the term - is a key component to a successful implementation of the UNFCCC in developing countries. The general perception is, from the largest to the poorest country, that capacity building is needed to assist developing countries in achieving their national development priorities while reducing the growth rate of greenhouse gas emissions. Meeting a challenge of this scale, given the on-going economic struggles in most developing countries, will require a significant and enduring commitment of both national and international resources. New and additional international resources are needed to finance the activities associated with implementing environmentally sound policies and undertaking investments in new, cleaner, more efficient technologies. At the same time, a commitment of national resources is required to ensure that the people and organizations needed to deploy and utilize the international resources can be maintained over time, and supported in ways that will allow them to catalyse new patterns of sustainable economic development.

Finally, the survey results indicate that stakeholders interviewed for this project believe that capacity building on climate change can also help developing countries to achieve their national economic development goals and contribute to reducing the rate of growth in greenhouse gas emissions worldwide. Such programs, to be successful, must however constitute a long-term commitment that will require strong and continuing support over the decades ahead.

On behalf of the Consortium for North - South Dialogue on Climate Change,

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• INTRODUCTION

For African countries, it is imperative to increase capacity for implementing both the Climate Convention and the Kyoto Protocol, in view of the continent's vulnerability to the adverse impacts of climate change, including the threat to food security and sustainable development. The country surveys, which are framed around the list of perceived capacity building needs annexed to Decision 10/CP.5, provided insight into the capacity building needs of the project-countries. Hence, the aspects examined during the assessment exercise reflect some of the concerns of African countries; and the stakeholders' responses can be taken as indications of the capacity building needs of the African countries assessed.

• Process and Sample

The survey was co-ordinated in Africa by ENDA-TM in collaboration with EDRC, as well as National Climate Change Focal Points and Country Investigators in each of the selected countries. The assessment in each country was country-driven, and was conducted by a national expert selected in consultation with the UNFCCC National Focal Point. The success of an exercise of this nature depends, in large measure, upon cultivating a sense of ownership among the stakeholders for whom the results are meant. The countries surveyed included high-level income, mid-level income, least developed and small island developing countries.

Data were analysed from 14 African countries representing 26% of the nations on the continent (see Table 1.1), within the sub-regions of the African continent, in countries representing a population of approximately 354 million¹.

The work assignment of each national investigator was coordinated through specific terms of reference issued by ENDA-TM. The first task of each national investigator was to select, in consultation with the National Climate Change Focal Point, 15 eligible organisations, from three stakeholder groups (Government or Public Sector; Business, Industry, and Private Sector; and the Academic, Research, NGO sector). In this way, a total of 225 organisations in the region were interviewed.

The selection criteria for the organisations included participation in climate change activities in the past; participation in the on-going climate change

Sub-Region	Country	Population 1999 ¹ (millions)	GDP 1999 ² (\$US billions)	GNP per capita 1998 ³ (\$US)	World Bank Classification	HDI ²	Environmental Strategy or Action Plan ¹	National communication ³
West Africa	Burkina Faso	11	3	240	Low income/LDC	Low	1993	
	Ghana	18	8	390	Low income	Low	1992	
	Mali	11	3	250	Low income/LDC	Low		Nov. 2000
	The Gambia	1	0.4	340	Low income/LDC	Low	1992	
	Nigeria	121	41	300	Low income	Low	1990	
	Senegal	9	5	520	Low income	Low	1984	Dec. 1997
Central Africa	Congo	48	7	110	Low income/LDC	Low		
East Africa	Sudan	28	10	290	Low income/LDC	Low	1994	
	Kenya	29	12	350	Low income	Medium	1994	
	Tanzania	32	8	220	Low income/LDC	Low		
Southern Africa	South Africa	41	133	3,310	Upper middle income	Medium	1993	
	Botswana	2	5	3,070	Upper middle income	Medium		April 2000
	Lesotho	2	1	570	Low income/LDC	Medium	1989	
Maghreb	Morocco	28	1.4	1,190	Middle income	Medium		
Small Island State	Seychelles	0.9	1	6,420	Upper middle income	Medium		Nov. 2000
Total	15	381.9						

Sources: ¹ The World Bank Development Indicators; ² Human Development Index, The UNDP Human Development Report 2000; ³ UNFCCC Secretariat.

Table 1.1: Countries selected for the capacity needs assessment

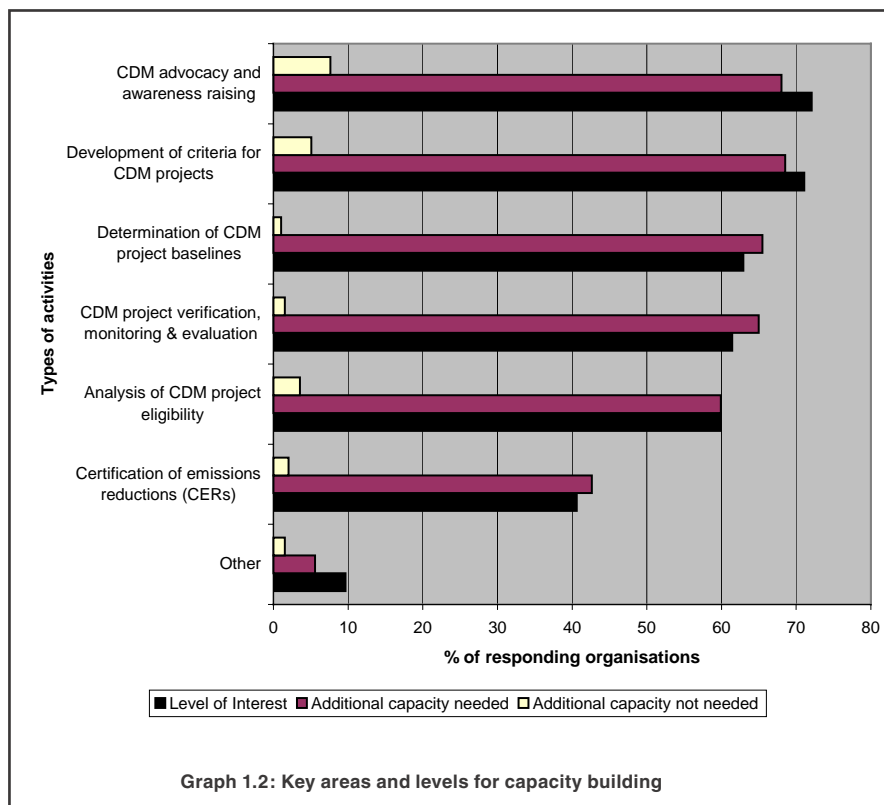
debate; and potential for participation in future climate change activities, especially the Clean Development Mechanism (CDM) and other Kyoto Protocol mechanisms and activities. The Government/Public sector organisa-

tions are engaged mainly in policy matters and coordination of climate change activities. In addition, they conduct or coordinate climate change studies. The Business/Industry/Private sector are interested in investment and project development and/or implementation, whilst the Academic/Research/NGO sector participate in research, analytical work, education, training, advocacy and awareness raising. Some organisations within the Business/Industry/Private sector and Academic/Research/NGO sector also participate in activities led by the Government/Public sector organisations.

• Key Results

The following results emerged from the surveys in the countries selected:

• Key Areas and Levels for Capacity Building



were not interested in participating in future CDM activities.

As can be seen, Graph 1.2 shows that virtually all the organisations interviewed had expressed interest in participating in 6 key CDM-related activities in the future. Development of CDM project criteria was the activity that attracted the organisations' greatest interest. About 73% of the organisations expressed interest in this activity, while certification of emissions reductions attracted the least interest. Only about 40% of organisations surveyed expressed interest in this activity.

Regarding capacity needs for future Kyoto Protocol activities, Graph 1.2 also illustrates that CDM advocacy and awareness raising attracted the interest of the largest number of entities. About 69% of organisations expressed a need for additional capacity in this area. Next on the list of priorities was development of criteria for CDM projects (68% of the organisations). This was followed, in order, by the determination of CDM project baselines (65% of the organisations), CDM project verification, monitoring and evaluation (approximately 65%) and analyses of CDM project eligibility (60% of organisations). Certification of emissions reductions was ranked lowest in terms of capacity needs (43% of all organisations). A further 10% of respondents would like to participate in other CDM activities, for which about 6% of organisations felt they would need additional capacity.

The responses received during the survey indicate that approximately 60% of the organisations interviewed (comprising mainly Government and Public Sector Institutions) are actively involved in the on-going CDM debate. About 40% (a majority of which were from the Business/Industry/Private Sector) did not participate because they were not adequately informed about the issue. Approximately 95% of organisations (in all sectors) expressed a desire to participate in both on-going and future CDM activities. Only about 3% of the organisations interviewed

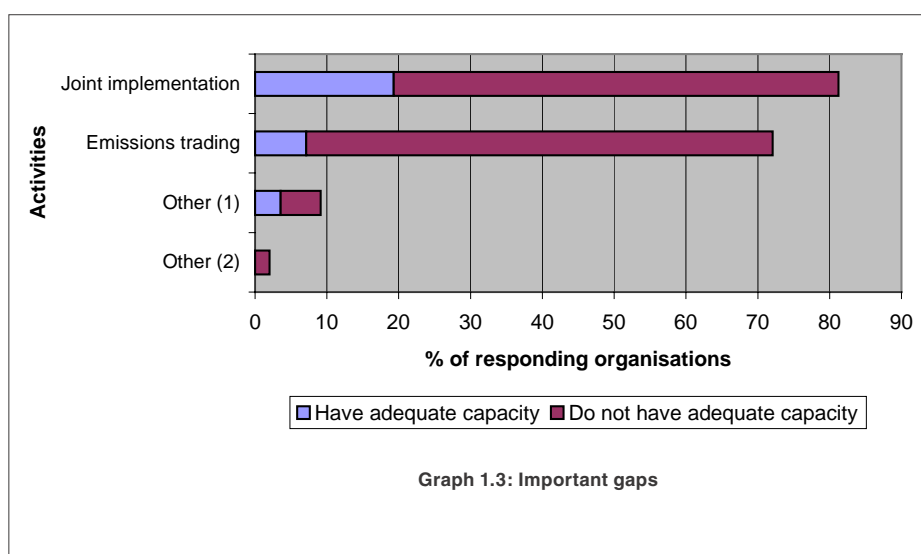
• Important Gaps

One useful proxy indicator for assessing important gaps in climate-change related expertise is the number of staff allocated to climate change activities in various organisations. Overall, the number of staff allocated to climate change activities is very limited among respondent organisations. Less than 30% are in a position to deploy between one and two staff to any climate change activity, due to the limited number of climate change professionals available. Screening and Selecting Mitigation Options is the activity in which the largest number of organisations have between one and two staff. The percentage of organisations having between one and two staff on climate change activities ranges from as little as 7% (on transfer of technologies) to 29% (on screening and selecting mitigation options). Use of between three and five staff is the case in an even smaller number of the organisations, ranking from 4% (analysing regulatory issues) to 13% (compilation of GHG inventories). Less than 3% of the organisations have as many as three to five staff assigned to climate change, while less than 1% of organisations said that they had eight or more staff available.

Of the 42,162 staff employed in the 210 organisations analysed, only 2% of the total - representing about 853 staff (combination of full and part-time staff) - are engaged in climate change activities. Out of the 853 professional staff working on climate change in the 210 organisations, only 32% of these work on a full-time basis, while the remaining 68% provide part-time input. These results highlight the need for greater participation - particularly on a full-time basis - in climate change matters.

The assessment of capacity needed to address joint implementation and emissions trading issues can be seen in Graph 1.3 below. The bulk of organisations (approximately 62%) feel that they do not have adequate capacity to follow the Joint Implementation issue, although many recognize that the capacity to understand Joint Implementation (JI) and emissions trading may be needed.

They believe that they will need this knowledge in the future in order to manage CDM projects successfully in a world where emission trading is the norm. Only 9% felt comfortable with their existing capacity in JI. The avail-



able capacity to follow the Emissions Trading issue was even less (approximately 7%) while 65% of organisations indicated that they do not have adequate capacity in this area.

Clearly, there are a very limited number of people engaged in climate change activities. This situation appears to go hand-in-hand with the fact that there is very limited awareness on climate change and a dearth of professionals in such areas. It is apparent that there is a definite need for intense awareness raising on climate issues.

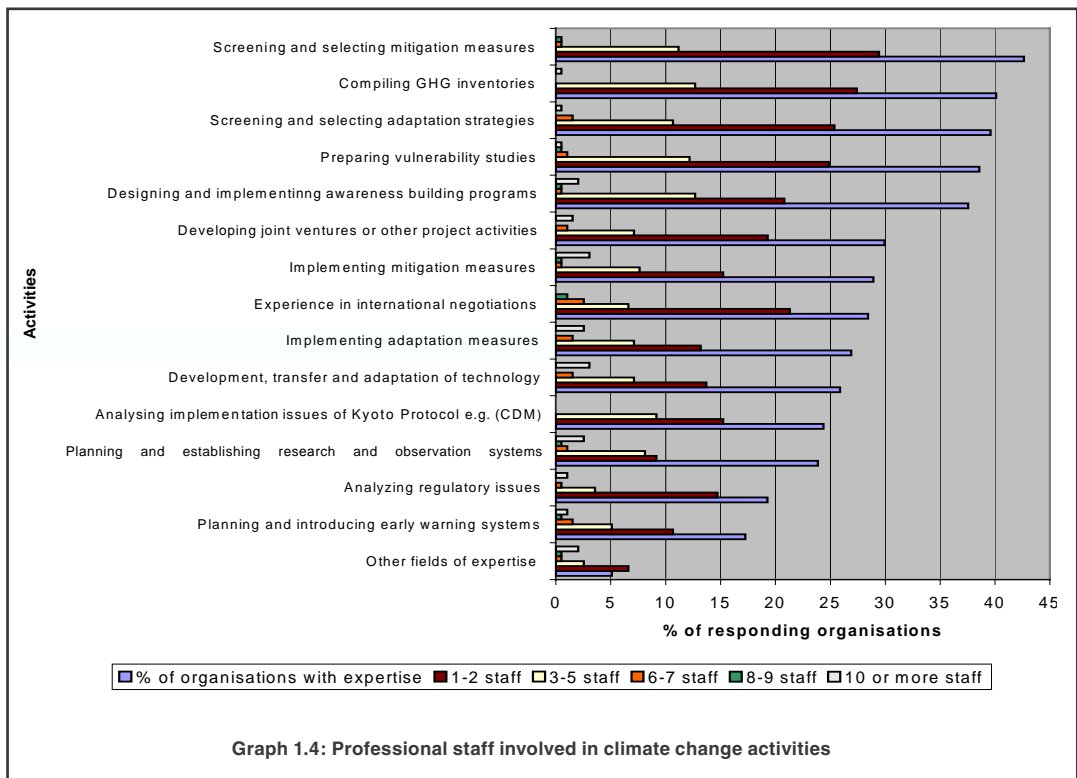
In all, about 95% of respondents wished to participate in both on-going and future CDM activities if presented with the opportunity and provided that additional expertise were available. Participation in other Kyoto Protocol activities also attracted the organisations' interests. About 85% of the organisations (mainly from Business/Industry/Private Sector) signalled their intention to broaden action on the Kyoto Protocol, but 80% of them saw a need for additional capacity. Less than 50% of the organisations declare to be in a position to allocate more than one or two staff to any climate change activity on a full-time basis.

• Key Target Audiences for Capacity Building

The key target audience for capacity building on climate change activities are seen as the professional staff of agencies and organisations which are involved, or want to be involved, in climate change activities. The survey revealed the specific areas of climate change in which the organisations interviewed have expertise, and also, the number of staff engaged in each activity. Graph 1.4 below, shows that less than 50% of the organisations are involved in any one of the activities considered.

The graph also shows that the activity in which the largest number of the organisations (43%) are involved is Screening and Selecting Mitigation Options. Following this activity are: Compiling GHG Inventories (40% of the organisations), Screening and Selecting Adaptation Strategies (39% of organisations), Preparing Vulnerability Studies (38% of organisations) and Design and Implementing Awareness Building Programmes (38% of organisations). The percentage of organisations engaged in other activities was less than 30% of the total number interviewed; early warning systems ranked last.

The responses also indicate that all sectors (Government/Public, Business/Industry/Private Sector and Research/Academic/NGOs) are in need of additional capacity to implement climate change activities, especially the Kyoto Protocol. The organisations have not been able to deploy more than 2% of their total staff to climate change activities. Nor have these organisations been able to commit appreciable staffing levels to climate change activities on a full-time basis. Hence, all sectors that were surveyed should be targeted for capacity building. The survey results reveal that most of the organisations in two main sectors (Business/Industry/Private and the Academic/Research/NGO Sectors) have little or no knowledge of the CDM and other Kyoto Protocol mechanisms.

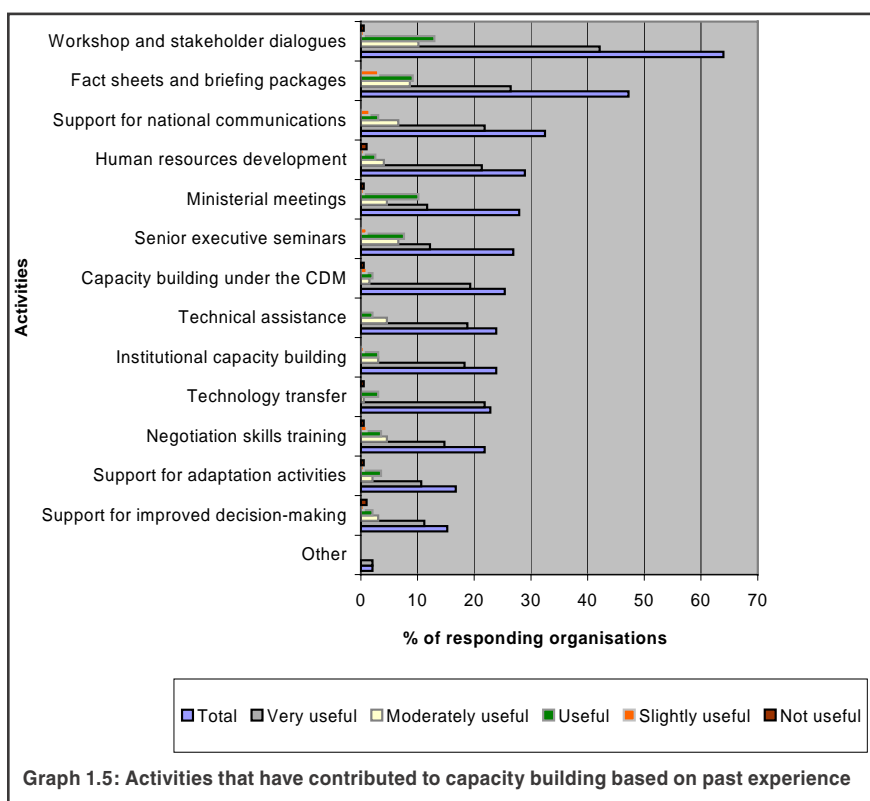


Graph 1.4: Professional staff involved in climate change activities

Such low levels of involvement in climate change activities signals inadequate capacity, as well as a low level of awareness among key actors in this region. This fact is also reflected in the limited number of publications released by organisations on climate change issues.

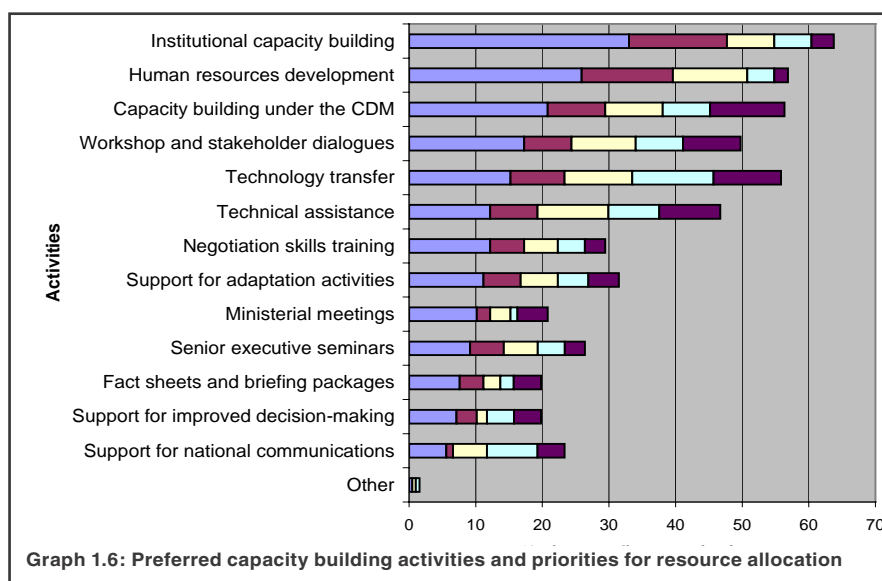
• Most Needed Tools

The ranking of those activities that have successfully contributed to capacity building in the organisations - and their levels of usefulness - are shown in Graph 1.5. Four activities feature prominently in terms of both contribution to capacity building and usefulness of contribution. The greatest number of organisations, approximately 64%, found workshops and stakeholder dialogues to have been “very useful,” only 0.5% rated them as “not useful.” The second most useful asset was fact sheets and briefing packages whose contribution to capacity building was acknowledged by 47% of the organisations. About 26% considered them very useful, while no organisation considered them as not useful. Thirdly, support for national communications, was cited by 33% of the organisations. A further 22% considered its contribution to be very useful. None considered it to be not useful. Lastly, approximately 29% of the organisations acknowledged the contribution of human resource development. About 21% of



Graph 1.5: Activities that have contributed to capacity building based on past experience

respondents regarded this activity as very useful, while a mere 1% considered it not useful.



Graph 1.6: Preferred capacity building activities and priorities for resource allocation

Graph 1.6 indicates the top 5 priority capacity building activities that organisations would like to expand in a situation where resources are limited. Approximately 33% of the organisations ranked institutional capacity building highest in the top priority list, followed by human resources development (26% of the organisations), capacity building under the CDM (21% of the organisations), workshops and stakeholder dialogues (17% of the organisations) and technology transfer (rated lowest by 15% of the organisations). These same 5 activities were classified as being of high (rather than highest) priority by 15%, 14%, 9%, 7% and 8% of the organisations respectively.

A key conclusion, which can be drawn from a comparison of Graphs 1.5 and 1.6 is that the most useful activities in the past are not necessarily the activities given top priority for resource allocation in the future (assuming, of course, that resources are limited).

About 67% of the organisations regarded institutional capacity building as a very important capacity building activity. Next in the rankings was human resources development (60% of the organisations); capacity building under the CDM (57% of the organisations); followed by technology transfer (56% of the organisations). Less than 50% of the organisations considered the following activities to be very important: technical assistance (44% of the organisations); workshops and stakeholder dialogues (39% of the organisations); support for adaptation activities (35% of the organisations); support for improved decision making (31% of the organisations); negotiation skills training (28% of the organisations); support for national communications (26% of the organisations); senior executive seminars (17% of the organisations); and ministerial meetings (14%). Fact sheets and briefing packages were ranked last, with only about 12% of the organisations citing them.

When organisations were asked to indicate which activities were not important, Ministerial meetings were by 4% of the organisations. Human resources development, capacity building for the CDM, technology transfer, and support for adaptation were not regarded by any organisation as being unimportant. Taken together, the data from Graphs 1.5, 1.6, and 1.7 illustrate that the priority given for resource allocation for capacity building activities (when resources are limited) shifts when these constraints are removed.

• Important Sources of Funding

Three funding categories (National, Intergovernmental/Multilateral and Bilateral) and various specific sub-categories are potential sources of funding for capacity building activities. The tables below offer an indication of the relative importance of various funding sources.

Analysis of the responses pertaining to national funding sources (Table 1.2) indicates that, on balance, government sources are most important. Investment companies, private developers, national banks and commercial credit providers are considered less important at this stage.

Regarding intergovernmental and multilateral sources

(Table 1.3), the organisations feel that the Global Environmental Facility (GEF), the World Bank (IDA), and UNDP are most important. The World Bank Prototype Carbon Fund appears to be less important at present. Opinion on Regional Development Banks was nearly evenly divided.

In Table 1.4, the responses of the surveyed organisations indicate that Bilateral Agencies and Foundations/NGOs are presently important. Respondents feel that commercial credit providers, export subsidies for overseas vendors and Foreign Direct Investment are currently not as important.

Funding Sources	Important Now (% of organisations)	Not Important Now (% of organisations)
Govt. Funds	56	21
Investment Companies	13	33
Private Developers	16	32
National Banks	14	34
Commercial Credit Providers	4	35
Other National Sources	1	0

Table 1.2: National sources of funding

Funding Sources	Important Now (% of organisations)	Not Important Now (% of organisations)
Global Environment Facility (GEF)	51	21
World Bank (IDA)	35	25
World Bank (PCF)	14	25
Regional Development Banks	23	25
UNDP	40	23
Other Inter-governmental and Multilateral Sources	3	0.51

Table 1.3: Intergovernmental/multilateral sources of funding

Funding Sources	Important Now (% of organisations)	Not Important Now (% of org.)
Bilateral Agencies	45	17
Commercial Credit Providers	9	30
Export Subsidies for Overseas Vendors	6	29
Foreign Direct Investment (FDI)	17	26
Foundations/NGOs	37	20
Other Bilateral Sources	2	0

Table 1.4: Bilateral sources of funding

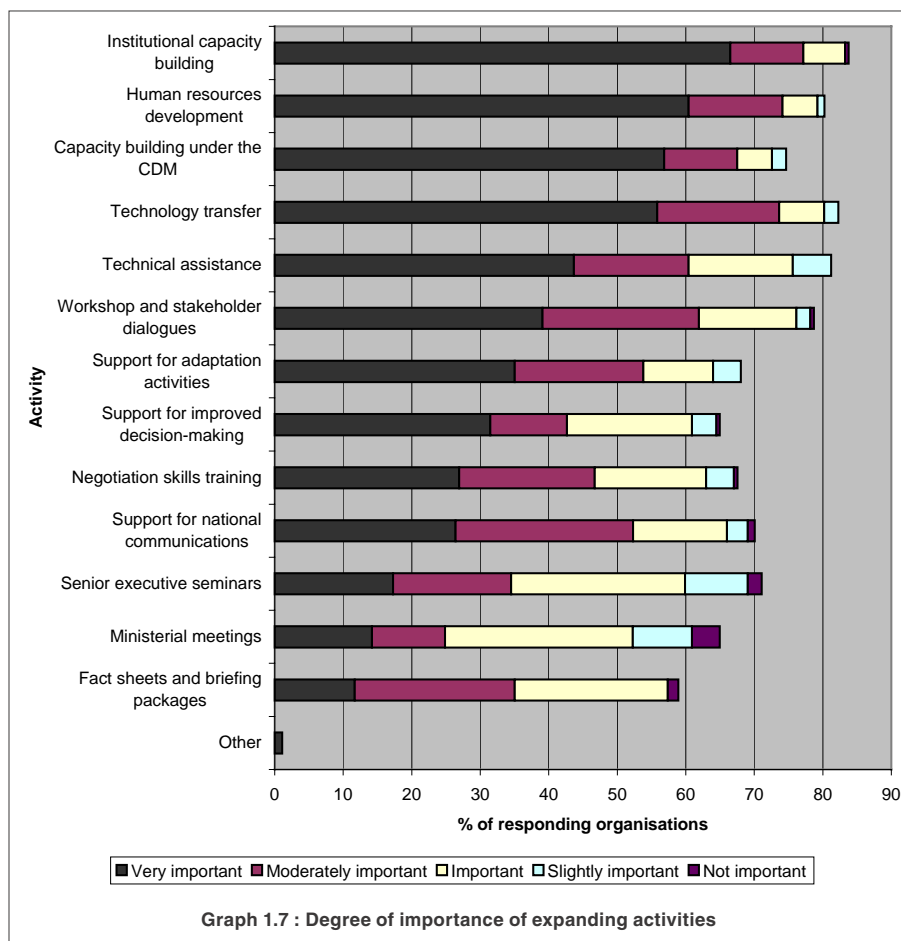
- **The Most Appropriate Criteria for Assessing Successful Capacity Building**

Earlier sections in this chapter offered indications of specific expertise available within the organisations for specific climate change tasks, as well as indications of staffing ranges allocated to specific activities. The staffing levels themselves provide a suitable baseline for assessing the effectiveness of capacity building. Based on these, and other data generated during the survey, criteria for assessing success in capacity building initiatives could include the following:

- Increases in the number of climate-related projects implemented successfully
- Increases in the number of professionals working on climate change, on both full and part time basis, but more particularly on full-time basis
- Number of climate-related publications released
- Number of available efficient negotiators
- Levels of achievement in the negotiation process
- Levels of awareness of stakeholders on climate matters
- Increases in the number of climate-related sectors covered by the organisations
- Increases in the levels of participation in the Intergovernmental Panel on Climate Change Process
- Number of organisations actively involved in the CDM debate
- Number of CDM activities undertaken by the organisations
- Levels of participation in other Kyoto Protocol issues
- Increased efficiency in the compilation of GHG inventories and National Communications
- More effective decisions being taken at both national and international levels regarding climate change issues.

• **The Linkages Between Capacity Building Needed to Advance the Objectives of the Kyoto Protocol and National Development Strategies**

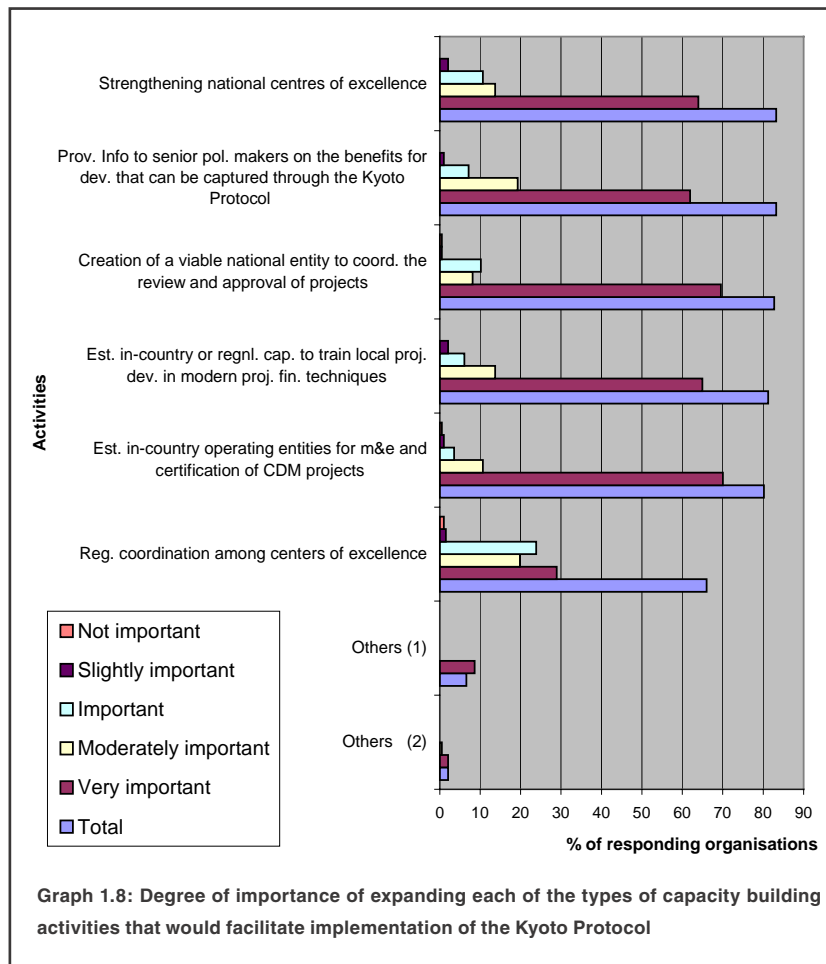
An examination of Graph 1.7 provides a ranking of those activities that were considered to be most important for facilitating implementation of the Kyoto Protocol.



Approximately 83% of the organisations cited 3 activities as most important for linking national development strategies with implementation of the Kyoto Protocol. These activities were: strengthening national centres of excellence; providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol; and, lastly, creation of a single national entity to coordinate the review and

approval of projects. The other activities, in order of priority, were: establishing in-country or regional capability to train local project developers in modern project financing techniques (81% of the organisations); establishing in-country operating entities for monitoring, evaluation and certification of CDM projects (80% of the organisations); and regional coordination among centres of excellence (66% of the organisations).

In terms of the activities which were ranked by the most participants as being very important, somewhere between 62% and 70% of the organisations cited the following activities: establishing in-country operating entities for monitoring, and certification of CDM projects (80% of the organisations); and regional coordination among centres of excellence (66% of the organisations).



• CONCLUSIONS AND RECOMMENDATIONS

The survey results reveal that Africa's capacity needs for implementing activities of the Convention and Kyoto Protocol vary widely between countries and sub-regions. Although this will require addressing country-specific needs, there are some commonalities on the basis of which regional comprehensive policies and programmes could be formulated.

As shown in the results of the needs assessment, African countries in general have very limited expertise in climate change, especially in the activities expected to drive the Kyoto Protocol process: Only 2% of the staff (including both full and part-time personnel) in the 210 organisations interviewed participate in climate change activities, while full-time engagement is limited to only 0.6% of the total staff. This means that Africa's participation in international climate-related fora will be very limited and could affect the continent's performance in the implementation of the Clean Development Mechanism and other Kyoto Protocol activities.

During the needs assessment exercise, a Seminar of Experts on Capacity building Needs Assessment was held in Accra, Ghana, in October 2000. This meeting was attended by some of the project partners, National Climate Change Focal Points, Country Investigators and African negotiators. The meeting reviewed progress to date on the project and charted the way forward for smooth execution of the remaining project activities. The participants noted that the initial responses from the countries already surveyed strongly emphasised the need for awareness raising on matters relating to the Climate Convention and Kyoto Protocol. Hence, it was agreed that intense and well-focused awareness raising is an absolute necessity in order for African countries to utilise, to their best advantage, the Convention and Kyoto Protocol provisions.

Experts attending this meeting all agreed that the reasons for this handicap include the following obstacles: very limited awareness on climate change aspects; some degree of stakeholder indifference on climate change issues; limited coordination or information flow among stakeholders in different sectors at the national level; little or no feedback between officials who attend climate change fora and local stakeholders; and scant resources for participation in climate-related meetings, conferences, workshops, and capacity building activities.

Partly for the reasons outlined above, effective participation by African countries in the international climate change debate - especially on Kyoto Protocol issues - is very limited, particularly between the Business/Industry/Private sector and the Academic/Research/NGO sector.

If all the sectors interviewed during the assessment wish to participate more fully in the CDM and other Kyoto Protocol activities, the existing knowledge/information gaps on climate change issues, especially the CDM and other Kyoto Protocol aspects, in most countries are potential bottlenecks that must be addressed in order to increase levels of participation by the different sectors. There is thus an urgent need for intense awareness raising and capacity building in areas that would reinforce African countries' understanding of the basic issues of climate change and the Kyoto Protocol, especially the CDM and other mechanisms. The capacity needs of African countries vary widely depending on the degree and level of involvement of each individual country in climate change activities, national development priorities, levels of technological advancement, socio-cultural and ecological differences, and economic circumstances.

However, some common features recur among the participating countries in this study. On this basis, strategies and programmes can be successfully developed to address capacity needs, and may be addressed at both the individual country and regional levels.

The intense dialogue, consultations and other preparatory activities organised between UNITAR, members of the NGO Consortium, National Climate Change Focal Points and Country Investigators, as well as the valuable inputs generated during the Experts Seminar in Accra, Ghana, greatly facilitated the needs assessment exercise. Thus, the following conclusions and recommendations were generated:

- Virtually all sectors have shown a much interest in participating in the CDM, joint implementation and emissions trading schemes. However, it is noteworthy that the desire to engage in future CDM activities is greater in the Business/Industry/Private sector, which sees these activities as a potential source for viable business ventures.
- Of the three categories of organisations surveyed, the Government sector is the most involved in climate change activities. The understanding of this phenomenon was that the two others (Business/Industry/Private and Academic/ Research/NGO sectors) are less active due to a large extent to the fact that the climate change focal offices in most of the countries are government agencies which do not encourage the non-governmental sectors to participate freely and actively in the climate debate (either alongside or in support of government representatives). Only a few countries operate an open-door policy where they invite the non-governmental sector to participate - not only for in-country climate change activities, but also in climate-related negotiating fora. Largely for this reason, the level of participation in CDM activities by government agencies is greater than in the Business/Industry/Private and Research/ Academic/NGO sectors.
- The principal focus of Africa's desire to participate in the CDM and other Kyoto mechanisms is to further sustainable development.
- Because of Africa's limited awareness levels of climate change issues and of the anticipated benefits from the CDM and other Kyoto mechanisms, most countries have not yet started factoring climate change matters into their development frameworks. This is clearly the case for the CDM and the other Kyoto Protocol issues, particularly in terms of allocating professionals to crucial tasks on full-time basis.
- Experts agreed that the CDM and the other Kyoto mechanisms are entirely new concepts for African countries. Countries are not well prepared to implement such activities. Recognising this fact, African countries consider it imperative that all concerned become conversant with some of the basic aspects of CDM implementation.
- Results show that the countries surveyed are only involved in climate change activities to a very limited extent. The highest level of involvement (by a mere 43% of entities) is in the screening and selection of mitigation options. Involvement has been limited to areas relating to the preparation of national communications and national action plans for climate change and designing and implementing awareness raising programmes. The low level of involvement signals inadequate capacity and the need for greater awareness on the part of all actors. This fact is also reflected in the limited number of publications released by African institutions on climate change activities and the Kyoto Protocol mechanisms, especially the CDM.
- Responses indicate that the capacity needs of African countries are enormous and require heavy outlays in terms of financial and human resources. Ensuring the utilisation of these resources to the best advantage will require the continuous monitoring of programmes using a set of specific criteria. However, establishing criteria for aspects such as the Kyoto mechanisms - particularly the CDM whose nature and modalities for implementation are still being debated - may not be as easy as setting criteria for other core Convention-related activities implemented since Rio. Nevertheless, there are some suggestions that can be used as criteria for assessing successful capacity building. This assessment has already provided some guidance. Criteria include the current numbers of professional staff participating in CDM work; number of publications; number of climate change projects; levels of awareness of stakeholders on climate change; number of organisations and sectors actively involved; levels of participation in the IPCC process; number of organisations actively involved in the CDM debate; number of CDM activities undertaken by organisations; and number of national communications completed in a given time period.

- Some key factors for determining activities that would facilitate implementation of the Kyoto Protocol include: enhancement of existing national and regional resources and capacity to best advantage; enriching the information base of policy makers to enable them to make more rational policy decisions; and effective co-ordination of Kyoto Protocol activities. Organisations placed a top priority on strengthening national centres of excellence; providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol; and creating a single national entity to coordinate the review and approval of CDM Projects.

The following sub-conclusions are relevant to specific awareness raising in African countries:

- Those stakeholders who are to be involved in awareness raising must be carefully selected. The design and implementation of awareness programs will be effective only if the right target groups are identified. For instance, CDM is an interesting concept since it makes sustainable development one of its hallmarks. It could bring in investment and, as such, there are three areas of key interest: agriculture, energy and industry. Since sustainable development is an all-encompassing concept it should include all major stakeholders. The question thus becomes one of determining who the right stakeholders are and distinguishing what each one can do in order to ensure a participatory approach.
- Five government sectors are potential targets for awareness raising; these are environment, energy, transport, external affairs and finance. Inter-ministerial committees - where they exist - also need awareness raising. The constant flux of personnel assigned to these sensitive climate change duties means that the relevant expertise is, at best, limited and, at worst, squandered. One suggestion to counter this problem is to follow Ghana's EPA example and establish an environment desk so that certain people are given the responsibility for climate issues. The same structure exists in Kenya where members meet every month with a set agenda and are also obligated to keep each other informed on climate issues that take place internationally in order for others to benefit from this shared information.
- Although climate change and climate variability are not necessarily scientifically linked one could use extreme weather events as case studies to raise awareness since people would pay more attention to real events (such as the devastating consequences of the recent floods in Mozambique). As most African countries tend to have meagre capacity for adapting to climate change, one way of building capacity and awareness is to draw more attention and emphasis to human catastrophes, thereby focusing attention on ways to reduce the vulnerability of local communities.
- UNFCCC focal points are highly important on climate change awareness raising. Because they are responsible for dissemination of information, any lack of awareness and receptivity in their own governments renders the role of focal points extremely difficult.
- Stratified decision-making is absolutely essential in awareness raising. It would also help to devolve authority to officials so that they may readily share their knowledge with others who need it, rather than having to refer people to their superiors, who may not be versed in key issues.

As regards effective tools for promoting awareness raising, some suggestions follow:

- Policy makers must have concise, illustrative fact sheets. The adoption of an integrated approach that seeks to be inclusive of all stakeholders would be an effective way of reaching out to the people concerned. Also, organising debates within the relevant ministries such as the Ministry of local government, environment, energy, finance and external affairs would generate information and determine the linkages between such ministries. Meetings could be organised on an annual basis so fact sheets could be updated more frequently.
- In order to address problems regarding capacity building, structural difficulties must be tackled as a matter of great urgency. For example, computers and manuals/documents must be distributed more widely.

- Workshops and short courses, as well as business and policy-oriented packages, should be used in order to raise awareness among the relevant target groups. The fact that much of the work done in Africa goes unreported necessitates urgent action to provide African scholars with greater insights into research that is taking place on the continent. Training institutions that could facilitate information exchange and act as centers of excellence where people could go and acquire knowledge on climate change are urgently needed.
- A strategic action plan for awareness raising and capacity building in general should be developed.
- It is important to initiate action towards creating a constructive network on climate change in which different partners could explore possibilities for collaborative research, joint projects and ways and means of building capacity within the African continent.
- Both national and regional priorities need to be considered alongside the implementation of the Kyoto Protocol. The bulks of the activities listed under Graph 1.6 fall within the development priorities of the countries concerned and are needed as bases for executing the tasks necessary for the proper implementation of the Kyoto Protocol.



Asia and the Pacific



• INTRODUCTION

This chapter offers an overview of the capacity-building needs of the Asia and Pacific region, based on a survey conducted by LIFE/MIND for UNITAR and NSD. The following section describes the survey sample and the process used in the region. An overview of regional results is given in the main part of this report and the last section sets out some key conclusions. The country results in alphabetical order can be found in chapter 5 of this report.

• Process and Sample

Four countries were surveyed in South Asia, namely Sri Lanka, Bangladesh, India and Pakistan, and three in East Asia: China, Indonesia and the Philippines. LIFE/MIND, as the regional coordinator for Asia and the Pacific appointed investigators in each of these countries. These investigators, in turn, selected 15 organisations within the country to constitute the country sample. As requested by the agreed methodology with project partners, it was specified to the investigators that 5 organisations should be selected from each of the following sectors: government, industry/business and NGO/academia. This diversity was intended to elicit a wider range of views within each country.

The countries selected in this region account for more than one third of the world's population (see Table 2.1 below), with China and India accounting for more than two billion citizens between them. The systems of government in the sample ranged from democracies to centrally planned economies. Some of these countries - particularly Bangladesh, Sri Lanka, Philippines and Indonesia (two archipelagic countries) - are highly vulnerable to climate change.

Table 2.1: Countries selected for the capacity needs assessment

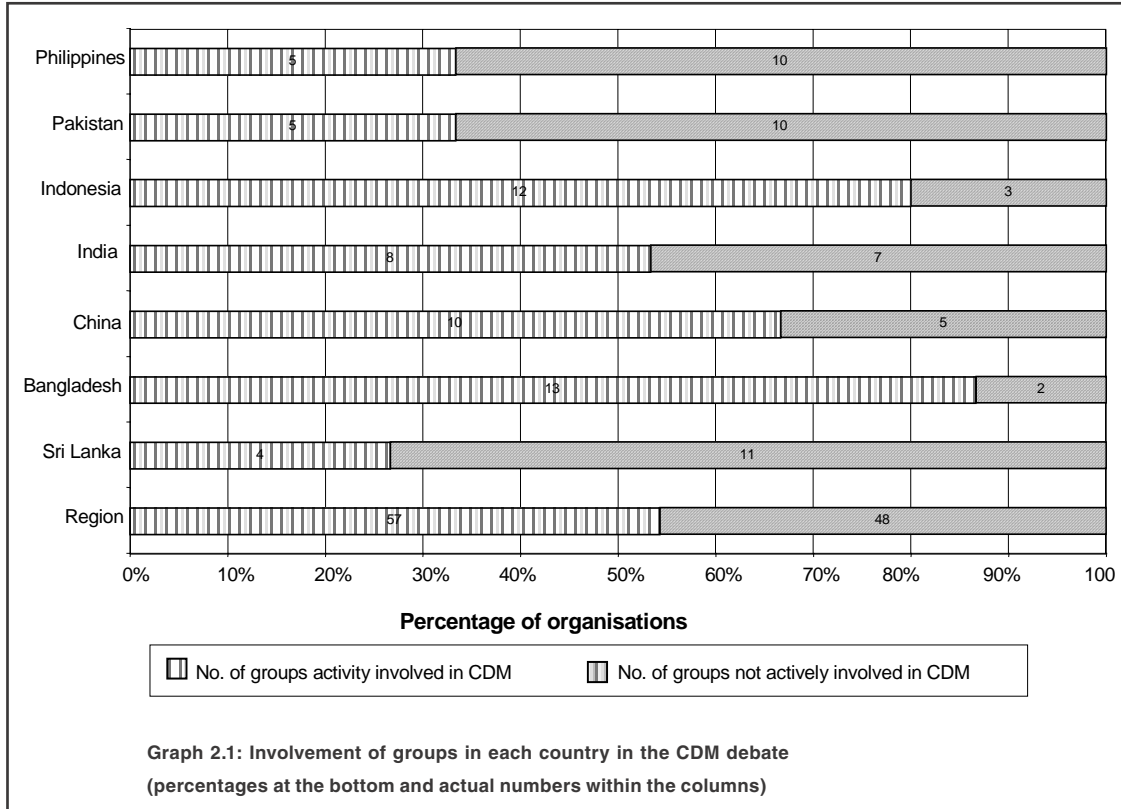
Sub-Region	Country	Population 1999 ¹ (millions)	GDP 1999 ¹ (\$US billions)	GNP per capita 1998 ¹ (\$US)	World Bank Classification	HDI ²	Environment Strategy or Action Plan ¹	National Communication ³
South Asia	Bangladesh	126	43	350	Low income/LDC	Low	1991	
	India	980	430	440	Low income	Medium	1993	
	Pakistan	132	94	470	Low income	Medium	1994	Oct. 1999
	Sri Lanka	19	16	810	Lower middle income	Medium	1994	
East Asia Pacific	China	1,239	959	750	Low income	Medium	1994	
	Indonesia	204	94	640	Low income	Medium	1992	
	Philippines	75	65	1,050	Lower middle income	Medium	1989	May 2000
Total	7	2,775						

Sources: ¹ The World Bank Development Indicators; ² Human Development Index, The UNDP Human Development Report 2000; ³ UNFCCC Secretariat.

• Key Levels and Areas for Capacity Building

As illustrated by Graph 2.1, well over half of the 105 institutions surveyed are already active participants in the CDM debate. Participation varies considerably however. In Bangladesh and Indonesia more than 80% of entities are involved in the debate, while in Sri Lanka the percentage is 27%.

More importantly, over 80% of groups surveyed are interested in participating in the CDM if it becomes operational in the future (see Graph I below). In fact, none of the countries expressed less than a 60% interest-level in joining the CDM process. As can be seen in Table 2.2, Sri Lanka and Bangladesh showed the greatest enthusiasm for an operational CDM process.



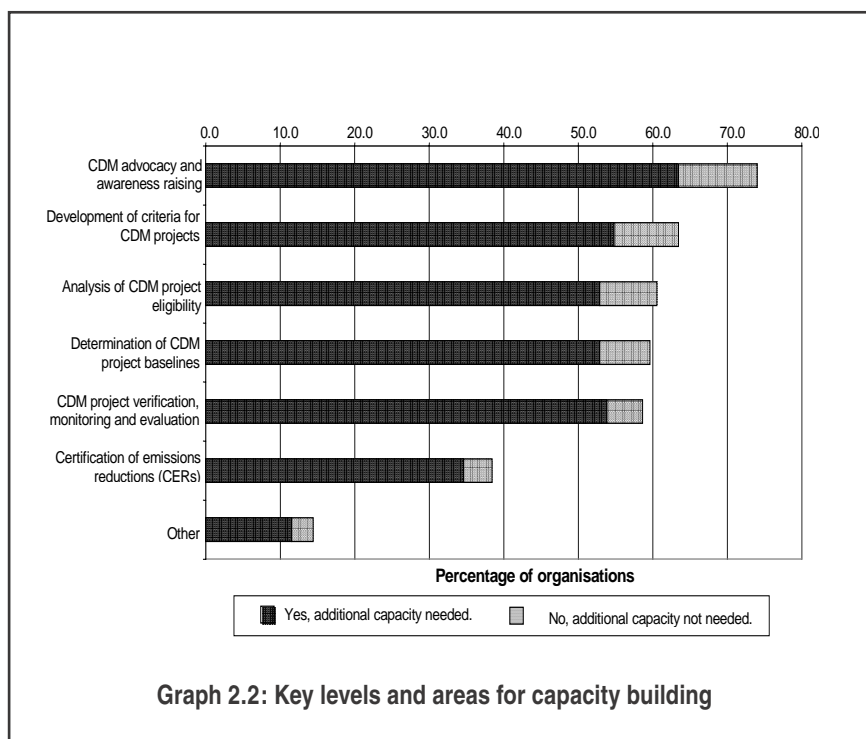
Participation in CDM activities if it becomes operational	Region	Sri Lanka	Bangladesh	China	India	Indonesia	Pakistan	Philippines
No. of groups that would participate	87 (83%)	14	14	13	10	13	11	12
No. of groups that would not participate	18 (17%)	1	1	2	5	2	4	3

Table 2.2: Number of groups willing to participate if CDM becomes operational

Despite such widespread enthusiasm, Graph 2.2 reminds us that more than 50% of entities in the Asia-Pacific region will require additional capacity for all CDM related activities, except for certification of emissions. Interest in this latter area appears to be relatively low (less than 40%).

When asked to elaborate on their specific capacity-building needs, countries expressed varying priorities. These priorities are set out in Table 2.3. Bangladesh was particularly desirous of more capacity in CDM advocacy and awareness-raising, and also, in development of criteria for CDM projects. By contrast, India saw the least need

for additional capacity in these areas. China expressed considerable need for capacity in the determination of CDM project baselines, whereas this appeared to be a low priority area for Sri Lanka and India. China, along with the Philippines, also saw the need for greater capacity in analyzing CDM project eligibility. Conversely, Pakistan and Sri Lanka saw less need for capacity in this area. CDM project verification, monitoring and evaluation was a concern for Bangladesh and China, but considerably less so for India. Lastly, China and Bangladesh also highlighted their needs in the area of certification of emissions reductions (CERs), while most Pakistani interviewees did not point to this area.



Graph 2.2: Key levels and areas for capacity building

CDM activities in which groups would participate	Sri Lanka	Bangladesh	China	India	Indonesia	Pakistan	Philippines
CDM advocacy and awareness raising	14	13	12	8	11	8	11
Yes, additional capacity needed.	10	13	11	6	9	7	10
No, additional capacity not needed.	4	0	1	2	2	1	1
Development of criteria for CDM projects	10	13	8	9	10	7	9
Yes, additional capacity needed.	9	13	7	6	7	6	9
No, additional capacity not needed.	1	0	1	3	3	1	0
Determination of CDM project baselines	5	12	13	7	11	6	8
Yes, additional capacity needed.	4	12	13	4	9	5	8
No, additional capacity not needed.	1	0	0	3	2	1	0
Analysis of CDM project eligibility	7	11	11	8	9	6	11
Yes, additional capacity needed.	6	9	11	6	7	5	11
No, additional capacity not needed.	1	2	0	2	2	1	0
CDM project verification, monitoring and evaluation	7	12	12	4	10	9	7
Yes, additional capacity needed.	7	11	12	3	8	8	7
No, additional capacity not needed.	0	1	0	1	2	1	0
Certification of emissions reductions (CERs)	5	8	8	4	8	2	5
Yes, additional capacity needed.	5	8	8	3	5	2	5

Table 2.3: Number of entities interested in participating in CDM that need/not need additional capacity

Adequate capacity for other Kyoto Protocol issues	Region (%)	Sri Lanka	Bangladesh	China	India	Indonesia	Pakistan	Philippines
Joint implementation								
Yes, has adequate capacity	15 (14.3)	1	0	2	2	3	4	3
No, does not have adequate capacity	90 (85.7)	14	15	13	13	12	11	12
Emission trading								
Yes, has adequate capacity	14 (13.3)	3	0	3	2	3	1	2
No, does not have adequate capacity	91(86.7)	12	15	12	13	12	14	13

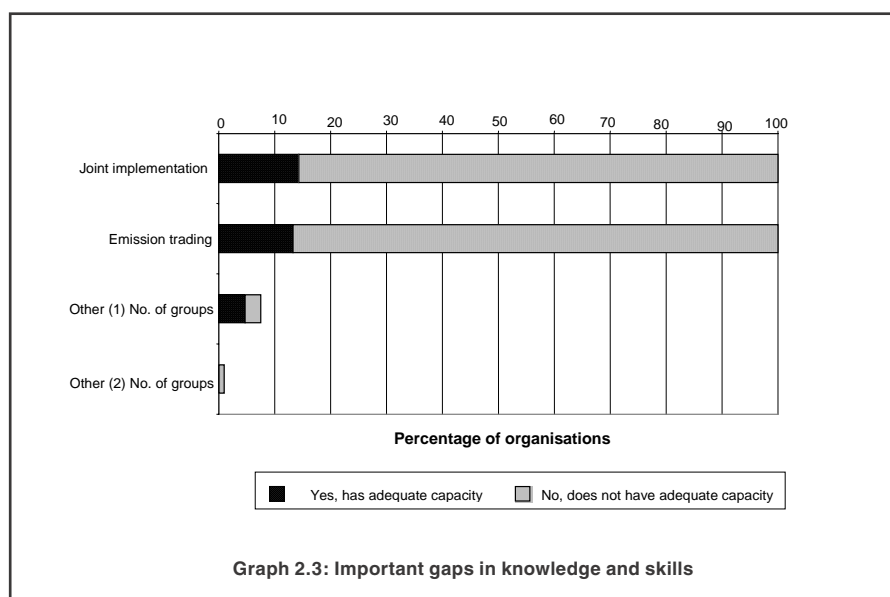
Table 2.4: Capacity needed to follow other Kyoto Protocol issues - Joint Implementation and Emissions Trading-

• Important Gaps and Modalities Needed to Fill Them

As shown in Table 2.4 and Graph 2.3, more than 85% of the organisations in the region do not have adequate capacity to address joint implementation and emissions trading issues. This weakness is reflected across all countries, with the greatest shortage occurring in Bangladesh.

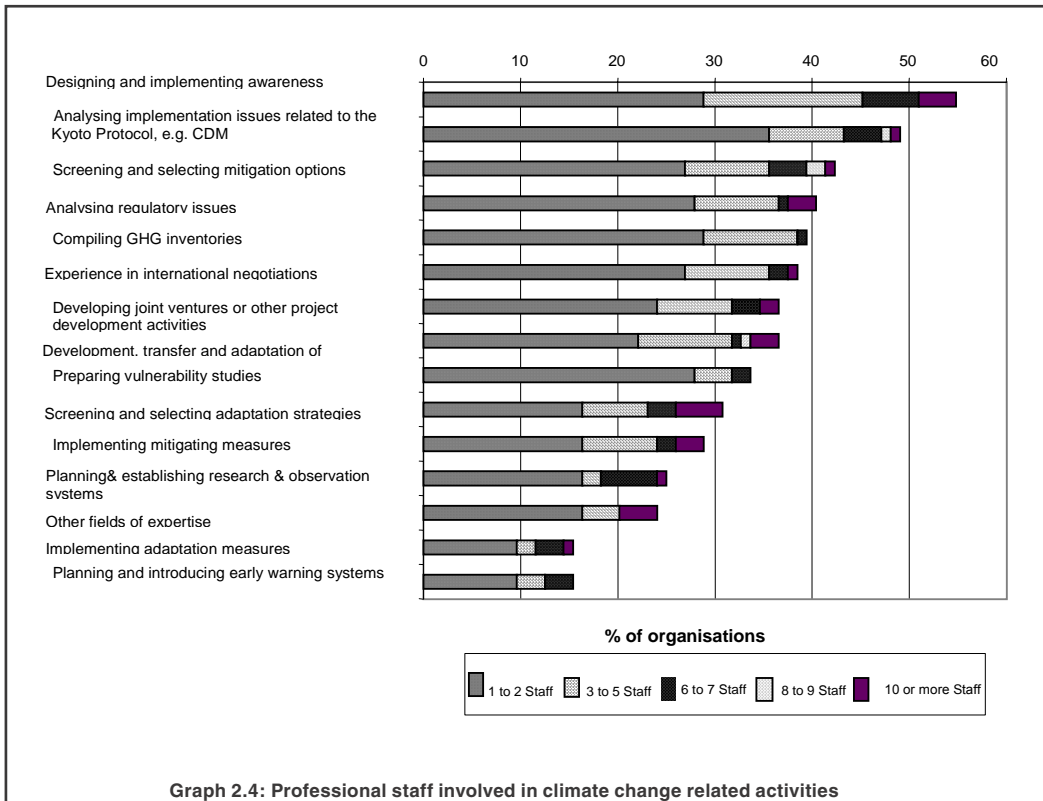
Table 2.5 indicates that regional strengths include expertise in designing and implementing awareness building programs, and in analyzing implementation issues related to the Kyoto Protocol and its financial mechanisms, e.g., CDM. The most significant needs for greater expertise appear to be: implementing adaptation measures, and planning and introducing early warning systems. Bangladesh fared comparatively well in a number of areas. Countries with the least level of expertise in a given area are highlighted in Table 2.5. Notably, Indonesia and Pakistan ranked the lowest in 5 areas of expertise each.

Graph 2.4 provides an indication of the region's human resources in various areas of expertise. Somewhere between 10-35% of entities in the region have 1-2 staff covering every type of expertise listed. Meanwhile, over 10% of entities had 3-5 staff in some areas, such as compiling Greenhouse gas (GHG) inventories, designing and implementing awareness building programs, and experience in international negotiations. We note that about 5% of entities in the region had 10 or more staff with expertise in development, transfer and adaptation of technology, whereas only 1% of entities had 6 or more staff in the area of compiling GHG inventories. Overall, the greatest current area of expertise seems to lie in the analysis of implementation issues. The two areas of least expertise appear to be the implementation of adaptation measures, and the planning and introducing of early warning systems.



Specific expertise	Region	Sri Lanka	Bangladesh	China	India	Indonesia	Pakistan	Philippines
Compiling GHG inventories	41	4	10	4	5	8	2	8
Preparing vulnerability studies	35	3	11	2	6	5	2	6
Screening and selecting mitigation options	44	5	10	6	8	3	6	6
Screening and selecting adaptation strategies	40	4	12	6	6	2	4	6
Implementing adaptation measures	16	2	3	3	2	2	0	4
Implementing mitigating measures	30	1	3	8	4	4	5	5
Planning and establishing research and systematic observation systems	26	3	7	4	3	0	3	6
Planning and introducing early warning systems	16	3	6	1	0	1	1	4
Designing and implementing awareness building programs	57	10	10	9	5	5	8	10
Development, transfer and adaptation of tech.	32	5	5	6	5	2	4	5
Analyzing implementation issues related to the Kyoto Protocol and its fin. mechanisms, e.g., CDM	51	5	9	8	9	9	3	8
Developing joint ventures or other project development activities	38	5	5	3	4	8	6	7
Analyzing regulatory issues	42	6	5	8	5	8	2	8
Experience in international negotiations	38	2	5	9	5	6	5	6
Other fields of expertise	17	4	0	2	4	3	2	2

Table 2.5: Number of organisations with specific expertise



• Key Target Audiences for Capacity Building

Both quantitative and qualitative results - i.e., questionnaire data and interviews - reveal that the key target audiences for capacity-building are middle and senior level decision makers and policy analysts in the government, the private sector and the NGO/academic sector. More specific target groups can be identified by country and by type of capacity-building activity.

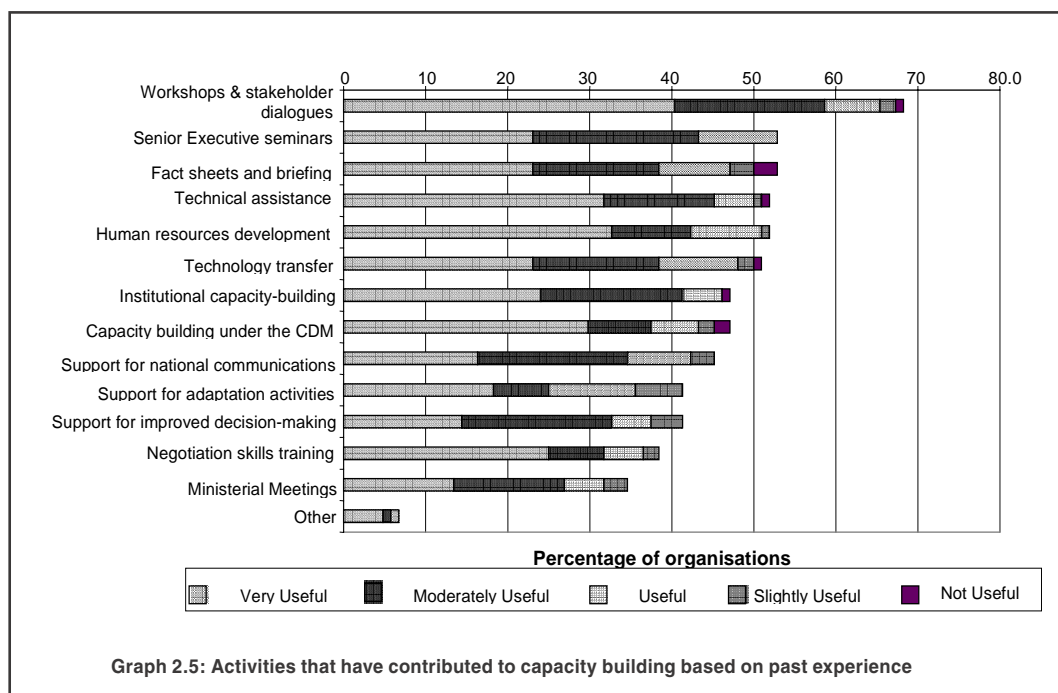
• Most Needed Tools, Modalities and Sources of Funding

Graph 2.5 offers an idea of the types of activities that contribute most to capacity building in the Asia Pacific region. Activities such as workshops, stakeholder

institutional capacity building and ministerial meetings. Tools that were given relatively low priority by a significant number of interviewees include: workshops and stakeholder dialogues support for adaptation activities and improved decision making.

Interestingly, interviewees were split on the value of technical assistance and institutional capacity building; many gave it a high priority, but an almost equal number gave it a low priority.

Whereas Graph 2.5 showed that workshops and stakeholder dialogues were particularly useful tools, Graph 2.6 reveals that these tools were less valued by many interviewees when they were asked to identify future capacity building preferences.



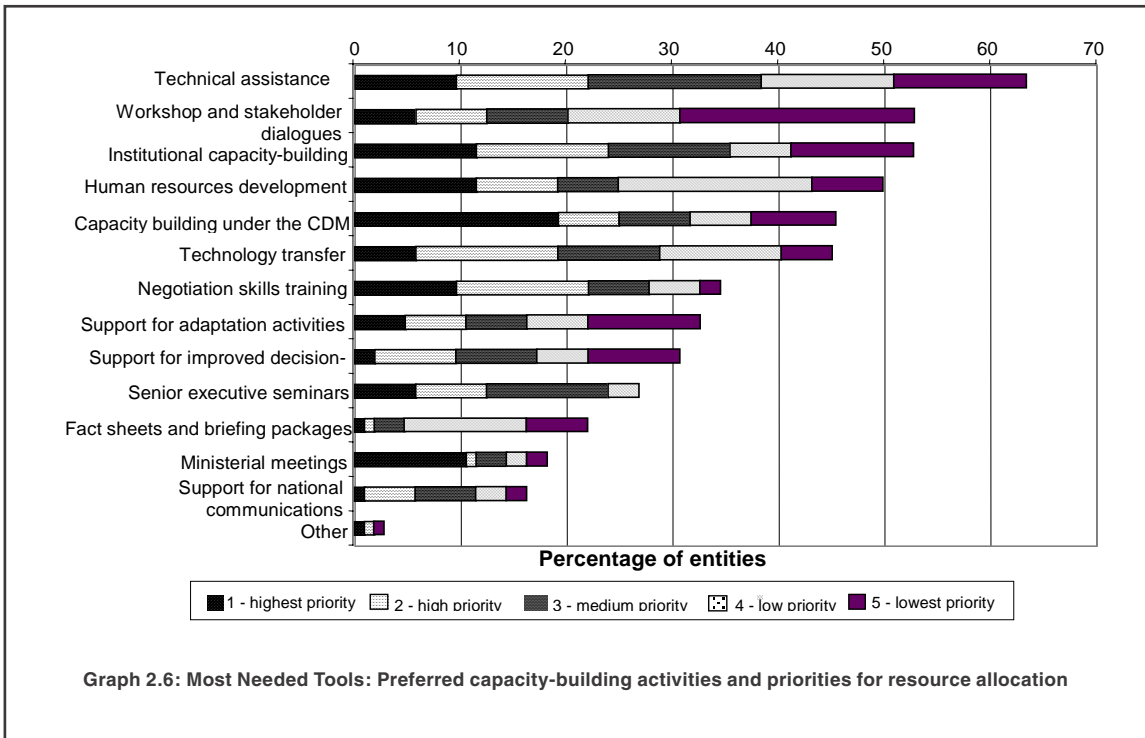
Graph 2.5: Activities that have contributed to capacity building based on past experience

dialogues, human resource development, technical assistance, and capacity building under the CDM, have proven “very useful” for more than 30% of interviewees.

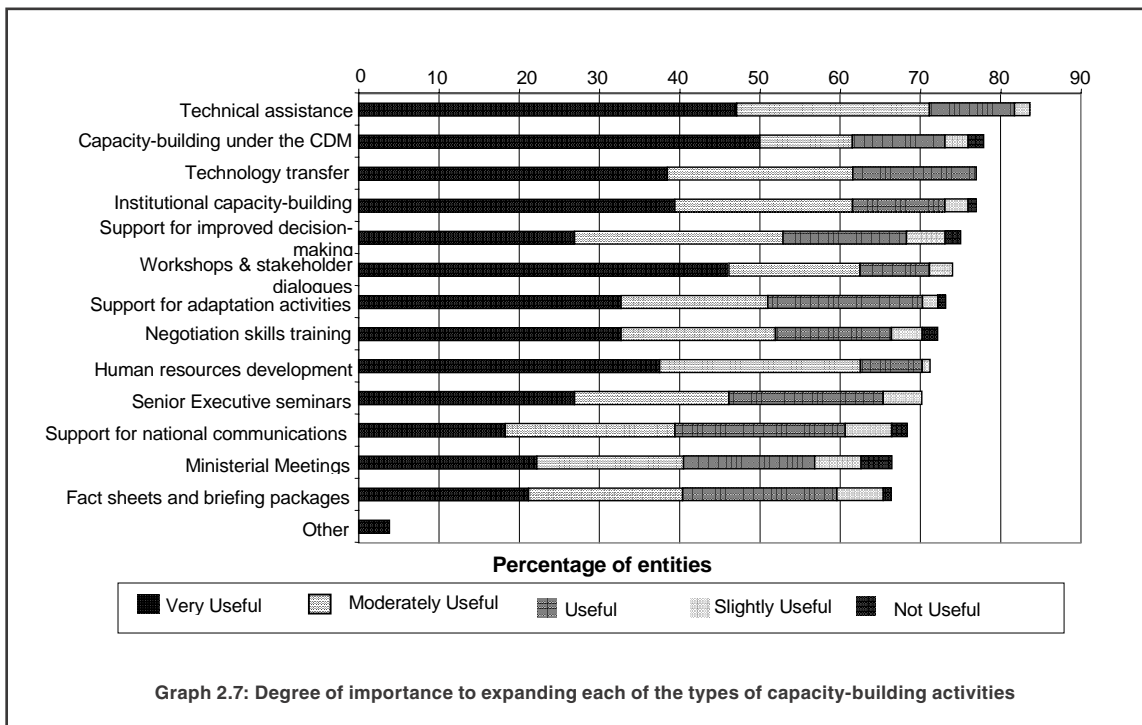
Turning to the future priorities of interviewees, Graph 2.6 shows a keen preference for capacity building under the CDM, followed by human resource development,

viewees when they were asked to identify future capacity building preferences.

Overall, workshops and stakeholder dialogues, technical assistance, institutional capacity building, technology transfer, human resource development and capacity building under the CDM were considered a priority by over 40% of entities in the region.



Graph 2.6: Most Needed Tools: Preferred capacity-building activities and priorities for resource allocation



Graph 2.7: Degree of importance to expanding each of the types of capacity-building activities

As illustrated in Graph 2.7, the greatest percentage (over 70%) of interviewees gave a rating of “useful” to “very useful” for tools such as technical assistance, institutional capacity building and technology transfer. Overall, over 50% of interviewees have rated all the activities as “useful” to “very useful”.

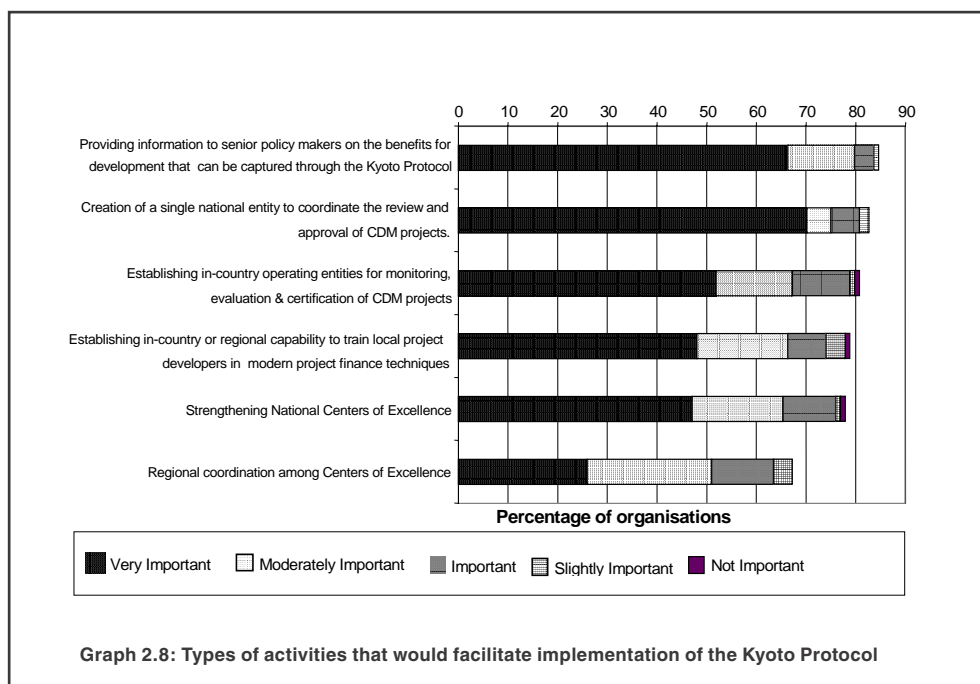
• Most Appropriate Criteria for Assessing Successful Capacity Building Activities

As discussed earlier, interviewees suggested several types of indicators that could be used to assess the likely future success of any new capacity-building programs. These indicators included:

- Number of entities involved in CDM and other Kyoto activities
- Number of entities that would like to build more capacity in CDM and other Kyoto activities
- Number of entities with specific types of relevant expertise
- Number of staff in entities with specific types of relevant expertise
- Number of CDM and other Kyoto activities operationalised
- Amount of funding made available from various sources

• The Linkages Between Capacity Building Needed for the Kyoto Protocol and National Development Strategies

Of various policy suggestions for facilitating the implementation of the Kyoto Protocol, two were deemed to be “very important” by more than 60% of respondents. These were the creation of a single national entity to coordinate the review and approval of CDM projects, and the provision of information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol. Meanwhile, regional coordination among centers of excellence seems to have attracted the lowest level of interest. Graph 2.8 and Table 2.6 offer a fuller picture of these data.

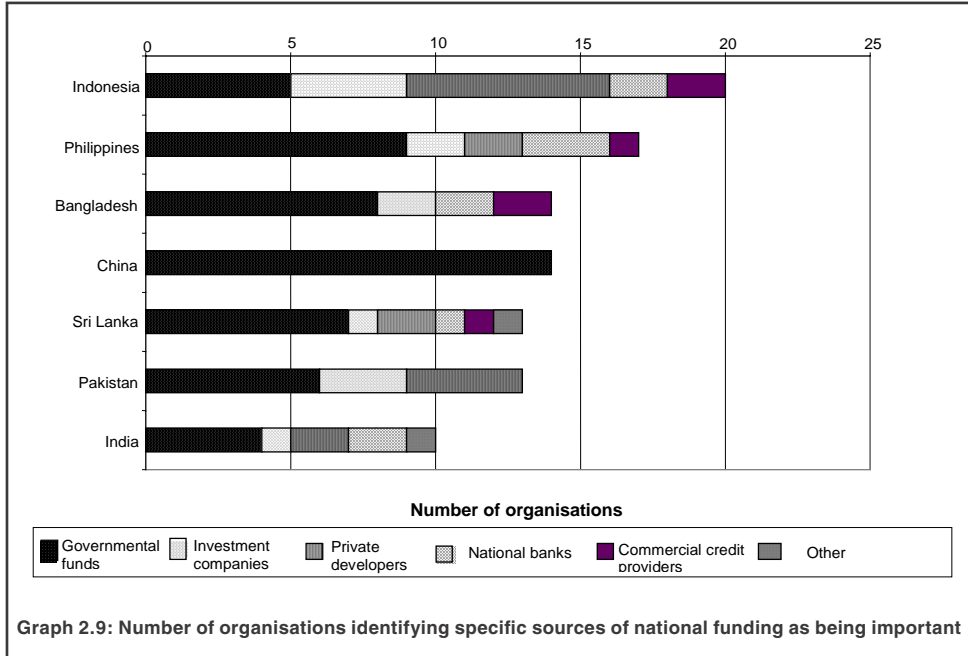


Activity	Sri Lanka	Bangladesh	China	India	Indonesia	Pakistan	Philippines
Creation of a single national entity to coordinate the review and approval of CDM projects.							
Very Important	14	12	11	8	10	9	9
Moderately Important	0	2	0	1	1	0	1
Important	0	0	2	2	2	0	0
Slightly Important	0	1	0	0	0	0	1
Not Important	0	0	0	0	0	0	0
Strengthening National Centers of Excellence							
Very Important	9	10	7	4	5	8	6
Moderately Important	2	4	2	1	2	2	6
Important	2	1	1	2	2	3	0
Slightly Important	0	0	0	0	1	0	0
Not Important	0	0	0	0	1	0	0
Reg. coordination among Centers of Excellence							
Very Important	5	9	0	0	3	2	8
Moderately Important	7	4	3	4	1	3	4
Important	1	1	3	2	2	4	0
Slightly Important	0	0	3	0	1	0	0
Not Important	0	0	0	0	0	0	0
Establishing in-country operating entities for monitoring, evaluation & certification of CDM projects							
Very Important	9	9	9	6	5	8	8
Moderately Important	4	2	1	2	4	1	2
Important	0	1	1	1	4	3	2
Slightly Important	0	1	0	0	0	0	0
Not Important	0	0	1	0	0	0	0
Establishing in-country or regional capability to train local project developers in modern project finance techniques							
Very Important	7	10	8	8	2	6	9
Moderately Important	5	3	1	0	3	4	3
Important	0	1	3	0	2	1	1
Slightly Important	1	0	0	0	3	0	0
Not Important	1	0	0	0	0	0	0
Providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol							
Very Important	13	15	10	8	8	5	10
Moderately Important	1	0	4	2	4	2	1
Important	0	0	0	1	1	1	1
Slightly Important	0	0	0	0	1	0	0
Not Important	0	0	0	0	0	0	0

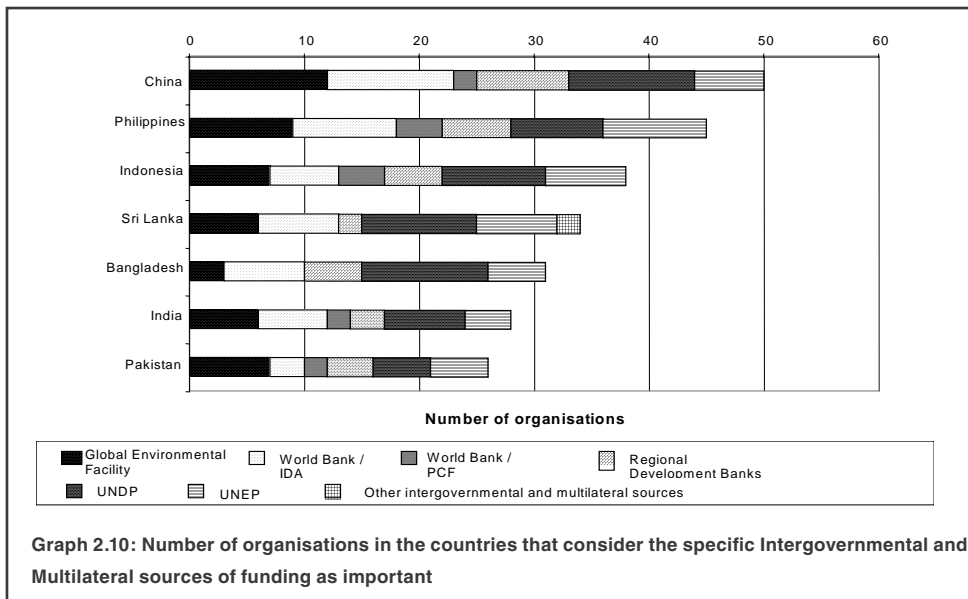
Table 2.6: The level of importance placed by specific countries on various activities that might facilitate the implementation of the Kyoto Protocol

National Sources:	Region (%)	Sri Lanka	Bangladesh	China	India	Indonesia	Pakistan	Philippines
Governmental funds								
Is important now.	51.0	7	8	14	4	5	6	9
Not important now.	29.8	8	0	1	1	9	9	3
Investment companies	0							
Is important now.	12.5	1	2	0	1	4	3	2
Not important now.	50.0	14	0	14	3	6	12	3
Private developers	0							
Is important now.	16.3	2	0	0	2	7	4	2
Not important now.	47.1	13	0	14	3	4	11	4
National banks	0							
Is important now.	9.6	1	2	0	2	2	0	3
Not important now.	56.7	14	0	14	3	9	15	4
Comm. credit providers	0							
Is important now.	5.8	1	2	0	0	2	0	1
Not important now.	56.7	14	0	14	4	8	15	4
Other national sources	0							
Is important now.	1.9	1	0	0	1	0	0	0
Not important now.	0	0	0	0	0	0	0	0
Intergovernmental and multilateral sources:	0							
Global Envir. Facility	0							
Is important now.	48.1	6	3	12	6	7	7	9
Not important now.	26.9	9	0	3	2	6	8	0
World Bank / IDA	0							
Is important now.	47.1	7	7	11	6	6	3	9
Not important now.	29.8	8	0	3	2	6	12	0
Worked Bank / PCF	0							
Is important now.	13.5	0	0	2	2	4	2	4
Not important now.	44.2	15	0	8	2	7	13	1
Regional Development Banks	0							
Is important now.	31.7	2	5	8	3	5	4	6
Not important now.	35.6	13	0	4	3	6	11	0
UNDP	0							
Is important now.	58.7	10	11	11	7	9	5	8
Not important now.	24.0	5	0	3	2	5	10	0
UNEP	0							
Is important now.	41.3	7	5	6	4	7	5	9
Not important now.	31.7	8	0	7	2	6	10	0
Other intergovernmental and multilateral sources	0							
Is important now.	1.9	2	0	0	0	0	0	0
Not important now.	1.0	0	0	1	0	0	0	0
Bilateral sources:	0							
Bilateral aid agencies	0							
Is important now.	53.8	3	9	12	6	10	8	8
Not important now.	26.0	12	0	1	4	2	7	1
Commercial credit providers	0							
Is important now.	6.7	1	0	0	1	3	1	1
Not important now.	42.3	14	0	5	2	6	14	3
Export subsidies for overseas vendors	0							
Is important now.	5.8	1	0	0	1	2	1	1
Not important now.	43.3	14	0	5	2	7	14	3
Foreign Direct Investment	0							
Is important now.	22.1	1	1	7	2	6	3	3
Not important now.	38.5	14	0	4	2	5	12	3
Foundations / NGOs	0							
Is important now.	38.5	4	5	3	6	9	5	8
Not important now.	30.8	11	0	5	2	3	10	1
Other bilateral sources	0							
Is important now.	1.0	0	0	0	0	0	1	0
Not important now.	0	0	0	0	0	0	0	0

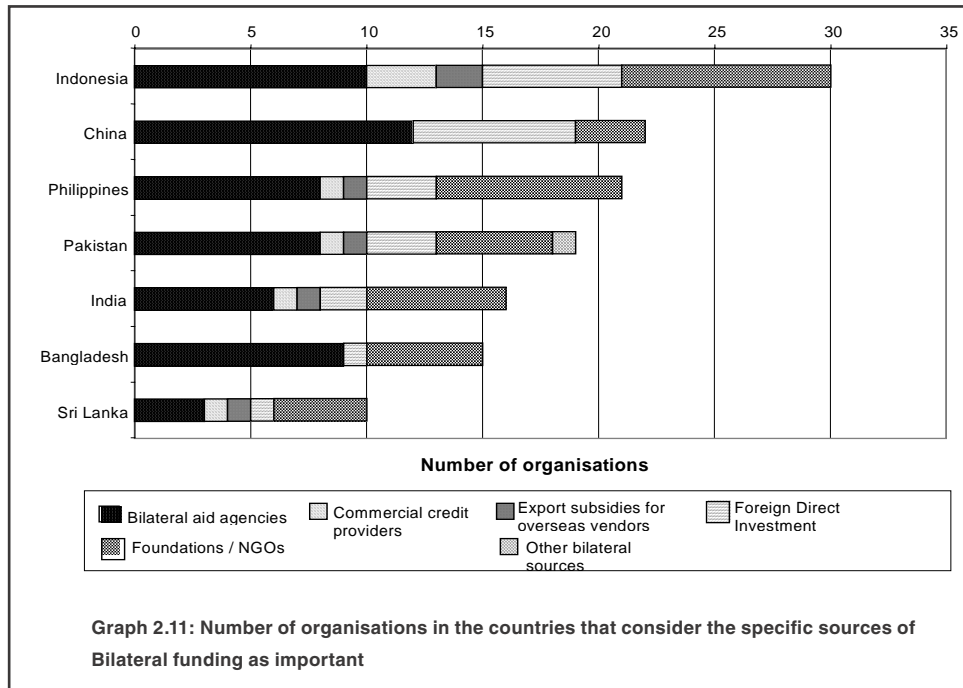
Table 2.7: Sources of funding



Graph 2.9: Number of organisations identifying specific sources of national funding as being important



Graph 2.10: Number of organisations in the countries that consider the specific Intergovernmental and Multilateral sources of funding as important



As illustrated in Figure 2.11, aid agencies are the most important bilateral sources of funding; the only exception to this pattern is Sri Lanka, where foundations/NGOs are more important. In all other countries, foundations/NGOs were deemed to be of secondary importance.

• CONCLUSIONS

Due to inadequate information in the Asia and Pacific region, capacity building in relation to Kyoto Protocol and Clean Development Mechanisms has been relegated to a low level of priority in the past. This was apparent in all of the seven countries surveyed. In particular, the low percentage of professional staff (ranging from 0.07% to 5%), working on climate change issues in these organisations offers a clear indication of this.

However, the survey process did uncover major demands for capacity building in these areas. Although participation in CDM related activities is low, all countries expressed a willingness to participate in future. They also expressed a need for additional capacity to do so. Specific areas where a dearth of capacity exists, include: compiling GHG inventories; preparing vulnerability studies; screening and selecting adaptation strategies; implementing adaptation measures; development of criteria for CDM projects; and certification of emission reduction. Joint implementation and emissions trading issues also suffer from a lack of adequate capacity.

The target audiences for capacity building in the Asia Pacific region were identified as middle and senior level decision makers and also policy analysts in the three sectors that had been surveyed, i.e., government, industry and NGOs. The most desired tools were: stake holder dialogues; workshops; senior executive seminars; fact sheets and briefing packages; technical assistance; human resource development and technology transfer

Finally, in terms of capacity building linked to the Kyoto Protocol, the creation of a single national entity to coordinate the review and approval of CDM projects was given the highest priority. Other areas of interest included: strengthening the national centers of excellence; regional coordination among centers of excellence; establishing in-country operating entities for monitoring evaluation and certification of CDM projects; and establishing in-country or regional capability to train local project developers in modern project finance techniques.



Latin America and the Caribbean



• INTRODUCTION

The Andean Center for Economics in the Environment coordinated the study in the Latin America and the Caribbean region. The countries selected for this survey were Brazil, Colombia, Costa Rica, Cuba, Mexico, Guatemala and Paraguay.

• Process and Sample

The main objective of the study, from the perspective of the NGO Consortium for North-South Dialogue and Partnership on Climate Change and UNITAR, was to contribute to the development of a knowledge base for Latin America and the Caribbean with respect to the requirements for capacity building in the Clean Development Mechanism (CDM) and the Kyoto Protocol.

Other specific objectives included:

- Identify the key capacity-building needs related to the CDM and the Kyoto Protocol in Latin America;
- Develop a better understanding of these specific needs;
- Identify the types of capacity-building activities required for the implementation of the Kyoto Protocol in developing nations.

Researchers employed three steps to accomplish these objectives. First of all, the survey was implemented in cooperation with a set of in country institutions that were selected according to the project's identified criteria. Second, survey respondents were also interviewed so as to gain a more thorough understanding of their capacity-building needs. Lastly, a seminar was held in Colombia to bring together the researchers from each of the countries, along with representatives from the public and private sector. This seminar offered an opportunity to analyse each country's results and to obtain additional recommendations and conclusions based on the experience of the participants.

The targeted countries were chosen using the following selection criteria:

- Countries with a high level of industrial development and with the potential to carry out CDM projects: Mexico and Brazil
- Island countries with the potential to carry out CDM projects: Cuba
- Countries with a high level of institutional development with respect to the implementation of CDM projects: Costa Rica
- Countries having reached an initial stage of institutional development with respect to the implementation of CDM projects: Paraguay and Guatemala
- Countries with National Strategy Studies for the implementation of CDM projects: Colombia

Table 3.1: Basic data on surveyed countries in Latin America and Caribbean

Country	Population 1999 ¹ (millions)	GDP 1999 ¹ (\$US billions)	GNP per capita 1998 ¹ (\$US)	World Bank Classification	HDI ²	Environmental Strategy or Action Plan ¹	UNFCCC National Communications ³
Colombia	41	103	2,470	Lower middle income	Medium	1998	
Brazil	166	778	4,630	Upper middle income	Medium		
Costa Rica	4	10	2,770	Lower middle income	Medium	1990	November 2000
Mexico	96	394	3,840	Upper middle income	Medium		December 1997
Paraguay	5	9	1,760	Lower middle income	Medium		
Guatemala	11	19	1,640	Lower middle income	Medium	1994	
Cuba	11	-	-	Lower middle income	Medium		
Total	307						

Sources: ¹ The World Bank Development Indicators; ² Human Development Index, The UNDP Human Development Report 2000; ³ UNFCCC Secretariat.

In order to select the specific entities and organisations to be surveyed, the following criteria were taken into account:

- The institution must be part of a sector that has the potential to reduce or capture greenhouse gases;
- The institution will have capacity-building responsibilities in CDM projects or programmes related to the Kyoto Protocol;
- The institution has budgeted resources for the implementation of activities related to CDM projects or the Kyoto Protocol;
- The institution participates or has participated consistently in events related to the CDM or Kyoto Protocol.

The Andean Center initially attempted to select five government entities, five private companies and five non-governmental organisations (NGOs) in each country in accordance with the suggested project selection criteria. However, given the shortage of time, the final distribution of institutions was look into account those that were readily available to answer the survey in the time available. With respect to private entities, companies with influence on national policy were chosen from the following areas: electrical energy generation; large industries with furnaces running on fossil fuels; and steel, cement, mining and forest industries.

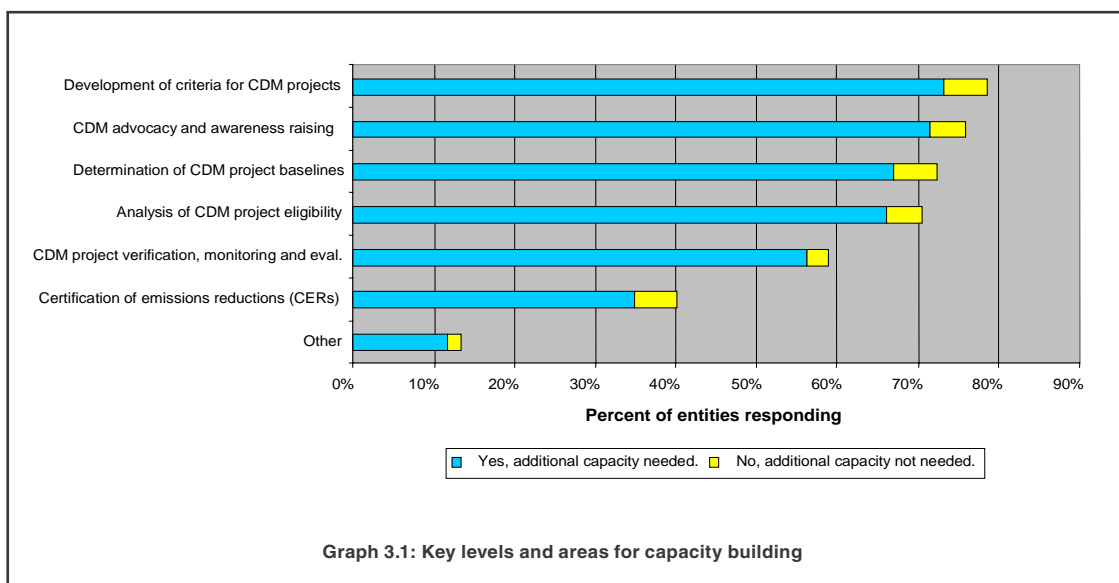
KEY RESULTS

• Key Level and Areas for Capacity Building

All countries surveyed exhibit a very high level of interest in capacity building in the CDM - particularly those aspects dealing with technical assistance, workshops and stakeholder dialogues, and institutional capacity building. This might have been expected based on the region's large number of projects in the Activities Implemented Jointly (AIJ) phase.

This interest in the CDM is also apparent from the responses to the questionnaire that was distributed to interviewees. Question number 12 had been designed to assess the level of involvement in CDM and Kyoto Protocol issues. It was determined that a full 80% of the entities are participating to some extent. However, it must be noted that question 12 also sought to gauge participation in discussions at the national level and it does not necessarily indicate involvement in other CDM-related activities (formulating projects, estimating baselines, monitoring, etc.). Question 12 also asked "If the CDM becomes effective, will your organisation participate in CDM related activities?". Remarkably, a full 96% of the respondents expressed interest in getting involved.

Question 13 sought to identify the specific CDM related activities in which institutions would be willing to participate. The results showed that 73% would like to get involved in the development of criteria for CDM projects. 71% expressed interest in CDM advocacy and awareness raising. 67% would partake in determining CDM project baselines. Lastly, 66% would be willing to work in analysis of project eligibility. To carry out such activities however, institutions expressed the need for additional resources. These results are illustrated in Graph 3.1 below.



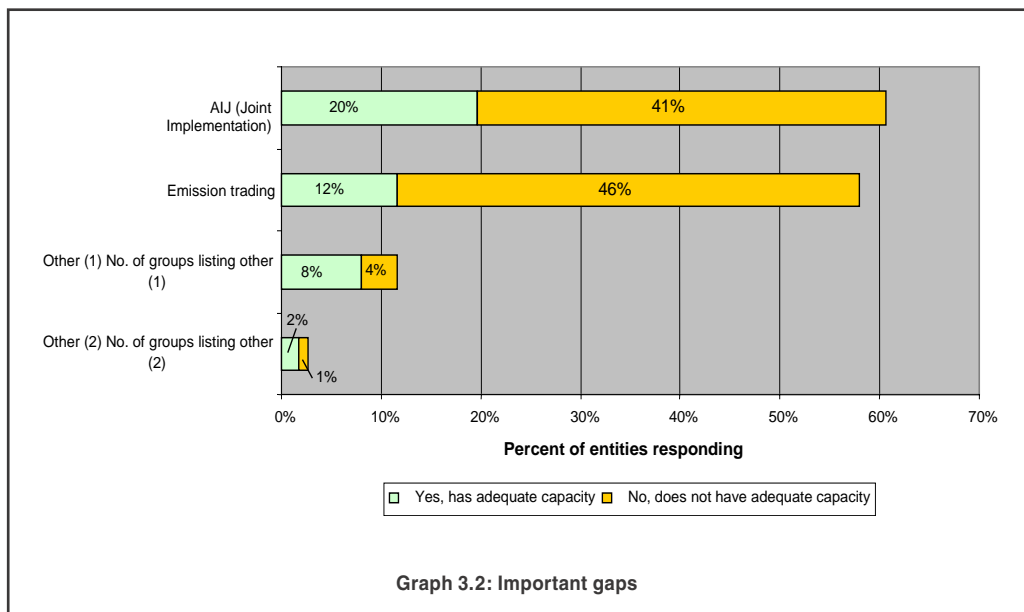
Questions 14, 15 and 16 respectively, describe the state of institutional resources (financial, professional, etc.) currently directed towards implementing the Kyoto Protocol; any future intentions to increase work related to this area; and the requirements for additional resources to reach these goals.

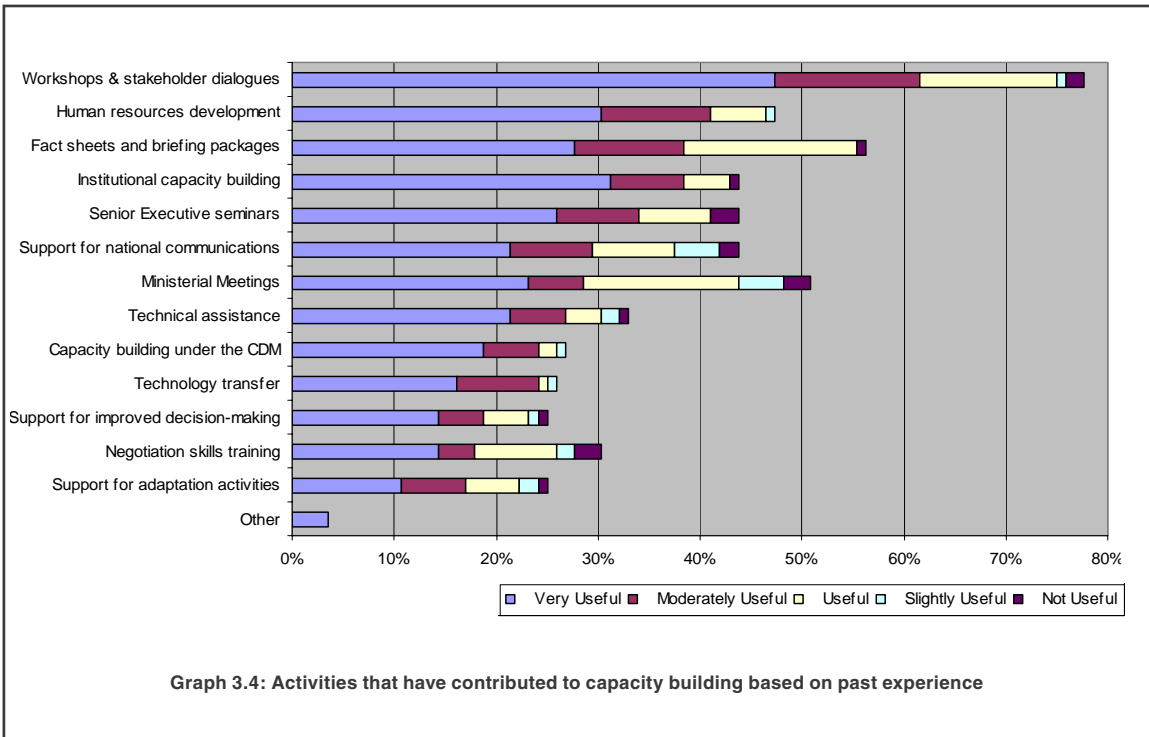
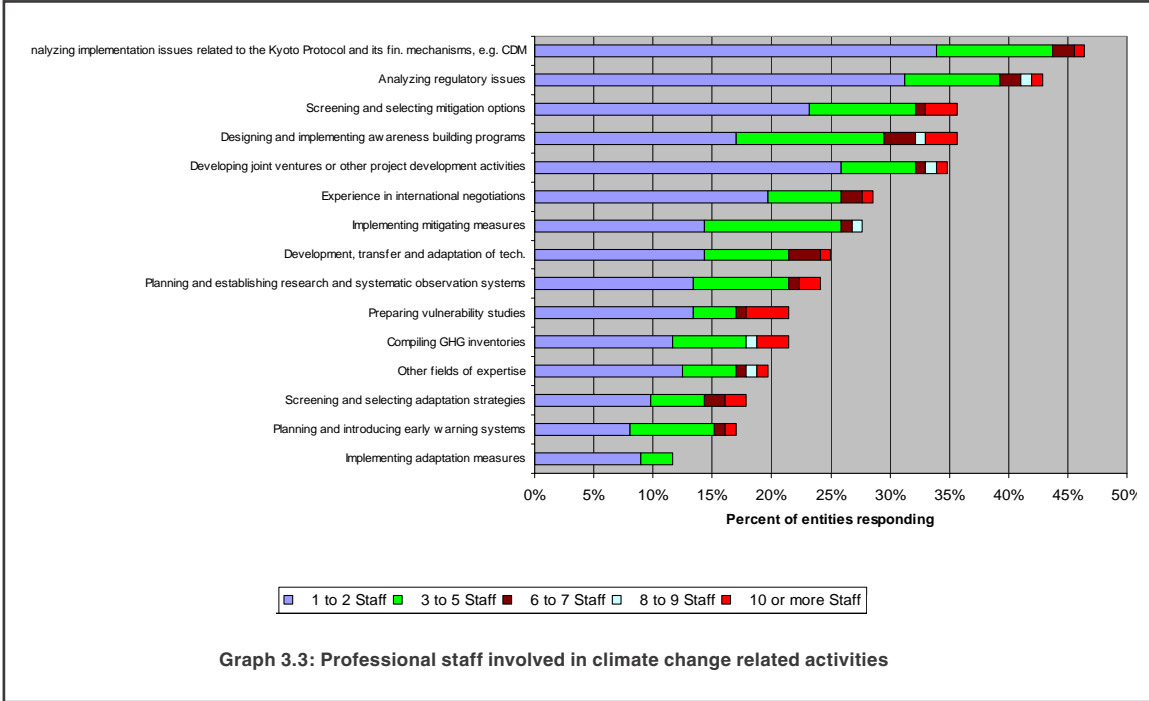
Question 14 sought to identify those areas where capacity-building activities have focused until now. The investment of resources in specific activities is a clear indicator of priorities. Accordingly, our results show that the greatest interest is in activities related to AIJ (joint implementation) . This might be expected, given the leadership that Central America has demonstrated in developing projects in this field. The survey also revealed interest in emissions trading models, probably due to the fact that this model is the basis for the Kyoto Protocol mechanisms. Moreover, this interest might also owe to the success that the United States has had in implementing this model to reduce sulphur dioxide emissions, and that future compliance periods may use this model; these instruments are being evaluated for local use un some countries.

- 61% of interviewees answered the question regarding their allocation of resources for joint implementation activities. Of these, 32% of the institutions have directed resources towards these activities.
- 51% answered the question regarding the appointment of resources for emissions trading. Twenty percent of these institutions have directed resources toward this end.

These results illustrate that some professional staff are working directly on climate related activities in some of the institutions that were surveyed. Graph 3.3 provides further information about current staffing levels.

As for future plans, 93% of surveyed institutions indicated that they intended to expand involvement in the implementation of the Protocol. However, 89% of respondents admitted that their institutions will need additional resources to carry on with these activities.



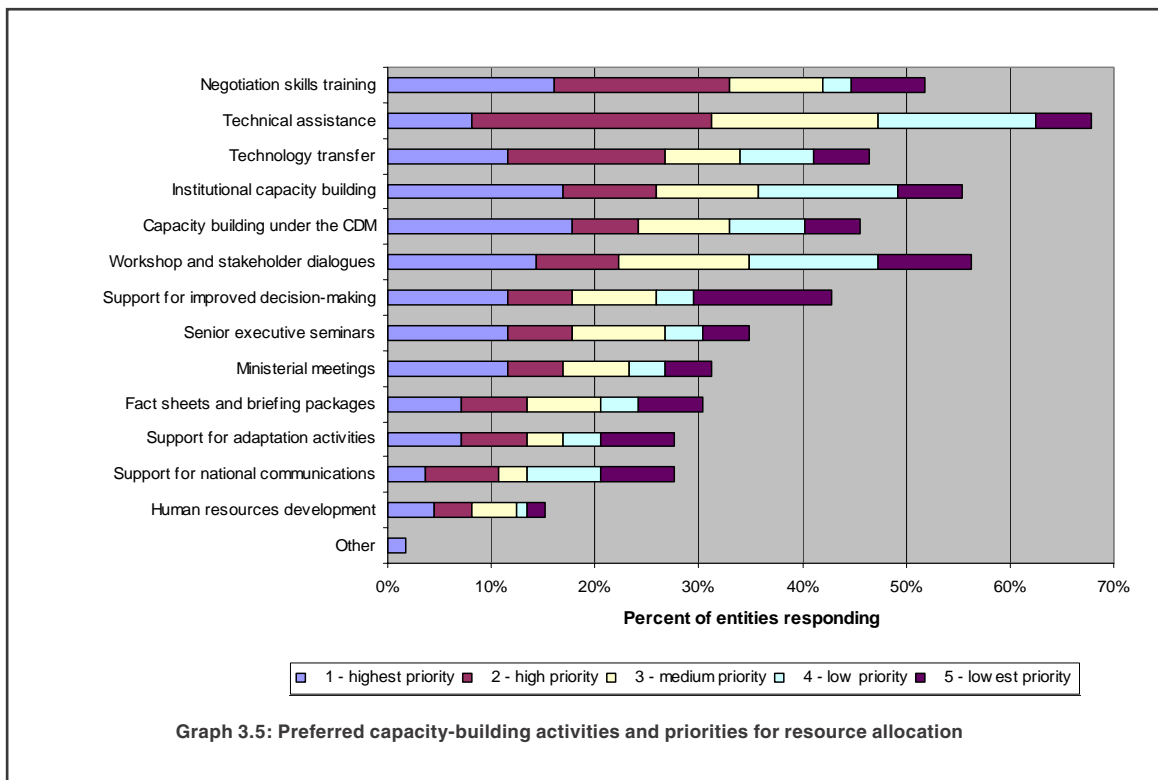


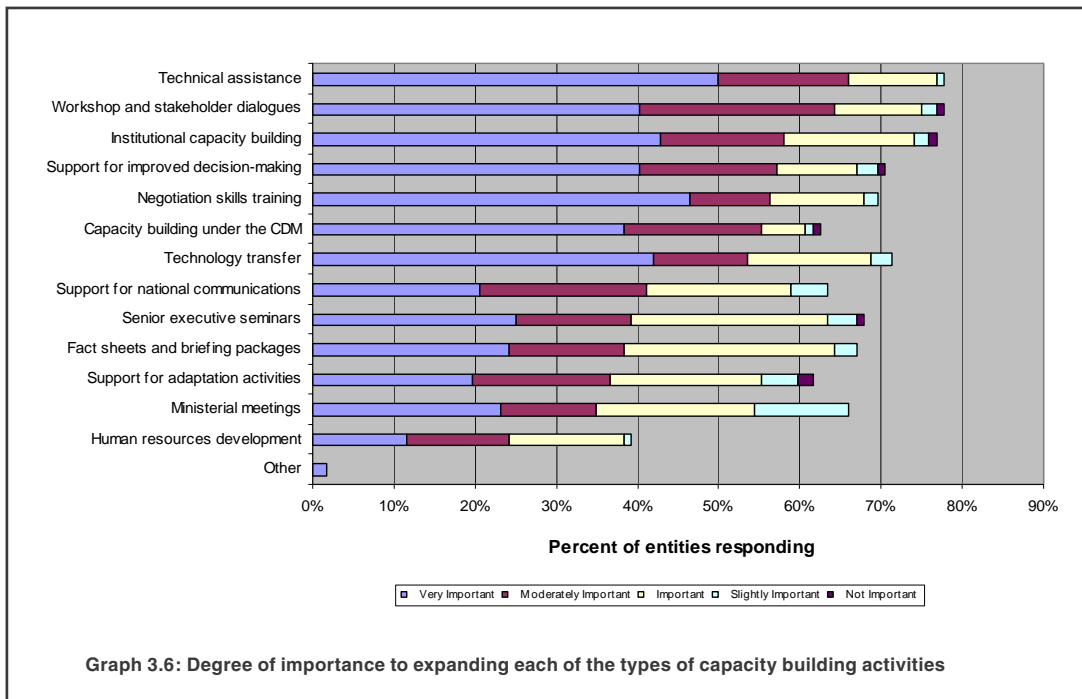
Question 17 of the survey sought to identify those activities that have contributed to capacity building related to the Kyoto Protocol. A key issue is to understand what type of capacity building have worked for them in the past. As illustrated in Graph 3.4, the activities that have contributed the most to capacity building are, in order of importance:

- Workshops and stakeholder dialogues
- Fact sheets and briefing packages
- Ministerial meetings

Graph 3.5 indicates those activities that may contribute to future capacity building and ranks them according to their perceived priority for resource allocation. As can be seen, negotiation skills training, technical assistance, technology transfer, institutional capacity building and capacity building under CDM are the most important activities. Other priorities for funding include: workshops and stakeholder dialogs, support for improved decision making and senior executive seminars.

Graph 3.5 indicates those activities that may contribute to future capacity building and ranks them according to their perceived priority for resource allocation. As can be seen, negotiation skills training, technical assistance, technology transfer, institutional capacity building and capacity building under CDM are the most important activities. Other priorities for funding include: workshops and stakeholder dialogs, support for improved decision making and senior executive seminars.





The most needed tools for capacity building, as shown in Graph 3.6, are workshop and stakeholder dialogues; technical assistance; and institutional capacity building.

Question 21 sought to identify the most important sources of funding for capacity-building activities related to the Kyoto Protocol. The results, in order of importance, were:

- Government funds
- Bilateral agencies
- UNDP
- Global Environment Facility (GEF)
- World Bank

The least important sources of funding were:

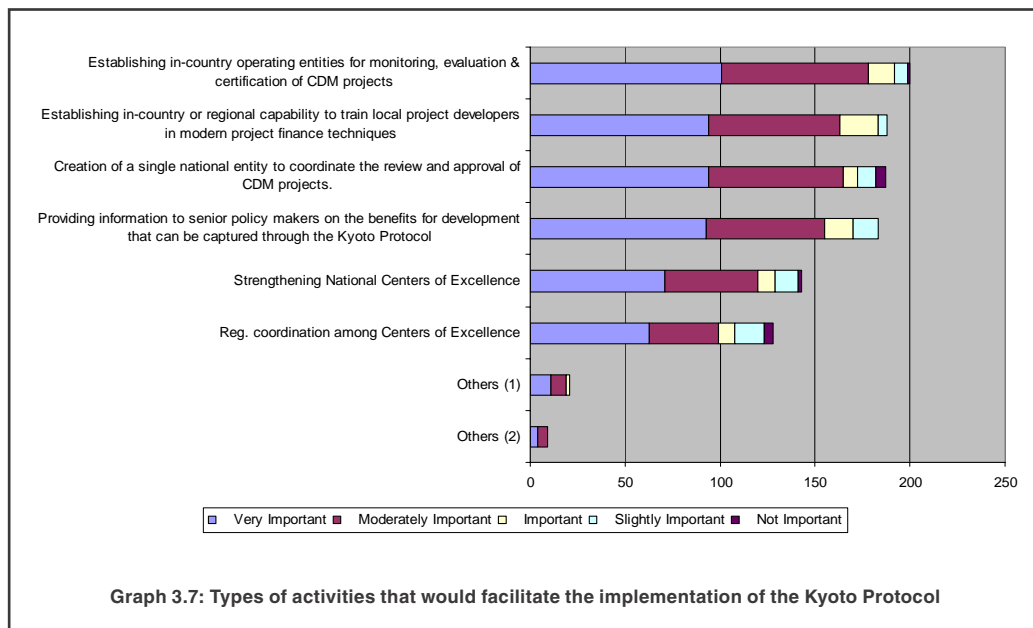
- National banks
- National and bilateral commercial credit providers
- Export subsidies from foreign salesmen
- The Prototype Carbon Fund

• Key Target Audiences for Capacity Building

In order to respond to the key target audiences, a “Basic matrix with capacity-building needs to facilitate the implementation of the CDM in Latin America and the Caribbean” was created on the basis of the synthesis of the results obtained under a set of several questions corresponding to the survey (see Table 3.2). The resulting capacity-building matrix for the LAC region is shown under the concluding section of this chapter.

• Linkages Between Capacity Building Needed to Advance the Objectives of the Kyoto Protocol and the National Development Strategies

Graph 3.7 summarizes types of activities that would facilitate implementation of the Kyoto Protocol. Of greatest importance is the establishment of in-country operating organisations for monitoring, evaluating and certifying CDM projects. Also important is the need for establishing in-country or regional institutions to train local project developers in modern project finance techniques.



Programs directed towards	Contents for the institutional capacity building programs	Capacity building vehicles	Techniques and methodologies to follow	Observations
1. Decision-makers in the public sector: ministers, international negotiators, key entity directors	<ul style="list-style-type: none"> Objectives and scope of the UNFCCC Political and economic framework to the international negotiations on climate change The CDM's concepts, objectives and scope Institutional design for the successful implementation of the CDM 	<ul style="list-style-type: none"> Regional organizations for the integration of the environment and the economy Experts and specialized centers for the teaching of related climate change subjects and for the investigation in this field at a national and regional level 	<ul style="list-style-type: none"> Seminars directed towards high level public authorities Inter-Ministerial encounters Information exchange between Ministers of the region Exchange of experiences related to the institutional framework for the implementation of the CDM in the country Development of studies related to institutional design for CDM implementation 	<ul style="list-style-type: none"> Investigation and adjustment of the legal frameworks at a national level
2. Directors and technicians of a medium and high rank from public institutions related to the implementation of the CDM, such as: entities in charge of establishing policies for the protection of forests, protected areas and biodiversity, and entities related to energy, mining, transport, agriculture and the payment of environmental services.	<ul style="list-style-type: none"> The Kyoto Protocol The CDM's concepts, objectives and scope The CDM's operative framework Strategic evaluation of the investment in opportunities related to the CDM 	<ul style="list-style-type: none"> Regional centers for investigation and training. National Specialized Centers for teaching and investigating (INCAE, CATIE, CAEMA, COPPE) 	<ul style="list-style-type: none"> Short term courses (three to five days) 	<ul style="list-style-type: none"> Punctual and applied investigations related to the potential that different sectors have in the CER trading market are required
3. Directors and technicians of a medium and high rank from public and private institutions and NGOs. 4. Staff members from investigation centers and NGOs	<ul style="list-style-type: none"> The Kyoto Protocol The CDM's concepts, objectives and scope The CDM's operative framework 	<ul style="list-style-type: none"> CCAD Regional and international investigation and training centers with experience and specialized knowledge regarding the Kyoto Protocol and the CDM. 	<ul style="list-style-type: none"> Short term courses (three to five days) Workshops on specific subjects Methodological workshops 	<ul style="list-style-type: none"> The destination of resources are required for the creation of technical manuals and other material for capacity-building
5. People who work in capacity-building activities 6. Environmental managers	<ul style="list-style-type: none"> Strategic evaluation of the investment in opportunities related to the CDM 	<ul style="list-style-type: none"> National entities of a public and private nature which deal with training and investigation (universities, specialized investigation centers, NGOs and others) 		
7. Specialized technicians of a medium and high rank from entities of the public sector, NGOs, and private enterprises, related to areas with the potential to work in CDM related activities (forests, agriculture, energy, transportation, cement industry and others) 8. Environmental managers	<ul style="list-style-type: none"> The CDM's operative framework Methodology for the formulation of CDM projects (baselines, additionality, environmental and technical analysis, economic and financial analysis, and others) 	<ul style="list-style-type: none"> Regional training centers with experience and specialized knowledge regarding the CDM. National entities of a public and private nature which deal with training and investigation (universities, specialized investigation centers, NGOs and others) 	<ul style="list-style-type: none"> Short term courses (five days) Medium term courses (two to three weeks) Interactive courses at a distance (via Internet, for example) Pilot projects Exchange of experiences regarding the formulation of projects in different sectors at a regional level 	<ul style="list-style-type: none"> The destination of resources are required for the creation of technical manuals and other material for capacity-building
9. International negotiators 10. Specialized technicians of a medium and high rank from entities of the public sector, NGOs, and private enterprises, related to areas with the potential to work in CDM related activities (forests, agriculture, energy, transportation, cement industry and others)	<ul style="list-style-type: none"> Market analysts Commercial and project negotiation strategies 	<ul style="list-style-type: none"> Regional and national investigation centers Experts on market analysis 	<ul style="list-style-type: none"> Workshops for executives and enterprise directors, NGOs and enterprises Specific assessments 	<ul style="list-style-type: none"> Studies and market monitoring regarding price signals, and the evolution of the supply and demand for projects. This type of activities should be funded by interested economic agents.

Table 3.2: basic matrix with capacity building needs to facilitate the implementation of the CDM

• CONCLUSIONS

This survey of capacity-building needs for implementation of the Kyoto Protocol in the Latin America and Caribbean region demonstrates a predominant interest in the Clean Development Mechanism, with less emphasis at this point in time on the Protocol's other major issues including vulnerability, adaptation, the other financial mechanisms, and technology transfer. The survey identifies the specific areas of capacity building desired, as well as indications as to the type and methods of capacity building that work best in the context of each country. The regional seminar of experts complemented the survey results with specific recommendations to focus future capacity-building programmes in the LAC context, including appropriate content of training courses, specific capacity-building vehicles, techniques and methods to follow, and useful funding sources operating in the region.

Clearly, the regional experience with AIJ projects has focused a great deal of attention on the CDM, led by projects and institutional developments in Costa Rica, Belize and Bolivia. The individual country reports show that significant capacity building in the areas of vulnerability and adaptation has already begun to occur through the development of the National Communications to the UNFCCC.

Regional interest in the CDM is due mainly to the recognition that a very large potential for GHG reductions and sequestration projects exists in the relatively large and growing economies of the region, many of which are fossil-fuel intensive and enjoy significant comparative advantages. For example, Colombia's National Strategy Study estimates that cost-effective projects in 28 sectors could annually generate up to US\$430 million in exports of CERs, an amount equivalent to the current export of bananas or cut flowers. All of the country reports indicate that research on sectoral potential, project identification, and institutional responsibilities is occurring.

Even though interest in the CDM is very high, the survey revealed that the level of detailed knowledge regarding the Kyoto Protocol and the CDM itself is relatively low. Familiarity with these issues in institutions and enterprises is just beginning and the number of professional staff dedicated to the field is still small. The two areas where respondents tend to have expert staff working on climate change activities are analysis of implementation issues related to the Kyoto Protocol and CDM, and analysis of related regulatory issues. The levels of capacity building needs decrease sharply as one moves from the central government toward the regional and municipal levels. However, even here, resource allocation is limited to less than 35% of the entities surveyed, and most organisations have only one to two professional staff involved in these issues.

Nonetheless, there is a clear indication of emphasis on CDM and a further desire for progress on the issues. The survey results demonstrate that the region is eager for capacity building in the methodology for identification, development and approval of CDM projects. More specifically, over 70% of respondents said that the key areas for capacity building are: development of criteria for identification and generation of CDM projects, and greater advocacy and awareness raising in CDM. A further 65% of respondents desire capacity building on the methodology for the determination of project baselines and bases for the analysis of CDM project eligibility.

There is a clear lack of understanding of the function of market-based models for emissions reductions and the survey indicates a need for greater knowledge and skills in this area. It is imperative for organisations to develop an understanding of how the international GHG emissions permit market will develop. Failure to do so will mean a failure to understand how the demand, supply and price for their CERs will evolve. Without this knowledge, it will be impossible to accurately determine and to fully develop the competitiveness of individual projects or CDM sectoral potentials.

The Regional Seminar of Experts, held at the Andean Center for Economics in the Environment in Bogotá to evaluate the survey results, produced a complementary set of recommendations for focusing capacity-building programmes in the region. Two key findings were the need to support established regional and national centres of expertise for professional training on Kyoto Protocol and CDM topics, and the need to carry out targeted research on the areas of potential constraints.

With respect to research needs, two areas were identified. First, the compatibility of the national legal systems with UNFCCC structures for CDM project development and CER exports should be determined. This will be needed in order to avert serious legal bottlenecks that could take place in the future. Second, there is a need to evaluate experiences of the various national institutions that have been implemented over the last five years for approval and promotion of AIJ emissions reductions projects. Recommendations for design of efficient and effective national institutions for the CDM should also be developed. The results are summarized in the table: “Basic Matrix of Capacity-building Needs to Facilitate Implementation of the CDM”.

National governments, international organisations, bilateral assistance agencies, NGOs, and UNITAR should find the results of this survey useful for purposes of planning future capacity-building programmes for the Kyoto Protocol and the CDM.



Middle East



• INTRODUCTION

This chapter describes the climate change capacity needs of the Middle East region based on the survey conducted by Al-Shamil Engineering Office in cooperation with UNITAR and NSD. The following section describes the survey sample and the process used in this region. An overview of the regional results are given in the first part of this chapter and the last section sets out some key conclusions. The country results can be found in alphabetical order in chapter 5 of this report.

• Process and Sample

The main objective of the study was to contribute to the development of a knowledge base for the region's capacity-building needs. Institutions were selected on the basis of specific selection criteria (discussed below). Those chosen responded to a survey prepared by project partners so as to gain a more thorough understanding of their capacity-building needs. The four participating countries were selected based upon their potential to play a key role in the implementation of the CDM and the Kyoto Protocol. On the whole, the nations fell into one of the following categories:

- Countries with industrial development and with the potential to carry out CDM projects, such as Lebanon and Syria.
- Countries at an initial stage of institutional development with respect to the implementation of CDM projects, such as Jordan and Lebanon.
- Countries with middle incomes, such as Jordan, Syria and Lebanon.
- Countries with low incomes such as Yemen.

Table 4.1: Countries selected for the capacity needs assessment

Sub-Region	Country	Population 1999 ¹ (millions)	GDP 1999 ² (\$US billions)	GNP per capita 1998 ¹ (\$US)	World Bank ification	HDI ²	Environmental Strategy or Action Plan ²	National Communication ³
Middle East	Jordan	5	7	1,150	Lower middle income	Medi um	1991	March 1997
	Lebanon	4	17	3,560	Upper middle income	Medi um		November 1999
	Syria	15	17	1,020	Lower middle income	Medi um		
	Yemen	17	4	280	Low income	Low		
Total	4	41						

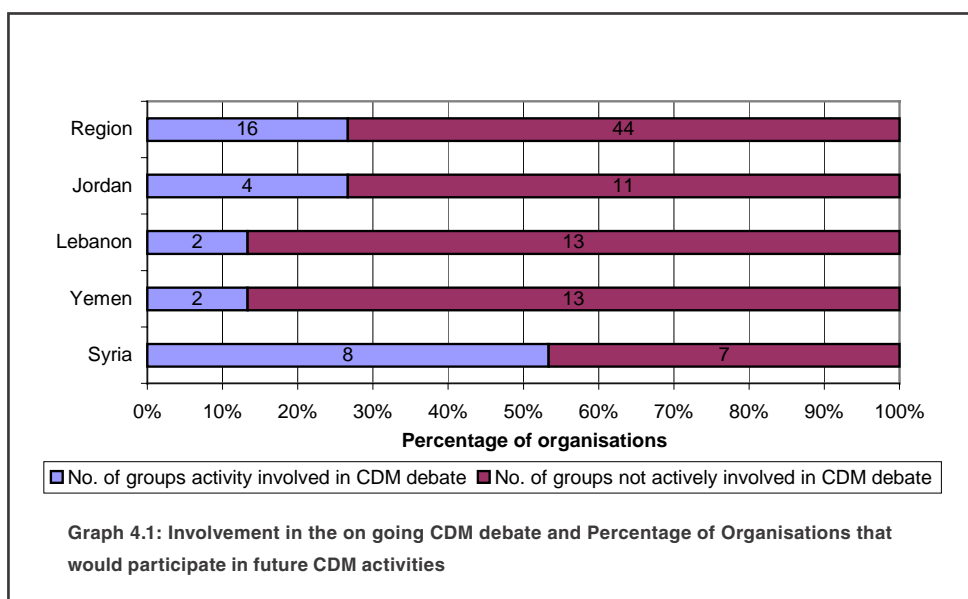
Participating institutions within these four countries were selected with an eye to their involvement in activities related to the Kyoto Protocol. The following criteria were also employed:

- The institution must be part of a sector that has the potential to reduce or capture greenhouse gases.
- The institution will have capacity-building responsibilities in CDM projects or programs related to the Kyoto Protocol.
- The institution has budget resources for the implementation of activities related to CDM projects or the Kyoto Protocol.
- The institution participates or has participated consistently in events related to the CDM or Kyoto Protocol.

Efforts were made to select participants in equal numbers from the following three sectors: government, private companies, and non-governmental organisations (NGOs). The actual distribution of the institutions surveyed in the four countries was as follows: 21 government organisations, 11 from Industry, 17 from the academic sector and 10 NGOs. On the whole, the survey covered 60 institutions from the four different countries. Selection of the target institutions was made in close cooperation with the IPCC Focal Points in the above-mentioned countries.

• Key Levels and Areas for Capacity Building

Graph 4.1 shows that only 27% of surveyed institutions are actively involved in the ongoing CDM debate; all of these participants hail from the government sector. However, over 95% of organisations expressed a desire to participate in CDM activities if they become operational (see Table 4.2).



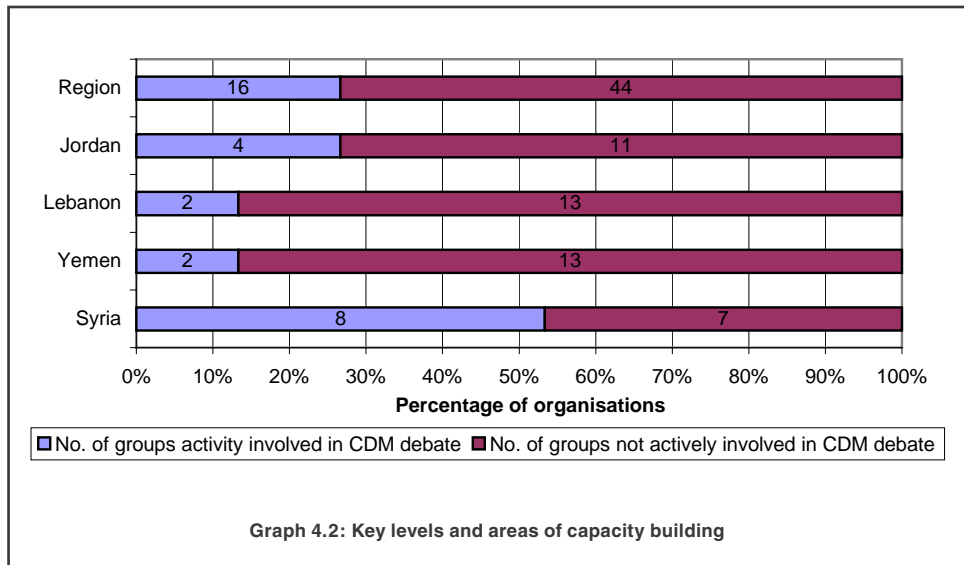
Participation in CDM activities if it becomes operational	Region	Jordan	Lebanon	Syria	Yemen
Number of Groups that would participate	57 (95%)	13	15	14	15
Number of groups that would not participate	3 (5%)	2	0	1	0

Table 4.2: Number of entities that would participated if CDM becomes operational

CDM activities in which groups would participate	Jordan	Lebanon	Syria	Yemen
CDM advocacy and awareness raising	9	15	12	12
Yes, additional capacity needed	7	10	12	7
No, additional capacity not needed	2	5	0	5
Development of criteria for CDM projects	9	15	11	10
Yes, additional capacity needed	8	11	11	5
No, additional capacity not needed	1	4	0	5
Determination of CDM project baselines	8	11	11	10
Yes, additional capacity needed	8	7	11	5
No, additional capacity not needed	0	4	0	5
Analysis of CDM project eligibility	6	11	11	8
Yes, additional capacity needed	6	7	11	4
No, additional capacity not needed	0	4	0	4
CDM project verification, monitoring and evaluation	3	7	9	6
Yes, additional capacity needed	3	5	9	4
No, additional capacity not needed	0	2	0	2
Certification of emissions reductions (CERs)	3	4	8	3
Yes, additional capacity needed	3	3	8	3
No, additional capacity not needed	0	1	0	0
Other	0	1	0	1
Yes, additional capacity needed	0	1	0	1
No, additional capacity not needed	0	0	0	0

Table 4.3: Number of entities interested in participating in CDM that need / do not need additional capacity building

Table 4.3 indicates that a majority of organisations (over 80%) intend to participate in CDM advocacy and awareness raising. 75% of them also expressed interest in developing criteria for CDM projects. Regarding the other activities, such as determination of CDM project baselines, only 66% were interested in participating, and 40% showed interest in the analysis of CDM project eligibility. Only 30% were interested in certification of emissions reduction.



Most organisations expressed the need for additional capacity to conduct these activities (see Graph 4.2).

• Important Gaps

As can be seen in Graph 4.3, the majority of respondents do not have the capacity to address the issues of joint implementation (93% of them), while a full 99% do not have adequate capacity for emissions trading.

95% of respondents did profess a desire to broaden their work in relation to the implementation of the Kyoto Protocol, however 92% of them will need additional capacity to do so.

The survey offered some insight into the typical activities undertaken by respondents. Of those surveyed, 73% undertake research, and 73% also engage in advocacy on environmental and social issues. Some 63% declared an involvement in public information, education and awareness building. Meanwhile, less than 30% of organisations were involved in other functions, such as working with government negotiators and government decision-makers (see Table 4.4).

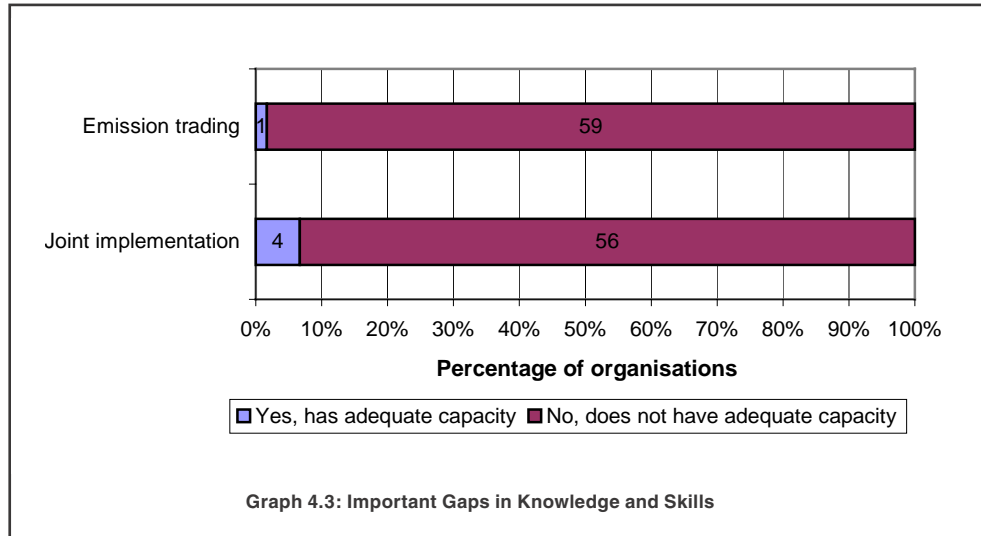
It is also noteworthy that the government agencies were more likely to be involved in the environmental sector (86%), whereas the NGO sector dealt more with research, training and consultancy. Organisations in the industry sector tended to play prominent roles in the energy and

power areas. While some 95% of organisations operate at national level, and 61% operate at the local level, only 28% are active at the international level.

Table 4.5 and Graph 4.4 reveal that only 0.5% of professional staff in the surveyed organisations are engaged in climate change activity. Of these, 29% work full time, while 71% work part time. The government sector boasts the highest percentage of professionals, followed by the NGO sector and industry.

In general, most of the surveyed institutions in the Middle East region suffer from a relative lack of expertise in climate change activities. Less than 60% of organisations have experience in compiling GHG inventories, while only 30% have experience in activities such as, preparing vulnerability studies, screening and selecting adaptation strategies, implementing adaptation measures, and implementing mitigation measures.

Moreover, the NGO sector was found to lack, completely, expertise in these activities. NGOs cited the difficulty of retaining well-trained staff - due to limited incentives - as a key reason for this deficiency.

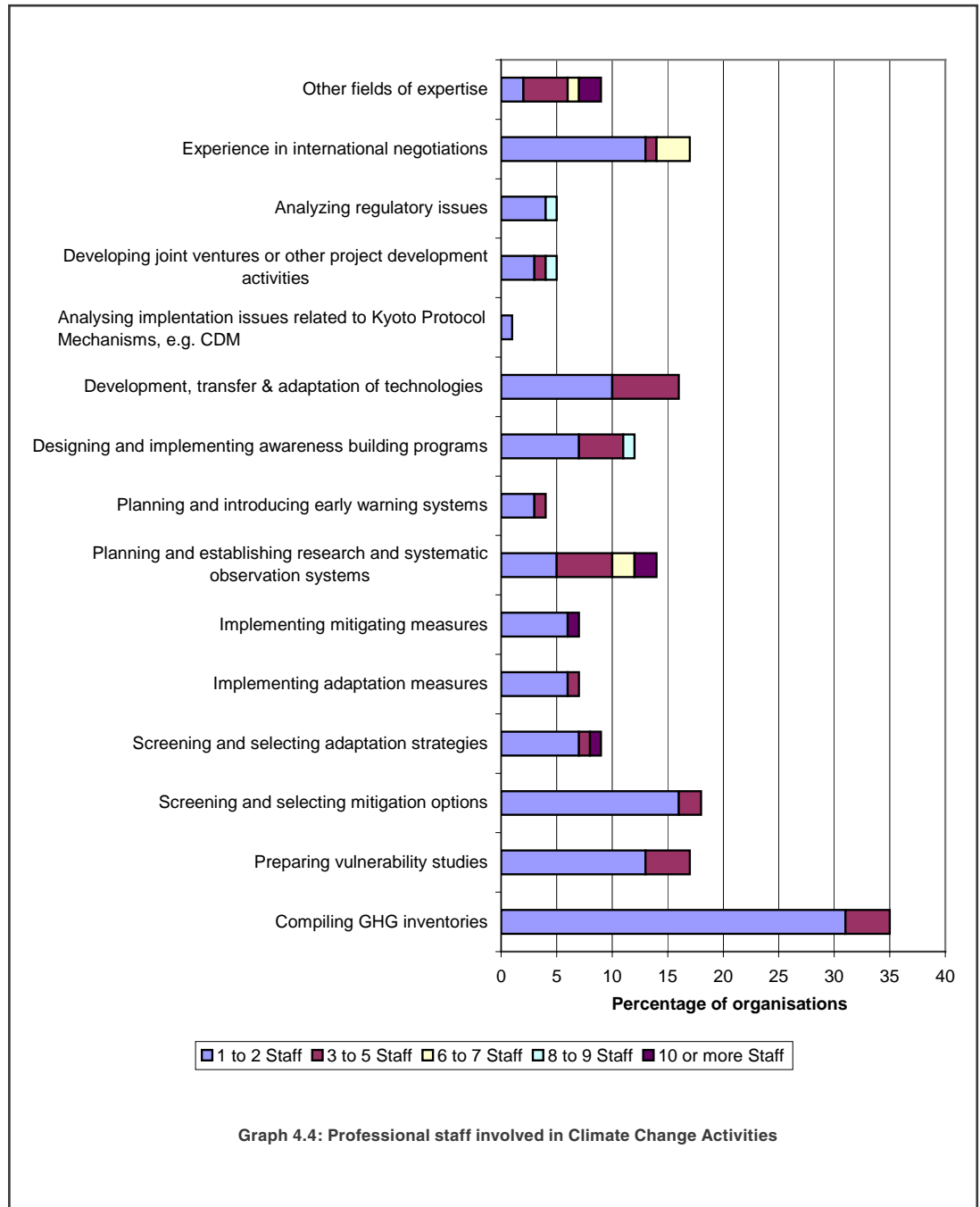


Adequate capacity for other Kyoto Protocol issues	Region (%)	Jordan	Lebanon	Syria	Yemen
Joint Implementation					
Yes, has adequate capacity	4 (6.7)	1	1	1	1
No, does not have adequate capacity	56 (93.3)	14	14	14	14
Emission trading					
Yes, has adequate capacity	1 (1.7)	0	1	0	0
No, does not have adequate capacity	59 (98.3)	15	14	15	15

Table 4.4: Capacity building needed to follow other Kyoto Protocol issues

Specific expertise	Region	Jordan	Lebanon	Syria	Yemen
Compiling GHG inventories	35	9	11	6	9
Preparing vulnerability studies	17	5	4	7	1
Screening and selecting mitigation options	18	4	5	5	4
Screening and selecting adaptation strategies	9	2	1	4	2
Implementing adaptation measures	7	1	2	3	1
Implementing mitigating measures	7	1	3	2	1
Planning and establishing research and systematic observation systems	14	2	2	6	4
Planning and introducing early warning systems	4	1	1	1	1
Designing and implementing awareness building programs	12	4	2	4	2
Development, transfer and adaptation of technology	16	3	3	6	4
Analysing implementation issues related to the Kyoto Protocol and its financial mechanisms, e.g. CDM	0	0	0	0	0
Developing joint ventures or other project development activities	5	0	1	3	1
Analysing regulatory issues	5	2	1	1	1
Experience in international negotiations	17	4	4	5	4
Other fields of expertise	3	0	1	1	1

Table 4.5: Number of organisation with specific expertise



Graph 4.4 shows the distribution of available expertise for various activities.

• Key Target Audience for Capacity Building

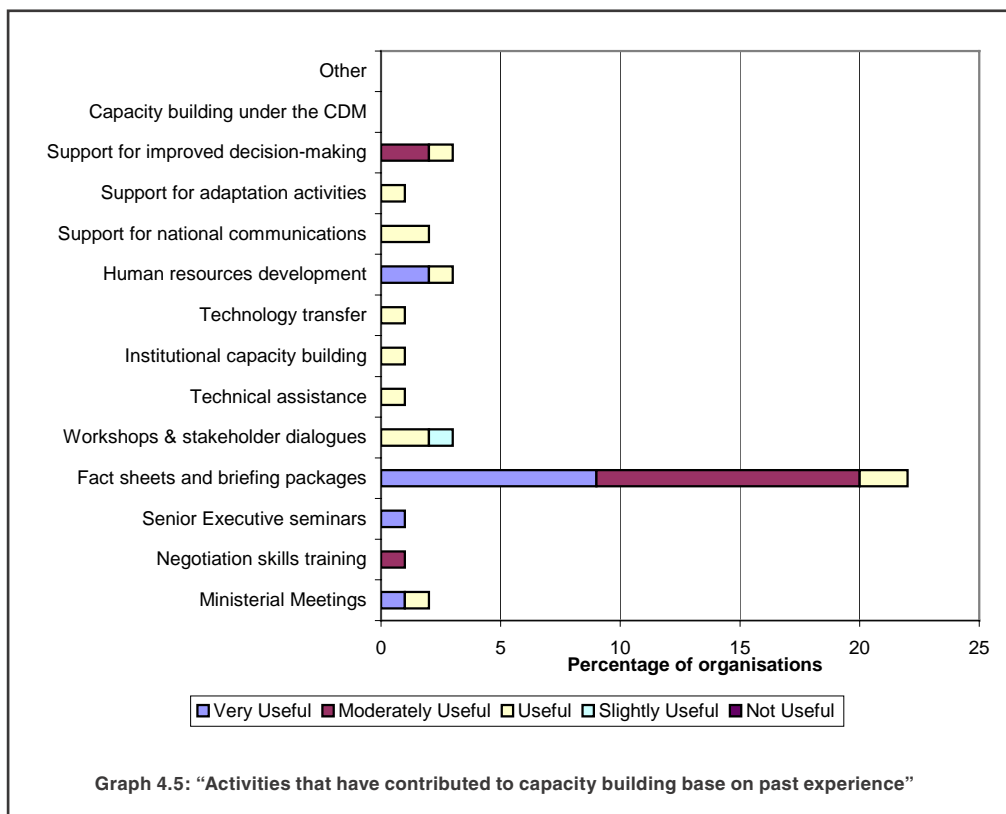
When asked to identify key actors and stakeholders, more than 95% of respondents identified government entities, while 71% selected academic entities, and 20% identified industrial entities.

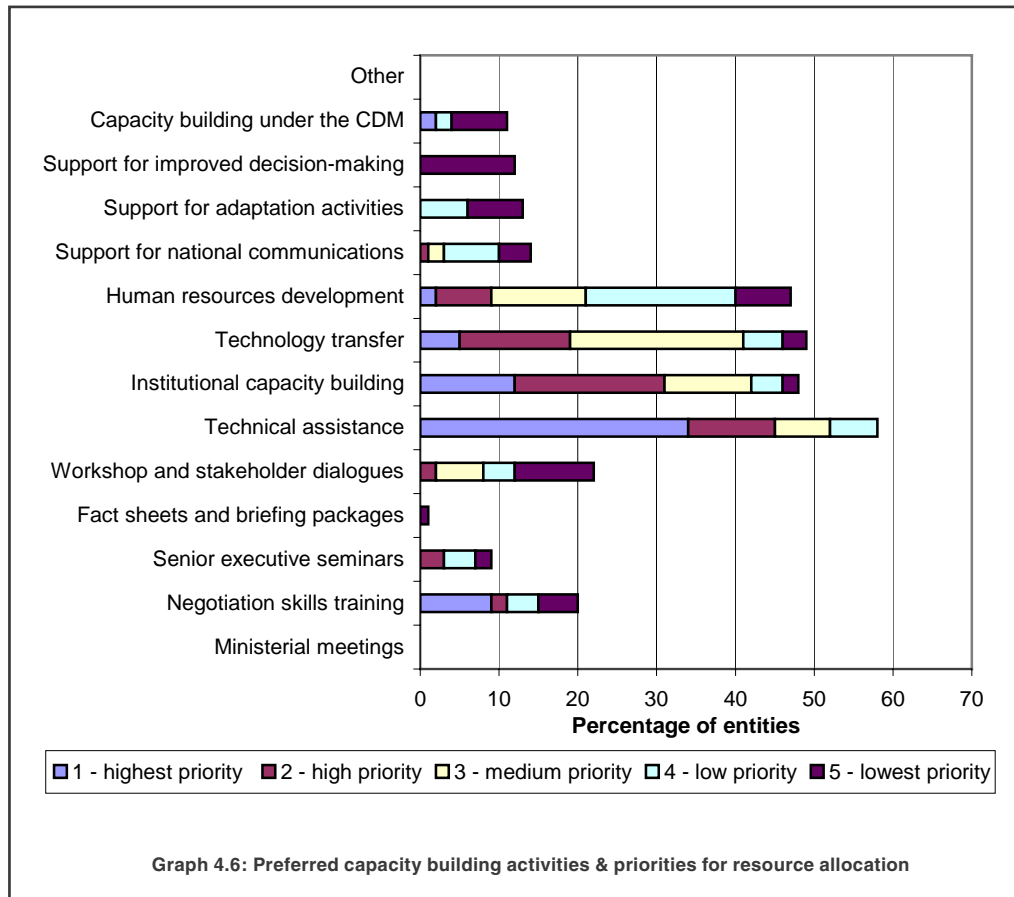
• Most Needed Tools - Preferred Capacity-building Activities and Priorities

When asked what activities have contributed successfully to capacity building in the past, respondents overwhelmingly rated fact sheets and briefing packages as most helpful. But when asked to identify what kind of capacity-building activities they would prefer to see in the future, their priorities are distinctly different.

As can be seen in Graph 4.5, technical assistance was cited as an activity of the highest priority by 98% of respondents. Close behind were institutional capacity building and technology transfer, deemed to be of highest priority by 93%. Finally, some 83% of respondents held human resources development to be of the highest priority.

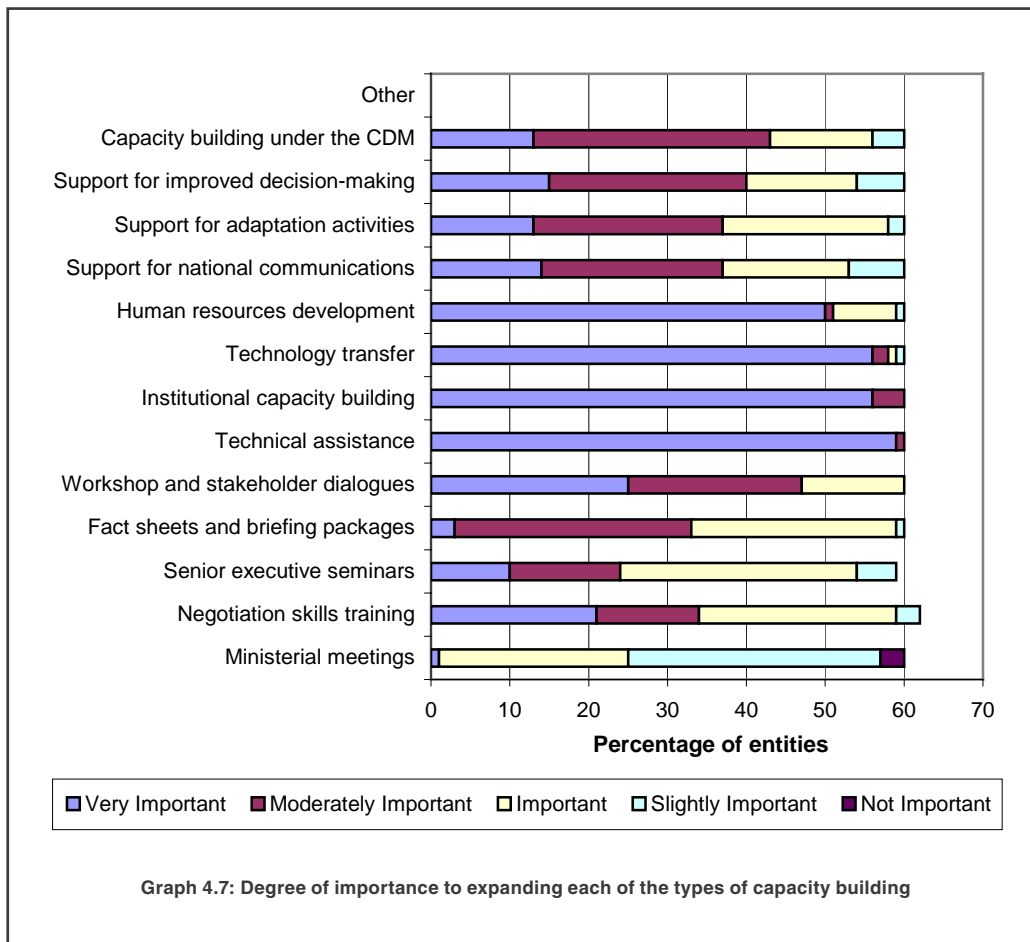
Meanwhile, fewer than 30% of respondents deemed the following activities to be of high or highest priority: negotiation skills training; senior executive seminars; fact sheets and briefing packages.





Several systemic barriers to effective technology transfer were identified; these included:

- The absence of a clear country policy and an entity responsible for this area
- The unavailability of local R&D infrastructure and professional expertise
- The absence or incompleteness of a country's assessment of its technological needs in environmental management
- The lack of information on local practices or traditional technologies
- Lack of motivation and incentives for innovation
- Incapacity to cope with the rapid nature of technological changes in the world.



Graph 4.7: Degree of importance to expanding each of the types of capacity building

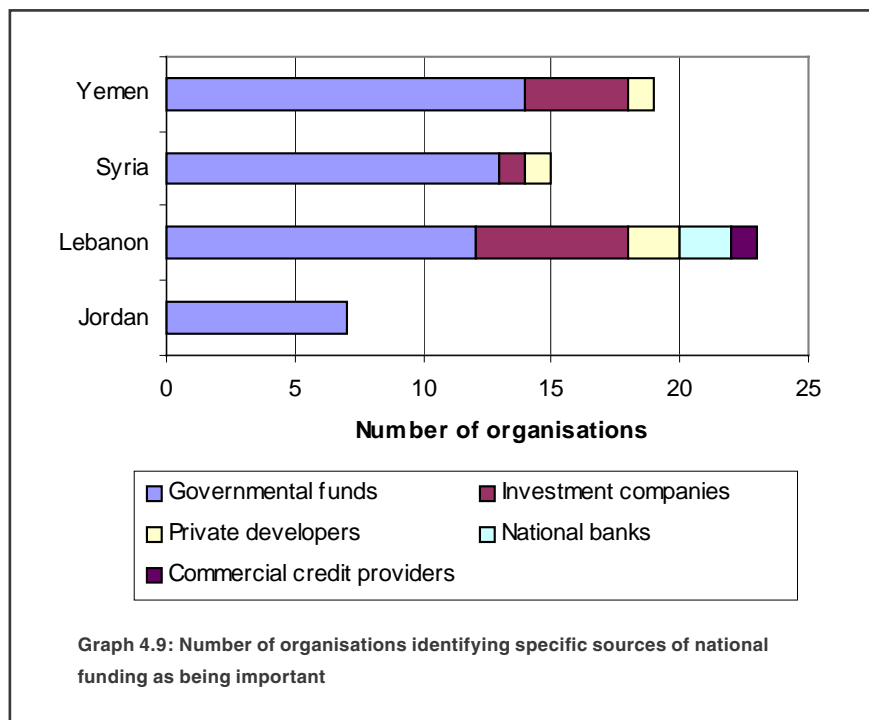
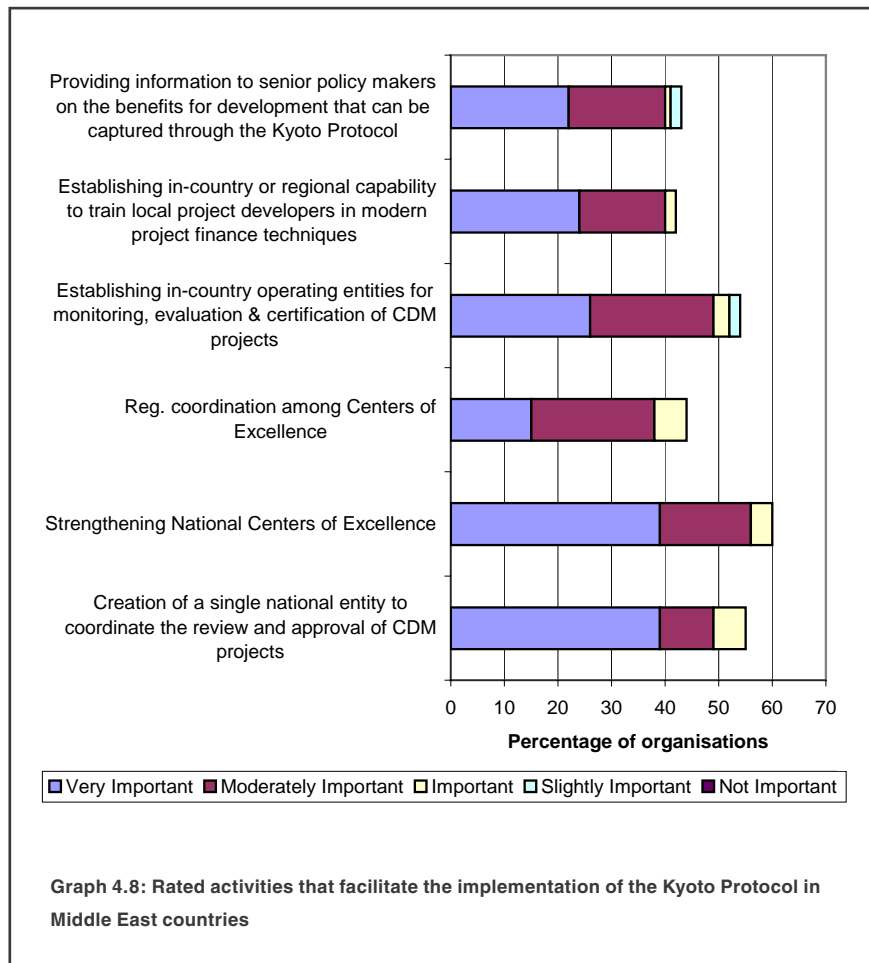
• Important Sources of Funding

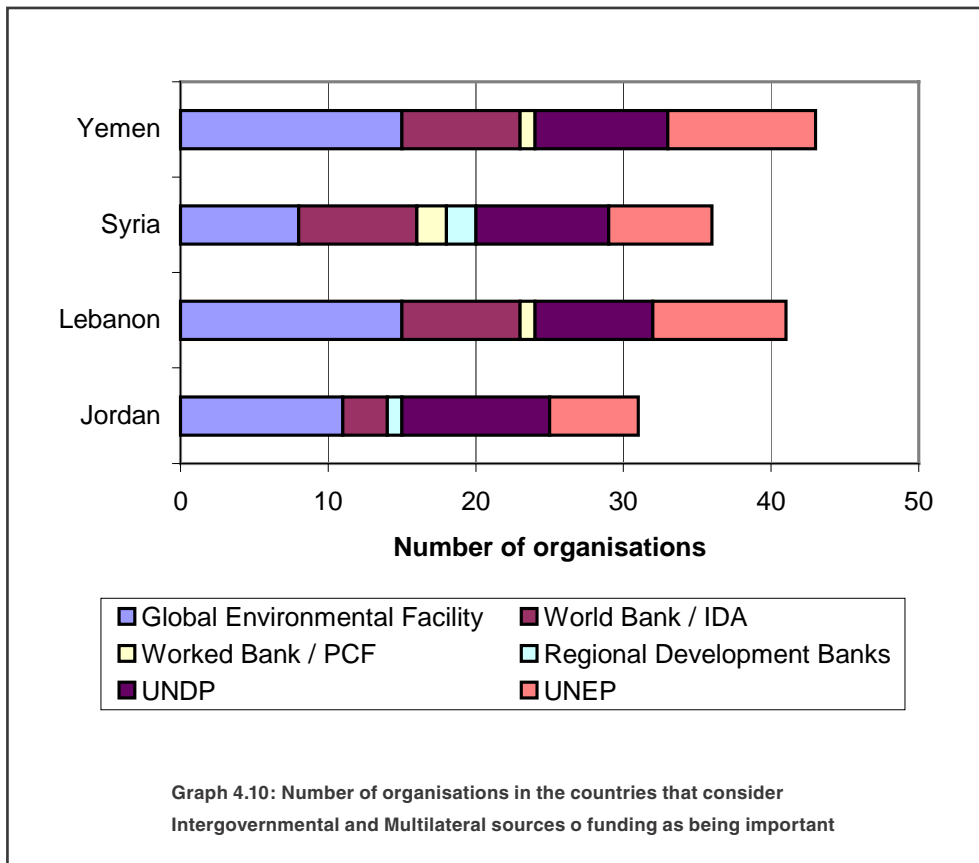
The three most important sources of funding were, in order: bilateral aid agencies; intergovernmental and multilateral sources (such as global environmental facility); and, thirdly, national governments.

Since climate change obligations are relatively new and multi-sectoral in nature, it is often difficult to justify funding requests in sectoral budgets. As a consequence, many agencies responsible for climate change activities have insufficient funding for priority, and in some cases, even basic, activities.

Sources	Region (%)	Jordan	Lebanon	Syria	Yemen
National					
Governmental funds					
Is important now	76.7	7	12	13	14
Not important now	23.3	8	3	2	1
Investment companies					
Is important now	18.3	0	6	1	4
Not important now	81.7	15	9	14	11
Private developers					
Is important now	6.7	0	2	1	1
Not important now	93.3	15	13	14	14
National banks					
Is important now	3.3	0	2	0	0
Not important now	96.7	15	13	15	15
Commercial Credit providers					
Is important now	1.7	0	1	0	0
Not important now	98.3	15	14	15	15
Other national sources					
Is important now	0.0	0	0	0	0
Not important now	0.0	0	0	0	0
Intergovernmental & multilateral					
Global Environmental Facility					
Is important now	81.7	11	15	8	15
Not important now	18.3	4	0	7	0
World Bank / IDA					
Is important now	45.0	3	8	8	8
Not important now	55.0	12	7	7	7
World Bank / PCF					
Is important now	6.7	0	1	2	1
Not important now	93.3	15	14	13	14
Regional Development Banks					
Is important now	5.0	1	0	2	0
Not important now	95.0	14	15	13	15
UNDP					
Is important now	60.0	10	8	9	9
Not important now	40.0	5	7	6	6
UNEP					
Is important now	53.3	6	9	7	10
Not important now	45.0	8	6	8	5
Other intergovernmental and multilateral sources					
Is important now	0.0	0	0	0	0
Not important now	1.7	0	0	1	0
Bilateral					
Bilateral aid agencies					
Is important now	88.3	13	15	10	15
Not important now	11.7	2	0	5	0
Commercial credit providers					
Is important now	11.7	1	3	0	3
Not important now	88.3	14	12	15	12
Exports subsidies for overseas vendors					
Is important now	3.3	0	1	0	1
Not important now	96.7	15	14	15	14
Foreign Direct Investment					
Is important now	25.0	4	5	1	5
Not important now	75.0	11	10	14	10
Foundations / NGOs					
Is important now	61.7	10	11	5	11
Not important now	38.3	5	4	10	4
Other bilateral sources					
Is important now	0.0	0	0	0	0
Not important now	0.0	0	0	0	0

Table 4.6: Sources of funding for capacity building

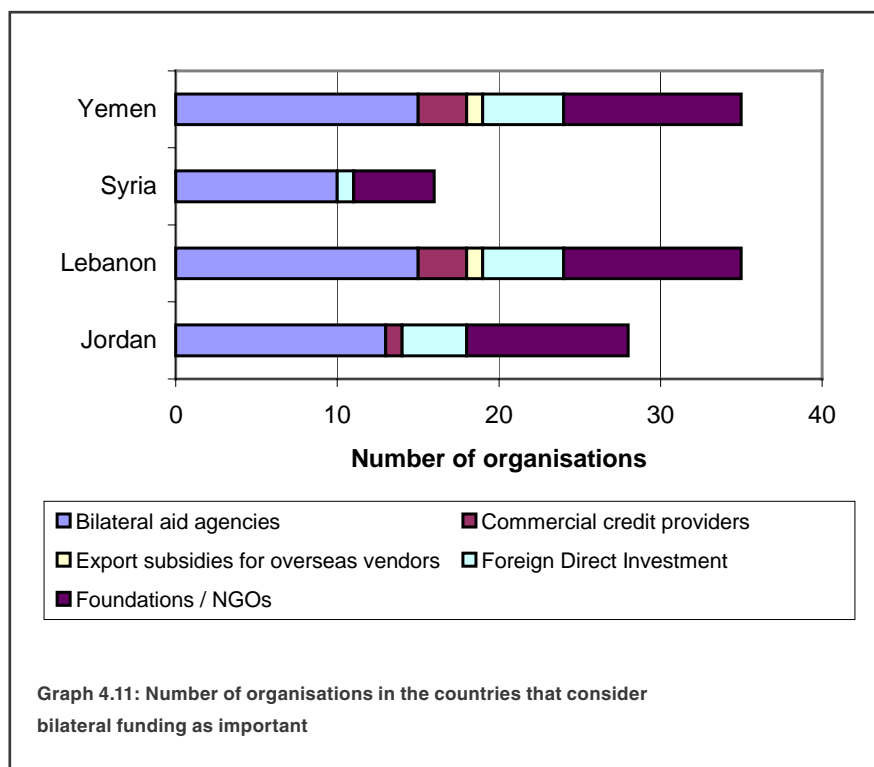




• Types of Activities that would Facilitate the Implementation of the Kyoto Protocol

Between 70% to 100% of respondents indicated that the following actions were important for implementation of the Kyoto Protocol in their country (see Graph 4.11 and Table 4.7):

- Creation of a single national entity to coordinate the review and approval of CDM projects
- Strengthening national centers for excellence
- Regional coordination among centers of excellence
- Establishing in-country operating entities for monitoring, evaluation and certification of CDM projects
- Establishing in-country or regional capability to train local project developers in modern project finance techniques
- Providing information to senior policy makers on the benefits for their countries
- Providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol.



Activity	Jordan	Lebanon	Syria	Yemen
Creation of a single national entity to coordinate the review and approval of CDM projects	13	14	14	14
Very Important	10	8	13	8
Moderately Important	2	4	0	4
Important	1	2	1	2
Slightly Important	0	0	0	0
Not Important	0	0	0	0
Strengthening National Centres of Excellence	15	15	15	15
Very Important	13	8	10	8
Moderately Important	2	6	3	6
Important	0	1	2	1
Slightly Important	0	0	0	0
Not Important	0	0	0	0
Regional coordination among Centres of Excellence	10	13	8	13
Very Important	3	6	0	6
Moderately Important	5	7	4	7
Important	2	0	4	0
Slightly Important	0	0	0	0
Not Important	0	0	0	0
Establishing in-country operating entities for monitoring, evaluation & certification of CDM projects	14	13	14	13
Very Important	8	5	8	5
Moderately Important	4	8	3	8
Important	2	0	1	0
Slightly Important	0	0	2	0
Not Important	0	0	0	0
Establishing in-country or regional capability to train local project developers in modern project finance techniques	11	11	9	11
Very Important	7	8	1	8
Moderately Important	4	3	6	3
Important	0	0	2	0
Slightly Important	0	0	0	0
Not Important	0	0	0	0
Providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol	12	9	13	8
Very Important	7	4	7	4
Moderately Important	5	4	5	4
Important	0	0	1	0
Slightly Important	0	1	0	0
Not Important	0	0	0	0

Table 4.7: The level of importance placed by specific countries on various activities that might facilitate the implementation of the Kyoto Protocol

• CONCLUSIONS AND RECOMMENDATIONS

As a general conclusion, it appears that capacity development is needed in all Clean Development Mechanism activities. Countries' participation is hampered, not only by a lack of information, but also by the institutional and legal framework, the technical infrastructure, the enforcement capacity, and the human resources needed to operate the mechanism.

These capacity constraints include gaps in project negotiation and development skills, project base-lining, monitoring, verification, auditing, and certification, setting up sustainable development indices, cost-benefit assessments, etc. The four countries surveyed all showed the following similarities:

• A Low Level of Awareness

Apart from the focal point institutions, little interest was shown in climate change in comparison with other environmental issues. The general attitude was that climate change should not be regarded as one of the top priorities in the development process in the developing countries.

• Poor diffusion of information

All four countries display a lack of systematic communication and exchange of information amongst the target institutions. A major hindrance to the diffusion of information both within, and among, institutions, is the lack of a proper technological infrastructure.

• A marginal role of NGOs and other civil society organisations

Although there has been steady recognition and acceptance of the important role which civil society and NGOs have played in global climate change debates, capacity is still needed to increase the level of participation of all stakeholders.

• A lack of participatory approach to decision-making

Due to rigid institutional frameworks, and to inefficient communication channels between different institutions, the process of decision making is often far from being participatory. This shortcoming appears to lead to increased levels of resistance within the countries in question. Those institutions excluded from the decision making process tend to resist any fundamental changes issuing from it.

The effectiveness of any participatory decision making approach will depend upon the level of consensus reached by the participants in the policy formulation and implementation processes. Capacity building is needed to increase the participation of all the stakeholders and their level of understanding of these issues. Additional human resources training is needed, especially in the areas of implementing adaptation and mitigation measures for professional staff.

The following are also needed: strategic planning capacities in the areas of adaptation and designing awareness-building programs, planning financial mechanisms, joint implementation project and emissions trading issues for senior executives.

Initiating an Environmental Information System-Building program in the region would significantly enhance climate change activities at all levels of decision making, strategic planning and technical activities.

Significant gaps can be identified in environmental regulations; some important sectors, are not even involved in the climate change issues. One means of filling these gaps would be to initiate an Environmental Regulatory Reform program comprised of training packages for senior executives in the target institutions, as well as promoting exchange of experience among the participating countries and encouraging short term expert-visits to these countries.

Three main audiences were identified: policymakers, decision-makers in the environment, energy and agricultural sectors; senior executives in environmental institutions as well as individuals responsible for environmental issues in governmental and private sector institutions; and lastly, civil society and NGOs.

All four countries displayed deficiencies in financing modalities, regulatory frameworks, and proper information systems. None of the countries exhibit much use of mathematical models. Electronic hardware is also in short-supply, due to limited budgets for environmental activities.

The success of capacity building may be measured through monitoring the degree of country involvement in adaptation and implementation activities. At present, there are no such activities taking place in the countries surveyed. During the national communications preparations in the countries surveyed, several (negative cost) mitigation options were identified. Implementing these options, along with the projects that countries may develop under agreed flexible mechanisms, could make a substantial contribution to national development efforts.

However, it is of the utmost importance to spell out the national benefits of climate change activities, in order to win the support for climate change activities from key decision makers in these countries. Accordingly, there is a need to establish an independent specialized regional center to provide professional services in the areas of climate change and environment. It is also recommended that a regional institution be established to deal with environment and climate change issues on the national and international level. This institution would allow for a more efficient flow of information and expertise among the Arab countries.

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National Country Summaries-

AFRICA



Botswana
Burkina Faso
Congo
Gambia
Ghana
Kenya
Lesotho
Mali
Morocco
Nigeria
Senegal
Seychelles

ASIA AND PACIFIC



Bangladesh
China
India
Indonesia
Pakistan
Philippines

LATIN AMERICA AND THE CARIBBEAN



Brazil
Columbia
Costa Rica
Cuba
Guatemala
Mexico
Paraguay

MIDDLE EAST



Jordan
Syria
Lebanon
Yemen

BOTSWANA

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• PROFILES OF ORGANIZATIONS INTERVIEWED

The interviews were conducted in 15 organisations representing the requested sectors, namely government (5), business (5), academic (2) and NGOs (2). Of all organisations interviewed, only 8% declared to be involved in climate change activities, although some institutions were heavily involved in the energy sector. Public/governmental agencies covered all sectors except forestry, transport and housing. More than 50% of Business/Industry/Private entities were active in energy/power sector with the inclusion of BP Botswana in the survey sample. Almost 80% of the Academic/Research organisations were engaged in research/analysis, with 60% engaged in project implementation, and 50% engaged in training activities, including with the University of Botswana, the Kalahari Conservation Society and the Forum on Sustainable Agriculture.

• KEY AREAS AND LEVELS FOR CAPACITY BUILDING

Although a number of professionals are aware of the different dimensions of climate change, 70% of the organisations are not actively involved in the CDM debate but would like to participate in the future: over 50% declared that they would participate in CDM advocacy and awareness raising for example. However, these organisations indicated that they would need additional capacity to engage in other Kyoto Protocol activities. 30% identified development of criteria for CDM projects, CDM project verification and monitoring and certification of emissions reduction as activities for which they would need additional capacity building.

• THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

The organisations interviewed acknowledged the importance of climate change issues and also the benefits that can be realised through work on the various proposed activities. Moreover, there was a common recognition that expertise exists in Botswana's academic institutions for conducting climate change activities.

Sectors/institutions that have been identified as key audiences for capacity-building include various government departments and private businesses. However, the organisations recommend that a wider range of stakeholders, including top politicians and rural communities, be involved in climate change matters.

• THE MOST NEEDED TOOLS

Activities that have contributed most to building the capacity of organisations are workshops and stakeholder dialogues, human resource development, and technology transfer.

Of the three sources of funding, national sources are currently most important, followed by intergovernmental and multilateral sources and, lastly, bilateral sources.

• THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

Among those activities identified as very important to facilitate implementation of the Kyoto Protocol were:

- Providing information to senior policy makers about benefits for development that can be captured through the Kyoto Protocol
- Training local project developers in modern project finance techniques
- Regional co-ordination among centers of excellence
- Establishing in-country or regional capability for monitoring, evaluation and certification of CDM projects.

• THE LINKAGES BETWEEN CAPACITY BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES

Provision of information to senior policy makers about benefits for development that can be captured through the Kyoto Protocol can assist in determining whether the proposed actions are in line with the government's development strategies.

The government is expected to take the lead in climate change issues, and therefore is responsible for dissemination of information about implementation of the Kyoto Protocol. It is important that the government increases its capacity and coordinates its activities with other institutions in the Business/Industry/Private and Academic/Research sectors. Proper integration of activities can also help determine areas of co-operation among the various institutions.

BURKINA FASO

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· PROFILES OF ORGANIZATIONS INTERVIEWED

Interviews from 12 organisations were included in the final statistics for Burkina Faso. They consisted of five government agencies, two representatives from the industrial sector and five NGO/academic organisations. All selected government agencies are participating to the definition of national climate policies and are directly or indirectly involved with the UNFCCC international process. The institutions from the industrial sector are from the energy sector (including Sahel Solar Energy and the National Electricity Company SONABEL); the five research and NGO entities are all involved training, research, environmental awareness, climate change and project development.

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

Although one third of the entities interviewed are not yet involved in the on-going CDM debate, all the organisations expressed a willingness to participate in CDM-related activities when the mechanism becomes effective. The organisations interviewed also ranked their perceived additional capacity-building needs as follows:

1. Certification of emissions reductions (59%)
2. Project verification, evaluation and monitoring process (59%)
3. Analyses of project eligibility criteria (50%)
4. Development of baselines (50%)
5. Activities that increase awareness and knowledge about CDM (50%)
6. Development of evaluation criteria for CDM projects (42%)

· IMPORTANT GAPS IN CAPACITY BUILDING

The survey results indicate that specific expertise on various climate change issues is very limited or does not exist at all. Within the three types of organisations (Government/Public Sector, Business/Industry/Private and Academic/Research/NGOs), the available expertise is limited to only about one or two skilled personnel in technical, methodological and analytical issues of climate change. Furthermore, climate change expertise is almost non-existent in the private sector. Although Burkina Faso is one of the very few African countries that benefited from the AIJ pilot phase, the majority of the organisations interviewed do not have adequate capacity to follow issues in either Joint Implementation or Emissions Trading discussion.

· THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

As in most other developing countries, climate change issues are new for most of the stakeholders interviewed in Burkina Faso. A targeted awareness raising campaign will certainly be invaluable for the different actors. Decision/policy makers, project developers and/or implementers in key sectors such as agriculture, energy, transport, and finance/development planning are the most important target audiences in the early stages of the capacity-building process that needs to be initiated.

· THE MOST NEEDED TOOLS

Within the various organisations interviewed during the survey, support for national communications, senior executive seminars, and workshops and stakeholder dialogues have contributed enormously to capacity-building. In particular, the scope and duration of the first national communication exercise were essential for the handful of experts in Burkina Faso to encounter some of the issues related to the Kyoto Protocol. Technical assistance, institutional capacity-building and human resources development have played a less important role in capacity-building within the organisations in the context of the Kyoto Protocol.

In the country as a whole, institutional capacity-building, human resources development, technology transfer, and capacity-building under the CDM are regarded as the most important issues to consider. The majority of the interviewees (75%) declared that the most important current national source of funding for capacity-building is the government. The other potential national sources of funding such as investment companies, private developers or commercial credit providers, are not important now. Concerning the intergovernmental and multilateral sources of funding for capacity-building, the opinions are quite diverse. However, the majority declared that those sources are not yet important. The bilateral sources of funding seem to be the most important ones presently. They are considered even more important than the national government sources.

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

The level of expertise on the various aspects of climate change, in general, and the Kyoto Protocol in particular, is currently limited. Any change in the level of available expertise, within the next three to five years, will be a good indicator for assessing successful future capacity-building activities.

· THE LINKAGES BETWEEN CAPACITY BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES

According to most of the institutions interviewed, the following actions would facilitate the implementation of the Kyoto Protocol while also promoting national development priorities:

1. Creation of a single national entity to coordinate the review and approval of CDM project proposals
2. Providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol
3. Establishing in-country operating entities for monitoring, evaluation and certification of CDM projects
4. Strengthening national centers of excellence, and establishing in-country or regional capability to train local project developers in modern project finance techniques.

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CONGO

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· PROFILES OF ORGANIZATIONS INTERVIEWED

The five key government institutions dealing with environment and climate change issues (including the Ministry for Hydrocarbons and its anti-pollution unit) were selected for this survey in Congo. Five entities representing the private sector covered energy (25%), transformation (25%) and services (25%). They included i.a. the Brewery of Congo and Hydrocongo. Finally, the selected entities for the academic/research/NGO sector were composed of dynamic institutions involved with training, research, and environmental awareness such as the University Mariem Ngouabi. 17% only of these entities however are active at the international level.

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

The vast majority of surveyed institutions (92%) are involved in the CDM debate and would like to continue participating. Regarding future CDM activities, the development of criteria for CDM projects was ranked the highest by interviewed organisations (100%). However, additional capacity-building will be required for it. Meanwhile, a 75% ranking was given to several other activities. These include: determining CDM project baselines, analysis of CDM project eligibility, CDM project verification, monitoring and evaluation, and certification of emissions reduction.

· IMPORTANT GAPS IN CAPACITY BUILDING

Although the majority of surveyed institutions (92%) said to be involved in the CDM debate, they have limited capacity for conducting numerous activities, including GHG inventory and vulnerability studies, mitigation analyses, assessment and implementation of adaptation measures, planning and establishing research and systematic observation systems, and planning and introduction of early warning systems. Indeed, none of the organisations had more than three experts working in any of the aforementioned areas. It is worthy of note that the Business/Industry/Private Sector does not have any expertise in climate-related issues.

· THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

The perception expressed was that Congo has very limited practical expertise in climate-related activities. The view was that, as in many other African countries, a targeted awareness raising campaign is indispensable to get the various stakeholders effectively involved in the on-going and future climate change debates. The target groups for future initiatives should include key policy and decision-makers and the private sector.

· THE MOST NEEDED TOOLS

Activities such as technology transfer and capacity-building under the CDM appear to have contributed towards capacity-building in the majority of organisations (92%) interviewed. About 30% to 40% of the organisations described the following activities as very useful: technical assistance; institutional capacity-building; workshops and stakeholder dialogues; senior executive seminars; and ministerial meetings.

At the country level, the highest rating was given to technology transfer (100%), followed by workshops and stakeholder dialogues, and capacity-building under CDM, both with 92%. Senior executive seminars and technical assistance have contributed to capacity-building for 75% of the organisations surveyed. Other activities such as ministerial meetings; negotiation skills training; fact sheets and briefing packages; institutional capacity-building; human resource development; support for national communications; support for adaptation activities; and support for decision making received the same rating (50% of organisations).

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

In Congo, as in most other developing countries, the current level and scope of expertise in various climate change issues is limited. A comment made by the organizations interviewed was that a comparison of information collected during this survey will provide a good basis to measure assessment of progress in human resources development in the future.

· THE LINKAGES BETWEEN CAPACITY-BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES

The following activities that would facilitate the implementation of the Kyoto Protocol while connected to national development strategies were ranked in the following order:

1. Establishment of an in-country or regional capability to train local project developers in modern project finance techniques (92% of organisations)
2. Providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol (75%)
3. Creation of a single national entity to coordinate the review and approval of CDM projects (67%)
4. Regional co-ordination of centers of excellence and establishment of in-country operating entities for monitoring, evaluation and certification of CDM projects (50%)

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GAMBIA (THE)

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· PROFILES OF ORGANIZATIONS INTERVIEWED

The 15 organisations selected for the Gambia followed the requested sample for this survey. They included all national organizations involved in climate change issues that may have important roles to play in the implementation of both the Convention and the Protocol in the future.

· Key Areas and Levels for Capacity-Building

The surveyed organisations had a total of 18 staff working on climate change issues. None of the organisations had full-time staff or more than 4 part-time personnel working on climate change activities.

Preparation of GHG inventories was the area with the highest concentration of national expertise (60%). Meanwhile, 47% employed part-time staff for the following activities: screening and selection of mitigation options and adaptation strategies; designing and implementing awareness building programmes; and developing joint ventures.

About 20% of the organisations indicated that they participate in the on-going CDM debate. The remaining 80% are not involved due to lack of information. 87% of organisations wish to participate in the development of selection criteria for CDM Projects, and determining CDM project baselines. Approximately 73% wish to participate in analyses of CDM project eligibility, while some 67% are interested in CDM advocacy and awareness raising. 53% expressed interest in CDM project verification, monitoring and evaluation, and about 27% were interested in the certification of emissions reductions (CERs).

· IMPORTANT GAPS IN CAPACITY BUILDING

In terms of capacity gaps, 80% of the organisations declared needing additional capacity for determining CDM project baselines and development of CDM project criteria, 67% for additional capacity for CDM advocacy and awareness raising, and analyses of CDM project eligibility and supplementary. A further 47% saw a need for additional capacity in certification of emissions reductions. Between 60% and 67% of the organisations feel they do not have adequate capacity to follow the issues regarding Joint Implementation (JI) and Emissions Trading (ET).

93% of respondents intend to broaden their work on the implementation of the Kyoto Protocol, but will require additional capacity. Other capacity gaps included: development of emission factors, CDM project verification, monitoring and evaluation, enhancement of negotiation skills, awareness raising on all Kyoto Protocol matters, determining risk and uncertainty in CDM projects, economic analyses of projects, development and analyses of land use change and forestry projects on the CDM.

· KEY TARGET AUDIENCES FOR CAPACITY BUILDING

Capacity-building should be targeted at the sectors surveyed (Government/Public Sector, Business/Industry/Private Sector and Academic/Research/NGO Sector). Additionally, it should target the National Climate Committee (NCC), Policy Makers, National Assembly Members and Stakeholders at the grassroots level.

· THE MOST NEEDED TOOLS

The survey identified the most needed tools for capacity-building as including: institutional capacity-building; human resources development; workshops and stakeholder dialogues; capacity-building under the CDM; support for adaptation activities; and technology transfer.

On the importance of various funding agencies and sources, the organisations regarded funding from government and investment companies as very important now. As for inter-governmental and multilateral funding, the organisations saw funding from GEF, World Bank/IDA, regional development banks, UNDP and other inter-governmental and multilateral sources as very important now. Regarding bilateral funding, the organisations saw the following as very important: bilateral aid agencies, FDI, foundations, NGOs, and other bilateral sources.

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

The current staffing levels in the different areas of climate change activities provide a baseline for future assessment of capacity-building initiatives. Using this baseline, any change in the number of climate change professionals (especially full-time) can be used to measure the effectiveness of human capacity-building initiatives.

· THE LINKAGES BETWEEN CAPACITY BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES

All the organisations surveyed ranked establishing in-country and regional capability to train local project developers in modern project finance techniques as very important activities for advancing implementation of the Kyoto Protocol. Other activities were ranked, in descending order, as follows: strengthening national centers of excellence; establishing in-country operating entities for monitoring, evaluation and certification of CDM projects; creation of a single national entity to coordinate the revision and approval of CDM projects; providing information to senior policy makers on benefits through the Kyoto Protocol; and regional co-ordination among centers of excellence.



GHANA

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· PROFILES OF ORGANIZATIONS INTERVIEWED

The process for the survey in Ghana involved interviewing individuals working in the various institutions engaged in activities related to the UNFCCC. Seven Government institutions were selected, two private enterprises and three NGOs. It is also worth noting that most of the institutions that participated in the survey serve in the "National Climate Change Committee"; some of them were also involved in the preparation of Ghana's Initial Communication.

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

There was general interest in issues relating to the CDM. Indeed, 75% of the respondents declared that they have been involved in the CDM debate, and a further 91% expressed interest in participating in future CDM activities. Some of the organisations had participated in national initiatives meant to introduce the country to the CDM. Not surprisingly, advocacy and awareness raising was ranked high on the list of priorities, although 78% of all organisations requiring additional capacity for it. This was followed by development of criteria for CDM projects and analysis of CDM project eligibility, for which 54% of all organisations needed additional capacity. CDM project verification, monitoring and evaluation, and determination of CDM project baselines were ranked next, followed by certification of emissions reductions.

· IMPORTANT GAPS IN CAPACITY BUILDING

All three types of organisations were willing to participate in CDM-related activities, but expressed the need for additional capacity. While only 25% of organisations participated in the CDM debate, over 90% expressed a willingness to get involved in the CDM when it becomes operational.

From the survey results, there appears to be a dearth of capacity in most of the key technical, methodological and analytical areas of climate change in Ghana. The staff's participating in these key areas are limited to between 1 and 5 in some 50% of the organisations. The majority of organisations (62%) had expertise in the design and implementation of awareness building programmes. The percentage of organisations with expertise in other areas is indicated as follows: developing joint ventures or other project development activities (46% of organisations); analysing regulatory issues (46%), screening and selection of mitigation options (38%); analysing implementation issues related to the Kyoto Protocol and the financial mechanism (38%); screening and selection of adaptation strategies (38%); compiling GHG inventories (31%); development, transfer and adaptation of technologies (23%); implementing mitigation measures (23%); implementing adaptation measures (23%); preparing vulnerability studies (15%); planning and establishing research and systematic observation systems (15%); and planning and introducing early warning systems (7%).

· THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

All the organisations in the three groups (government/public sector, business/industry/ private sector and academic/research/NGOs) interviewed during the survey are among the key target audiences for capacity-building in Ghana. Each of the organisations has a specific mandate with specific capacity-building needs.

Senior level government officials will need to be made aware of the various arrangements which have to be in place to ensure effective implementation of the relevant activities. As one of the primary beneficiaries of the Kyoto Protocol, the business/industry/private sector should be in a position to assess the types of environmentally sound technologies that will meet their needs. It is important that a country should have accurate and timely scientific information to support decision-making efforts, both at national and international levels.

· THE MOST NEEDED TOOLS

Activities such as workshops and stakeholders dialogues, fact sheets and briefing packages appear to have contributed towards capacity building in more than 60% of the organisations. 46% of the organisations found capacity-building under CDM important, while only 15-23% declared the following activities to be important: ministerial meetings; negotiation skills training; senior executive seminars; technical assistance; institutional capacity-building; technology transfer; human resources development; support for national communications; support for adaptation activities; and support for improved decision-making.

Overall, organisations gave highest priority to capacity building under the CDM, followed by human resources development; institutional capacity-building; negotiation skills training; technical assistance; workshops and stakeholder dialogues; support for adaptation activities; and improved decision-making.

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

This survey itself presented the opportunity to establish the basis for assessing any progress that could occur in the implementation of capacity-building activities. The information collected will constitute a baseline for future evaluation of activities implemented.

THE LINKAGES BETWEEN CAPACITY BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES

It is generally accepted that Ghana would have to link investment needs in climate change with the country's sustainable development efforts. This calls for the identification of the types of environmentally-sound technologies which will promote the country's sustainable development efforts. Accordingly, the following actions would facilitate achievement of these dual goals:

- Establishing in-country operating entities for monitoring, evaluation and certification of CDM projects and strengthening national centers of excellence (all of which had a rating of 100%)
- Creation of a single national entity to coordinate the review and approval of CDM projects, establishing in-country or regional capability to train local project developers in modern project finance techniques, and providing information to senior policy makers on the benefits for development that can be captured through the Kyoto protocol (each of which received a rating of 84%)
- Regional co-ordination among centers of excellence received the lowest rating of 69%.

KENYA

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· PROFILES OF ORGANIZATIONS INTERVIEWED

The organisations surveyed for this project were coming from government (5), academic (4), business (4) and NGO's (2) entities. Selected government/ public agencies cover all sectors identified in the questionnaire. Business entities are mainly representing the energy/ power and agricultural sectors. Academic/ research organisations focus on research and training, followed by project implementation, then consultancy and advocacy work. 73 % of the surveyed organisations are involved in public information, education or awareness building. Research analysis is done by 66% of the organisations followed by project development/implementation (60%), then environmental social issues and advocacy (46%). Less than 10% are involved in UNFCCC related issues such IPCC or GEF. Most of these organisations (93%) operate nationally, while 60% are locally and 46% internationally active. About half of the organisations surveyed already worked on climate change issues.

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

All the professionals interviewed in Kenya are working on climate change issues: 53% of them full-time and 47% part-time. 60% of the interviewed organisations have expertise in preparation of vulnerability studies, screening and selecting mitigation options. Over 53% have experienced staff in screening and selection of adaptation strategies, followed by developing joint ventures or other project development activities. However, areas in which there is less expertise within the organizations (less than 20%) are analysis of implementation issues related to the Kyoto Protocol and its financing mechanisms, analysing regulatory issues but also planning and introducing early warning systems.

· Important Gaps in Knowledge and Skills and Modalities Needed to Fill them

The groups highlighted the inadequate capacity in their organisations to follow issue related to Kyoto Protocol such as Joint Implementation and Emissions Trading. Specific expertise on Kyoto Protocol/CDM related issues tends to be concentrated in academic/research organisations. However, there is virtually no such expertise in the Business/Industry sector.

· THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

Half of the stakeholders were not aware about climate change issues. Those who are aware are not always actively involved or have only just learned about climate change issues. Hence, an awareness raising campaign is necessary to ensure greater involvement and understanding of stakeholders in the on-going climate change debate. The most important target audience declared for capacity-building is decision and policy-makers, especially in government departments.

· THE MOST NEEDED TOOLS

Workshops and stakeholder dialogues were identified by organisations engaged in climate change and the CDM debate as having contributed most to their capacity-building efforts. Organisations also indicated that they require funding to enable them to implement CDM projects. Respondents rated intergovernmental and multilateral funding sources as most important for climate change activities, followed by national and bilateral sources of funding.

· THE MOST IMPORTANT CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

The organisations surveyed identified institutional capacity-building as the most important activity for increasing other activities within the climate change regime. Hence, the current status of institutions can also be used as a basis for assessing capacity for the future.

· THE LINKAGES BETWEEN CAPACITY BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES

Organisations that have participated in climate change debates understand the potential benefits that can be realised through the Kyoto Protocol, however there is no clearly defined national strategy. Respondents emphasise the importance of strengthening the National Co-ordinating Center to facilitate incorporation of national objectives in the development of projects under the Kyoto Protocol. A National Coordinating Center is seen as the relevant body for dissemination of information as a means of building capacity not only in government departments but also in other institutions.

LESOTHO

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· PROFILES OF ORGANIZATIONS INTERVIEWED

The nine organisations surveyed included three from the government / public sector; three from the business sector and three from the academic/research/NGO sector. Project development/ implementation is done by about 85% of them; 75% are involved in environmental/social issues and advocacy; Academic/ research organisations (80%) focus on research and 60% on training. 14% only are involved in IPCC and other national climate change related issues, but all surveyed organisations said to be involved in public information, education and awareness raising.

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

Over 80% of respondents declared that were not actively involved in the CDM debate, due to a lack of information. However, all expressed a willingness to participate in such activities in the future, but cautioned that they would need specific expertise for climate change activities.

Less than 20% of organisations have some level of awareness about CDM activities and other climate change work, but they still lack adequate capacity for active involvement. There is also a general lack of capacity to follow other Kyoto Protocol issues such as Joint Implementation and Emissions Trading.

Due to the fact that the majority of organisations interviewed have not been involved in climate change activities, it was difficult for them to identify activities that made major contributions to building capacity within their organisations.

· IMPORTANT GAPS IN KNOWLEDGE AND SKILLS

The few organisations that are aware of the CDM hail from either public, governmental or research organisations. In general, Business/Industry/Private sector organisations have limited awareness of climate change. Consequently, their participation is also minimal. The government also lacks sufficient expertise. This shortcoming needs to be remedied, as government should be the focal point for climate change.

Because the majority of groups are not very familiar with climate change activities, awareness campaigns and education for all groups of sectors are felt necessary to improve participation

· THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

To a large extent, the stakeholders interviewed in Lesotho are not familiar with climate change issues. Government is the key target-stakeholder in climate-related activities, and is therefore expected to initiate the dialogue and also to disseminate information to other institutions.

· THE MOST NEEDED TOOLS

All the organisations interviewed rated institutional capacity building as the activity they would most like to expand, followed by technical assistance, support for improved decision-making, and capacity building under the CDM.

The same activities were also identified as very important to facilitate implementation of Kyoto Protocol activities in Lesotho.

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

The respondents identified enforcement of environmental legislation as one measure that can be used to assess capacity building. The government will have to ensure that officials responsible for implementing legislation are trained and well conversant with these matters.

· THE LINKAGES BETWEEN CAPACITY-BUILDING NEEDED TO ADVANCE THE KYOTO PROTOCOL'S OBJECTIVES AND NATIONAL DEVELOPMENT STRATEGIES

The majority of organisations interviewed consider the following list of activities to be very important for facilitating implementation of the Kyoto Protocol. These activities, which will also satisfy national development priorities and strategies, are listed in order of importance:

1. Establishing in-country operating entities for monitoring, evaluation and certification of CDM projects
2. Establishing in-country or regional capability to train local project developers in modern project finance techniques
3. Providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol

MALI

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· PROFILES OF ORGANIZATIONS INTERVIEWED

In Mali, 18 organisations were selected for this survey. Seven were coming from the government/public sector (including the Sahel Institute, an intergovernmental organization), five from the private sector (including Sahel Energie Environment and the Mali Railway company) and six from the Academic/research/NGO sector (including the Mali University and the Malian NGO Coordination Secretary). All these government organizations are directly or indirectly linked to national climate change policies, either at the international or the national level. 60% of the organizations from the private sector were from the energy; the others were from the agriculture, transport, transformation or education sectors. 13% only of these institutions are active at the international level but all of them are active at the national level.

· Key Areas and Levels for Capacity-Building

All the organisations surveyed in Mali would like to participate in CDM activities and/or debates. However, at present, only a few - five organisations - are actively involved. The development of criteria for CDM projects sits at the top of the priority list. As for CDM activities in which organisations would like to participate, 85% of the organisations required additional capacity building, while the remainder did not respond to this question. The second priority appears to be CDM advocacy and awareness raising, for which 77% of organisations needed additional capacity-building. CDM project verification, monitoring and evaluation was ranked third, with 69% of the organisations requiring additional capacity building for it. The determination of CDM project baselines and analyses of CDM project eligibility were considered to be almost equally important, with 62% of organisations needing additional capacity building for each. Conversely, certification of emissions reduction was considered important by only 31% of the organisations.

· IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM

All three categories of organisations expressed a willingness to participate in CDM activities if they should be introduced in Mali. However, specific expertise tends to be limited to between one and five staff in most of the key areas. About 62% of the institutions interviewed declared that they have somewhere between one and five experts working on vulnerability studies; 54% have one to five experts working on screening and selection of adaptation strategies; 46% declared that they have between one and five experts working on the compilation of GHG inventories and the screening and selection of mitigation options. Concerning the implementation of adaptation measures, two institutions noted that they have an adequate number of experts. Meanwhile, for the implementation of mitigation measures, only two institutions indicated that they have one to two staff with expertise in this area. A single organisation acknowledged having adequate capacity to follow Joint Implementation issues, while none had adequate capacity for the Emissions Trading issue.

· THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

There is clearly limited expertise for key technical, analytical and methodological aspects of climate change issues in Mali. The few existing professionals are concentrated within a few institutions. In order to integrate climate change issues into the country's future development agenda, it is necessary to raise awareness among decision-makers in the sectors that are most relevant to the country's development. The most important target audiences consist of all the stakeholders in the agricultural, energy, planning, environment, and transport sectors.

· THE MOST NEEDED TOOLS

The various organisations interviewed during the survey identified a number of activities that have contributed to capacity building. Human resources development was considered very useful by 46% of the institutions. All other activities, such as ministerial meetings, negotiation skills training, senior executive seminars, fact sheets and briefing packages, technology transfer, support for national communications, technical assistance, support for adaptation activities and capacity-building under CDM were considered by a mere 7-23% of organisations to be very important. Surprisingly however, support for improved decision-making and institutional capacity building were not considered to make any useful contribution to capacity building.

Very few organisations responded to the question relating to the top five capacity-building activities that would be most important to expand in Mali. Less than 23% of organisations opted for any one of the five activities. Concerning the degree of importance assigned to expanding each capacity-building activity in the country, the organisations expressed the following rankings:

1. Capacity-building under the CDM (69%)
2. Technology transfer (62%)
3. Human resources development (54%)
4. Support for adaptation activities (54%)
5. All other activities (less than 47%)

The Global Environmental Facility and its related implementing agencies were considered to be the most important current sources of funding for capacity-building in this country.

• THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY-BUILDING

In Mali, as in most other developing countries, the common views expressed were that the current level of expertise in climate change issues remains limited. The information collected during the survey will offer a good basis for assessing any future progress made in the development of human resources.

• THE LINKAGES BETWEEN CAPACITY-BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES

In order to facilitate the implementation of the Kyoto Protocol, while also advancing national development strategies, the most important need is to create a single national entity to coordinate the review and approval of CDM projects. Almost as important will be the establishment of in-country operating entities for the monitoring, evaluation and certification of CDM projects, and the provision of information to senior policy makers on the developmental benefits that can be captured through the Kyoto Protocol (both of which were considered necessary by 92% of organisations). The strengthening of national centres of excellence, regional co-ordination among centres of excellence and the establishment of in-country operating entities for the monitoring, evaluation and certification of CDM projects were considered essential by somewhere between 62% and 84% of respondents.



5.1.9 MOROCCO

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• PROFILES OF ORGANIZATIONS INTERVIEWED

17 institutions were selected for this survey in Morocco. Six were from the government/public sector and included organizations covering water and forests, agriculture, environment, meteorology and energy. They all were directly or indirectly linked to the national climate change policies debate, either at the international or the national level. Five were from the private sector, including 60% of them from the energy sector with the National Electricity Company (ONE) and a smaller entity such as the CDER, leading agency on renewable energy in this country. The others were from the agriculture, transport, transformation or education sectors. Six were from the Academic/research/NGO sector and included the national federation for solar industry (AMISOL). Globally, participation to global negotiations remains very limited (in particular in the IPCC) although national institutions directly involved with climate change issues show an increasing interest on climate change in the context of the coming COP-7.

• KEY AREAS AND LEVELS FOR CAPACITY-BUILDING

It is worth noting that one of the organizations interviewed, the Institute for Agronomy and Veterinary, declared to have 17 years of experience in working on drought impact on agricultural production. 29% of these institutions declared having expertise on CDM issues, based on the experience gained from a capacity building project funded by the German Aid Agency (GTZ). Only two of the organizations interviewed declared having no interest in CDM issues in the future. The following activities were mentioned as key areas for future capacity building (in order of priority):

- Development of criteria for CDM projects (65%)
- Development of baselines (65%)
- CDM awareness raising (59%)
- CDM project verification, monitoring and evaluation (59%)
- Analysis of CDM project eligibility (53%)

• IMPORTANT GAPS FOR CAPACITY BUILDING

The percentage of staffing expertise in the surveyed institutions were described in the following manner:

- GHG inventories (29%)
- Vulnerability studies (47%)
- Screening and selecting abatement measures (35%)
- Screening and selecting adaptation strategies ((29%)
- Planning and introduction early warning systems (29%)

Capacities to deal these issues remain therefore remains somewhat limited and should be included as a priority in future training programmes. Almost all organizations surveyed declared to have hardly any knowledge to follow issues related to JI and ET. Only the ministry of Environment mentioned some experience on a possible joint implementation project with the Government of Italy on production of electricity from oil residues. Regarding emission trading, 100% of the organizations declare having no relevant capacity to follow this issue. It is also important to note that the expertise declared come exclusively from the Government and research/NGO sectors. This means that specific attention to the private sector should given in the future.

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NIGERIA

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· PROFILES OF ORGANIZATIONS INTERVIEWED

The 15 organisations selected for Nigeria were representing the requested sample for this survey. They included organizations that were at least involved in one climate change issues in the past. The category business and private sector was particularly well represented with institutions such as Cadbury Nigeria, West Africa Portland Cement Pic, Nestle Nigeria and Associated Commodities Exporters and Traders. In addition, most of the selected institutions belong to the Inter-ministerial Committee on Climate Change.

· KEY AREAS AND LEVELS FOR CAPACITY-BUILDING

Twenty-three percent of the organisations surveyed declared that they were not involved in the CDM debate due to lack of information and knowledge about it. However, all the organisations expressed interest in future participation in the CDM: 80% of the surveyed organizations however said that they are interested in CDM advocacy and awareness raising, development of criteria for CDM projects and determining CDM project baselines. With the exception of CERs that were not selected, more than 60% of all the organisations indicated that they would need additional capacity including development of criteria for CDM projects, determining CDM project baselines, CDM project verification, monitoring and evaluation and CDM advocacy and awareness raising.

· IMPORTANT GAPS IN CAPACITY-BUILDING

All the organisations wishing to participate in CDM-related activities expressed the need for additional capacity building.

Relevant expertise -with most of the technical, methodological and analytical tools- is fairly limited. It is only in international negotiations that about 60% of the organisations indicated that they have adequate expertise. As in most of the other African countries, there is a lack of adequate capacity in the following areas: compiling GHG inventories; preparing vulnerability studies; screening and selecting adaptation strategies; implementing adaptation measures; planning and establishing research and systematic observation systems; planning and introducing early warning systems; and developing joint ventures.

· KEY TARGET AUDIENCES FOR CAPACITY-BUILDING

In the Government sector various institutions have been identified as target audiences for capacity building. They include key institutions such as Ministry of Environment, Ministry of Agriculture, Ministry of Industry, Energy Commission, and the National Planning Commission. Also among the top target audiences for capacity building are the Business/Industry/Private Sector, the energy-related companies and the Manufacturing Association. A wide range of institutions within the Academic/Research/NGO Sector has also been identified as target audiences for capacity building.

· THE MOST NEEDED TOOLS

Activities such as awareness raising for senior policy makers; technical assistance; technology transfer; human resource development; capacity-building under the CDM; and support for national communications appear to have made the greatest contribution towards capacity-building in most of the organisations.

While international sources of funding are not currently important for capacity-building in Nigeria, they are expected to be important in the near future, particularly as Nigeria gets more involved in climate change issues.

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY-BUILDING

The number of experts working on the various aspects of climate change in general, and the Kyoto Protocol in particular, is currently very limited. However, over the next three to five years, the change in expertise levels would be a good indicator for assessing successful capacity-building activities.

· THE LINKAGES BETWEEN CAPACITY-BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES

A major conclusion that can be drawn from the survey is that the level of awareness on climate change issues in the country is very low. Only a handful of government officials are privileged to participate in negotiations during the Convention's Subsidiary Body meetings and Conferences of the Parties, and only a handful of expert from the Academic/Research/NGO Sector participate in debates leading to the preparation of reports such as the IPCC Technical Assessment Reports/Special Reports. Hence, an awareness raising campaign for senior policy makers - coupled with public education that will relate climate change issues to sustainable development aspirations of the country would be a good starting point for building capacity in the country.

SOUTH AFRICA (REPUBLIC OF)

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South Africa is the highest greenhouse gas emitter country in Africa. This mainly due to its relatively high industrial activities and almost complete dependence on coal-fired system for its electricity production. Furthermore, South Africa presently produces and utilises over 50% of the total electricity consumed in Africa. Hence this country is a major stakeholder for climate change mitigation issues in Africa. Finally, its vulnerability to the likely impacts of climate change can be significant, especially in the area of agriculture and water, these issues are therefore extremely important for the future of the country.

The survey was undertaken on the basis that South Africa has some special socio-economic concerns such as the government commitment to its Reconstruction and Development Programme (RDP) and the Growth, Employment and Redistribution (GEAR) strategy. In addition, the Government has recently published a white paper on energy that outlines its intentions and policies in the energy sector. All these actions are a result of its recent past history of only gaining independence in 1994. In all these programmes and documents, capacity building especially for the blacks and the dis-advantaged is seen as a major strategy by the government in achieving a more equitable and just society. However, as in most African countries with urgent problems of meeting the survival needs of a significant share of the population, climate change is not always considered as a priority.

· INSTITUTIONS PROFILE

The main focus of the survey was on identifying individual capacity within institutions by looking at competence, institutional performance, organizational relationships and capabilities. The individuals chosen from the selected institutions fall into the three requested categories. Results show that over 70% of these entities were undertaking research/analysis function and hardly 60% were involved on project development and implementation. The other significant activity was on environmental and social issues as well as advocacy. The results indicate the dominance of research and project development work. Activities on IPCC and GEF focal points are insignificant, i.e. less than 10%. Government agencies and industries are more involved in energy/power (over 86%) while research and advocacy dominates activities carried out by academic institutions and NGOs. The results also show that most of the institutions operate locally, very few research institutions and NGOs are involved in external activities and within the African context hardly any involvement outside the SADC region.

· KEY AREAS AND LEVELS FOR CAPACITY-BUILDING

South African professionals are aware of, and have been involved in, the climate change debate. However, capacity is not balanced across institutions. For instance, there is insufficient capacity in government departments. This is particularly problematic because the government's Department of Environmental Affairs and Tourism is the focal point for climate-change in South Africa.

· IMPORTANT GAPS IN KNOWLEDGE AND SKILLS AND MODALITIES NEEDED TO FILL THEM

There is a clear gap in knowledge and skills between government, the private sector and academic institutions. Expertise tends to be concentrated in policy research and academic institutions. The main areas in which expertise is available include: compilation of GHG Inventories; analysing implementation issues related to the Kyoto Protocol and its financing mechanisms; screening and selecting adaptation strategies; planning and establishing research and systematic observation systems; and analysing regulatory issues.

The government is faced with the problem of not being able to retain experienced staff who are often attracted to work in other research and private-sector organisations.

· THE KEY TARGET AUDIENCES FOR CAPACITY-BUILDING

The Department of Environmental Affairs and Tourism (DEAT) was identified as the focal point for climate change issues. The department would benefit from both institutional and human resource capacity building. Other target audiences include the South African National Co-ordination Committee on Climate Change, Department of Trade and Industry, and academic institutions.

· THE MOST NEEDED TOOLS

The various respondents noted that the following activities make important contributions to capacity building and should be expanded: workshops and stakeholder dialogues; capacity-building under the CDM; institutional capacity-building; fact sheets and briefing packages; and technical assistance.

Proper linkages were not established to communicate the implications (threats and weaknesses) of climate change in South Africa due to limited capacity in DEAT. A framework to coordinate all research activities would be invaluable.

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

Expertise in public/governmental organisations is limited. Increasing the number of skilled and knowledgeable personnel within these institutions would be a good indicator for assessing successful capacity-building activities. This would also help balance the debates between public and other stakeholders and also strengthen the government's position in climate change issues.

· THE LINKAGES BETWEEN CAPACITY-BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES

The surveyed organisations identified the following activities as an important linkage to advance the objective of the Kyoto Protocol and national development strategies:

- Establishing in-country operating entities for monitoring, evaluation and certification of CDM projects
- Training for review and approval of CDM projects
- Providing information to policy-makers on the benefits for development that can be captured through the Kyoto Protocol
- Training local project developers in modern project finance techniques

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SENEGAL

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· PROFILES OF ORGANIZATIONS INTERVIEWED

Five government institutions (including energy, environment, agriculture and planning) were selected for this survey. Most of these institutions are involved with the UNFCCC related process. The four selected private sector institutions are representing key economic stakeholders such as energy, transport, chemicals and oil-yielding plants. The five academic institutions/NGOs are actively involved in training, research and environmental awareness. 71% of these institutions are active at international level and all are member of the National Climate Change Committee.

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

All respondents expressed a desire to participate in CDM activities or debates. Indeed, a considerable majority of organisations (86%) were currently involved in the on-going CDM debate. Globally, the Government/Public Sector and the Research/Academic/NGO Sector tend to participate more actively in CDM debate than the Business/Industry/Private Sector.

Regarding the various CDM related activities, 93% of the organisation interviewed indicated the need for additional capacity for determining CDM project baselines and analysis of CDM project eligibility. Meanwhile, 79% need additional capacity on the development of criteria for CDM projects and CDM verification, monitoring and evaluation. Finally, CDM advocacy and awareness raising was considered important by 29% of the organisations, while only 14% were interested in certification of emissions reductions.

· IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM

Organisations in all sectors signalled a willingness to participate in CDM-related activities, but stressed that they need additional capacity to do so. None of the organisations had adequate capacity for Emissions Trading, while 14% indicated that they have capacity for Joint Implementation.

From the survey results it was evident that there was a dearth of capacity in the following areas: compiling GHG inventories; preparing vulnerability studies; screening and selecting adaptation strategies; implementing adaptation measures; implementing mitigation measures; planning and establishing research and systematic observation systems; and planning and introducing early warning systems.

· THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

The key policy/decision makers, project developers and/or implementers and researchers in the following areas seem to be the key target audiences for capacity-building in Senegal:

- Energy and water sectors
- Agriculture and fishery sectors
- Planning and finance
- Industrial sector.

· THE MOST NEEDED TOOLS

Activities such as senior executive seminars, fact sheets and briefing packages, workshops and stakeholders dialogues appear to have contributed towards capacity-building in more than 50% of the organisations surveyed. Meanwhile, between 14% and 42% of the organisations surveyed found the following activities to be important: negotiation skills training; institutional capacity-building; human resources development; support for national communications; support for improved decision making; and capacity-building under the CDM. Lastly, ministerial meetings and support for adaptation activities were cited as important by only 7% of the organisations.

Country-wide, highest priority was accorded to capacity-building under the CDM, followed by workshops and stakeholder dialogues, and then ministerial meetings.

As for the main sources of funding, UNDP and some bilateral aid agencies are perceived to be the most useful.

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

These survey results provide the best basis for assessing any progress that could be realised in the implementation of future capacity-building activities. The information collected will constitute a reference for the evaluation of future capacity-building actions.

· THE LINKAGES BETWEEN CAPACITY BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES

The majority of organisations consider the following actions most important to facilitate the implementation of the Kyoto Protocol while advancing national development priorities:

1. Providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol
2. Establishing in-country or regional capability to train local project developers in modern project finance techniques
3. Creation of a single national entity to coordinate the review and approval of CDM projects
4. Establishing in-country operating entities for monitoring, evaluation and certification of CDM projects
5. Strengthening national centers of excellence

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SEYCHELLES

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· PROFILES OF ORGANIZATIONS INTERVIEWED

The entities selected included representative from the three requested sectors. Government/Public agencies include institutions working in environment, transport, forestry, health and national meteorological services. Business entities (including Seychelles Chamber of Commerce and Industry, Seychelles National Oil Company) cover finance/investment and manufacturing and services. Academic/Research and NGO organisations focus on research and advocacy, while also active in training and project implementation. They included the Seychelles Bureau of Standards, the National Climate Change Committee, Bird Life and Wild Life Seychelles.

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

Specific expertise in climate change is available but tends to be insufficient in government departments, and utterly lacking in the Business sector. NGOs have some awareness of climate change issues but are not involved in the debate.

· IMPORTANT GAPS IN CAPACITY BUILDING

Regarding experience on climate change work, Seychelles has experienced staff in the preparation of vulnerability studies, and in the screening and selecting mitigation options. All respondents agreed that all stakeholders involved in climate change should be targeted for capacity-building. Also, efforts should be made to extend the awareness campaign beyond the organisations that are already active in climate change. In particular, communities were identified as very important groups to be targeted for awareness raising.

· THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

Targeted awareness raising campaigns and education are indispensable to help supplement existing climate-related knowledge within the majority of organisations interviewed. The survey respondents acknowledged that all stakeholders involved in climate change work should be targeted for capacity building. Also those efforts should be made to extend the campaign beyond the already active organisations. In particular, communities were identified as valuable recipients who need to be informed about all climate change issues.

· THE MOST NEEDED TOOLS AND MODALITIES

The most important issues to consider for capacity-building in Seychelles were identified as: human resources development; capacity-building under CDM; institutional capacity-building; technical assistance; and support for adaptation activities.

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING CAPACITY BUILDING

The National Climate Change Committee is considered the major body responsible for carrying out work on climate change. Hence, it is important to give priority to its members in capacity-building programmes before extending activities to other organisations.

Respondents indicated that implementation of CDM projects that would enable participants to be involved directly in CDM work would be useful. The organisations also believe that hands-on training would be a transparent and uncomplicated criterion to use.

· THE LINKAGES BETWEEN CAPACITY BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES

Activities that would facilitate implementation of Kyoto Protocol were identified as creation of a single national entity to coordinate the review and approval of CDM projects; strengthening national centres of excellence; and providing information to senior policy makers on benefits for development that can be captured through Kyoto Protocol.



SUDAN

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· PROFILES OF ORGANIZATIONS INTERVIEWED

The entities selected for this survey include 17 institutions, 6 were from the government/public sector, 4 from the private sector and 7 from the academic/research and NGO sector. All entities for the government sector are participating to the definition of national policies in the field of climate change and include the High Council for Environment and Natural Resources. Entities from the private sector (such as the Chemical Industries Chamber, Atbara Cement Co, the Sudanese Chambers of Industries Associations) are mainly involved in the transformation/manufacturing sector but are also involved with environmental issues. Academic/Research and NGO organisations included key environmental institutions focussing on research and advocacy, while also active in training and project implementation in particular for water management and irrigation.

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

The majority of the organisations interviewed (92%) declared their desire to participate in CDM activities if they are introduced in Sudan. 50% of Sudanese respondents indicated that they were currently involved in CDM debate, while 42% are not.

CDM advocacy and awareness raising, development of criteria for CDM, and CDM project verification, monitoring and evaluation are activities in which 83% of organisations highlighted the need for additional capacity. Determining CDM project baselines and analysis of CDM project eligibility were cited by 67% of organisations as activities in which additional capacity is needed, while 58% needed additional capacity for the certification of emissions reductions.

· IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM

As in other developing countries, all of the Sudanese organisations interviewed were desirous of becoming involved in CDM activities. 58% of organisations had between 1 and 5 experts in areas such as preparing vulnerability studies, screening and selecting mitigation strategies and screening and selecting adaptation strategies. Less than 50% had between 1 and 5 experts for compiling GHG inventories, implementing adaptation and mitigation measures.

· THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

The limited expertise on key technical, analytical and methodological issues calls for targeted awareness raising. Key decision-makers in departments such as agriculture and water resources, industry and investment, and the High Council for Environment and Natural Resources are among the targeted audience in the Government/Public Sector. In the Business/Industry/Private Sector, institutions such as the Chemical Industries Chamber, the Sudanese Chamber of Industries Association and the Food Industries Chamber are among the key target audience. The Academic/Research/NGOs working on related issues are also among the priority target groups for capacity building.

· THE MOST NEEDED TOOLS AND MODALITIES

The following activities were all deemed to have contributed to capacity-building by more than 50% of respondents: ministerial meetings; fact sheets and briefing packages; institutional capacity-building; human resources development; workshops and stakeholder dialogues; and technical assistance. Between 25% and 42% of the organisations found the following activities to be important: technology transfer; support for national communications; support for adaptation activities; support for improved decision making; senior executive seminars; and capacity-building under the CDM. Highest priority is given to institutional capacity building, followed by technical assistance; technology transfer; human resources development; and fact sheets and briefing packages.

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

The level of expertise on the various aspects of climate change in general, and the Kyoto Protocol in particular, is currently limited. In 3 to 5 years from now the change in the number of available experts would serve as a good indicator for assessing successful capacity-building activities.

· THE LINKAGES BETWEEN CAPACITY BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES

According to most of the institutions interviewed, the following actions would facilitate implementation of the Kyoto Protocol along with the national development priorities:

1. Creation of a single national entity to coordinate the review and approval of CDM projects
2. Strengthening national centers of excellence
3. Establishing in-country or regional capability to train local project developers in modern project finance techniques
4. Providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol

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TANZANIA

Summary based on the country report prepared by the Country Investigator: Justin Bamanyisa by the Environmental Protection and Management Services, P.O.Box 7775, Dar es Salaam, Tanzania, Phone: 255-22-2134035.

· PROFILES OF ORGANIZATIONS INTERVIEWED

16 organisations were surveyed in Tanzania, 5 from the government sector, 5 from the private sector, 3 academic organizations and 3 NGOs.

· KEY AREAS AND LEVELS FOR CAPACITY-BUILDING

Answers provided to the questionnaire allow concluding that expertise on climate change is available in Academic/Research organisations and in the Government/Public sector agencies. Although the organisations identified do have expertise, there was also the common recognition that there is the need for additional capacity to enable them to expand their climate-related activities. In addition, a clear lack of capacity in the Business/Industry sector was expressed by the selected entities of this sector for the survey.

· IMPORTANT GAPS IN KNOWLEDGE AND SKILLS AND MODALITIES NEEDED TO FILL THEM

The groups indicated a general lack of expertise in climate change work. Development of joint ventures and other project development activities is one function which at least 40% of organisations indicated they have expertise in. The available expertise is concentrated in government departments. The Business/Industry/Private sector indicated that they have some degree of awareness of climate change matters, but are not directly involved in such activities. They would, however, be interested in participating if invited to do so.

Regarding other Kyoto Protocol activities, more than 50% of organisations do not have adequate capacity to broaden work in them.

Priority should be given to CDM advocacy, training and public awareness campaigns for all stakeholders, to inform them about the potential benefits of awareness in climate change and threats it poses.

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY-BUILDING

Participation of local experts and communities to designing and implementing CDM projects can help provide the basis for assessing capacity-building in the country.

· THE LINKAGES BETWEEN CAPACITY-BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES

When asked to identify activities that would facilitate implementation of Kyoto Protocol in Tanzania, groups identified the following activities:

- Establishing in-country operating entities for monitoring, evaluation and certification of CDM projects
- Providing information to senior policy makers on benefits for development that can be captured through the Kyoto Protocol.

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BANGLADESH

Summary based on the country report prepared by the Bangladesh Center for Advanced Studies (BCAS), Dhaka, Bangladesh, Country Investigator: Saleemul Huq, saleemul.huq@iied.org.

· PROFILES OF ORGANIZATIONS INTERVIEWED

The organisations chosen for the survey included government ministries and agencies involved in climate change issues. These latter included, some universities and research NGOs. There was also participation by private sector organisations in key sectors, some of which may not have undertaken any climate change related work as yet.

· KEY AREAS AND LEVELS OF CAPACITY BUILDING

1. 100% of respondents indicated a need for additional capacity on Joint Implementation and Emissions Trading
2. 93% of the respondents said they needed additional capacity to work on the Kyoto Protocol
3. 87% require additional capacity on CDM advocacy and awareness raising and development of criteria for CDM projects
4. 80% need help with baselines and 73% need additional capacity on CDM project monitoring, evaluation and verification
5. 60% need help on project eligibility

· IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM

Of those organisations surveyed, 4.25% of staff were currently working on climate change issues. It was determined that additional capacity was required in the following areas:

1. Compiling GHG inventories
2. Preparing vulnerability studies
3. Screening and selecting adaptation strategies
4. Implementing adaptation
5. Implementing mitigation
6. Implementing awareness building programmes
7. Technology transfer
8. Developing joint venture projects

· MOST NEEDED TOOLS

Respondents offered the following rankings of most needed tools:

1. Ministerial meetings were said to be “very useful” or “moderately useful” by 80%
2. Stakeholder dialogues, technology transfer, and technical assistance, and human resources development were deemed to be “very useful” or “moderately useful” by 80%
3. Skills training for negotiators and support for national communications were said to be “very useful” or “moderately useful” by 70%
4. Senior executive briefings, fact sheets, and institutional capacity-building were deemed to be “very useful” or “moderately useful” by 66%

At the countrywide level, the following areas were identified:

1. 33% found capacity-building for CDM and skills training for negotiators to be of the “highest priority” or “high priority”
2. 26% found institutional capacity-building to be of the “highest priority” or “high priority”
3. 20% found support for adaptation, ministerial meetings and technology transfer to be of the “highest priority” or “high priority”
4. 13% found human resources development to be of the “highest priority” or “high priority”
5. 7% found improved decision-making tools to be of the “highest priority” or “high priority”

· APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

Interviewees identified the following areas:

1. 60% said more workshops and stakeholder dialogues would be “very important”
2. 45% said more capacity-building for CDM would be “very important”
3. 40% said skills training for negotiators, support for adaptation activities, and human resources development would be “very important”
4. 27% said support for national communications and distribution of fact sheets would be “very important”

· LINKAGES BETWEEN CAPACITY BUILDING FOR THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT PRIORITIES

- All participants emphasized the importance of a single national entity for CDM projects, as well as strengthening existing national centers of excellence, and the distribution to senior decision-makers of information on the benefits of CDM for development
- Over 90% highlighted the need to establish in-country or regional capability to train local project developers in modern project finance techniques and coordination among national and regional centers of excellence.
- Over 87% earmarked the importance of developing in-country capability for monitoring, reporting, and evaluation of CDM activities

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CHINA

Summary based on the country report prepared by the Policy Research Center for Environment & Economy (PRCEE) of the State Environmental Protection Administration (SEPA) of China. Country Investigators: Hu Tao and Tian Chunxiu, Hutao@Public.Bta.Net.Cn.

· PROFILES OF ORGANIZATIONS INTERVIEWED

The survey was carried out in the context of a developing country facing critical sustainable development (economic, social and environmental) issues. Consequently, capacity building for climate change tends to be relegated to a rather low level of priority. The government sector included key climate change policy-making organisations such as the State Development and Planning Commission (SDPC) and the Ministry of Science and Technology (MOST) among others. The industrial sector organisations ranged from monopolistic state-owned companies to manufacturing industries. The NGO/Academic sector consisted of entities dealing specifically with climate change issues.

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

When asked which activities would facilitate implementation of the Kyoto Protocol in China, organisations deemed the following to range from important to very important:

1. Technical assistance
2. Institutional capacity-building
3. Technology transfer
4. Human resources development
5. Support for improved decision-making
6. Capacity-building under the CDM

· IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM

Most organisations confided that they have inadequate levels of capacity for addressing the issues of joint implementation and emissions trading. Only two organisations (13.3% of the total) indicated that they have adequate capacity to follow joint implementation matters. Three respondents (20%) felt that they have the capacity to follow the emission trading issue.

Overall, the survey revealed the following levels of interest in specific activities:

1. 87% of organisations were interested in determining CDM project baselines
2. 80% were interested in CDM verification, monitoring and participating in CDM advocacy and awareness raising
3. 73% were interested in analysis of CDM project eligibility
4. 53% of the organisations were interested in the development of criteria for CDM projects and certification of emissions reductions.

· KEY TARGET AUDIENCES FOR CAPACITY BUILDING

Like most other developing countries, the proportion of professional staff working on climate change issues was relatively low (0.07%) compared to the total number of professional staff in these organisations. This figure seems particularly low due to the overall staff levels are inflated due to the significant number of workers in state owned companies. However, 14 organisations (93.33%) indicated that they intend to broaden action on the Kyoto Protocol. All of these organisations will require additional capacity to do so. The targeted audiences were deemed to be government organisations, academic organisations and business sectors.

· MOST NEEDED TOOLS

Most respondents deemed the following capacity-building tools to be the most needed: technical assistance; institutional capacity-building; technology transfer; human resource development; capacity-building under the CDM; support for adaptation activities; and support for improved decision making. Other activities, including ministerial meetings; negotiation skills training and support for national communications; senior executive seminars; and fact sheets and briefing packages, were deemed to be of somewhat less importance.

· APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

The following indicators were cited: creation of a single national entity to coordinate the review and approval of CDM projects; strengthening national centers for excellence; regional coordination among centers of excellence; establishing in-country operating entities for monitoring, evaluation and certification of CDM projects; establishing in-country or regional capability to train local project developers in modern project finance techniques; providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol.

· LINKAGES BETWEEN CAPACITY BUILDING FOR THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT PRIORITIES

Two of China's national strategies are sustainable development and development of S&T, which were set up several years ago by Chinese Central Government. Capacity-building related to the Kyoto Protocol is also designed to strength the capacity of China for sustainable development and promote technology transfer. Therefore, for China significant win-win opportunities can be glimpsed. Indeed, there are no conflicts between the types of capacity-building needed to advance the objectives of the Kyoto Protocol and China's national development strategies. The only potential concern might be that rapid reduction of GHGs emission could constrain China's economic development.

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INDIA

Summary based on the country report prepared by Country Investigator: Kirit S. Parikh, Phone: 9122-840-2754, Indira Gandhi Institute of Development Research, New Delhi, India. Kirit@Igidr.Ac.In.

· PROFILES OF ORGANIZATIONS INTERVIEWED

The institutions selected for the survey fell into three broad groups: Government, including relevant ministries and institutions; Industry/Private sector organisations, consisting of large industrial houses and one representative from a leading Industries Association; and NGOs/Academic institutions dealing in climate change issues and natural resource management.

The survey showed that 53% of organisations were undertaking research on climate change related themes. Approximately 40% were involved with public information, education and awareness building. While some 33% dealt with environment and social advocacy issues, approximately 47% of organisations dealt with other functions including project development and implementation.

On the whole, government sector agencies were more involved in the environment sector (75%). NGOs dealt more with research (87.5%) and training and consultancy (75%). Lastly, forestry, transport and manufacturing tended to be areas covered by industry.

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

40% of all organisations indicated that they need capacity for CDM advocacy and awareness, as well as in the development of criteria for CDM projects and analysis of CDM project eligibility. Importance was also placed upon the determination of project baselines, as well as on verification, monitoring and certification. About 20% of organisations indicated that they do not require additional capacity for development of criteria for CDM projects and determination of CDM project baselines. Meanwhile, 13% said they do not need capacity for CDM advocacy and awareness raising. Finally, 6% said that they do not need capacity for CDM project verification, CERs, and other activities.

· KEY TARGET AUDIENCES

The new areas of work identified by some of the organisations for broadening efforts in relation to the Kyoto Protocol are:

1. Project formulation and development
2. Monitoring and verification

3. Emissions trading
4. Market based economic instruments
5. Project-baselines determination
6. Registries and eligibility
7. Risk assessment
8. Legal framework
9. Vulnerability research
10. Adaptive research
11. Alternative technologies for SD and CDM
12. Environmental and social costs of projects
13. Environmental economics of project proposals
14. Pricing of emissions

· **IMPORTANT GAPS AND THE MODALITIES NEEDED TO FILL THEM**

Overall, 60% of the organizations intend to broaden their work in relation to the implementation of the Kyoto Protocol, with a breakdown of 33% government organizations, 57% industries and 100% NGOs. All organizations that were willing to participate in CDM related activities expressed their need for additional capacity, irrespective of what sector they belonged to. Thus capacity building is a key need in all three sectors. The following areas had less than 50% of staff working on them: compiling GHG inventories, preparing vulnerability studies, screening and selecting adaptation strategies, implementing adaptation measures, implementing mitigation measures, planning and establishing research and systematic observation systems, designing and building awareness programs, development, transfer and adaptation of technology, developing joint ventures or other project development activities, analysing regulatory issues, and experience in international negotiations. No staff at all was working on planning and introducing early warning systems

· **MOST NEEDED TOOLS**

The following activities were used by more than 50% of the organisations interviewed: Ministerial meetings; senior executive seminars; fact sheets and briefing packages; workshops; stakeholder dialogues; institutional capacity building; and capacity-building under the CDM. A further 30 to 40% of organisations found the following capacity-building activities to be useful for their organisations: technical assistance; technology transfer; human resource development; support for adaptation activities; and support for improved decision making.

At the country-level, 4 organisations (26%) gave highest priority, while 2 organisations (13%) gave high priority, to the following activities: negotiation skills training; workshop and stakeholder dialogues; technical assistance; institutional capacity-building; human resources development; support for adaptation activities; and support for improved decision-making. Only a single organisation gave highest priority to ministerial meetings; senior executive seminars; fact sheets and briefing packages; and support for national communications.

· **APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY-BUILDING**

Assessments are difficult even for more traditional capacity-building exercises. For Kyoto Protocol issues, they are even more complex. The following criteria were suggested:

1. Number of participants and repeats from the same organisations
2. Increase in CDM activities by organisations (post capacity-building)
3. The extent of the country's participation in CDM activities, negotiations and projects.

· CAPACITY BUILDING LINKAGES BETWEEN THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT

The actions listed below would facilitate the implementation of the Kyoto Protocol. The figures in brackets indicate the percentage of respondents who deemed each activity to range from important to very important:

1. Creation of a single national entity to coordinate the review and approval of CDM projects (73%)
2. Providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol (73%)
3. Establishing in-country operating entities for monitoring, evaluation and certification of CDM projects (60%)
4. Establishing in-country or regional capability to train local project developers in modern project finance techniques (53%)
5. Strengthening national centers of excellence (47%)
6. Regional coordination among centers of excellence (40%)

All of these activities would also facilitate sustainable development in the country.

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INDONESIA

Summary based on the country report prepared by Pelangi. Country investigator: Agus P. Sari, Phone: 622.157-35020, Apsari@Igc.Org, with assistance from Fabby Tumiwa.

· PROFILES OF ORGANISATIONS

Of the five government institutions in the survey, 4 were decision-making bodies. Judging by the number of personnel deployed on the Climate change issues, they were not considered to be high priority issues. Virtually all of the participants from the business/private sector held decision-making positions, typically in project development and implementation roles. For the majority of these private sector respondents, climate change is a completely new issue. Only a small number of staff had basic knowledge of the issues. The NGOs/Academics who were part of the survey, have been involved in climate change issues for some time.

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

Over 50% of surveyed organisations indicated that they require more capacity for all types of CDM activities. Highest on the wish-list were advocacy and awareness raising, and determination of CDM project baselines; 64% of all organisations expressed a need for additional capacity in these areas, while a mere 14% did not. Of almost equal importance was CDM project verification, monitoring and evaluation, with 57% needing additional capacity. Similarly, 50% of organisations needed capacity for development of criteria for CDM projects and Analysis and CDM project eligibility; a mere 14% did not. Finally, 35% of respondents needed capacity for certification of emission reduction, while 21% required no extra capacity.

· IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM.

Nearly 85% of organisations interviewed are actively participating in CDM activities in one form another. What is more, 92% indicated that they would participate if the CDM becomes operational. The survey revealed that capacity is required for almost all the activities listed. The most needed activities included: planning and establishing research and systematic observation systems; planning and introducing early warning systems; screening and selecting adaptation strategies; implementing adaptation measures; development; transfer and adaptation of technology; screening and selecting mitigation options; implementing mitigation measures; preparing vulnerability studies; designing and implementing awareness building; experience in international negotiations.

· KEY TARGET AUDIENCES FOR CAPACITY BUILDING

Institutional capacity building was deemed necessary by a majority of entities in all listed sectors.

· MOST NEEDED TOOLS

1. Workshops and stakeholder dialogues (preferred by 78% of respondents)
2. Capacity-building under CDM and senior executive seminars (64%)
3. Fact sheet and briefing packages; technical assistance; institutional capacity-building; human resources development; technology transfer; and support for adaptation activities (50-57%)

· THE LINKAGES BETWEEN CAPACITY BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES.

The following activities for facilitating implementation of the Kyoto Protocol are ranked in order of priority:

1. Providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol
2. Creation of a single national entity to coordinate the review and approval of CDM projects
3. Establishing in-country operating entities for monitoring, evaluation and certification of CDM projects
4. Strengthening national centers of excellence
5. Establishing in-country or regional capability to train local project developers in modern project finance techniques
6. Regional coordination among centers of excellence

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PAKISTAN

Summary based on the country report prepared by the Sustainable Development Policy Institute (SDPI), Islamabad, Pakistan and the Stockholm Environmental Institute -Boston Center. Country Investigator: Tariq Banuri, Banuri@Tellus.Org, Phone: 9251-227-8134 with assistance from Erika Spanger-Siegfried.

· PROFILES OF ORGANISATIONS

Groups interviewed for this study represented a diverse range of current or potential participants in the climate change arena. The institutions were selected through informed consultation and advice from stakeholders. The majority are involved in research, public information, education and awareness building, environmental and social issues advocacy, and project development and implementation.

While a considerable percentage of these groups reported some expertise in those climate change related activities listed in the questionnaire, significant gaps were evident. Although a few groups reported significant exposure to recent climate change research and international agreements, large gaps were also evident. The percentage of professional staff working on climate change issues in relation to the total professional staff in the organisations was a mere 1.5%.

The surveyed organisations represented consisted of 4 government agencies, 4 from the industrial sector (ranging from major multi-national corporations, to manufacturing firms and private sector groups), and 7 NGO/academic organisations that specialise in a broad range of natural resource issues. Over 50% of these organisations were involved in research and analysis; many others were engaged in environmental and social issues advocacy and project development and implementation. Some 40% were engaged in activities related to public information, education and awareness building. Contrary to what might be expected, government organisations reported expertise in fewer areas than either the NGOs or business groups.

Clearly, if these groups serve as a representative sample, a strong need for capacity- building exists. But in what topical areas and through what mechanisms should capacity be developed? Several answers emerge from the interviews, as outlined below.

· KEY AREA AND LEVELS FOR CAPACITY BUILDING

On average, and with only one exception, over 40% of respondents indicated that they need more capacity for every type of capacity building; the sole exception being certification of emission reduction which elicited a response of 13%. CDM project verification, monitoring and evaluation ranked high on the list of priorities with 53%. CDM advocacy and awareness raising ranked next at 46%. Development criteria for CDM projects were also highly sought after at 40%. Determination of CDM project baselines and analysis of CDM project eligibility were each identified by 33% of respondents. A mere 6% of all organisations said that no capacity was needed for these types of activities.

· IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM

Participation in the CDM debate sits at about 33% at the present time. If the CDM becomes operative, this is expected to climb to over 70%. The survey found that less than 50% of staff are working on all the issues. The highest level of participation was 53% for awareness building programmes. This was followed by screening and selecting mitigation options, which had a participation level of 40%. Developing joint ventures or other project development activities also had a participation level of 40%. It must be emphasised that no expertise was recorded in implementing adaptation measures, and only a couple of the 15 groups reported experience in either vulnerability studies or early warning systems. In all the other areas, such as compiling GHG inventories; selecting adaptation strategies; implementing mitigation measures; development, transfer and adaptation of technology; analysing implementation issues related to Kyoto Protocol, capacity was very low.

· MOST NEEDED TOOLS

The following priorities were identified:

1. Workshops and stakeholder dialogues (40%)
2. Negotiation skills training, senior executive seminars, support for national communications, and technical assistance (26% each)
3. Human resource development and fact sheets and briefing packages (20%)

Meanwhile, at the country-level, the following were priorities:

1. Human resource development (33%)
2. Institutional capacity building (33%)
3. Senior executive seminars (27%)
4. Workshops and stakeholder dialogues (26%)
5. Technical assistance (26%)
6. Technology transfer (26%)

· CAPACITY BUILDING LINKAGES BETWEEN THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT PRIORITIES

The following actions would facilitate the implementation of the Kyoto Protocol in the country (in order of support):

1. Strengthening the national centers of excellence (87%)
2. Establishing in-country operating entities for monitoring, evaluation and certification of CDM projects (80%)
3. Establishing in-country or regional capability to train local project developers in modern project finance techniques (73%)
4. Creation of a single national entity to coordinate and review CDM projects (60%)

PHILIPPINES

Summary based on the country report prepared by the Country Investigator: Herminia A. Fransisco, Hemi@Laguna.Net, Phone: 6349-536-3641, University of Los Banos with assistance from Canesio Predo, Rommel Saplaco, Esmyra Javier and Rusyan Jill Mamit.

The Philippines was one of the first countries to sign the United Nations Framework Convention on Climate Change (UNFCCC) in Rio de Janeiro. The country is legally committed to the UNFCCC provisions as a non-Annex 1 Party. The Philippines Government has formulated and started to implement mitigation measures to limit its GHG emissions. The Philippines has already qualified to become a CDM host country since it has completed its GHG emissions inventory and submitted an assessment of its mitigation plan through the ALGAS project.

A review of climate change activities in the country has indicated that there are already major initiatives being carried out in the country. But on the other hand, the survey has revealed that the percentage of professional staff working on climate change activities is a relatively low 1.9%. Clearly, the Philippines need assistance to build capacity. Such initiatives need not begin from scratch; instead they could be built upon pre-existing networks.

· PROFILES OF ORGANIZATIONS INTERVIEWED

The Philippines sample consisted of five Government organisations, five entities from the business/industry sector, two academic institutions and three NGOs. Of institutions interviewed, some crucial entities like the Shell Corporation (gas) and Caltex Philippines (LNG and gas) have been included.

In this sample, 20% of organisations act as national focal points, whilst a further 20% act as GEF focal points. At least 80% of the government respondents were involved in the following activities: negotiations for the government; research; public information, education and awareness building; environmental/social issues advocacy; and project development/implementation. All respondents from the business sector were involved in investment and finance, as well as some form of public information, education, and awareness building. A further 80% were active in environmental/ social issues advocacy. Finally, in the Academic/NGO sector, respondents were typically involved in the following activities: research; public information and awareness building; advocacy on environmental and social issues; and project development and implementation. Virtually all of these organisations operate at all levels (local, national and international).

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

Judging from the survey, it appears that most organisations have only been introduced to climate change issues fairly recently. This is particularly the case in the business sector and NGO sector. Though the government sector had an early start, having been designated as a national focal point for climate change, the highest percentage of professional staff (working on climate change) is in the business sector (27.6%), followed by NGOs (25.5%) and government (2.1%).

On average, 40% of organisations across the three sectors indicated that they require additional capacity for all types of CDM activities. CDM advocacy and awareness raising along with analysis of CDM project eligibility ranked highest with 73% as interested in participating. Following thereafter were: development of criteria for CDM projects with 60%; followed by determination of CDM project baseline (53%); CDM verification, monitoring and evaluation (46%); and certification of emission reductions (26%).

Across sectors, the highest demand for CDM expertise emanated from government institutions, followed by those in academe and NGOs. There appeared to be a consensus that there is inadequate capacity to follow the debate on the issues of Joint Implementation and Emissions Trading.

· IMPORTANT GAPS AND MODALITIES TO FILL THEM

While current participation in the CDM debate was limited to only 33% of respondents, a full 80% indicated their willingness to participate in future.

From the survey, it can be seen that capacity in the following areas is less than 50% and needs to be addressed: preparing vulnerability studies; screening and selecting mitigation options; screening and selecting adaptation strategies; implementing adaptation measures; implementing mitigation measures; planning and establishing research and systematic observation systems; planning and introducing early warning systems; development, transfer and adaptation of technology; developing joint ventures or other development activities; and experience in international negotiations.

· MOST NEEDED TOOLS

The tools that have contributed most to improve capacity in surveyed organisations were (in order of importance):

1. Workshops and stakeholder dialogues (67%)
2. Fact sheets and briefing packages (60%)

3. Senior executive seminars, human resource development, and support for national communications (30/40%)
4. Technical assistance and technology transfer (over 20%)

The top 5 capacity building activities for the Philippines were deemed to be:

1. Human resource development
2. Institutional capacity-building
3. Technology transfer
4. Technical assistance
5. Fact sheets and briefing packages

Some other activities were also considered important, but were given lower priority. These included: Workshops and stakeholder dialogues, as well as support for adaptation activities.

· **APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING**

There was insufficient feedback for this purpose because the perception was that these criteria will be developed later, once more information is available regarding the implementation of the Kyoto Protocol.

· **LINKAGES BETWEEN CAPACITY BUILDING FOR THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT PRIORITIES**

The following actions were deemed useful for facilitating the implementation of the Kyoto Protocol (listed in order of importance). They were also deemed useful for facilitating sustainable development efforts:

1. Strengthening national centers of excellence
2. Establishing in-country or regional capability to train local project developers in modern project finance techniques
3. Providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol
4. Creation of a single national entity to coordinate the review and approval of CDM projects
5. Establishing in-country operating entities for monitoring, evaluation and certification of CDM projects
6. Regional coordination among centers of excellence.

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SRI LANKA

Summary based on the country report prepared by the Lanka International Forum on Environment and Sustainable Development and the Munasinghe Institute for Development Country Investigator: Mohan Munasinghe, Munasinghe@Eureka.Lk, Colombo Sri Lanka, Phone: 941-580-822 with Sria Munasinghe and Tharanga Fernando.

• PROFILES OF ORGANIZATIONS INTERVIEWED

Organisations were chosen because they all had some relevance to the survey. The Government sector, Industry and NGOs were all involved in addressing climate change and environmental issues in one form or another. A majority of the government sector organisations were government decision makers; as well, there were some public education and awareness builders. All NGO participants were engaged in research and analysis of environment and social issues. Four of the industry participants played additional roles such as marketing, engineering, agriculture and services.

From the outset it must be borne in mind that the percentage of professional staff engaged in climate change activity in relation to the total professional staff in the organisations is only about 5%. Of these, 80% work on these matters on a full-time basis and 20% work on a part-time staff. NGOs have the highest number of staff (20%) engaged in climate change activity, followed by government (9%) and industry (3%).

• KEY AREAS AND LEVELS FOR CAPACITY BUILDING

Over 40% of respondents indicated that they need more capacity for all types of CDM activities. Advocacy and awareness raising ranked high on the list of priorities, with 67% of all entities requiring additional capacity. Regarding the development of criteria for CDM projects, 60% of all organisations expressed a need for additional capacity. Analysis of project eligibility, CDM project verification, monitoring and evaluation were ranked next, followed by determination of project baselines and certification of emission reductions. Over 30% of organisations indicated a need for additional capacity to undertake these activities.

• IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM.

Most of the organisations that were willing to participate in CDM related activities expressed the need for additional capacity in all three sectors. Current participation in CDM debates was relatively low (26%), however all respondents expressed a willingness to become involved if the CDM becomes operative.

It was evident from the survey that there was a dearth of capacity in the following areas:

1. Compiling GHG inventories
2. Preparing vulnerability studies
3. Screening and selecting adaptation strategies
4. Implementing adaptation measures
5. Planning and establishing research and systematic observation systems
6. Planning and introducing early warning systems
7. Developing joint ventures and other project development activities
8. Experience in international negotiations.

• MOST NEEDED TOOLS

Of those surveyed, more than 50% found the following activities useful for capacity-building:

- Activities such as workshops and stakeholder dialogues
- Senior executive seminars
- Fact sheets and briefing packages

Meanwhile, 30 to 45% of organisations found the following activities to be important:

- Support for national communications
- Technical assistance
- Institutional capacity-building
- Technology transfer
- Human resource development
- Support for improved decision making.

Countrywide, highest priority was given to senior executive seminars, followed by workshop and stakeholder dialogues, ministerial meetings, technical assistance and, lastly, negotiation skills training.

· **APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING**

It was difficult to assess criteria for successful capacity building, since very little capacity building had been undertaken in the organisations that were interviewed. Accordingly, the assessment will have to be done at a later date.

· **LINKAGES BETWEEN CAPACITY BUILDING FOR THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT PRIORITIES**

The following actions were all deemed by 93% of respondents to facilitate the implementation of the Kyoto Protocol in the country:

- Creation of a single national entity to coordinate the review and approval of CDM projects
- Establishing in-country or regional capability to train local project developers in modern project finance techniques
- Providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol

Almost equally high-levels of enthusiasm (approval ratings of 86%) were exhibited for the following activities:

- Strengthening National Centers of Excellence
- Regional coordination among Centers of excellence
- Establishing in-country operating entities for monitoring, evaluation and certification of CDM projects

These activities were also deemed to promote sustainable development in the country.

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BRAZIL

Summary based on the country report prepared by the country investigator: Luis Pinguelli in cooperation with Emilio Lebre La Rovere, COPPE TECH, emilio@ppe.ufri.br, Phone: 5521 560 8995, Brazil.

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

Brazil's scientific and technical capacity to deal with climate change issues is quite high. However, this capacity is extremely concentrated in a few universities and research centers, as well as in specific government areas directly involved in the climate issue, such as the Climate Change Unit within the Ministry of Science and Technology. Accordingly, there is an urgent need to expand and consolidate this high-level expertise across different sectors and regions of the country.

In general, high-level decision-makers both in the public and private sectors show little familiarity with climate change issues. Most government agencies are not well informed about how UNFCCC negotiations may be relevant to their own activities. Indeed, the Ministry of Environment itself has only recently started to get involved in this field. Government bodies responsible for the formulation and implementation of economic policies are not aware of the opportunities and risks arising from climate change adaptation and mitigation. The National Economic and Social Development Bank have initiated some efforts in this area. Unfortunately, regulatory agencies in the fields of oil and gas, power and water resources are still absent from the discussions on climate change in the country. The sole exception to this pattern is the National Agency of Electric Energy (ANEEL), which has recently initiated a study on the vulnerability of hydropower generation to climate change. ANEEL has also funded a study on specific project candidates for the CDM in the power sector.

At the local levels of government (states and municipalities) there exists a very low level of capacity in the field of climate change. The sole exceptions are the administrations of the State and the City of Rio de Janeiro, which have created the Rio Clean Development Initiative and an inventory of GHG emissions respectively. There is significant heterogeneity in awareness levels within the private sector. Some big companies (multinational firms and exporters) are mobilized to adapt their projects to obtain carbon credits. Most private parties are still waiting for the consolidation of the carbon market. This "wait and see" attitude is justified by the great uncertainties still associated with the Kyoto Protocol's ratification and the regulation of its flexibility mechanisms. On the other hand, international brokers operating in the country have already cleared several CDM project candidates.

The Brazilian forestry sector pays higher attention to the climate change issue than the energy sector and is very keen to have sinks included in the CDM. However, there is no consensus about the modalities of forestry projects that should be eligible for CDM. The Brazilian government is against the inclusion of forest preservation in CDM because it could allow for increasing GHG emissions from fossil fuel consumption in the Annex I Countries. Politicians, NGOs and the media still lack the information needed for more useful participation in climate change discussions.

In addition to the identified needs for information dissemination, training of human resources and strengthening of public and private institutions to participate in the field of climate change, two other key areas have been identified for capacity building:

- Laws and regulations of the financial markets associated with CDM implementation (stock markets, derivatives, commodities, etc.) to address concerns related to insurance, hedge, taxes, flow of foreign capital, etc. involved in the emission and trade of CERs. Capacity is needed, not only by the operators themselves, but also by the regulatory bodies of these markets.
- There is also a need to establish an institutional framework for decision-making related to the approval of CDM projects, which somehow manages to include all stakeholders. The current Inter-Ministerial Commission lacks the participation of scientists, NGOs and business organisations. While the recently created Climate Change Forum is broader, it has no decision-making power.

· IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM

In order to promote the information and skills needed by the different public and private institutions, a variety of workshops and training courses should be tailor-designed. High-level decision-makers require short-term meetings in order to draw their attention to climate change issues. Managers and other groups seeking a multiplier effect in the dissemination of information (e.g. media, NGOs), should have access to short-term courses. Longer courses should be available through the curricula of universities. As well, specific modules of MBA courses could address climate change issues. Of the utmost priority is the formation of a body of highly qualified auditors to be involved in the approval, verification and monitoring of CERs through specific training courses. Likewise, training courses are needed for the operators and regulators of financial markets where CERs will be traded. Additionally, the establishment of a CDM National Board or Agency could meet the requirement of an appropriate institutional framework for decision-making on CDM issues.

· THE KEY TARGET AUDIENCES FOR CAPACITY-BUILDING

The key target audiences for business sector capacity building are executives from the energy industrial, and forestry sectors. Market operators and environmental quality auditors are also key target groups. The public sector could provide incentives for the formation of institutional expertise groups within its ministries, mainly in the economic sector (including market regulators), and Secretaries, mainly at the local level. Environment, Transport, Waste and other Secretaries in all states and key municipalities must be involved in climate change issues. Currently, local administrators are not concerned about their opportunities. The Rio de Janeiro Greenhouse Gas Emission Inventory is

· THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

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· THE MOST NEEDED TOOLS

The most needed tools in order to improve capacity building in Brazil are:

1. Databanks on GHG emission inventories
2. Validation of methodologies, activity data and emission factors used in GHG emission inventories
3. Establishment of baselines
4. CDM eligibility criteria and sustainability indicators
5. Monitoring and verification of CDM projects
6. Identification of mitigation opportunities
7. Calculation of avoided emissions (from the adoption of policies and measures and through specific projects)
8. Design of a scheme for CDM operations in financial markets
9. Risk avoidance mechanisms: insurance and hedging
10. Establishing in-country operating entities for monitoring, evaluating and certifying CDM projects
11. Elaboration, publication and dissemination of a CDM manual

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

An appropriate indicator for assessing the success of a capacity-building activity could be the number of CDM proposals and of CDM accepted projects in Brazil. This indicator should be complemented by a more qualitative discussion of the actual contribution of CDM projects to sustainable development. Some indicators of environmental, social, economic and technological sustainability could be helpful.

· THE LINKAGES BETWEEN CAPACITY BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND THE NATIONAL DEVELOPMENT STRATEGIES

Capacity building activities in the climate change field, both through human resources training and through the setting of an appropriate institutional framework for decision-making on CDM issues, can provide a valuable contribution to the formulation and implementation of national development strategies. The need for a wide and informed debate about the Brazilian position on the inclusion, or not, of sinks in CDM, illustrates the importance of such capacity-building measures.

COLOMBIA

Summary based on the country report prepared by the Andean Center for Economics in the Environment, Bogotá, Colombia. Country investigator: Thomas Black-Arbeláez, thblack@tutopia.com, phone: (571) 341 3477 in collaboration with Juan Carlos Caycedo, juanccaycedo@hotmail.com.

Initial capacity-building activities and a general knowledge of the Kyoto Protocol and the CDM have been advanced in Colombia, as a result of the two-year World Bank National Strategy Study (NSS). This study analyzed potential opportunities and barriers to implementation of the CDM in 14 relevant sectors, including both private and public entities.

During the development of the NSS, the Colombian Environment Ministry introduced relevant sectors to the Kyoto Protocol and the CDM. Throughout this stage, technical seminars were also carried out. These seminars dealt with the development of the study, thereby allowing the various sectors to acquire a deeper understanding of key aspects such as the energy sector's participation in the CDM, the carbon market, and the design of institutions for the CDM. The Colombian Foreign Ministry has endeavoured to keep the various sectors apprised of progress in the UNFCCC negotiation process. A key result of this institutional process has been the ratification of the KP by Colombia's congress and President.

Colombia's Environment Ministry is in the process of establishing an office for the approval of CDM projects. The different sectors are participating in the design of this office, and are expected to be involved in its future operation. At the regional level, CDM project implementation, led by Costa Rica, has attracted the attention of environmental authorities and different NGOs. This has led to the formulation of a portfolio of potential CDM projects.

Despite these initiatives, which raised awareness about the Kyoto Protocol in the public and private sectors, there is still a great lack of knowledge in a number of areas, including project design, approval and execution. This impression can be gleaned from results obtained in the surveys and in interviews.

Several interested sectors identified the key areas for capacity building related to the CDM. These sectors are: i) those with potential for emissions reductions and development of activities related to the CDM; ii) those which have built capacity in relation to the Kyoto Protocol; and iii) those that are currently involved in the climate change debate, the Kyoto Protocol, and the implementation of economic instruments in the CDM.

The first group includes the private sector that can be divided into industries related to the generation and distribution of energy, such as thermoelectric generation, petroleum, carbon, cement and steel; transformation industries that use fossil fuels; and, forest related industries. This first group also includes industrial associations, which are important for their summoning power and their ability to direct sectoral agreements. NGOs are also part of this first group, although they have yet to get involved in CDM related activities.

The second and third groups consist of government entities, some industrial associations, and some NGOs that currently participate in the climate change debate and have already carried out activities related to the CDM.

· PROFILES OF ORGANIZATIONS INTERVIEWED

Initially, the entities that lead the process of ratifying the Kyoto Protocol in Colombia were interviewed. These include: the Ministry of the Environment; the Chancellery; the National Planning Department; the Hydrology, Meteorology and Environmental Studies Institute (IDEAM) and the Mining and Energy Planning Unit.

Entities that actively participate in the climate change debate were also interviewed: the Agriculture and Rural Development Ministry; industrial associations such as the Colombian Petroleum Association, the Colombian Coffee Federation and the Colombian Association of Reforesters; as well as funds for the financing of environmental activities such as Ecofondo; and NGOs such as the Natura Foundation and Conservation International.

Also interviewed, were those entities that are interested in the development of activities related to the Kyoto Protocol, but currently lack the capacity to participate. These include: the Ministry of Transportation; the Ministry of Economic Development; and the Attorney General.

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

Without exception, all interviewees would participate in CDM activities if the Kyoto Protocol comes into force. The highest priority activities identified by those surveyed were capacity building under the CDM, followed by institutional capacity-building which includes the establishment of criteria for the development of projects and their corresponding baselines. It is important to note that all institutions expressed the need for capacity building and for additional resources to carry out CDM activities.

Clearly, there is a need for broader participation in discussions, implementation, and project development. Considering that capacity building was the type of assistance most requested, some key recipients would include industrial associations and enterprises in the extractive, productive and forestry sectors. Resources must also be offered in order to bring together staff that is capable of developing activities and modelling projects for industry as a whole. Another level of capacity building should be targeted at government entities involved in climate change related activities. This type of capacity building would help to develop leadership that could channel the private sector's initiatives, as well as regulate and promote them.

· **IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM**

The greatest problem faced is a lack of knowledge concerning the CDM. This deficiency means that institutions do not make sufficient investments in staff or in training. Survey respondents revealed that there are few or no professionals within their institutions who work exclusively on activities related to the Kyoto Protocol. Therefore, work on specific aspects of climate change tends to be undertaken by specialists or students working on contracts. The only exception appears to be IDEAM, which has a team dedicated to the National Communication. Apart from IDEAM, the only other Colombian institution dedicated to the study of climate change related activities is the Andean Center for Economics in the Environment.

Other activities, such as joint implementation, activities implemented jointly, and emissions trading, have not been developed in Colombia, nor have resources been directed towards this objective.

· **THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING**

As revealed by the survey, there are two areas where capacity-building should go further: i) capacity-building related to the Kyoto Protocol and its mechanisms; and ii) capacity-building related to the CDM, its advantages and the means to formulate and develop projects under this mechanism.

One of the key targets audiences for capacity building related to the implementation of the Kyoto Protocol is the government institutional framework that should respond to obtaining the country's potential benefits from participation, and to the obligations assumed. In this respect, the Ministry of the Environment and the Chancellery should strengthen their own capacity-building programmes in order to involve and inform relevant public institutions on a continual basis. In particular, institutional capacity building should be directed to assuring efficiency and effectiveness at the national CDM office in the evaluation and approval of projects. A key element which can support capacity building related to the Kyoto Protocol and the CDM is the network of NGOs and centers of excellence that are currently involved in the field. These institutions will work in association with private entities in an effort to formulate projects relevant to companies grappling with climate change. Such projects - perhaps in collaboration with industrial associations - should focus initially on promoting the mechanism.

The second key target audience is the productive sectors that will be actively involved in the formulation, development and execution of CDM projects. In Colombia, the productive sector will take the lead in identification and development of mitigation projects. Although a great deal of interest was generated by the NSS, the regulatory uncertainty associated with the KP and the CDM, along with the complexity of project formulation, validation, and certification, has left the productive sector with questions and uncertainties on how to proceed efficiently and effectively.

· **THE MOST NEEDED TOOLS**

Among activities that have contributed to building capacity in Colombia, the most important have been ministerial meetings, followed by senior executive seminars. Other institutions have built their capacity independently, in order to be ready when decisions related to the Protocol have to be taken. Activities that have been least utilized are negotiation skills training and support for adaptation activities. In general, all the institutions have shown keen interest in receiving training on negotiation skills training and also on modern project evaluation techniques. Private entities consider such training to be a means for taking better advantage of the projects they become involved in. Government entities will direct this training to improve their participation in international negotiations.

In order to evaluate the activities that are perceived most useful for improving the country's capacity, the opinions from each organisation were ranked according to the priority that was given to each of the capacity-building activities. The results show that the most required activities are technical assistance for project formulation, followed by negotiations skills training.

It is notable that the two activities deemed most useful, have also been the least used; this is due to insufficient funds and/or information. It appears that high-level negotiation skills training, coupled with a wider participation from industry and government members in activities related to the Kyoto Protocol are both necessary. In addition, interviews with institutions indicate that a lack of new capacity-building proposals is probably due to the deficiency of information on new opportunities offered by the CDM and the uncertainty of the international negotiations process.

With respect to the sources of funding for capacity-building activities to date, multilateral entities are the largest contributors. The World Bank has directed the largest amount of resources towards this goal, followed by the Global Environment Facility (GEF), the Inter-American Development Bank (IDB) and the United Nations Development Programme (UNDP).

At the national level, the main source of funding is the government. The second most generous source of national funding has been investors in small local feasibility studies. Conversely, the least generous contributors were national banks and institutions that deal with commercial credit. Clearly, a major problem is the lack of a direct relationship between project investors and credit entities due to deficiency in available information and capacity in the latter.

· **THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING**

The most appropriate criterion for measuring successful capacity building is the number of successful projects carried out. A proxy could be the amount of financial resources that have been destined towards projects related to the CDM. Other indicators that can be adopted to measure the effectiveness of capacity-building activities in

the country are:

- The establishment of organisations to deal with assessment in the formulation of projects, and their evaluation and approval inside the country
- The development of a group of companies and organisations who would promote the Kyoto Protocol and its mechanisms, and also invest resources to develop activities related to this field

· **THE LINKAGES BETWEEN CAPACITY BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND THE NATIONAL DEVELOPMENT STRATEGIES**

The two most important activities in this respect are establishing in-country operating entities to monitor, evaluate and certify CDM projects, and to create a single national entity to coordinate the review and approval of such projects. These two activities are also useful because the operating entities would help build capacity in other institutions around the country.



COSTA RICA

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· **KEY AREAS AND LEVELS FOR CAPACITY BUILDING**

All interviewees expressed a keen desire to participate in activities related to the CDM if it becomes operative. The following is a list of activities, in order of preference:

1. Activities that increase knowledge about CDM
2. Development of criteria to evaluate CDM projects
3. Development of baselines
4. Eligibility process of projects
5. Evaluation, monitoring and certification
6. Emission of CER

· **THE MOST NEEDED TOOLS**

The most needed capacity-building tools were determined based on the priority given to each by those interviewed. Those considered indispensable in the capacity-building programme were those that were mentioned the greatest number of times as being the highest or of high priority. The following activities were selected by 40 % of the persons interviewed:

- Training in negotiation tools
- Interest Group workshop and meetings
- Development of human resources
- Support for adaptation activities and better decision-making

Activities qualified as medium priority - mentioned by a third of those interviewed - were capacity building under CDM and conferences for high-level executives.

It is interesting to observe that institutional capacity-building activities and capacity building under CDM were not among those categorised as highest priority. This might have been expected, given that these constitute the next phase in the implementation of the flexible mechanisms under the Kyoto Protocol. Moreover, this might be explained due to a perception that the country “is ready”; particularly given the experience, institutional structure, judicial framework, and financial mechanisms created during the pilot phase of activities implemented jointly (AIJ). Indeed, these two lines of activities were only mentioned as highest and high priority by 20 % and 33 % of those interviewed, even though they are considered very important for the country’s activity in terms of the Kyoto Protocol.

With regard to the financial sources that are currently important in funding the capacity-building activities, the most important sources are, in order, government funds, the multilateral cooperation agencies' funds (GEF, UNDP), bilateral cooperation funds (Norway, Holland, USA), private developers, the World Bank, and funds from foundations and NGOs. A significant portion of funding comes from the government (which reveals the priority assigned to these matters by the state). Indeed, a fundamental support for the financial mechanism that operates in the country lies in Costa Rica's gas tax. The weight of the financial cooperation that is channelled through international NGOs is significant. As can be appreciated, it is greater than the importance given to funding from the regional and national banks, UNEP and investing companies.

In relation to important financial sources in the country, some of the people who were interviewed mentioned the need for a multilateral cooperative institution to act in a concerted manner in these areas. The independent actions of some agencies UNEP, UNDP, GEF for example- were thought to duplicate efforts, to lead to a waste of resources, and to narrow visions of a problem that due to its nature requires a holistic approach.

· **THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING**

The majority of those interviewed agreed on the need to strengthen political and diplomatic action on projects for forest conservation and natural regeneration of the forest under the CDM. Excluding these projects would drastically reduce the attractiveness and potential for the CDM as a mechanism for facilitating compliance with the Kyoto goals.

A large number of those interviewed insisted on the need for better dissemination of information about the negotiation process during the Conferences of Parties (COPs). It is considered fundamental that actors already involved in the process and other actors from the private sector, public entities, and NGOs, obtain sufficient information for formulation, revision, approval, certification, and negotiation of future CDM projects. Special emphasis was placed on the necessity to carry out and facilitate access to studies about the potential behaviour of future supply and demand of certified emissions reductions. Such studies would ensure that the economic agents have enough information to evaluate the feasibility of potential projects and to gauge the potential of the future market.

This would constitute an important element of an international marketing strategy and for possible strategic alliances with other countries for attracting high quality and profitable CDM investments.

Additional efforts to diffuse information are needed to amplify basic and applied research on the Kyoto Protocol, both from an environmental and financial point of view. Additional capacity-building resources could be channelled through the existing base of academic institutions, specialized NGOs, and research centers in the country. In order to amplify these efforts, it is necessary to translate more materials into Spanish, so as to facilitate access by the general population.

In the design of capacity-building activities, it is necessary to identify with greater precision, the demand for specific capacities of public officials, according to their level of decision-making, their particular field of work, and the character of their functions. This is also needed with respect to other actors such as non-governmental entities or private enterprise. These different needs must shape the contents and different methodological strategies in order to make the initiatives more effective, efficient and cost-effective.

· **THE LINKAGES BETWEEN CAPACITY BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND THE NATIONAL DEVELOPMENT STRATEGIES**

As for measures that would be appropriate at the country level to implementation of the Kyoto Protocol, respondents prioritized these as follows:

- 93% considered that information dissemination about advantages of the Kyoto Protocol would be most useful.
- 93% mentioned training in modern financial techniques for projects
- 87% mentioned the creation of national coordination entity for revision and approval of projects of operative entities for monitoring, evaluating, and certifying CDM projects
- 67% strengthening of National Excellence Centers and
- 60% regional Coordination of Excellence Centers

CUBA

Summary based on the country report prepared by the country investigator: Mr. Modesto Fernandez, Ministry of Science and Technology, Havana, Cuba, Phone: 5307670598.

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

From a total of fifteen interviewees, thirteen (87%) declared to be actively involved in the CDM debate. This same number expects to have some future involvement should the CDM become operative.

Of the organisations interviewed, eleven (73%) expressed interest in participating in CDM advocacy and awareness raising. However, nine of them cautioned that they would need additional capacity to do so. An even greater number expressed interest in the development of criteria for CDM projects - thirteen (87%) - of which eleven would require additional capacity. The determination of CDM project baselines also interested ten (67%) of the organisations surveyed; eight of which expressed a need for additional capacity.

The analysis of CDM project eligibility caught the attention of nine (60%) organisations, seven of which would require additional capacity. A smaller number five (33%) were interested in CDM project verification, monitoring and evaluation; four of this number would require additional capacity. Finally, only three (20%) organisations were interested in participating in the certification of emission reductions (CERs), and all of them would require additional capacity.

· IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM

The surveyed institutions have a total of 1674 professionals. Of this number, only 53 (approximately 3% of them) work on issues related to climate change, mainly on issues related to the Kyoto Protocol. Of this number, 48 (representing 91% of the total number of professionals working on climate change issues) work on these issues on a part-time basis.

There was a broad lack of response to a survey question related to the question of adequate capacity for other Kyoto Protocol issues. This appears to signal a lack of interest by developing countries in the Protocol. One institution indicated that it does not have the necessary capacity to analyze joint implementation issues. Regarding emission trading, only two organisations were informed about this issue, and only one of these felt that it had adequate capacity to follow the subject.

· THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

In an attempt to broaden the knowledge of key actors in the process for capacity building, government participants in the survey supplied 23 contacts, industry offered 4, while NGOs provided 7.

· THE MOST NEEDED TOOLS

Question 17 of the survey attempted to identify activities that have helped to build capacity in the organisations. The responses yielded the following results:

- Fact sheets and briefing packages (60%)
- Support for national communications (60%)
- Development of human resources (by 33%)
- Ministerial meetings (33%)
- Negotiation skills training (20%)
- Support for adaptation activities (20%)
- Senior executive seminars (13%)
- Institutional capacity building (13%)
- Capacity building under the CDM (13%)
- Technical assistance (7%)
- Workshops and stakeholder dialogues (7%)

When asked about the most popular sources of funding, a number of respondents neglected to distinguish these sources on the basis of their importance. This seems to owe to a lack of knowledge on the matter.

At the national level, government funds were considered the most important for eight (53%) of the surveyed organisations. At the intergovernmental level, UNDP, GEF, and UNEP, were important sources for nine (60%), seven (47%) and five (33%) institutions respectively. Among bilateral sources, bilateral aid agencies were considered important by five organisations (33%), while foundations and NGOs were cited by four institutions (27%).

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

Several organisations in Cuba have been working to identify concrete problems that could be solved through the CDM, as well as possible mitigating measures that should be considered by this mechanism in the future.

Regarding the former, work is being developed in relevant areas, giving national priority to energy related projects. Cuba depends on thermoelectric plants that burn imported oil as fuel, due to its own lack of significant water masses or rivers that could be used for the production of hydraulic energy. Hence, the search for alternative and renewable energy sources that are also more ecologically acceptable is a priority for the country.

As a large sugar producer, Cuba grows more than one million hectares of sugar cane every year. The harvesting, milling and extraction of sugar yields a large volume of biomass. This valuable material is traditionally disposed of as a waste product, but might be used for energy production.

It would appear that future CDM projects would have higher priority if they were aimed at the development of renewable energy sources, at substituting for fossil fuel consumption, or at elevating the energy efficiency of those enterprises that are currently very intensive consumers of fossil fuels.

Cuba is the only country in the world that has been able to stop the deforestation process in the last 40 years. Indeed, Cuba's forest area increased from 14% of the national territory to 21% this year.

Potential has been identified regarding forests that could represent important carbon sinks. This is a fact that has to be evaluated in the event that forests are included in the CDM.

· THE LINKAGES BETWEEN CAPACITY BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND THE NATIONAL DEVELOPMENT STRATEGIES

The creation of a single national entity to coordinate the review and approval of CDM projects was considered important by thirteen out of the fifteen organisations surveyed. In fact, ten respondents deemed this activity to be very important. Strengthening national centers of excellence was qualified as important by ten organisations, six of which saw it as very important. Regional coordination among centers of excellence was important to eight (53%) of those interviewed. Establishing in-country operating entities for monitoring, evaluation and certification of CDM projects was considered important by twelve organisations (80%), eight of which considered it to be very important. The survey yielded similar levels of interest in the establishment of in-country or regional capability to train local project developers in modern project finance techniques. Meanwhile, providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol was categorised by eleven organisations, as important to very important. Regarding other activities, one interviewee identified training on assessment techniques for the emissions trading market as very important.

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GUATEMALA

Summary based on the country report prepared by the country investigator: Eduardo Dopazo, GCC, dopazoremis@gua.gbm.net.

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

Of the twenty-two Guatemalan entities that were surveyed, some 60% are currently involved in the CDM debate. A full 86% professed to be interested in becoming involved in the future implementation of the mechanism. More specifically, the entities identified the following activities as key areas for participation:

1. Determination of CDM project baselines (71%)
2. Development of criteria for CDM projects (67%)
3. CDM project verification, monitoring and evaluation (67%)

The following were deemed to be key areas where capacity building is necessary:

1. CDM project verification, monitoring and evaluation (67%)

2. Determination of CDM project baselines (67%)
3. Development of criteria for CDM projects (62%)
4. CDM advocacy and awareness raising (62%)

An important qualification to these figures should be added; several governmental and non-governmental institutions displayed a lack of clear understanding about the consequences and implications of the UNFCCC negotiations in relation to those institutions.

While the government sector views the climate change issue as an opportunity to attract funds to develop policies on energy and land use areas, the private sector entities perceive the CDM as a tool to accelerate the incorporation of new technologies and financial resources to raise the standards of several sectors (forestry, renewable energy, energy efficiency). Meanwhile, NGOs are particularly interested in preventing deforestation and directing resources towards protected areas.

· IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM

The most obvious areas where expertise is lacking are:

1. Implementing adaptation measures
2. Planning and introducing early warning systems
3. Implementing mitigating measures
4. Planning and establishing research and systematic observation systems

It is clear that the greatest lack of experience is in the warning-adaptation-mitigation chain. All these activities require a certain technical level of expertise and also require coordination between several institutions. Accordingly, both technical expertise and coordination matters are issues that should be taken into account to develop capacity-building strategies.

· THE KEY TARGET AUDIENCES FOR CAPACITY-BUILDING

According to the Guatemalan experience, the target groups should be:

Government sector (policy makers):

- Energy Sector
- Forest Sector
- Economic Sector

Private sector (decision makers):

- Energy sector
- Forest Sector
- Industrial Sector

Academics and NGOs: These are key actors to disseminate capacity

Negotiators: Require training programmes

· THE MOST NEEDED TOOLS

According to the responses, the activities that contribute most to capacity-building in Guatemala are:

1. Fact sheets and briefing packages (81%)
2. Workshops & stakeholder dialogues (71%)
3. Senior Executive seminars (52%)

The activities that most require expansion are:

1. Capacity-building under the CDM (4)
2. Ministerial meetings (3)
3. Workshop and stakeholder dialogues (3)

Regarding the types of capacity-building activities that should be expanded within the country, the priorities expressed by the respondents in Guatemala are:

1. Negotiation skills training (16)
2. Technical assistance (14)
3. Capacity-building under the CDM (12)

Among the national and international organisations identified as potential sources for funding, the most important are:

- The national government
- The World Bank
- The GEF and others

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

Due to the small number of responses to this particular portion of the survey, it was impossible to produce comprehensive criteria. However, the following are examples of those criteria that emerged:

1. Preparation and participation of entities coming from different sectors in the Kyoto Protocol negotiations
2. Active participation of different entities to develop CDM projects
3. Number of people qualified to participate at the different stages of the process
4. Number of projects effectively undertaken
5. Coordination between actors of different sectors

The linkages between capacity building needed to advance the objectives of the Kyoto Protocol and the respondents answered national development strategies in the following order:

1. Establishing in-country operating entities for monitoring, evaluating & certifying CDM projects was mentioned (20%);
2. Establishing in-country or regional capability to train local project developers in modern project finance techniques (19%)
3. Providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol (18%);and
4. Creation of a single national entity to coordinate the review and approval of CDM projects (17%).

MEXICO

Summary based on the country report prepared by the country investigator: Sergio Sánchez, jmartine@chajul.ine.gob.mx, wvergara@worldbank.org, J.Martinez (52 56 24 35 46) and Edmundo de Alba edeaa@servidor.unam.mx, edeaa@proviyi.net.mx, Phone: (52) 56 22 52 04/ 52 559 53 873 , Fax: 52 56 68 01 24.

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

Nearly 80% of the Mexican interviewees (18 in total) declared to be currently involved in the CDM debate. Almost 90% are aware of the opportunities and have expressed their intention to participate in the future implementation of the mechanism, primarily through the following activities:

- Determination of CDM project baselines (89%)
- CDM advocacy and awareness raising (83%)
- Development of criteria for CDM projects (83%)

Additional capacity for future participation is perceived to be needed in the following cases.

- Development of criteria for CDM projects (78%)
- Determination of CDM project baselines (78%)
- Analysis of CDM project eligibility (78%)

In future, it is expected that participation will broaden to cover all topics related to the CDM. But, in virtually every case, extra resources are required. Although the negotiation process of the Kyoto Protocol included many stakeholders, it appears that transnational corporations such as ILUMEX do not plan to continue following the debate at the international level. Four other entities have signalled that they do not plan to broaden activities related to the Kyoto Protocol.

· IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM

Mexican entities appear to have a serious lack of experience in the following fields of expertise:

- Implementing adaptation measures but 22% only declared to have some experience.
- Planning and establishing research and systematic observation systems but 28% only declared to have some experience.
- Planning and introducing early warning systems but 28% only declared to have some experience.

Notably, most of these are adaptation-related activities, which require a certain level of technical expertise and cannot be considered as a necessary requirement for all institutions. Regarding other Kyoto Protocol issues, more than half of entities surveyed did not have adequate capacity to actively follow the debate on Joint implementation (50%) and Emissions Trading (56%) issues.

The proportion of personnel working on climate change with respect to the total is approximately 1%. However, this figure is seriously distorted due to the fact that the surveyed division of PEMEX has 12,500 staff. Without PEMEX, the proportion is closer to 5%. The largest proportion of personnel working on climate change (60%) is deployed only on a temporary basis. Government entities had the largest proportion of staff devoted to the subject on a full-time basis.

· THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

The programme's main target groups are:

1. Decision makers at the public, private and social sectors
2. Industrial and professional organisations with multiple capacities
3. Research and academic centers, as well as NGOs, with multiple capacities
4. Training of negotiators (project level) and support units for specific projects.

· THE MOST NEEDED TOOLS

To date, out of the 18 entities interviewed, the most useful activities contributing to capacity-building in Mexican organisations have been considered very useful:

- Institutional capacity-building (by 12 of them)
- Workshops & stakeholder dialogues (by 12 of them);
- Technical assistance (by 9 of them).

Very important capacity-building activities that should be broadened throughout Mexico are:

1. Technical assistance
2. Institutional capacity-building
3. Support for improved decision-making
4. Workshops and stakeholder dialogues

Currently, the perceived most important sources of funding are: bilateral aid agencies, the Mexican Government, the World Bank and the GEF.

The Mexican institutions that participated in the survey consider that the support for decision-making and technical assistance are key activities for the improvement of the national capacity to participate in the Protocol's mechanisms. Other activities identified as important are: information for decision making; the creation of national entities for monitoring, verification and certification of projects of the CDM mechanism; and the consolidation of the Mexican National Office in charge of the approval and follow-up of the CDM projects.

The present capacities of Mexican institutions have been developed - in large part - due to activities of human and institutional development, access to concise information on the Protocol and thanks to financial support from government, the World Bank and GEF. Private sector organisations have relied entirely on their own resources.

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY-BUILDING

Useful indicators for assessing successful capacity building in Mexico include:

- Larger awareness and participation of all kind of entities and sectors in the preparation for the Protocol negotiations
- Larger participation of all kind of entities and sectors in project preparation and implementation
- Number of certifiable projects
- Number of people with adequate knowledge for project implementation and for supervision at the national level
- Enhanced information exchange between stakeholders at the national and international level

In harmony with the regional results, the Mexican survey points to the following elements of a proposed Regional Programme for Institutional Development:

1. Priority topics for the Programme:

Training on:

- Operative schemes of the CDM
- Methodologies for project formulation within the flexibility mechanisms
- International market analysis for allowances and certificates for the CDM
- Strategies for negotiation and commercialization of projects

2. Programme main target groups:

- Decision-makers at the public, private and social sectors
- Industrial and professional organisations with multiplication capacity
- NGOs, Research and academic center, with multiplication capacity

- Training of negotiators (project level) and support units for specific projects.

3. Programme Modalities:

In addition to the usual modalities of an institutional development programme, the regional programme should include:

- Alternative modalities and experiences for the design, preparation, negotiation and implementation of pilot projects.

4. Research Subprogramme:

Due to a lack of key information it is suggested that the following types of activities be included within a research subprogramme covering specific and regional information needs:

- Studies on the competitive advantages enjoyed by different productive sectors
- Research on market prices for the commodities of the flexibility mechanisms
- Methodologies for establishing baselines and mechanisms for monitoring (particularly for projects involving sinks which are typical of the region)
- Design and implementation of pilot projects, particularly in sectors where there is key potential for mitigation of GHG.

· THE LINKAGES BETWEEN CAPACITY-BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND THE NATIONAL DEVELOPMENT STRATEGIES

The following activities were deemed to be most important by the respondents:

1. The creation of national entities for monitoring, verification and certification of projects of the CDM mechanism (83%)
2. Information for decision-making (72%)
3. The consolidation of the Mexican National Office in charge of the approval and follow-up of Kyoto Protocol projects (72%)

The surveyed institutions in Mexico consider that support for decision-making and technical assistance are key activities for the enhancement of national capacity for participation in the Kyoto Protocol. It also appears that most of the entities surveyed are interested in specific aspects of the Kyoto Protocol.



PARAGUAY

Summary based on the country report prepared by the country investigator: Mrs. Celeste Avecedo and Sheila Abzad (IDEA), jpinazzo@mmail.com.py, jpinazzo@highway.com.py, Phone: (59521) 585610/595 21 614 619.

Paraguay have the specific feature to fall under the description contained in Article 4 of the United Nations Framework Convention on Climate Change, namely is a country with arid and semi-arid areas, forested areas and areas liable to forest decay areas liable to drought and desertification and land-locked and transit territory

· KEY AREAS AND LEVELS FOR CAPACITY BUILDING

Of the fifteen organisations that participated in the survey, 94% are actively partaking in CDM related activities in Paraguay. Only one institution answered that it wasn't involved in related activities and would not be in the future.

When asked which areas they would become involved in if the CDM became operative, more than 50% of respondents indicated a willingness to participate in the development of criteria for CDM projects and the determination of CDM project baselines. A further 80% of the institutions would participate in CDM advocacy and awareness raising. Less than 50% expressed interest in CDM project verification, monitoring and evaluation and in the certification of emission reductions (CERs).

More than 40% of the institutions expressed a need for additional assistance, with almost 70% needing support for activities related to the development of criteria for CDM projects and for CDM advocacy and awareness raising.

· IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM

It was discovered that less than fifty professionals have experience in climate change work. Moreover, a large percentage of this group is concentrated in areas related to the Kyoto Protocol (particularly, its mechanisms, negotiations, strategic unions and capacity-building). It is also important to note that a large proportion of these professionals hail from the NGO sector.

Government institutions appear to have specific expertise in the areas of adaptation, mitigation and vulnerability. Several areas where there appears to be no experience include: systematic observation and investigation systems; early alert systems; and aspects related to planning and implementing climate change related activities. These results might have varied somewhat, had the Meteorology Institute been able to participate in this survey.

The survey did not yield sufficient results to assess the country's capacity to participate in joint implementation and emissions trading activities. Not all respondents indicated a willingness to implement these activities, however a fuller picture could be obtained by consulting a broader range of organisations in Paraguay.

87 % of respondents have plans to broaden their activities in order to address the mechanisms contained in the Kyoto Protocol. Of these, some 80 % would need to strengthen their capacity in order to broaden such activities.

· THE MOST NEEDED TOOLS

An indication of the perceived most needed tools can be seen in the following answers classified by ranking order from the views expressed by respondents:

1. Workshops and stakeholders dialogues (73%)
2. Fact sheets and briefing packages (53%)
3. Institutional capacity building (47%)
4. Human resources development (47%)
5. Negotiation skills training (33%)
6. Technical assistance (33%)
7. Capacity-building under the CDM (33%)
8. Support for improved decision-making (27%)
9. Support for national communications (27%)
10. Support for adaptation activities (13%)
11. Technology transfer (13%)
12. Ministerial meetings (13%)

As can be seen, the activities that normally pertain to the government such as ministerial meetings, technology transfer, adaptation activities and national communications, occupy the lowest priority levels. Activities that are common in non-government sectors such as workshops and stakeholder dialogues; fact sheets and briefing packages; and institutional capacity building, occupy the top rankings. These results should be used as a guide, not as a conclusive statement, on the needs for capacity-building in Paraguay.

The sources of funding (in order of importance) for this process have included NGOs, the World Bank and bilateral sources (including government funds), investment companies, and UNDP funds.

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

The following list offers a number of new research areas, projects and programmes that were identified in the interview process:

- Strengthen the private sector's capacity to deal with the CDM
- Identify, pre-design, and pre-evaluate two or three projects to show the viability such projects have in producing CERs
- Carry out a national strategic study to determine Paraguay's potential as a CER producer
- Design a national strategy for the implementation of the CDM, emphasizing the socio-economic aspects and implications of the mechanism in Paraguay
- Revise the national standards and procedures to carry out projects in accordance with CDM needs
- Design a national fund to administer financial resources generated in activities related to the Kyoto Protocol's flexibility mechanisms
- Include the procedures of the National Joint Implementation Commission in a database

- Train professionals at the national and international level in the preparation of projects to generate CERs
- Publish and make available the current state of activities related to climate change from a national and international level
- Investigate methodologies pertaining to the implementation of the CDM in Paraguay
- Follow-up on international advances regarding the CDM and actively participate with technical and political contributions

THE LINKAGES BETWEEN CAPACITY BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND THE NATIONAL DEVELOPMENT STRATEGIES

When asked about the importance of establishing in-country operating entities for monitoring, evaluating and certifying CDM projects, more than 70% responded that this would be very important in facilitating the implementation of the Kyoto Protocol. Likewise, 70% indicated that it would be very important to establish in-country or regional capability to train local project developers in modern project finance techniques to simplify implementation. More than 65% of those surveyed deemed the creation of a single national entity to coordinate the review and approval of CDM projects to be very important. Meanwhile, 45% considered strengthening national centers of excellence to be a very important activity for facilitating the implementation of the mechanisms in Paraguay. Lastly, 40% of institutions considered the provision of information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol to be very important.



JORDAN

Summary based on the country report prepared by Al-Shamil Engineering Office. Country investigator, Dr. Abdul Aziz Weshah, Amman, Jordan, P.O. Box 1075 Al-Jubaiha 11941, Amman - Phone: 962 6 5347 516, Fax: 962 6 5333585, shamil@joinnet.com.jo.

Jordan is one of the leading countries in the Middle East in the field of environment protection. Governmental attention and efforts to safeguard the environment, although distributed under several agencies, began as early as the formation of Jordan's central government. This attention has been reflected in various laws, mandates and regulations issued over the years. For instance, in 1981 the Environment Department within the Ministry of Municipalities and Rural Affairs was established. In the early nineties, the need for institutionalising environmental activities was recognized, and the first Environmental Protection Law (No. 12) was issued in 1995. According to this law, the General Corporation for Environmental Protection (GCEP) was established in 1996 as the central body responsible for coordinating and regulating the environmental aspects of various activities. Since then, GCEP has been active in formulating the mandates, regulations and environmental codes necessary to protect the environment. Several of these, covering a wide area of environmental issues ranging from marine life to dangerous wastes to air quality, are presently in force. It is also notable that the NGO sector in Jordan is also very active in the field of environmental protection. Currently, there are five societies acting in the field, with particular emphasis placed on public awareness activities.

As part of its commitment to the protection of the global environment, Jordan signed the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 at the Rio Earth Summit. Jordan ratified the Convention in 1996, and soon after, the project of building capacity for GHG Inventory & Action Plans in Response to UNFCCC Communications Obligations was initiated. In fact, Jordan was the first non-Annex 1 country to successfully complete its National Communication in March 1997. This National Communication was subsequently revised in November of 1998.

· PROFILE OF ORGANISATIONS INTERVIEWED

In cooperation with GCEP and in its capacity as IPCC Focal Point, fifteen institutions with close links and/or interest in the climate change issues were identified. These institutions were distributed as follows:

- Six government institutions (including key ministries involved with climate change policies such as the Meteorological Department, the Ministry of Energy, the National Electricity Power Company and the GCEP).
- One business institution (Central Electricity Generating Company)
- Five academic institutions (such as the Hashemite and the Jordan Universities)
- NGOs including the Jordan Society for Desertification Control and Badia development.

· KEY AREAS FOR CAPACITY BUILDING

The most important areas identified were: CDM advocacy and awareness raising (47%); development of criteria for CDM projects and determination of CDM project baselines (53%); and analysis of CDM project eligibility (40%). Notably, only 27% of the surveyed institutions were active in CDM debate.

· IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM

A clear gap exists in the fields of understanding joint implementation and emission trading issues. More than 93% of the institutions surveyed do not have adequate capacity for the former, and 100% of these institutions do not have adequate capacity to follow for the latter.

Gaps were also identified in the following domains of expertise: implementing adaptation and mitigation measures (only 6% of the surveyed institutions have experience); planning and introducing early warning systems (only 6% have experience); and, analyzing implementation issues related to the Kyoto protocol (0% have experience).

· THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

Three main audiences were identified: first, policymakers and decision-makers in the environment, energy and agricultural sectors; second, senior executives in the environmental institutions and individuals responsible for environmental issues in governmental and private sector institutions; third, members of civil society and NGOs, which, although active in environmental issues, have focused little attention upon climate change.

· THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

Three main audiences were identified: first, policymakers and decision-makers in the environment, energy and agricultural sectors; second, senior executives in the environmental institutions and individuals responsible for environmental issues in governmental and private sector institutions; third, members of civil society and NGOs, which, although active in environmental issues, have focused little attention upon climate change.

· THE MOST NEEDED TOOLS

Because of limited budgets allocated to the environmental activities in Jordan, all concerned entities have faced difficulties in acquiring the needed expertise and equipment. Consequently, introducing financing mechanisms and establishing working relations with international financing institutions is most important.

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

The success of capacity building may be measured through monitoring the degree of country involvement in adaptation and implementation activities - since, at present, there are no such activities in place.

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LEBANON

Summary based on the country report prepared by the Lebanese University Faculty of Sciences II, Department natural Science, Beirut, Lebanon. Country Investigator: Dr.Samir Safir ssafi@ul.edu.lb.

On December 15, 1999, the Government of Lebanon approved its Act of Ratification. Being legally included as a Party of the conference implies that Lebanon is bound to the rights and obligations stipulated in the convention. One of these obligations is to communicate actions taken to mitigate climate change. In order to properly address climate change issues, the State Ministry of Environment established a national team on Climate Change. Members of this team include representatives from sectional departments related to environment.

· PROFILE OF ORGANISATIONS INTERVIEWED

Fifteen institutions with close links and/or interest in the climate change issues were identified. These institutions were distributed as follows.

- Five government institutions (including key ministries involved with climate change policies)
- Five business institutions (including Electricity de Liban, Lebanese Concrete Company and Gas de Liban).
- Five academic and NGOs (including Lebanese University, Lebanese Association for Energy Conservation and the Environment Information Center, Society for the Protection of Nature).

· KEY AREAS FOR CAPACITY BUILDING

Only 13% of surveyed institutions were active in CDM debate. The most important areas for capacity building were: CDM advocacy and awareness raising (67%); development of criteria for CDM projects, determination of CDM project baselines and analysis of CDM project eligibility (all 73%).

· IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM

A clear gap exists in the fields of joint implementation and emission trading issues. More than 93% of the institutions surveyed declared that they do not have adequate capacity to follow these issues.

There are also gaps in the following domains of expertise: analyzing regulatory issues and developing joint ventures (only 6% of the surveyed institutions have experience); planning and introducing early warning systems (6%); screening and selecting adaptation strategies (6%); and, analyzing implementation issues related to the Kyoto Protocol (0%).

· THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

The key audiences identified were: policymakers and decision-makers in the government, senior executives in the environmental institutions and, individuals responsible for environmental issues in the private sector institutions. As in the case of Jordan, Civil Society and NGOs should be encouraged towards greater involvement in climate change issues.

· THE MOST NEEDED TOOLS

Little use is made of the financing opportunities available and, as in the case of the other countries studied; improved financing mechanisms need to be established.

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

The success of capacity-building may be measured effectively through monitoring the degree of country involvement in adaptation and implementation activities - since, at present there are no such activities going on.

· THE LINKAGES BETWEEN CAPACITY BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES.

Since Lebanon is dependent on tourism and is particularly vulnerable to climate change, a commitment to sustainable development will require devoting of attention to environmental issues in general, and to climate change in particular.



SYRIA

Summary based on the country report prepared by the Country Investigator: Dr. Naffi Al - Shalabi, Director General by the Syrian Meteorological Department, Damascus, Syria, syr-meteo@mail.sy, Fax: 963 11 6620553.

In common with most other countries of the region, Syria faces serious environmental problems imposing difficult burdens on the promotion of sustainable development. The most pressing environmental problems are: soil erosion, water pollution from dumping of raw sewage and wastes from industries, deforestation and desertification.

Several governmental agencies are responsible for combating these problems. They include: the Ministry of Irrigation, Ministry of Agriculture, the water authority and the Ministry of Environment (which was formed to act as the main coordinator of efforts in the environment sector). Syria signed the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 during the Rio Earth Summit. Attempts to build capacity for GHG Inventory & Action Plans in Response to UNFCCC Communications Obligations were initiated in 1996.

Today, several environmental projects and activities are under way in Syria in cooperation with international parties. Extensive efforts were also made to compile GHG emissions by source and removals by sink as part of Syria's commitment to the protection of the global environment, and in response to UNFCCC Communications Obligations.

· PROFILE OF ORGANISATIONS INTERVIEWED

In cooperation with the Ministry of Environment in its capacity as IPCC Focal Point, fifteen institutions with close links and/or interest in the climate change issues were identified. These institutions were distributed as follows:

- Five government institutions (including key ministries involved with climate change)
- Eight academic institutions (such as the Damascus University)
- One Regional Local Authority, the Damascus City Water & Sewerage Authority.
- One NGO, the Arab Center for Semi-arid and Arid Regions Development

Information provided by these institutions show that less than 1% of the staff are working in climate change issues (9 individuals of 61).

· KEY AREAS FOR CAPACITY BUILDING

Some 53% of surveyed institutions declared to be active in CDM debate. The most important areas were: CDM advocacy and awareness raising (80%); development of criteria for CDM projects, determination of CDM project baselines and analysis of CDM project eligibility (all 73%).

· IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM

A clear gap exists to follow joint implementation and emission trading issues. More than 93% of the institutions surveyed do not have adequate capacity for the former and 100% of institutions do not have adequate capacity for the latter.

There is also a gap in the following domains of expertise: implementing adaptation and mitigation measures (only 20% and 13% of institutions, respectively, have experience); analyzing implementation issues related to the Kyoto protocol (6% have experience); planning and introducing early warning systems (6%); and, analyzing regulatory issues (6%).

· THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

Three main target audiences were identified. First, policymakers and decision-makers in the environment, energy and agricultural sectors. Second, senior executives in the environmental institutions and individuals responsible for environmental issues in governmental and private sector institutions. Third, members of Civil Society and NGOs (although they are active on some environmental issues, little of their attention is directed towards climate change as yet).

· THE MOST NEEDED TOOLS

These were identified as: establishing financing mechanisms; proper regulatory framework; and information database.

· THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

The success of capacity building may be measured through monitoring the degree of country involvement in adaptation and implementation activities - since, at present, there are no such activities in place.

· THE LINKAGES BETWEEN CAPACITY BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES.

During the national communication preparation in Syria, several (negative cost) mitigation options were identified. Implementing these options as a result of capacity-building will make a substantial contribution to national development efforts.

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YEMEN

Summary based on the country report prepared by the country investigator: Mr. Anour A. Nouman, Director by the Environmental Protection Department, P.O.Box 19719, Sana'a Yemen.

The Republic of Yemen strongly supports environmental issues. Yemen endorsed the UN Framework Convention on Climate Change at the Earth Summit in Rio de Janeiro in June 1992. The UNFCCC came into force in March of 1994. Yemen is ready to submit its initial communication, according to Articles 4 and 12 of the Convention, which will offer a national inventory of sources of greenhouse gases and its removal by sinks, identification of vulnerable sectors and actions to be taken for sustainable future socio-economic development with a small rate of increase in the emissions of greenhouse gases.

· PROFILE OF ORGANISATIONS INTERVIEWED

Fourteen institutions with close links and/or interest in the climate change issues were identified by the Yemen Environment Protection Council on behalf of Al-Shamil Engineering Jordan. These selected institutions fell into the three requested sectors:

- Four entities from the Government including key ministries involved with climate change.
- Five entities from the private/business sector, including The General Electricity Corporation, Yemen Gas Company, Eden and Marib Refineries and Yemen Concrete Company.
- Five entities from the NGO/academic sector such as Sanaa University or Nahl Environmental society.

• KEY AREAS FOR CAPACITY BUILDING

Only 13% of surveyed institutions declared to be currently active in CDM debate. If the CDM becomes operational, the most important areas cited for future desired involved were: CDM advocacy and awareness raising (46%); development of criteria for CDM projects (34%); and determination of CDM project baselines (34%).

• IMPORTANT GAPS AND MODALITIES NEEDED TO FILL THEM

There are also clear gaps to follow the joint implementation and emission trading issues. More than 93% of the institutions surveyed do not have adequate capacity for the former and 100% of institutions do not have adequate capacity for the latter.

There are also gaps in the following areas of expertise: implementing adaptation and mitigation measures (only 7% of the surveyed institutions have experience); analyzing regulatory issues (6%); analyzing implementation issues related to the Kyoto protocol (0%); and planning and introducing early warning systems (0%).

• THE KEY TARGET AUDIENCES FOR CAPACITY BUILDING

The following were deemed to be the key target audiences: policymakers and decision-makers in the government, senior executives in the environmental institutions and, individuals responsible for environmental issues in the private sector institutions. As in the case of other countries in the region, Civil Society and NGOs should be stimulated towards greater involvement in climate change issues. The Environment Protection Council and the two large universities were identified by 100% of the respondents as the key stakeholders on climate change.

• THE MOST NEEDED TOOLS

The most Needed Tools were: establishing financing mechanisms; proper regulatory framework; and information databases.

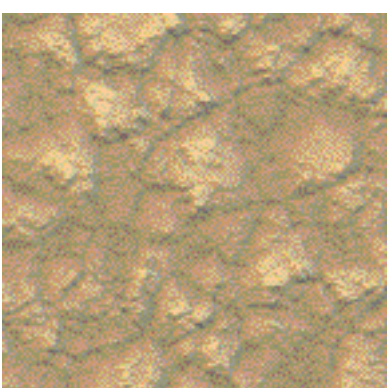
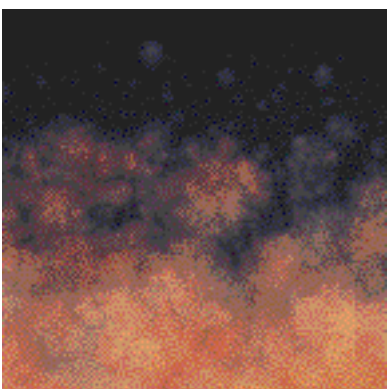
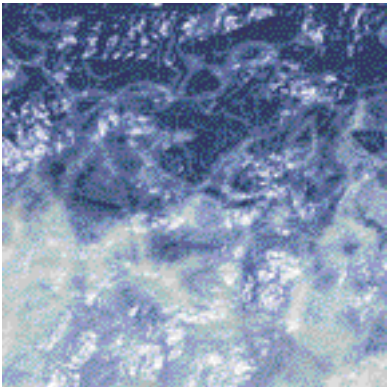
• THE MOST APPROPRIATE CRITERIA FOR ASSESSING SUCCESSFUL CAPACITY BUILDING

The success of capacity building may be measured through monitoring the degree of country involvement in adaptation and implementation activities - since, at present, there are no such activities in place.

• THE LINKAGES BETWEEN CAPACITY-BUILDING NEEDED TO ADVANCE THE OBJECTIVES OF THE KYOTO PROTOCOL AND NATIONAL DEVELOPMENT STRATEGIES.

Yemen is extremely vulnerable to climate change. Thus, a commitment to sustainable development will require devoting attention to environmental issues in general and climate change in particular. Over 90% of the organizations surveyed agreed on the importance of creating a national entity to coordinate CDM projects as well as the need to strengthen centers of excellence; 89% agreed on the importance of their coordination and of establishing in-country operating entities for monitoring, evaluation and certification of CDM projects.

Conclusion and Views on the Way Forward



Conclusions and Views on the Way Forward

Nearly all Parties to the UN Framework Convention on Climate Change (UNFCCC) agree that capacity building in developing countries is needed to facilitate the efforts of these countries to participate in international efforts to implement the Convention. Despite this broad agreement, the results of these initiatives (which ranged from short-term activities such as training workshops to long-term measures including conventional training programs) have been mixed. Therefore, additional efforts are needed to address the unmet needs. Conclusions from the Capacity Building Needs Assessment project include:

- Capacity building is necessarily a long-term process that requires dedication and patience from the full range of stakeholders involved in the process. It requires efforts from multiple actors, but full realization requires effective coordination among these actors. Capacity-building needs, however, differ among regions and between countries. One size does not fit all countries, all regions, or all stakeholder groups, which means that efforts are most likely to be successful if targeted to a specific, carefully identified audience.
- Addressing the capacity building needs of developing countries will require attention to strengthening both institutional and human capacities to respond to and manage the risks of climate change. Successful capacity-building efforts will require systematic attention to the problem of capacity retention and the provision of adequate resources to ensure that trained professional managers continue to address the challenges of climate change in these countries.
- Capacity building is “a two-way street,” producing significant “learning-by-doing” for all participants. The most effective learning occurs when capacity-building activities are incorporated into practical, development-oriented projects. They also yield maximum benefits when integrated into an overall, comprehensive development strategy.
- Capacity-building activities can be designed to “grow the business” of developing countries, and build on existing institutions to provide a basis for sustainable, environmentally sound, economic development.

In addition, the following insights emerged from our surveys and interviews:

- Increasing capacity-building activity is perceived as crucial for developing countries if these countries are to satisfy their obligations under the UNFCCC while contributing in their own way towards stabilization of the world’s climate. Capacity-building activities, if designed to improve local capability for responding to the challenges of climate change will also generate local, national and regional co-benefits.
- The views expressed in these surveys testify that previous and on-going capacity-building initiatives in these countries have produced only modest gains.
- However, many important opportunities are emerging for advancing capacity-building objectives through regional initiatives that involve existing institutions in developing countries.
- Countries at similar levels of development often have as much or more in common than countries that are nearest neighbors geographically.

- Although awareness about the climate change issue is high in most developing countries, understanding of the UNFCCC and the opportunities provided through implementation of the Kyoto Protocol is extremely limited.
- “One-off” activities including workshops, seminars, site visits can have valuable benefits in terms of introducing new cohorts of stakeholders to the climate change issue.
- Highest priority needs vary by development level among countries and by region.
- But in all regions, there is a clear preference for integrating capacity-building activities into the context of concrete projects that advance national development priorities.

In most African countries, in the countries surveyed in the Middle East, and in most Least Developed Countries, the highest priority need is to strengthen the ability of local institutions, both governmental and non-governmental, in their ability to train technical and professional staff to address the challenges that climate change will raise for national development policy. Much of this training can occur in the context of developing and implementing project-based activities.

In Latin America, in some parts of Asia, and in many middle income developing countries, capacity building is needed to support local institutions in the financing and implementation of commercial projects that bring together private sector interests in these countries with counterpart enterprises in industrialized countries.

In many middle-income developing countries and in some countries with the highest levels of emissions, there is a desire for capacity building to assist in the development of national capabilities to screen, evaluate, monitor, and approve project proposals.

Much has been learned from this bottom-up, country-driven process, but there is one principal over-riding lesson from the work: Capacity-building efforts that emphasize sharing of experiences and knowledge among developing countries, i.e., “South-South cooperation”, are an efficient, cost-effective way to maximize the benefits achieved from “learning by doing.” But the largest potential benefits of capacity building will come from programs of extended duration that strengthen regional, national, and local institutions and that emphasize capacity retention in the targeted countries.



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Questionnaire prepared by UNITAR with Consortium for North-South Dialogue with the support of
 Ronald A. Kingham, Director, Environment Resource Center Amsterdam

Survey for a Country-Driven Assessment of Capacity-Building Needs relevant to the Kyoto Protocol in Developing Countries (Non-Annex 1 Parties)

Region	Sub-Reg	Country	Org. No.

PART 1: Profile of your organization

No. 1 Please provide the information requested below concerning your organization and position.
 For telephone and fax numbers use the format: + country code, area code, number/s.

a. Name		n	In what year was your organization established?	
b. Position		o	Number of professional staff:	
c. Department		p	Full-time:	
d. Organization		q	Part-time:	
		r	Total:	
			Acronym of the organization	
e. Street Addr.	On-line data entry information:			
f. Postal Addr.			Data first entered on (date):	dd.mm.y
g. City			Data entered by:	
h. State			Name of surveyor:	
i. Country			Organization:	
j. Telephone			E-mail address:	
k. Telefax			Data system check:	
l. E-mail			Data last updated on:	dd.mm.y
m. Web-site			Data last updated by:	

No. 2 **Type:** Please put a number 1 in the box below which best describes the type of your organization. Please select only one choice.

a	<input type="checkbox"/>	International intergovernmental organization (IGO) - several regions
b	<input type="checkbox"/>	Regional or sub-regional intergovernmental organisation (RGO) - 2 or more countries
c	<input type="checkbox"/>	National government (GOV) - ministry, department, agency, etc.
d	<input type="checkbox"/>	Sub-national regional, state or local authority (RLA) - within a country
e	<input type="checkbox"/>	Private / business or industry (BUS)
f	<input type="checkbox"/>	Academic or research organization (ACA)
g	<input type="checkbox"/>	Non-governmental Organization (NGO) / Other

No. 3 **Function:** Please put a number 1 in each of the boxes that describe the roles played by your organization.

a	<input type="checkbox"/>	Government (negotiators)	
b	<input type="checkbox"/>	Government (decision makers)	
c	<input type="checkbox"/>	Research / analysis	
d	<input type="checkbox"/>	Investment / finance	
e	<input type="checkbox"/>	Public information, education or awareness building	
f	<input type="checkbox"/>	Environmental / social issues advocacy	
g	<input type="checkbox"/>	Project development / implementation	
h	<input type="checkbox"/>	IPCC focal point	
i	<input type="checkbox"/>	Institution accredited by the UNFCCC	
j	<input type="checkbox"/>	National climate change focal point	
k	<input type="checkbox"/>	GEF focal point	
l	<input type="checkbox"/>	Other (Please specify in the space provided):	
		m	

No. 4 **Scope:** Put a 1 in the each of the boxes which describe the spheres in which your organization operates.

a	<input type="checkbox"/>	International
b	<input type="checkbox"/>	National
c	<input type="checkbox"/>	Local

No. 5 **Governmental / public sectors:** For organizations or agencies operating in the governmental or public sector put a number 1 in each of those boxes which describe the sectors in which your organization, ministry, department or agency works.

a	<input type="checkbox"/>	Finance and/or development planning	k	<input type="checkbox"/>	Other (Please specify)
b	<input type="checkbox"/>	Energy / power	l	<input type="checkbox"/>	
c	<input type="checkbox"/>	Agriculture	m	<input type="checkbox"/>	
d	<input type="checkbox"/>	Forestry	n	<input type="checkbox"/>	
e	<input type="checkbox"/>	Transport	o	<input type="checkbox"/>	
f	<input type="checkbox"/>	Environment	p	<input type="checkbox"/>	
g	<input type="checkbox"/>	Meteorological services			
h	<input type="checkbox"/>	Public health			
i	<input type="checkbox"/>	Education			
j	<input type="checkbox"/>	Housing			

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No. 6 Business / industry sectors: For public or private enterprises operating in the business or industry sector put a number 1 in each of those boxes which describe the sectors in which your enterprise works.

a	Finance / investment	k	Other (Please specify)
b	Energy / power	l	
c	Agriculture	m	
d	Forestry	n	
e	Transport	o	
f	Mining / extractive industries	p	
g	Manufacturing		
h	Education		
i	Housing		
j	Services		

No. 7 Academic / research / NGO sectors: For institutions in the academic, research / analysis or NGO sectors put a number 1 in each box that describes that type of activity your organization undertakes.

a	Research	g	Other (Please specify)
b	Advocacy	h	
c	Training	i	
d	Funding or investment	j	
e	Consultancy	k	
f	Project implementation		

No. 8 Climate change experience and staff:

a Please indicate the year that your organization started working on climate change: _____

b How many professional staff persons are there in your organization who work on climate change activities?

c Full-time: _____

d Part-time: _____

Total: _____

No. 9 Specific expertise: Put a 1 in each of the boxes on the left next to the fields of expertise of your organization. Then please indicate the number of staff persons working in each one of the fields by putting a number 1 in each box which applies. If no staff are involved in an activity, leave all the boxes in that row blank.

Field of expertise	1 to 2 Staff	3 to 5 Staff	6 to 7 Staff	8 to 9 Staff	10 or more Staff
a	Compiling GHG inventories				
b	Preparing vulnerability studies				
c	Screening and selecting mitigation options				
d	Screening and selecting adaptation strategies				
e	Implementing adaptation measures				
f	Implementing mitigating measures				
g	Planning and establishing research and systematic observation systems				
h	Planning and introducing early warning systems				
i	Designing and implementing awareness building programs				
j	Development, transfer and adaptation of technology				
k	Analyzing implementation issues related to the Kyoto Protocol and its financial mechanisms, e.g. CDM				
l	Developing joint ventures or other project development activities				
m	Analyzing regulatory issues				
n	Experience in international negotiations				
o	Other (please specify)				

No. 10 Participation: If your institution has participated in the international climate change debate, please identify your areas of expertise or recent experience and the role(s) played. Put a number 1 in every box in the left hand column for each area of work and a 1 in each box on the right which describes the role played.

Area of expertise / experience	Author/CLA*	Reviewer	Other	If other, specify role:
a	IPCC Working Group 1: Science			
b	IPCC Working Group 2: Impacts			
c	IPCC Working Group 3: Mitigation Strategies			
d	IPCC Special Report on Emission Scenarios			
e	IPCC Special Report on Transfer of Technologies			
f	IPCC Special Report on LULUCF			
g	IPCC Special Report on Aviation			
h	IPCC Task Force on Inventories			
* CLA: Convening lead author				
	Adviser	Developer	Other	If other, specify role:
i	GEF issues			
* CLA: Convening lead author				
	Adviser	Analyst	Other	If other, specify role:
j	AJ/JI issues			
k	CDM issues			
l	Emissions trading issues			
m	Other (Please specify)			Role(s) Played
n				
o				

No. 11 Publications: Please list up to five reports or documents on climate change published recently by your organization or staff and indicate the year published. Number of publications listed: _____

a	Year: _____
b	Year: _____
c	Year: _____
d	Year: _____
e	Year: _____
f	Year: _____
g	Year: _____
h	Year: _____
i	Year: _____
g	Year: _____
k	Year: _____

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PART 2: Identification of capacity building activities

The purpose of Part 2 of this questionnaire is to identify the scope of needs and areas for capacity building in relation to Decision 10/CP.5 and FCCC/SB/2000/INF.2, the compilation and synthesis document prepared by the UNFCCC Secretariat.

No. 12 **Regarding the Clean Development Mechanism (CDM):**
 Put a number 1 in the Yes or in the No box as applicable and, if no, briefly explain.

a	Is your organization actively involved in the on-going CDM debate?	Yes:	<input type="checkbox"/>
b	If no, briefly explain why not:	No:	<input type="checkbox"/>
c	<input type="text"/>		
d	If CDM becomes operational, would your organization participate in CDM activities?	Yes:	<input type="checkbox"/>
e	If no, briefly explain why not:	No:	<input type="checkbox"/>
f	<input type="text"/>		

No. 13 **CDM institutional capacities:** If you answered yes to the last question, please put a number 1 in each of the boxes next to the types of CDM activities in which your organization would participate. Then please indicate whether your organization has adequate institutional capacity to carry out the proposed work and give short examples or comments in the last column.

	Types of CDM activity	Need additional capacity		Comments or examples:
		Yes	No	
a	CDM advocacy and awareness raising	<input type="checkbox"/>	<input type="checkbox"/>	
		b	c	
d	Development of criteria for CDM projects	<input type="checkbox"/>	<input type="checkbox"/>	
		e	f	
g	Determination of CDM project baselines	<input type="checkbox"/>	<input type="checkbox"/>	
		h	i	
j	Analysis of CDM project eligibility	<input type="checkbox"/>	<input type="checkbox"/>	
		k	l	
m	CDM project verification, monitoring and evaluation	<input type="checkbox"/>	<input type="checkbox"/>	
		n	o	
p	Certification of emissions reductions (CERs)	<input type="checkbox"/>	<input type="checkbox"/>	
		q	r	
s	Other (Please specify):	<input type="checkbox"/>	<input type="checkbox"/>	
t		u	v	

No. 14 **Other Kyoto Protocol issues.** Please indicate (by putting a 1 in the Yes or in No boxes) if your organization has adequate institutional capacity to address the issues listed below and provide short examples or any comments in the last column.

Issue	Has adequate capacity		Comments or examples:
	Yes	No	
Joint implementation	<input type="checkbox"/>	<input type="checkbox"/>	
	a	b	
Emission trading	<input type="checkbox"/>	<input type="checkbox"/>	
	c	d	
Others (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	
	e	f	
	<input type="checkbox"/>	<input type="checkbox"/>	
	g	h	

No. 15 **Does your organization intend to broaden its work related to the implementation of the Kyoto Protocol?** Put a number 1 in the Yes or No box.

a,b	Yes:	<input type="checkbox"/>	No:	<input type="checkbox"/>
-----	------	--------------------------	-----	--------------------------

No. 16 **If you answered yes to the previous question, will your organization need additional capacities?** Put a number 1 in the Yes or No box.

a,b	Yes:	<input type="checkbox"/>	No:	<input type="checkbox"/>
If yes, please describe the areas in which it intends to initiate new work. Also indicate how these new areas relate to previous activities and whether you need additional capacities (expertise, training, etc.) to carry out the new work.				
	New areas of work	Relationship to previous work	Types of additional capacity needed	
c	<input type="text"/>			
d	<input type="text"/>			
e	<input type="text"/>			

Continued on next page.

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	New areas of work	Relationship to previous work	Types of additional capacity needed
f			
g			
h			
i			
j			
k			

No. 17 **Inside your organization:** Based on your knowledge, please indicate which of the activities listed below have contributed to build the capacity of your organization in the context of the Kyoto Protocol. Please also indicate their degree of usefulness. Put a number 1 in the boxes which apply. If not applicable, leave blank.

	Activities	Very Useful	Moderately Useful	Useful	Slightly Useful	Not Useful
a	Ministerial Meetings					
b	Negotiation skills training					
c	Senior Executive seminars					
d	Fact sheets and briefing packages					
e	Workshops & stakeholder dialogues					
f	Technical assistance					
g	Institutional capacity building					
h	Technology transfer					
i	Human resources development					
j	Support for national communications					
k	Support for adaptation activities					
l	Support for improved decision-making					
m	Capacity building under the CDM					
n	Other (Please specify):					
p						

No. 18 **In your country:** Given that new funds for capacity building may be limited in the near future, please enter in the left hand column a ranking from 1 (highest priority) to 5 (lowest priority) next to the top five types of capacity building activities that you think it would be most important to expand in your country. In the right hand columns below please rate qualitatively the degree of importance you would give to expanding each of the thirteen (+ other) types of capacity building activities by putting a number 1 in the appropriate box.

	Activities	Very Important	Moderately Important	Important	Slightly Important	Not Important
a	Ministerial meetings					
b	Negotiation skills training					
c	Senior executive seminars					
d	Fact sheets and briefing packages					
e	Workshop and stakeholder dialogues					
f	Technical assistance					
g	Institutional capacity building					
h	Technology transfer					
i	Human resources development					
j	Support for national communications					
k	Support for adaptation activities					
l	Support for improved decision-making					
m	Capacity building under the CDM					
n	Other (Please specify):					
o						

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No. 19 **Worldwide.** Please list specific examples in the table below of successful capacity building activities related to the Kyoto Protocol that were carried out in other countries.

Example 1.	
a	Name of organization or person:
b	Project title or description:
c	Project objective:
d	Key target audience:
Example 2.	
e	Name of organization or person:
f	Project title or description:
g	Project objective:
h	Key target audience:

No. 20 **Kyoto Protocol activities.** Please identify (by putting a 1 in the boxes on the left) the kinds of activities that would facilitate the implementation of the Kyoto Protocol in your country and rate them from very important to not important (by placing a 1 in the appropriate box on the right).

Activities	Very Important	Moderately Important	Important	Slightly Important	Not Important
a <input type="checkbox"/> Creation of a single national entity to coordinate the review and approval of CDM projects.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b <input type="checkbox"/> Strengthening National Centers of Excellence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c <input type="checkbox"/> Regional coordination among Centers of Excellence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d <input type="checkbox"/> Establishing in-country operating entities for monitoring, evaluation and certification of CDM projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e <input type="checkbox"/> Establishing in-country or regional capability to train local project developers in modern project finance techniques	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f <input type="checkbox"/> Providing information to senior policy makers on the benefits for development that can be captured through the Kyoto Protocol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g <input type="checkbox"/> Others (Please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Part 3: Sources of support for the capacity building process in your organization
 The purpose of Part 3 is to identify sources of support for capacity building in the context of the Kyoto Protocol.

No. 21	Please indicate whether or not the institutions listed below are an important source of funding to your organization for capacity building activities. Place a number 1 in the appropriate boxes. In the last column, please give specific examples of sources that you expect to be more important in the future.			
	Type or source of funding	Current degree of importance for your institution		Specific examples of funding sources that you expect to be more important in the future.
		Is important now	Not important now	
a	National Sources:			
b	Governmental funds			
c	Investment companies			
d	Private developers			
e	National banks			
f	Commercial credit providers			
g	Other (Please specify):			
	Intergovernmental and multilateral sources:			
h	Global Environmental Facility			
i	World Bank / IDA			
j	World Bank / PCF			
k	Regional Development Banks			
l	UNDP			
m	UNEP			
n	Other (Please specify):			
o	Bilateral sources:			
p	Bilateral aid agencies			
q	Commercial credit providers			
r	Export subsidies for overseas vendors			
s	Foreign Direct Investment			
t	Foundations / NGOs			
u	Other (Please specify):			
v				

Part 4: Key actors in the capacity building process in your country.
 The purpose of Part 4 is to identify some of the key actors and stakeholders involved in capacity building in the context of the Kyoto Protocol in your country.

No. 22	Please list below their names and organizations. To the extent possible, please provide their contact information and information on the role of the organization or individual.	
	Government Sector:	
	a	
	b	
	c	
d		
e		
No. 23	Private, business or industry sector:	
	a	
	b	
	c	
	d	
e		

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No. 24	Academic research / analysis sector or NGOs:					
	a					
	b					
	c					
	d					
e						

No. 25	Please use the space below to add any additional comments or questions you might have.

Thank you for your time and help with this assessment of capacity building needs.

Name:	
Signature:	

Date:	
Place:	



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- To establish and strengthen cooperation with faculties and academic institutions, in particular for the development of research on and for training.

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