



CLIMATE CHANGE CAPACITY DEVELOPMENT

2005 PROJECT STATUS
2006 - 2008 STRATEGIC PLAN



The UNITAR Climate Change Programme - CCP

The mission of CCP is to enhance the capacity of regional centres of excellence in developing countries to assist their stakeholders those improving the participation of developing countries in the UNFCCC process and implementation.

**This project is made possible with the financial support through UNITAR
of the following institutions:**

**The Swiss Federal Office of the Environment, Forests and Landscapes
The European Commission
The Development Cooperation Ireland**



Acronyms

AIM	Action Impact Matrix
CCP	Climate Change Programme
CERN	European Centre for Nuclear Research
CIAT	Centro Internacional de Agricultura Tropical
ENDA-TM	Environnement et Développement du Tiers Monde
ERC	Energy and Research Center
LDC	Least Developed Country
MIND	Munasinghe Institute for Development
NAPA	National Adaptation Plans of Action
NCCC	National Climate Change Committee
SD	Sustainable Development
SEI	Stockholm Environment Institute
UNFCCC	United Nations Framework Convention on Climate Change
UNITAR	United Nations Institute for Training and Research

Table of Contents

1. Overview
2. The C3D project concept
3. How does it work?
 - 3.1 Training of the trainers
4. What have been the results?
 - 4.1 Mitigation and CDM
 - 4.2 Vulnerability and Adaptation
 - 4.3 Sustainable Development and Climate Change
5. Development of collaborative tools
 - 5.1 Training needs, barriers and opportunities
 - 5.2 The C3D platform
6. The way forward - The future of the C3D project
 - 6.1 Develop/customize further climate change training modules
 - 6.2 Professional Development Cycle / Fellowship Programme



OVERVIEW

The Climate Change Capacity Development (C3D) project launched in 2003 by the United Nations Institute for Training and Research Climate Change Programme (CCP) seeks to address capacity needs for climate change in developing countries through an innovative training and capacity building partnership with three partner institutes based in developing countries.

C3D PARTNERS

The C3D project has three immediate project partners, each with a specific focus that serves as a group resource.



ENDA- TM Environnement et Développement du Tiers-Monde, Programme Energie, Environnement et Développement, Dakar Sénégal.

Focus: climate change, vulnerability and adaptation.



ERC Energy Research Center, Cape Town, South Africa

Focus: climate change, mitigation and Clean Development Mechanisms (CDM).



MIND Munasinghe Institute for Development, Colombo, Sri Lanka.

Focus: sustainable development, macro and micro-economic analysis and climate change policies.



The CCP has assisted in enhancing these three regional pools of expertise, as well as strengthening their infrastructure for delivering capacity building activities and developing human resources. The programme seeks to continue reinforcing the network's ability to deliver targeted training and capacity development at the national and regional level.

STRATEGIC OBJECTIVES

- An improved participation of developing countries (non-Annex I Parties) in the UNFCCC process
- A timely implementation of the UNFCCC and Kyoto Protocol by developing countries
- A better co-ordination & integration of national climate policies with sustainable development policies
- A contribution to sound implementation of EC and bilateral aid to developing countries in the field of climate change



2. THE C3D PROJECT CONCEPT

This project builds upon the UNFCCC Marrakech Accords of November 2001, which include a decision and framework outlining the needs and areas for capacity building in developing countries (Decision 2/CP.7). This Framework identifies the scope of, and basis for action on, capacity building related to the implementation of the Convention and the effective participation of developing countries in the Kyoto Protocol process. In particular, it underlines

"The importance of mobilizing existing institutions in developing countries and building on existing processes and endogenous capacities at the regional, national or local levels, in order to ensure the sustainability of such programmes."

This is the key inspiration behind this capacity development programme.

UNFCCC Decisions 10 and 11 at the Fifth conference of the parties recognized the need for training of non-Annex I Parties and stressed the necessity to provide support for capacity building. Decision 10/CP.5 emphasized that implementation of the Convention is constrained by

"the lack of financial resources and appropriate institutions, the lack of access to necessary technologies and know-how, including information technology; and the lack of regular opportunities to exchange information and views among developing countries".

This UNFCCC also highlighted, among other things, the following capacity building needs:

- Strengthening UNFCCC national focal points;
- Building expertise and strengthening institutions in developing countries which undertake capacity-building activities at the regional levels;
- Enabling experts and institutions to collect and analyze information for decision-making using state-of-the-art information technology;
- Supporting the networking of these institutions both among themselves and with developed country Parties;
- Fellowships and scholarships for formal training at higher levels, specialized training and informal training; and
- Using national experts to undertake studies, design, and implementation.

In light of these decisions, the C3D project aims to strengthen the human resources and institutional capacity of Non-Annex I Parties to the UNFCCC, for effective negotiation, policy analysis and co-ordination on climate change. It seeks to promote an institutionalized and sustainable approach to capacity building by strengthening endogenous centres in Non-Annex I countries. In the spirit of the capacity building decisions adopted by the Conference of the Parties, C3D is working in close cooperation with other capacity development initiatives as well as with the UNFCCC Secretariat with the view to contribute to the implementation of these decisions.



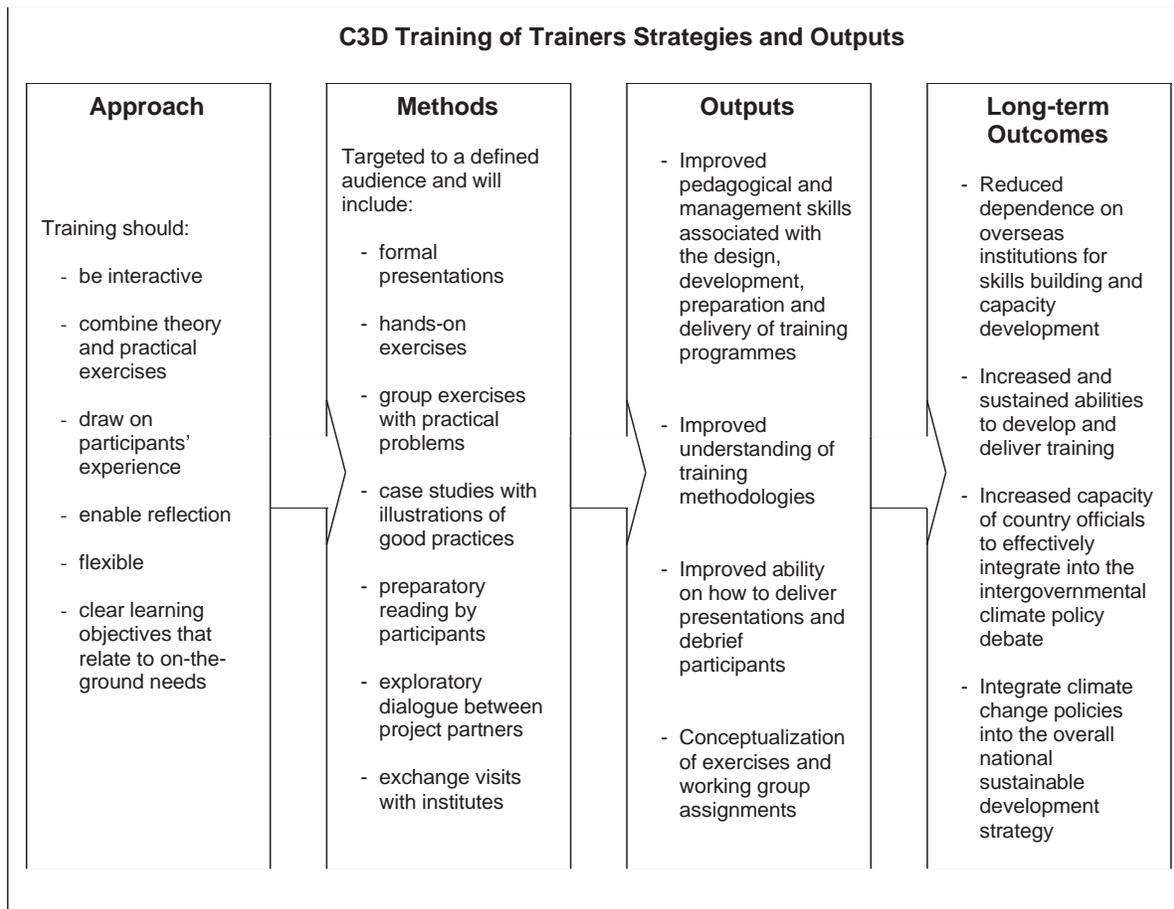
3. HOW DOES IT WORK?

Each of the three partners has chosen its specific field of work that serves as a group resource: ENDA-TM on climate change on vulnerability and adaptation, MIND on climate change and sustainable development and ERC on GHG mitigation. Further expert consultation has been provided by the Stockholm Environment Institute (SEI) and the CIAT/CGR International Centre for Tropical Agriculture.

The partners have developed training modules for each of these topical areas and have then delivered training to the other centres as well as local and regional stakeholders. This has resulted in members of each partner centre being trained in three the topical areas, thereby enhancing the capacity of each centre through South-South collaboration. The development of these activities is conducted in direct consultation with expert representatives from each nation involved through a Project Advisory Panel. This ensures that the project outcomes respond directly to their needs.

3.1 TRAINING OF TRAINERS

One of the primary objectives of the project was to increase the number of trained experts within each of the participating countries who, in turn, could become trainers or work as experts at the national and regional level. The aim of the training is to increase the efficiency, effectiveness and performance of individuals and organizations to conduct policy analysis for and negotiate on climate change issues.





4. WHAT HAVE BEEN THE RESULTS?

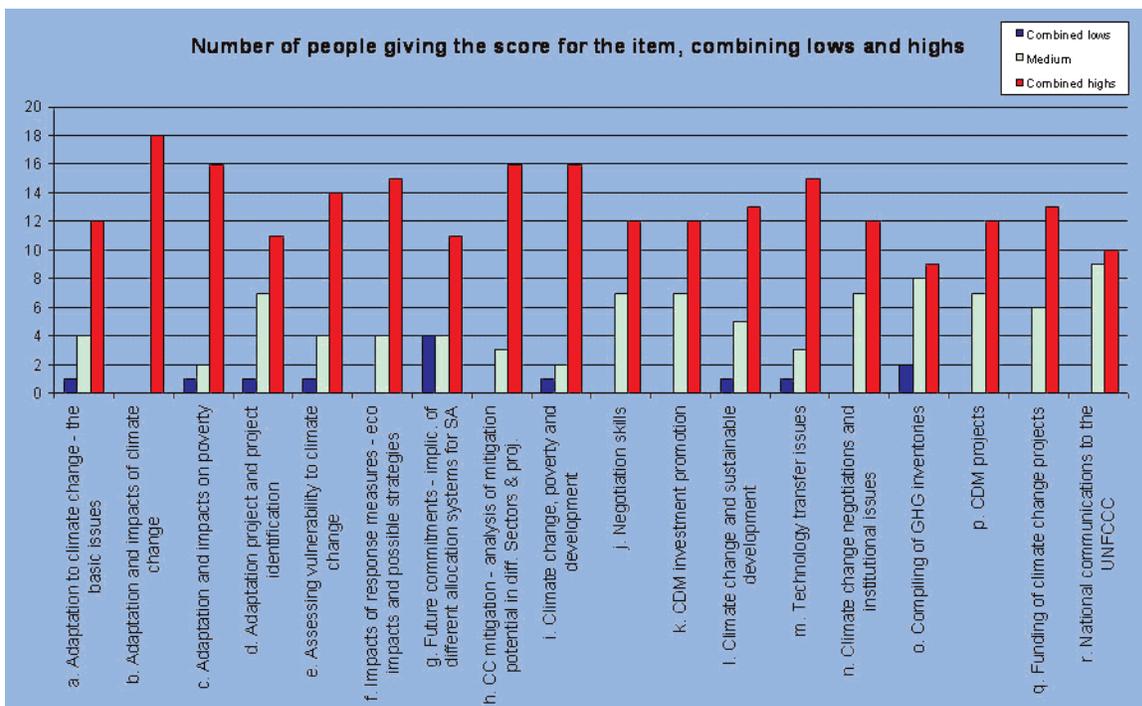
Capacity building through training and knowledge sharing

As a direct result of this project, the three centres have strengthened their own capacity to deliver training to national ministries, NGOs, and academic stakeholders. This training has in turn helped define national Climate Change policy in South Africa, formulate sustainable development and climate change strategies in Sri Lanka, and train experts in West and Central Africa.

Partners have also taken initiatives to set up professional exchanges between centres, thereby further enhancing the knowledge sharing aspect of the project. Most importantly, the initiative has, and will continue to develop in-country expertise to help developing countries better respond to both the causes and impacts of climate change, particularly those impacts that affect the poorest and most vulnerable. Below are some of the most significant examples of work that has been conducted by the three centres through the C3D project.

4.1 GREENHOUSE GAS (GHG) MITIGATION AND THE CDM

Following a training needs survey (see graph below), and at the request of the Department of Environmental Affairs and Tourism of South Africa, ERC facilitated two workshops for the National Climate Change Committee (NCCCC). The NCCC brings together major stakeholders in South Africa from government (national and provincial), business and civil society in a consultative advisory forum.



Results of training needs survey for the NCCCC carried out by ERC in 2004



The first workshop was held on the 14th of September, and provided background for new NCCC members on key issues in the climate change negotiations for South Africa. Presentations were made on a number of pertinent issues to climate change including energy and mitigation, technology transfer, financial mechanisms and funding, impacts of response measures, capacity building and small scale afforestation and reforestation CDM projects.

The second workshop took place after an NCCC meeting on the 15th of September and discussed future commitments for South Africa with regard to climate change policy and negotiations.

From the 5th to the 7th of April 2005, ERC organized a training workshop on climate change mitigation in Cape Town, South Africa for 14 participants. The purpose of this workshop was to test ERC's training material for its clarity and suitability for the local audiences, as well as to train future trainers. The main objective of the mitigation manual is to impart skills development in the field of training while at the same time reporting and topping up knowledge in the areas of greenhouse gas inventories, mitigation and the clean development mechanism. Participants were assigned to one of various groups, that included facilitators/trainers, learners and reviewers/evaluators, on a rotating basis. Thus each participant was able to experience the workshop from the perspective of each stakeholder.

This experience therefore assists the participants in the future when developing their own training courses and materials. Thus the workshops do not become an end in themselves, but contribute to longer-term capacity building.

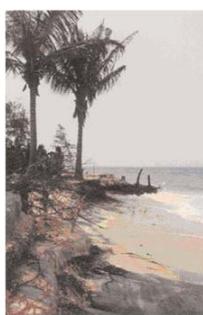
The following table outlines the various course modules that ERC has currently developed in the areas of GHG, Mitigation and the CDM. Modules include workbooks, preparatory readings, formal PowerPoint presentations as well as interactive exercises and case studies with illustrations on good practices for negotiations, policy analysis and coordination.

ERC - TRAINING MODULES			
Modules	GHG	Mitigation	CDM
Module 1	Introduction	Framework for Mitigation	CDM and CC
Module 2	GHG computation	Technologies and mitigation policy	CDM and SD
Module 3	Exercises	Mitigation in different sectors	CDM projects
Module 4	GHG reporting	Cross-cutting policies	Finance and risk markets
Module 5		Economic analysis	DNA
Module 6		Mitigation and SD	

ENDA-TM in partnership with UNITAR, held an international training of trainers workshop on Vulnerability and Adaptation, from the 5th to the 7th of July 2005 in Dakar, Senegal. This workshop was attended by more than thirty representatives from various, predominantly African countries, international organizations, and NGOs involved in the implementation of the Climate Change Desertification Conventions.

The purpose of the workshop was to test the training tool on vulnerability and adaptation to climate change developed by the Energy, Environment and Development Program at ENDA and its partners, CIAT and SEI-Oxford. Modules included:

- Overview of vulnerability and adaptation
- Concepts, methods and tools to assess vulnerability and adaptation strategies
- Moving from theory to practice in vulnerability assessments, including three case studies:
 - The coastal zone of Africa
 - Agriculture and food security in Sub-Saharan Africa
 - Natural hazards and climate change in Central America
- Practical exercises on food security, vulnerability indicators



The coastal zone in Africa: vulnerability and adaptation in Senegal

This case study sought to characterize vulnerability and identify options for adaptation. A number of climatic (temperature, precipitation) and socio-economic (population, agricultural output etc.) scenarios showed that the impacts of climate change would compound current problems faced by the Cape Verde peninsula and Saloum estuary.

Adaptation recommendations included the relocation of population, protection measures for the coastal zone, integrated coastal zone management, desalinization of soil, legislative measures and international measures for the development of a center of research of coastal zones.



Photo: Courtesy Isabelle Niang Diop, University of Dakar



THE SUSTAINOMICS FRAMEWORK

The Adaption Impact Matrix (AIM) methodology draws on the following basic principles of the sustainomics framework:

- a. **Making development more sustainable** where sustainable development is conceptualized as a process, rather than an end point.
- b. **Sustainable development triangle** integrates three main perspectives: social, economic and environmental. Each viewpoint corresponds to a domain (and system) that has its own distinct driving forces, objectives, and indicators.
 - The **economy** is geared mainly towards improving human welfare, primarily through increases in the consumption of goods and services.
 - The **environmental** domain focuses on maintaining the integrity and resilience of ecological systems.
 - The **social** domain emphasizes the enrichment of human relationships and achievement of individual and group aspirations.
- c. **Trans-boundary** approach transcends conventional boundaries imposed by discipline, space, time, stakeholder viewpoints, and operationality. The scope is broadened and extended in all domains, to ensure a comprehensive view.
- d. **Full cycle application of integrative tools** where two complementary approaches based on "optimality" and "durability" are used to integrate across economic, social and environmental sub-models, within an integrated assessment modelling framework.

Two workshops were conducted to train experts on climate change and sustainable development, especially using the Action Impact Matrix (AIM) approach. The AIM is a strategic analytical tool which helps users to identify, prioritise and analyse the linkages between climate change and sustainable development, and to integrate climate change policies into national SD strategy. A broad range of other training materials and techniques were also tested and validated.

The first (two-day) workshop was held during 8-9 June 2004, for 38 participants. The second (three-day) workshop was conducted by MIND in Colombo, from 31 May to 2 June 2005.

This approach can be illustrated by sketching out a very preliminary application to Sri Lanka at the national level. A selection of the results achieved during the workshop are described in the previous box and following matrix. Further research and validation by a full-blown AIM stakeholder exercise involving a variety of experts will be carried out over the next three years.

The "AIM MED" Matrix illustrating the Effects of Mitigation options on Development Goals and Policies produced at the C3D Workshop in Colombo, June 2005

		Mitigation Options									Climate Change Impacts
		Energy/ Electricity				Transport		Industry		Land use	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
		Renewable energy	Demand Side Management	Supply Side Management	Clean Technology	Efficient Technology	Mobility Management	Prevention/Control Technologies	Efficient Resource Utilisation	Reforestation	
Development Goals/Policies (without CC Impacts) =>											
(A)	Economic Growth	-1	1	1	-2	-1	2	-1	1	1	-1
(B)	Poverty alleviation /Rural development	2		-	-					1	-1
(C)	Food security (self reliance)									2	-2
(D)	Employment & education	1	-	-	-1	1				1	-1
(E)	Infrastructure	-	-				1				-2
(F)	Sustainable management of natural resources	1	1	1	1	1	1	2	1	2	-2
(G)	Budget deficit reduction	-1	1	1	-2	-1	1			-1	-1
(H)	Good governance										
(I)	Water and sanitation	1		-	1	1	1	1	1		-2

 Effects that are beneficial (win-win for both CC and SD)
 Effects that are harmful

Scoring Key:
 -3 = High negative (undesirable) effect; -2 = Medium negative effect; -1 = Low negative effect;
 +1 = Low positive (desirable) effect; +2 = Medium positive effect; +3 = High positive effect

A few policy recommendations derived from the Sri Lanka MED matrix above

Mobility management

This includes Traffic management Quality and Service improvement of road networks, Public Transport, Non Motorized Transport, and Inter Modal Choice

- Mobility Management has positive impact on most of the development goals. The high costs to be offset by external funding for carbon benefits

Reforestation including Agro forestry

Reforestation and agro forestry have positive impacts on food security and sustainable management of natural resources and most of the other development goals

- Poverty alleviation and rural development programmes should not undermine reforestation efforts and agro forestry

Renewable Energy

- Significant impact on poverty alleviation especially through employment creation in dendro power projects.
- Rural development through access to energy which improves the quality of life
- However in some cases sustainable management of natural resources is limiting the development of renewable energy resources, such as mini hydro in sensitive areas.
- High cost of renewable energy to be offset by external funding for carbon benefits.

5. DEVELOPMENT OF COLLABORATIVE TRAINING TOOLS

5.1 TRAINING NEEDS, BARRIERS AND OPPORTUNITIES

The following pressing needs were identified in a document called 'Synthesis of Needs Assessment' conducted by C3D partners during the first six months of the project:

Assistance in revising existing pedagogical material to promote a more interactive and stimulating methodology;

- Assistance in designing appropriate adult training materials
- Assistance/training in pedagogical design for distance learning
- Training of trainers for distance learning.

A study was carried out in 2004 by the UK Open University (OU) in cooperation with UNITAR to address these needs expressed by C3D partners. A report was produced that mainly:

- considers what the OU has learned about creating and running online courses
- considers the potential of online technologies to support kinds of learning outside online courses
- reviews tools and activities, resources and courses relevant to the C3D topics of climate change and sustainable development; and identifies a gap in relation to packaged training courses supported by an online community
- identifies specific opportunities and barriers in each of the three C3D centres in relation to the use of ICTs in pursuit of C3D's overall objectives.

It has also examined the potential of knowledge management strategies to support the C3D project's capacity building, via the notions of communities of practice, learning organisations and competitive advantage (see chart: The Drivers of Knowledge Management).

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Mapping linkages between C3D objectives, activities and ICT/Knowledge Management choices

C3D objectives	Related activities	ICT/KM linkages
An improved participation of developing countries (non-Annex I Parties) in the UNFCCC process (particularly LDCs from Africa and Asia)	Special focus on sensitising and training key decision makers in areas of the science of climate change, its impacts, adaptation, mitigation and related policy decision-making Providing coaching and advice to key decision makers and negotiators on key issues on request	Knowledge mapping Knowledge sharing culture Best practice resource map Competence and learning activities
A timely implementation of the UNFCCC and Kyoto Protocol by developing countries	Systematically seeking to build capacity in other national focal points and centres in the region using existing networks of partners Promoting regional policy dialogues Developing and disseminating policy, technical, analytic and training tools Policy research, best practice examples and dialogue	Intangible assets monitor Expertise directory Communities of practice
A better co-ordination & integration of national climate policies with sustainable development policies	Provide support to government and non-government organisations on topics relating to all aspects of the sustainable-development-climate change nexus Informing and raising awareness among key public and private decision makers about the UNFCCC process and CC-SD linkages and priority issues Offering structured training programs to target sectors and institutions Structuring and tailoring training programs for national focal points	Intelligence Network Best practice sharing Collaborative workspace

Finally, specific proposals to better integrate ICTs and Knowledge Management in the future of the C3D programme included:

1. the funding of critical readers to enhance the pedagogical design of teaching, and to build in-house course development capacity;
2. the funding of media developers, to develop software, websites and audio-visual components based on the work of the centres;
3. the funding of professional development for the centres' online tutors.

6. THE WAY FORWARD - THE FUTURE OF THE C3D PROJECT

The UNITAR Climate Change Programme (CCP) looks to build upon the consolidation of the interactive approaches to capacity building it has developed over the past two years, and to further solidify its role as a key resource for developing institutional and LDC capacities.

In the future, the partners will broaden their training aims, customizing the training tools to specific objectives, offering professional development and fellowships to national stakeholders, and developing new tools for the delivery of training online. It will also see the expansion of the project into new regions with the addition of two institutes in the Caribbean and the Pacific which will benefit from the knowledge and experience built by the other partners.



The C3D partners will maintain a continuous dialogue and interactive cooperation among trainers, technical experts, outside research institutions, in order to ensure the continuity of the project and the exchange of information and experience regarding the development of the specific training tools in preparation of the development of a three year C3D Training Programme.

The key elements of the programme will include the development of further climate change training modules and a professional fellowship programme.

6.1. DEVELOP/CUSTOMIZE FURTHER CLIMATE CHANGE TRAINING MODULES

The C3D partners will develop/customize further generic climate change training modules, and develop user-oriented tools including applied cases studies for various regions linked to these modules. This will be carried out with the support of relevant international resources. Tools will be designed for direct use in specific applications or exercises relevant to climate change, such as to assist NAPA teams, other capacity development initiatives and UNFCCC-related training.

This activity would further expand best practices, lessons learned, experiences and information developed in the first phase. The training materials will be organized in different modules and use lecture materials and PowerPoint presentations to illustrate the different themes and contents of each module as well include a glossary, bibliography, support materials and internet resource links for further information, and exercises to apply the knowledge learned.



The training materials will be produced and used in:

- CD format to support face-to-face and distance learning activities,
- Print format to support workshops and meetings activities, and
- Internet based material to support on-line activities.

The tools will facilitate the development of robust national action plans, promote the incorporation of experience developed in other areas such as poverty, disaster reduction and management, and adaptation to climate change, and encourage the development of linkages with these areas. This training material will be produced both in English and French and will be made available online. The C3D interactive platform will be further developed and tested with the view of systematically using this training approach in the future, including e-support and distance learning.

Customizing and Integrating Training Modules		
GHG Mitigation and CDM	Vulnerability and Adaptation	Climate Change Policies, Sustainable Development and Poverty
<p><i>Further development of training material</i></p> <ul style="list-style-type: none"> - to be made more interactive or targeted audiences - use concrete case studies of local and national circumstance 	<p><i>Further development of training material</i></p> <ul style="list-style-type: none"> - answer to practical needs of stakeholders <p><i>Guidebook for decision-makers</i></p> <ul style="list-style-type: none"> - provide clear, concise, practical instrument to allow users to integrate the risks and issues related to climate change into decision-making <p><i>V&A manual</i></p> <ul style="list-style-type: none"> - user guide for the applied use of V&A assessments, methods and tools 	<p><i>Production of user-oriented training tools</i></p> <ul style="list-style-type: none"> - will integrate climate change responses (mitigation and adaptation) with sustainable development and poverty reduction strategies <p><i>Policymakers guide to integrate climate, poverty and sustainable development</i></p> <ul style="list-style-type: none"> - training material simplified for policymakers to understand the role climate change issues in relation to their sustainable development and poverty strategies

6.2 PROFESSIONAL DEVELOPMENT CYCLE / FELLOWSHIP PROGRAMME

The project seeks to develop the human and institutional capacity of the centres, and believes that this capacity will ultimately benefit end-users. The C3D partners will prepare a 'Professional Development Cycle / Fellowships' on climate change that will be offered with the three year programme (2006-2008). These courses will cover issues such as vulnerability and adaptation; climate change, sustainable development and poverty reduction; and other practical segments such as agriculture and climate change, coastal zone management and climate change, water and climate change, human health and climate change etc.



Vulnerability mapping exercise, Cape Town, South Africa, October 2004

C3D partners will target the relevant regional, sub-regional and national beneficiaries, according to the identified needs. Fellowships will be open to professionals working in the field of development and environment. Each partner will offer at least one of them in the next six months.

TRAINING ACTIVITIES		
ERC	ENDA	MIND
Sustainable development and climate change national policy dialogue	Energy and climate change	Sustainable development and climate change
<ul style="list-style-type: none"> - Two workshops planned - Targeted to Sahel and Central African countries - Focus on integration of climate change impacts into national development strategies 	<ul style="list-style-type: none"> - Annual short course for policy-makers and executives - Targeted to South and East African countries - Training on climate change and renewable energy 	<ul style="list-style-type: none"> - Minimum of 2 training workshops/year for 3 years. - Targeted to Asian Countries - Training to the Sri Lankan Government officials early 2006



UNITAR

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- To conduct training programmes in multilateral diplomacy and international cooperation for diplomats accredited to the United Nations and national officials involved in work related to United Nations activities.
- To carry out a wide range of training programmes in the field of social and economic development, including in the field of environmental management which has become the fastest growing sector of UNITAR's work.
- To carry out result-oriented research, in particular, research on and for training and to develop pedagogical materials including distance learning training packages, work books, as well as software and video training packs.
- To establish and strengthen cooperation with faculties and academic institutions, in particular for the development of research on and for training.

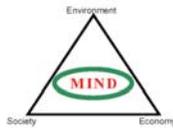
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