

**INSTITUT DES NATIONS UNIES  
POUR LA FORMATION ET LA  
RECHERCHE**



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FOR TRAINING AND RESEARCH**

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**Strengthening Capacity in Developing Countries for Training Purposes on  
Climate Change with the  
“Climate Change Capacity Development” (C3D) Partners  
August 2006 – July 2009**

**Interim Report  
August 2006 – March 2007**

**GENEVA May 4th, 2007**



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### **Annexes:**

*Annex I: ENDA Interim Reporting*

*Annex II: ERC Interim Reporting*

*Annex III: MIND Workshop Reports*



# INTERIM NARRATIVE REPORT

## ***1. Description***

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### ***1.1. Name of beneficiary of grant contract:***

United Nations Institute for Training and Research (UNITAR)  
Climate Change Programme (CCP)

### ***1.2. Name and title of the Contact person:***

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### ***1.3. Name of partners in the Action:***

- **ERC UCT - Energy Research Centre University of Cape Town**  
Cape Town, South Africa
- **ENDA-TM - Environnement et Développement du Tiers Monde**  
Dakar, Senegal
- **MIND-Munasinghe Institute for Development**  
Colombo, Sri Lanka
- **SPREP – South Pacific Regional Environmental Programme**  
Apia, Samoa
- **CCCCC – Caribbean Community Climate Change Centre**  
Belmopan, Belize

### ***1.4. Title of the Action:***

*Strengthening Capacity in Developing Countries for Training Purposes on Climate Change with the “Climate Change Capacity Development” (C3D) Partners*

### ***1.5. Contract number:***

EuropeAid/ENV/2006/122754/TPS

### ***1.6. Start date and end date of the reporting period:***

August 1<sup>st</sup>, 2006 – March 31<sup>st</sup>, 2007

### ***1.7. Target country(ies) or region(s):***

**Multi-regional:** Africa (Senegal), Cape Town (South Africa); Asia (Sri Lanka), and to some extent in the South Pacific (Samoa) and the Caribbean (Belize)

**1.8. Final beneficiaries &/or target groups<sup>1</sup> (if different) (including numbers of women and men):**

**Target groups and final beneficiaries of this project include:**

- 1.8.1. **Government Officials, Departments/Agencies:** negotiators, decision-makers, policy analysts in Sri Lanka, China, India, and 15 selected low-income, high-vulnerability Asian countries, South Africa, Senegal and selected other African SADC, Western and Central Africa countries the Caribbean and Pacific Islands;
- 1.8.2. **Local decision makers:** rural communities, municipalities, departments, provinces;
- 1.8.3. **Regional and sub-regional IO Representatives:** NEPAD, CILSS, UEMOA, CEDEAO, CENSAD (Sahel-Saharan Communities' Council); and
- 1.8.4. **Representatives of professional federations, unions and non-governmental organizations, students.**

Description of Activity	No. of Males	No. of Females	TOTAL
ENDA Fellowships (successful candidates from Benin, Senegal and Chad)	3	0	3
ERC Energy and Climate Change Short Course, South Africa (28 August – 1 September, 2006) (Nationalities unknown)	*	*	8
MIND China workshop (17-28 July 2006)	148	122	270
MIND South Asia workshop (10 January 2007) (1 Bangladesh, 1 Bhutan, 1 Nepal, 2 Pakistan, 5 India, 6 Sri Lanka)	*	*	16
MIND India (1-7 February 2007)	18	3	21
MIND Fellowship (3 Sri Lankans)	1	2	3

\* Information unavailable.

**Nationalities:** Chinese 270; Bangladeshi 1 Bhutanese 1; Nepalese 1; Pakistani 2; Indian 26; Sri Lankan 6.

**1.9. Country (ies) in which the activities take place (if different from 1.7):**

In addition to Senegal, South Africa and Sri Lanka, activities were carried out in India, China and Zambia.

<sup>1</sup> “Target groups” are the groups/entities who will be directly positively affected by the project at the Project Purpose level, and “final beneficiaries” are those who will benefit from the project in the long term at the level of the society or sector at large.

## ***2. Assessment of implementation of Action activities***

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### ***2.1. Activities and results***

#### **Activity A:**

***Provide continuous human and technical support to the programmes in terms of institution building, networking and outreach within ENDA-TM, ERC and MIND***

#### **ACTIVITY A.1: CORE HUMAN RESOURCES IN EACH CENTRE**

**ERC:** Professor Jabavu Nkomo was the focal point for the C3D project at ERC. He had participated actively in the C3D programme as the regional training manager and on V&A issues. He left ERC in September 2006 to take up a position with the Canadian International Development Research Center (IDRC) in Nairobi, thus ERC has been in flux with respect to its human resources. Professor Nkomo's management responsibilities are now assumed by Stanford Mwakasonda.

**ENDA-TM:** In addition to the arrival of Dr. Isabelle Niang (Geologist, part time from the University of Dakar) since January 2006, and of Boubacar Fall, two new persons are now regularly working on C3D related issues: Moussa Na Abou, who is involved in the design of training tools/modelling and case studies and Dr. Lawrence Flint, who recently joined the ENDA-Team team. This team is now much stronger and there is no doubt that they will be able to deliver all outputs.

**MIND:** Staff allocated to C3D programme is as follows: Mohan Munasinghe (overall management and CC-SD); Sria Munasinghe (overall management and mitigation); Yvani Deraniyagala (adaptation and vulnerability); Sudarshana Perera (mitigation); Priyangi Jayasinghe (adaptation and vulnerability). All staff is capable of conducting training workshops. This allocation does not significantly differ from the staffing structure for the implementation of previous grant activities.

#### **ACTIVITY A.2: STAFF TRAINING/INTERNSHIPS**

##### **ERC:**

**Staff Training:** ERC has identified the need to enhance its capacity for the current project in the following areas: LEAP and MARKAL modelling, Excel spreadsheets and PowerPoint presentations. To respond to these needs, one member of the C3D team has attended LEAP training, which was a success. MARKAL training for C3D members will be conducted internally by the ERC modelling group by the end of this grant. A resource person within the C3D team for Excel and Power Point training has yet to be identified.

**Internship:** Publicity for the C3D internship programme has begun and here have been a number of enquiries about, and expressions of interest in this program. The competition closed on March 15 and the selection of two interns will be soon be finalized. Candidates for the internship program are required to have an academic background in one of the following, or a related discipline:

- Energy studies;
- Engineering (particularly chemical engineering);
- Economics;
- Environmental and geographical science;
- Applied mathematics; or
- Policy studies or international relations.

The programme will give preference to black South African applicants. A detailed analysis of the success of this pilot project and the lessons learned will be included in the final report.

ENDA:

**Staff Training:** ENDA staff has participated in a number of internal and external training activities. Internal activities have focussed on ICT skills and training for use of the collaborative C3D platform for project management (3 staff members trained). ENDA staff also participated in a training workshop in Nairobi, Kenya from 30 August – 2 September, 2006 on the use of climate change and socio-economic data in producing National Adaptation Programmes of Action (NAPAs). This workshop also included training in the use of *AWhere* software to generate maps and tables that can be used in the NAPA process.

Staff participated in the vulnerability and adaptation studies at a workshop organised by the National Communications Support Programme on the commencement of activities for the 2<sup>nd</sup> National Communication of African countries (Pretoria, South Africa 13-15 September 2006). Finally, ENDA took part in a training workshop for 'GHG Inventories for Africa' (September 2006 in Johannesburg, South Africa).

At its monthly peer-to-peer staff exchange, members of the C3D project made presentations on the *AWhere* software training they had received as well as on integrating climate considerations into business practices. ENDA's **Fellowship** programme is reported under training activities as the programme's goals are to train individuals and build the capacity of the individual's home institution rather than meet the internal capacity needs of ENDA. But the **Internship** programme described by ERC is similar to the Fellowship of ENDA;

MIND:

See attached Annex III, Mind Workshop reports: External staff training courses and conferences covered all aspects (CC-SD, Adaptation, and Mitigation) and included all staff. MIND workshops provided "learning by doing" experience for staff, to further develop training skills.

**Activity B:**

***Customize climate change training tools for specific local settings (sub-regions, targeted trainees, etc.), disseminate adapted versions (regional context and language appropriate) of the modules, and produce new tools and training, as required***

ACTIVITY B.1: TRAINING MODULES FOR VULNERABILITY AND ADAPTATION

**B.1.1. ENDA**

▪ **Online Vulnerability and Adaptation Training Tool from ENDA-TM**

In November 2006, ENDA-TM launched its C3D online vulnerability and adaptation training tool. This tool guides participants through a "train the trainers" workshop targeted to negotiators, decision-makers, government officials, technical advisors, consultants, scientists, and regional and national institutions in developing countries. The training material includes theoretical modules, case studies, practical exercises and lessons learned. It is now available online in both English and French, hosted at: [www.unitar.org/ccp/ENDA/lang.html](http://www.unitar.org/ccp/ENDA/lang.html). In November-December 2006, ENDA produced a set of system charts showing interrelationships between human and physical processes in the production of vulnerability and the way that adaptation feeds into the cycle. This material will be developed into a booklet in 2007.

#### ▪ **Production of Guide Books**

ENDA has now completed a draft of the guidebook for local decision makers. It is in the process of planning a workshop to discuss the draft. The workshop is expected to be held in Bamako, Mali in April, 2007.

#### **B.1.2 ERC**

##### **Case Studies from Southern Africa**

Work is ongoing to produce two applied case studies of Southern Africa. ERC has developed concepts and is working on three adaptation studies:

- Water resource management strategies in response to climate change in South Africa;
- Energy and water conservation; and
- Adaptation strategy in the wine farming areas.

#### ACTIVITY B.2: TRAINING MATERIAL ON MITIGATION AND THE CDM

##### **Updated GHG and CDM Training Materials**

ERC is currently in the process of updating its GHG and CDM training manuals. This consists of the inclusion of new GHG guidelines and software, and an update on CDM information. There remains a need to harmonise training manual objectives and comments from experts and stakeholders.

ENDA has established the general framework it will use to develop its mitigation and CDM training materials. These materials will be completed by the end of the grant.

#### ACTIVITY B.3: TRAINING MATERIAL ON CLIMATE CHANGE, SUSTAINABLE DEVELOPMENT, AND POVERTY ERADICATION

##### **Climate Change Fact Sheets**

ENDA has completed the production of set of five climate change fact sheets with emphasis on gender, business and trade for use in awareness-raising with private sector.

##### **MIND Training material on climate change, sustainable development and poverty eradication.**

MIND worked on the following case studies and their status is as follows:

- (B.3.1 integrating climate change responses into macro-economic analysis*
  - Work will only begin in 2008).*

##### **B.3.2 Sectoral case study**

- Agriculture and water – 50% complete

##### **B.3.3 Extreme events: resilience of coastal communities**

- Sustainable hazard reduction and disaster management – 30% complete

##### **B.3.4 Multicriteria analysis application**

- Application to renewable energy project – 50% complete.

##### **B.3.5 Scientific policymaking under risk and uncertainty**

- CC policymaking: the IPCC scientific process and trans-disciplinary dialogue – 20% complete

Some of the partial developed material is being used/ tested in ongoing training courses and the feedback is being used to further refine the case studies.

#### ACTIVITY B.4: CONTRIBUTION TO THE UNFCCC MATERIAL FOR HANDS-ON CGE TRAINING PACKAGE

- To initiate the process, MIND has provided copies of the AIM Adaptation Guide and AIM Mitigation Guide to the CGE, at their request. This will be further developed with the CGE Group after draft decisions are proposed at the upcoming UNFCCC Subsidiary body on the CGE work programme and before the next Conference of the Parties.
- ENDA participated in a workshop organised by the National Communications Support Programme on the commencement of activities for the 2<sup>nd</sup> National Communication of African countries (Pretoria 13-15 September 2006). ENDA representatives presented materials on GHG inventories and Vulnerability and Adaptation.

#### ACTIVITY B.5: TRANSLATION OF TRAINING MATERIAL

##### ▪ **Translation of Training and Information Materials (French/English)**

ENDA developed and translated its strategic plan for vulnerability and adaptation to climate change ([www.endaenergy.org/vanda1.htm](http://www.endaenergy.org/vanda1.htm)). It also translated the Sao Paulo debate material which is the position paper about the post-2012 climate regime. This document has been translated into French in order to assist French-speaking country representatives involved in that post Kyoto debate (COP-12). ENDA produced 6 French language e-bulletins in the lead-up to, during, and post-COP12 which were distributed to various development and climate-related NGOs in Africa (<http://energie.enda.sn/page165.html>). 5 out of the 6 bulletins were translated into English.

##### ▪ **Other Translations**

MIND's book "Primer on CC & SD" is currently being translated into Chinese with additional funding directly raised by the project partner. Translations of ERC and MIND material into French will be made during the next project period when new funding is available to UNITAR.

#### **Activity C:**

***Provide climate change training to targeted beneficiaries in developing countries***

#### ACTIVITY C.1: TRAINING ACTIVITIES FOR WESTERN AND CENTRAL AFRICA BY ENDA-ENERGY

##### **C.1.1 Training of Trainers Workshop**

- ENDA's 2<sup>nd</sup> "Training of Trainers" workshop is planned for July, 2007 using the V&A pedagogical tools. 25 trainees are expected. As the ENDA team participated in the NAPA training workshop in Kenya (August/September 2006), the 2<sup>nd</sup> National Communication Workshop and the GHG Inventories workshop in South Africa (September 2006), coupled with ENDA's extensive preparations for the first COP held in Sub-Saharan Africa, ENDA decided to postpone the V&A workshop that had originally been scheduled for September 2006.

- **C.1.2: Workshop on Local Governance and Climate Change: Held in Bamako, Mali with approx. 50 participants for 3 days from 11 April – 13 April, 2007**

A preliminary guidebook was prepared and then presented during a workshop held in Bamako (11-13 April 2007) on "local governance and climate change". The workshop was supported by the Association of Mayors of Mali and attended by about 50 participants from different administrative units, civil society and NGOs. The guidebook has been examined and a movie was initiated during this meeting to document how populations in a suburb of Bamako consider climate change. The next activity will be a workshop in Dakar to validate the guidebook for local decision makers.

### **C.1.3: Fellowship Programme**

- ENDA's Fellowship programme was developed in December 2006 and January 2007. It has now been launched (see [www.endaenergy.org/fellowship1.htm](http://www.endaenergy.org/fellowship1.htm)). The development of the modules for the fellowship is still underway, and the courses are due to begin April 23, 2007. To date, 34 applications have been received for the three places on offer. The call for applications closed on February 9<sup>th</sup> and applicants were chosen on February 28<sup>th</sup>. The three selected applicants are:

- EEULOGE OGOUALE: CED, UNIVERSITY OF ABOMEY /CALAVI (BENIN)
- SAMBA FALL: CIRAD, (SENEGAL/BURKINA)
- BETINBAYE Yamingue, LEAD (CHAD)

### **ACTIVITY C.2: TRAINING ACTIVITIES IN SOUTH AND EAST AFRICA PLANNED BY ERC**

At the time of this report ERC has conducted one of the two scheduled workshops (see below). Logistics for the second workshop, for East African countries (activity C.2.2), are now in process; ERC is liaising with climate change focal points. The venue is tentatively planned for Dar Es Salaam, Tanzania. It is envisaged that the workshop will be carried out in May 2007.

#### **• C.2.1: Energy and Climate Change Short Course: Held in Cape Town, South Africa with 8 participants for 5 days from 28 August – 1 September, 2006**

The Energy and Climate Change Short Course was advertised widely (government departments, NGOs etc.) and targeted at executives and policy-makers in South Africa. It was aimed at capacity building by equipping participants with current and relevant knowledge on Energy and Climate Change.

The course drew applicants from the Department of Science and Technology, Department of Environmental Affairs and Tourism, Eskom and the City of Cape Town. In addition, the ERC registered Masters Students attended the course as part of their Masters module on Energy and Climate Change. There were 9 registered participants, 8 of which attended. Whilst this is not a large number of participants, and ERC had hoped to draw a broader group, there were some benefits to this, in that some of those attending commented on the value of attending a course where the group size was limited. Attendance was influenced by two other activities during July and August, with some participants declining to attend because of coincidence between the course and other key activities or similar courses elsewhere.

The course lectures and seminars covered areas such as the science of climate change, adaptation to climate change in Africa, greenhouse gas emissions, mitigation of climate change, technology transfer and climate change, the Clean Development Mechanism and future climate change commitments. Participants were provided with materials to better equip them for the aspects of their jobs related to energy and climate change, and in addition were given a platform for networking with others in the field. Participants were given certificates of completion at the end of the course, and were given the opportunity to network with ERC staff on an informal level. See Annex II for further details.

### ACTIVITY C.3: TRAINING PLANNED IN ASIA BY MIND

Under this grant, MIND is expected to conduct 7 training workshops. Three of these workshops took place during this first reporting period and are outlined below.

- **C.3.1: International Seminar on Climate System and Climate Change (ISCS): Held in Beijing, China with over 250 participants from 17-28 July, 2006 of which 3 days addressed the MIND material.**

This international seminar, sponsored by China Meteorological Administration (CMA), was conducted in July 2006 in CMA with the support of State Administration of Foreign Experts Affairs, China (SAFEA), National Natural Science Foundation of China (NSFC), and Global Change System for Analysis Research and Training, and hosted by the Beijing Climate Centre (BCC). Approximately 270 officials, experts and students from 40 institutions and universities such as the Chinese Academy of Sciences (CAS), Chinese Academy of Social Sciences, Ministry of Science and Technology, Ministry of Education as well as CMA National Climate Centre, Chinese Academy of Meteorological Sciences (CAMS) and eight meteorological institutes, National Satellite Meteorological Centre, seven Regional Meteorological Centres, provincial meteorological bureaus, etc attended the meeting.

MIND was entrusted with the task of providing training to over 250 Chinese officials, on linkages between climate change and sustainable development within the C3D framework. This module spanned 12 hours over three days, including 6 hours of lectures and Action Impact Matrix (AIM) training in English by MIND trainers (Prof. Mohan Munasinghe, Ms. Sria Munasinghe and Mr. Sudarshana Perera), and 6 hours of complementary instruction by Chinese instructors under the guidance of Prof. Munasinghe.

The training sessions helped participants to understand interactions among three key elements i.e. national development policies and goals, key vulnerability and adaptation areas, and climate change adaptation. Key objectives of the AIM workshop was to make the participants aware of the main characteristics of the analytical tool, and train them in screening and problem identification by preparing a preliminary matrix that identified broad relationships between development goals and economic-environment-social issues arising from Climate Change.

One of the major objectives of the conference was to strengthen the study and research on the processes and mechanisms of the climate system and climate change in order to combat the negative impact of climate change, and understand its rules and the complicated relations. In addition it was expected to upgrade the knowledge of participants on the latest research results, as well as advances in research methods and concepts in the world. Researchers from CMA and many other Research Institutes in China, as well as the doctoral and master degree candidates participated at the seminar. See Annex III for the Workshop Report.

- **C.3.2: Workshop on Climate Change and Sustainable Development in South Asia: Held in Colombo, Sri Lanka with 16 participants for 1 day on 10 January, 2007.**

▪ This workshop was organized by the South Asia Cooperative Environment Programme (SACEP) as a part of its mandate of providing and enabling technical assistance at the regional level to address environmental challenges with a bearing on the developmental agenda of the countries in the South Asia Association for Regional Cooperation (SAARC). 16 participants including senior government officials, climate change experts, international organization staff, civil society representatives, and

other stakeholders, participated actively in the sessions. The following South Asian countries were represented: Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka.

The sessions were inaugurated by Dr A.A. Boaz, Director General, SACEP. Prof. Mohan Munasinghe then gave a keynote address on climate change adaptation and sustainable development in the South Asia region, and conducted a workshop focusing especially on the Action Impact Matrix (AIM) methodology. This was followed by 7 technical presentations by experts in selected fields in order to help participants gain useful insights on the aspects stated above. Discussions were focused on the barriers faced by Governments, Funding mechanisms, Project coordinators and Field-level implementers. A paper jointly developed by the SACEP and CEE was presented which highlighted project opportunities and barriers. The final part of the deliberations focused on discussions and proposals for joint action with SACEP. The conference recommendations would be presented to the Governing Council of SACEP, and then transmitted to the next SAARC Heads of State meeting.

The main objective of the conference was to help decision makers in the government, financial institutions and project implementers understand project-based opportunities on adaptation to climate change. The meeting allowed for an exchange of ideas between researchers, and decision-makers with diverse expertise in environment, science, economics and disaster management and to direct the outcomes towards development of standardized procedures and measures to deal with future disasters. The meeting also aimed at providing a compendium on adaptation containing important documents relating to:

- a. The concept of adaptation
- b. Project and funding opportunities
- c. How to initiate and sustain adaptation at the local-micro level.

See Annex III for the Workshop Report.

▪ **C.3.3.3 Training Course for Senior Civil Servants on Climate Change and Sustainable Development: Held in New Delhi, India with 21 participants for 6 days from, 1-7 February, 2007.**

MIND was entrusted with the key task of providing training to 21 senior government and private sector officials and managers, on sustainable development and its linkages with climate change. This module spanned 15 hours of lectures and participatory classroom exercises over six days, including detailed Action Impact Matrix (AIM) training by MIND trainers.

The lectures provided participants understand critical sustainable development issues, and introduced them to the “sustainomics”<sup>2</sup> trans-disciplinary framework for making development more sustainable, applied to the Indian context, training them in screening and problem identification by preparing a preliminary matrix for India that identified broad relationships between development goals and economic-environment-social issues arising from Climate Change.

One of the major objectives of the training course was to strengthen the understanding and research on the processes and mechanisms of climate change in order to combat negative impacts, and analyze the complicated interactions between sustainable development and climate change. In addition the MIND module sought to

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<sup>2</sup> “Sustainomics” is a comprehensive transdisciplinary framework developed at MIND, to make development more sustainable (MDMS), through the balanced consideration of the sustainable development triangle (including social, economic and environmental dimensions), and application of multilevel, multistakeholder policy tools like the Action Impact Matrix (AIM). It is widely known and cited (e.g., in the IPCC third and fourth assessment reports). In MIND training courses, the approach is specifically used to integrate climate change adaptation and mitigation policies into national sustainable development strategy

upgrade the knowledge of participants on the latest research results, as well as advances in research methods and concepts in the world.

Special attention was paid to interactions among three key elements i.e. national development policies and goals, key vulnerability and adaptation areas, and climate change adaptation response options. Key objectives of the AIM training included making the participants aware of the main characteristics of the analytical tool, and training them in screening and problem identification by preparing a preliminary matrix for India that identified broad relationships between development goals and economic-environment-social issues arising from Climate Change.

One of the major objectives of the training course was to strengthen the understanding and research on the processes and mechanisms of climate change in order to combat negative impacts, and analyze the complicated interactions between sustainable development and climate change. In addition the MIND module sought to upgrade the knowledge of participants on the latest research results, as well as advances in research methods and concepts. See Annex III for the Workshop Report.

#### ACTIVITY C.4: MIND FELLOWSHIPS IN CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT STUDIES

MIND has awarded fellowships to 3 candidates:

1. Priyangi Jayasinghe (working on adaptation and vulnerability): Aug. 2006 onwards
2. Nimal Siripala (working on CC-SD-macro linkages): Aug. 2006 – Feb. 2007
3. Prasanthi Gunawardena (working on extreme events and biodiversity): March 2007 onwards

#### **Activity D:**

***Support the Caribbean and Pacific SIDS Training Partner Institutions: SPREP and CCCCC***

- **D.1 Participation in C3D network activities**
- **D.2 Formulation of a detailed three-year programme**

Due to the late signature of the contract (December 2006) and disbursement of the funds (early January 2007) and since activities started early August as described in the project document (and stated in the contract), it was essential to first disburse grants to the three partners (ENDA-TM, MIND and ERC) who had already initiated work as soon as we received the funds. In fact, 92% of the budget available was disbursed to partners (see Interim Financial Report). Draft MOUs for SPREP and CCCC are ready and will be processed as soon as the 2007 grants are received.

#### **Activity E:**

***Develop climate change knowledge management and targeted outreach***

#### ACTIVITY E.1: DEVELOPING TARGETED PEDAGOGICAL APPROACHES / E-LEARNING

MIND has an E-book and digital case studies under preparation. It is also continuing to explore e-learning possibilities.

#### ACTIVITY E.2: ONLINE CLIMATE CHANGE RESOURCES/KNOWLEDGE MANAGEMENT

ENDA's development strategy has been to disseminate information to a large public as a first step to target new learning tools. As a part of this strategy, it has developed the following:

- **"Environment-Development"** E-bulletins: Five bulletins around the COP12 activities were produced in the reporting period; stakeholder reaction will be evaluated before producing more;
- New auxiliary website created for ENDA Energy at <http://www.endaenergy.org/> which also now serves as ENDA's news and developments page (December 2006); and
- Production of set of system charts showing interrelationships between human and physical processes in the production of vulnerability and the way that adaptation feeds into the cycle (November-December 2006) – for development in 2007.

### ACTIVITY E.3: INCREASING INFORMATION COMMUNICATION TECHNOLOGY CAPACITIES

In December, 2006 ENDA-Energy developed a new, auxiliary website, hosted at <http://www.endaenergy.org/>. This site now serves as ENDA's news and developments page. Furthermore, ENDA Energy's Communications Officer received training in HTML web-development skills between January and March, 2007.

MIND has upgraded their website and have further developments planned. The ICT equipment was also upgraded, including: 6 new staff workstations; 2 new laptop computers; 2 new desktop computers; and 1 projector and screen.

ERC and ENDA staff training with respect to ICT was described under staff training (see Activity A.2).

### ACTIVITY E.4: C3D OUTREACH AT NATIONAL LEVEL AND COP/MOP SIDE EVENT

#### ▪ **C3D Outreach at COP 12, Nairobi, Kenya**

Representatives from each of the C3D partners were present at the 12<sup>th</sup> Conference of Parties to the UNFCCC and the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (COP12 and COP/MOP2) in Nairobi, Kenya, November 2006. C3D booklets "*Taking Stock and Moving Forward*" outlining new project activities were distributed at the booth hosted by ENDA-TM. C3D partners also participated in a 2-day meeting with other EC-funded climate change related projects that was organized the European Commission - AIDCO to plan upcoming project activities and discuss a possible larger set of common activities.

ENDA-TM was the only African-based international NGO who had an exhibit at COP12. Vulnerability and adaptation resource materials were made available at their booth, which had the theme of "How to integrate climate and development? Experience from the least advanced countries featuring adaptation in agriculture, health, human security and energy." ENDA also previewed the new C3D online vulnerability and adaptation training tool at the booth.

#### ▪ **ERC Outreach at the National Level**

ERC provided training support to the UNDP National Communication Support Program (NCSP) workshop on Second National Communications (SNC). The ERC C3D member provided input on mitigation issues. The workshop took place in Pretoria, South Africa, from 13-16 September 2006, and was designed to assist national SNC project coordinators to gain practical guidance in effective planning and management of the SNC process. Forty-four participants from 28 African countries were present at the workshop. ERC has also provided background information to the government National Climate Change Committee, the Provincial Climate Change Committee of the Western Cape and other workshops and seminars.

#### ▪ **Additional ENDA Outreach**

ENDA-Energy participated in a round-table event held September 12<sup>th</sup>, 2006 in Dakar as a part of the 21<sup>st</sup> Annual CILSS event: *"Confronting Climate Change in the Sahel"*. The aim of the round-table was to sensitize decision makers and the general public on the effects of climate change. ENDA gave a presentation on "Climate Change and Food Security".

ENDA-Energy representatives Isabelle Diop and Boubacar Fall conducted a training session for Mauritanian experts on vulnerability assessment and adaptation to climate change, October 24-28, 2006 in preparation for Mauritania's Second National Communication.

***2.2. Please list all contracts (works, supplies, services) above 5000€ awarded for the implementation of the action during the reporting period, giving for each contract the amount, the award procedure followed and the name of the contractor***

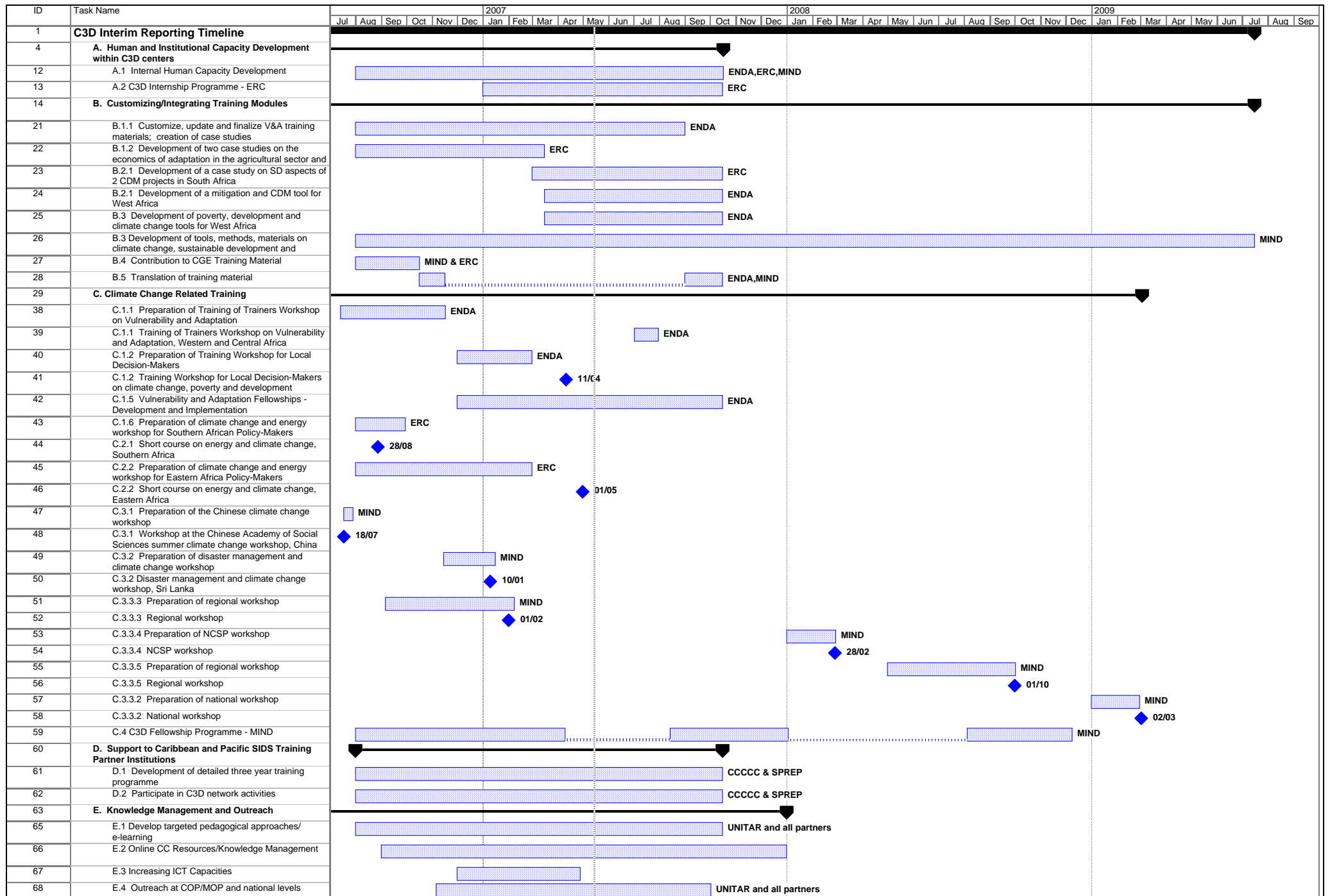
<i>Grants</i>	<i>USD</i>	<i>Euros</i>
<i>Memorandum of Understanding ERC-C3D 1 (Payment 80% of Y1)</i>	<i>224,635.76</i>	<i>173,194.17</i>
<i>Memorandum of Understanding MIND-C3D 1 (Payment 80% of Y1)</i>	<i>222,516.56</i>	<i>171,560.27</i>
<i>Memorandum of Understanding 2006 ENDA –TM C3D 1 (Payment 70% of Y1)</i>	<i>196,556.39</i>	<i>151,544.90</i>

***2.3. Please provide an updated action plan<sup>3</sup>***

Please see attached Gantt chart.

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<sup>3</sup> This plan will cover the financial period between the interim report and the next report.



INTERIM FINANCIAL REPORT  
PERIOD 1/8/2006-31/3/2007

Contract No: EuropeAid/ENV/2006/122754/TPS  
Implementation period of the contract 1/08/06 - 31/7/2009

←-----APPROVED BUDGET in Euro-----→

UNOG Codes	EC EXPENSES	DESCRIPTION	Swiss Grant	Other Cost Sharing	EC	TOTAL COSTS	Expenditures US\$	Expenditures €
301- 302 - 305	1.1	<b>Programme management</b> (Senior Prog. coordinator, assistant, fellows & secretary) (over 3 years)	165,200.00		110,000.00	275,200.00	46,420.00	35,789.82
303	5.7	<b>Costs of conference Services</b>			10,000.00	10,000.00		
		<b>Individual Consultants</b> (fees and travel, translation services)			35,000.00	35,000.00	6,626.53	5,109.05
304	1.1							
308	1.3	<b>Mission of project staff / monitoring</b>	7,000.00		23,000.00	30,000.00	1,624.27	1,252.31
310	5.1	<b>Printing publications</b>	10,000.00		15,000.00	25,000.00	1,312.65	1,012.05
312	3	<b>External services</b> (IT platform, Knowledge management)	5,000.00	20,000.00	15,000.00	40,000.00		
314	4.2	<b>Rental charges</b>			10,000.00	10,000.00		
316 - 317	4.4	<b>Operating Expenses and Equipment</b> (mailing, IT/Communication etc...)	10,000.00		12,000.00	22,000.00	727.26	560.72
318	4.3	<b>Consumable - Office Supplies</b>			10,000.00	10,000.00	671.22	517.51
321	1 & 5	<b>Training Seminars and Grants</b> [1]						
7202		<b>Workshops</b> (C3D Advisory panel, Side event, training, GHG compensation etc...)	5,000.00		86,000.00	91,000.00		
7302		<b>Grant to partners</b>						
		Grant to ERC (15 months)		65,000.00	200,000.00	265,000.00	224,635.76	173,194.17
		Grant to ENDA (15 months)		65,000.00	200,000.00	265,000.00	196,556.29	151,544.90
		Grant to MIND (over 3 years)		100,000.00	530,000.00	630,000.00	222,516.56	171,560.27
		Grant to SPREP			50,000.00	50,000.00		
		Grant to CCCCC			50,000.00	50,000.00		
		<b>Net Total</b>	<b>202,200.00</b>	<b>250,000.00</b>	<b>1,356,000.00</b>	<b>1,808,200.00</b>	<b>701,090.54</b>	<b>540,540.81</b>
382	10	<b>Project support costs 7% [2]</b>			94,920.00		37,002.29	28,528.76
		<b>TOTAL</b>			<b>1,450,920.00</b>		<b>738,092.83</b>	<b>569,069.57</b>

[1] see details sheets ERC, ENDA, MIND Y1,2 and 3

[2] Exceptional rate approved by UNITAR for EC grant

USAGE OF EC FUNDS	Total budget %	Reporting
UNITAR	17.70	8.18
External activities (UNITAR organized events)	6.34	0.00
Direct disbursement to partners	75.96	91.82
	100.00	100.00

Exchange rate US\$ 1= 0.771 Euro ( UN rate February 2007, on receipt of EC contribution, first installment)

Ruth Högländ

Senior Administrative and Finance



Annie Roncerel

Senior Programme Coordinator

### **3. Partners and other Co-operation**

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#### **3.1. How do you assess the relationship between the formal partners of this Action (i.e. those partners which have signed a partnership statement)? Please specify for each partner organisation**

All partner organizations have signed a Memorandum of Understanding (MOU) with UNITAR CCP. The MOUs cover the specific project activities both the partner and UNITAR are expected to undertake during the project timeline. They also specify the amount to be transferred to partners to cover the expenses of their project activities.

#### **3.2. How would you assess the relationship between your organisation and State authorities in the Action countries? How has this relationship affected the Action?**

UNITAR CCP does not directly interact with the State authorities in the Action countries. As UNITAR CCP seeks to build Southern Centres of Excellence on Climate Change, it is the project partners of the respective Action countries that seek to engage their State authorities. The reporting of the activities implemented to date highlights a number of instances where partner organizations have interacted with their State authorities. For example, many government officials attended the training sessions organized by partners and the partners contributed to government activities, like the development of the Second National Communications. We are confident that the activities undertaken by the project partners only seek to solidify and strengthen their interaction and support of State authorities.

#### **3.3. Where applicable, describe your relationship with any other organisations involved in implementing the Action:**

- Associate(s) (if any)
- Sub-contractor(s) (if any)
- Final Beneficiaries and Target groups
- Other third parties involved.

As with State authorities, UNITAR does not interact directly with other organizations, rather it is the partner organizations that are to build these connections.

#### **3.4. Where applicable, outline any links you have developed with other actions**

UNITAR CCP is currently developing an umbrella project to capitalize on the synergies created by the numbers AIDCO funded climate change projects. For more information on the Nairobi Initiative, see [www.c3d-unitar.org/rubrique.php3?id\\_rubrique=33](http://www.c3d-unitar.org/rubrique.php3?id_rubrique=33).

Much of the Vulnerability & Adaptation material developed under the C3D programme is used by partners in the work on National Adaptation Programmes of Action (NAPAs) for the Least-Developed Countries and will be then adapted to be used in a broader generic context (for NAPA or Non-LDC country work).

#### **3.5. If your organisation has received previous EC grants in view of strengthening the same target group, in how far has this Action been able to build upon/complement the previous one(s)? (List all previous relevant EC grants).**

Each C3D partner organization has developed expertise in the areas of vulnerability and adaptation, mitigation, and climate change and sustainable development, respectively. This network of Southern-based institutions, managed by the UNITAR Climate Change Programme, in addition to the core funding provided by the Federal Swiss for Environment and Landscape, was first funded by AIDCO (September 2003 –

July 2005), then by two grants from DANIDA and Irish Aid (November 2005 – June 2006).

This new set of activities (August 2006 – July 2009) is building on this past experience and seeks to continue building relevant human and institutional capacities in developing countries and the network's ability to deliver targeted training and capacity development at the national and regional level. One centre in the Pacific (SPREP) and one in the Caribbean (CCCCC) have been added to the training initiative. The C3D is therefore a global project, benefiting from multiple sources of funding. UNITAR commits itself to maintain a link among all the various activities carried out under this programme (cf. C3D Gantt chart September 2003 – July 2009) and will make final reports available to all donors in due time.

List of previous EC grants:

1. EC AIDCO grant (September 2003 – July 2005), AIDCO/B7-6200/2002/69600

## 4. Visibility

### How is the visibility of the EU contribution being ensured in the Action?

The EU logo appears on the homepage of the C3D website ([www.c3d-unitar.org](http://www.c3d-unitar.org)). The logo, and often a mention of the EU as a supporting entity, is included in all the project publications such as the poster published for the UNFCCC COP 12 and the UNITAR 2006 Report of Activity.



**The European Commission may wish to publicise the results of Actions. Do you have any objection to this report being published on EuropeAid Co-operation Office website? If so, please state your objections here.**

No objections

Name of the contact person for the Action: Annie Roncerel, Senior Programme Coordinator

Signature: .....

Location: Geneva, Switzerland

Date report due: .....End of year 1

Date report sent: .....May 14, 2007

**INSTITUT DES NATIONS UNIES  
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**Strengthening Capacity in Developing Countries for Training Purposes  
on Climate Change with the  
“Climate Change Capacity Development” (C3D) Partners  
August 2006 – July 2009**

**ANNEXES**

**GENEVA May 4th, 2007**





**Climate Change  
Capacity Development**



## **INTERIM REPORT**

MAY 2007  
Environnement et Développement du Tiers Monde  
Dakar, Sénégal



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## 1. Overview of the major project activities and milestones

### 1.1 Project objectives

At its core, the Climate Change Capacity Development (C3D) project seeks to build the capacity of Southern centers of excellence to provide timely, targeted training workshops and materials on issues pertinent to developing country participation in and implementation of the UN Framework Convention on Climate Change (UNFCCC) and its Protocol. This project began in late 2003. In the initial phases of the project, partners undertook the internal measures necessary to begin such capacity building activities. These included recruiting and training staff, acquiring the necessary technical resources, identifying the pressing training needs of stakeholders in the climate arena; as well as beginning to implement these capacity building measures by developing generic training tools on a number of issues relating to climate change. Several training of trainer workshops were also held. This project will continue with support from other funding institutions such as the European Commission.

The primary objectives of this action were to:

- Maintain the momentum created during the first phase of the project;
- Incorporate the feedback and suggestions for training material on vulnerability and adaptation (V&A) from the V&A training of trainers workshop (held in Dakar in July 2005) into the draft material that had been produced for that meeting;
- Finalize a V&A training manual, with case studies, in French and English;
- Initiate a training workshop series for Local Decision makers;
- Participate in C3D outreach activities and internal coordination meetings; and
- Undertake the internal organizational and technical steps necessary to ensure the successful implementation of the next phase of the project, including accessing ICT and staff resources and preparing for the implementation of distance learning programmes.

### 1.2 Project Implementation and division of responsibilities

The division of responsibilities with regard to the various outputs is as follows:

PROJECT MANAGER	VULNERABILITY AND ADAPTATION	MITIGATION	SUSTAINABLE DEVELOPMENT CLIMATE CHANGE	ICT & KNOWLEDGE MANAGEMENT
Jean-Philippe Thomas	Boubacar Fall Moussa Na Abou Lawrence Flint Isabelle Niang Diop (also UCAD)	Libasse Ba Massamba Thioye	Jean-Philippe Thomas JNogoye Thiam Oumar Fall	Emmanuel Sobel Seck Nathalie Koffi Nanasta Djimingue

### 1.3 Project Milestones – 2006 to 2007

Project milestones are summarized below.

<b>Milestone</b>	<b>Date</b>
<i>Memorandum of Understanding signed</i>	<i>MOU 2006 ENDA C3D 1 August 2006 – August 2007 Addendum to C3D MOU March 2007</i>
<i>UNITAR meetings with regional centres</i>	<i>December 2006 (Nairobi, Kenya) at COP 12, informal meeting</i>
<i>ENDA C3D internal meetings</i>	<i>Regularly held</i>
<i>Assessment of ENDA needs and constraints</i>	<i>IT and offices needs assessed -</i>
<i>Communication with project partners</i>	<i>On telephone/email/Skype basis as need arose</i>
<i>Creation and maintenance of virtual IT network</i>	<i>On-going</i>
<i>Training of trainers programme</i>	<i>Training of trainers (TOT) workshop- TOT1 held in July 2005; TOT2 planned for August 2007</i>
<i>Training of policy makers and other climate change stakeholders</i>	<i>Undertaken, June 2006 and March 2007- ongoing</i>
<i>UNITAR partners invited meetings:</i>	<i>November 2007 (Nairobi, Kenya), at COP12 With the European Commission for new project proposal formulation.</i>
<i>Identification of training needs for ENDA: specifically, in vulnerability mapping</i>	<i>Continued: need for training of ENDA staff on vulnerability analysis using Awhere model. Training session held</i>
<i>Launch of a e-bulletin of information on CC issues</i>	<i>Since August 2006 – On going. Nine e-bulletins produced</i>
<i>Development and translation of ENDA strategic plan for Vulnerability and Adaptation to Climate Change</i>	<i>Between August and October 2006; an updated version planned</i>
<i>Attendance at NCSP on the commencement of activities for the 2<sup>nd</sup> NC of African countries; South Africa</i>	<i>One ENDA C3D team member participated on the last day of the studies on V&amp;A – September 2006</i>
<i>Production of a CD-ROM on Vulnerability and Adaptation training material</i>	<i>October 2006</i>
<i>Participated at COP12 in Nairobi</i>	<i>November 2006</i>
<i>Use of AIM tool in a workshop for a west African francophone audience (Senegal)</i>	<i>December 2006</i>
<i>Production of set of five climate change fact sheets with emphasis on gender, business and trade for use in awareness raising with private sector</i>	<i>January – Feb 2007</i>
<i>Training of ENDA staff</i>	<i>Jan - March 2007; Training in HTML web writing skills given to Enda Energy communication officer</i>
<i>ENDA participated in an international conference on reduction of climate change vulnerability of physical, economic and social systems in West Africa</i>	<i>February 2, 2007 Ouagadougou, Burkina Faso</i>
<i>ENDA participated in the international workshop on Climate Change “Partnership Africa-Europe”</i>	<i>February 20, 2007 Ouagadougou, Burkina Faso</i>
<i>Held local-decision makers workshop</i>	<i>March 2007 Bamako-Mali; second workshop planned in Dakar for decision makers manual (mainstreaming climate change in local decision processes) validation</i>
<i>Enda’s contribution (climate change and human development) to UNDP Human Development Report</i>	<i>April 2007</i>
<i>ENDA participated in the inception workshop of the Climate Change Adaptation in Africa (CCAA) Program, a joint program of Canada’s International Development Research Centre (IDRC) and the United Kingdom’s Department for International Development (DFID)</i>	<i>16-20 April Addis Ababa, Ethiopia</i>
<i>Launch of the C3D fellowship programme</i>	<i>April 2007; ends in October 2007</i>

## 1.4 – Assessment of results – 2006 / 2007

<i>Project Logical Framework</i>	<i>Actual Implementation</i>	<i>Activities</i>	<i>Comments</i>
<i>Review and amend, where necessary, UNITAR's draft Memorandum of Understanding (MoU) and ratify the final version of the document</i>	<i>Completed, 2006</i>	<i>Provided inputs to MOU.</i>	<i>Done. ENDA's review and amendments were forwarded to UNITAR in time</i>
<i>Review and amend UNITAR's MOU and ratify the final version of the document</i>	<i>New MOU has been signed (Aug 2006 – Aug 2007)</i>	<i>Details in MOUs being implemented</i>	<i>MOU 2006 ENDA C3D 1 signed</i>
<i>Network and coordinate with other regional trainers, international experts and institutions to assist in undertaking its task</i>	<i>ENDA is a member of the National Comity of Climate Change (NCCC) and Subcommittee of Carbon (SCC) in Senegal and continues collaboration with African negotiators</i>	<i>Regular attendance of NCCC and SCC meetings. ENDA is a member of CCAA Program.</i>	<i>Networking was successful not only with the NCCC members, but also with other networks, particularly one on desertification (Drynet)</i>
<i>Conduct internal human capacity development activities within its organization, including, but not limited to: reviewing staffing needs; hiring new staff, if necessary; and training/building the capacity of staff through internal peer-to-peer seminars or external training activities.</i>	<i>Capacity enhancement on AWHERE tool and HTML web writing</i>	<i>AWHERE and HTML training for C3D members to be implemented</i>	<i>HTML and Awhere trainings done internally by Enda's member were a success . Further plans for internships are being developed to provide a solid structure for human capacity development at ENDA.</i>
<i>Launch of the C3D fellowship programme at Enda and training for 3 fellows</i>	<i>Finished Identification and selection of fellows</i>	<i>The two first weeks on training are over</i>	<i>For the next five months the fellows will work on individual project</i>
<i>Produce applied case studies</i>	<i>Ongoing</i>	<i>Enda is working on three case studies: 1. Senegal 2. Niger, 3. Zambia</i>	
<i>Review and finalise user-oriented training tools, including methods, materials, approaches, case studies, and practical applications for the Clean Development Mechanism, including making the material more interactive.</i>	<i>CDM training manuals in process</i>	<i>Update on CDM information</i>	<i>Need to harmonise training manual objectives and comments from different actors</i>
<i>Prepare and hold a workshop for local West African decision makers on climate change, poverty and development.</i>	<i>Two workshops conducted In Dakar(Senegal) and Bamako (Mali)</i>	<i>Logistics for a third workshop for West African Decision makers in process</i>	<i>First workshop conducted, June 2006, Dakar, the Second workshop was held in Bamako (Mali). The third workshop (planned) should build on work achieved by the previous two</i>
<i>Monitor, maintain and, where necessary, increase ENDA's information and communication technology (ICT) portfolio and skills capacity to enable the</i>	<i>Two websites created</i>	<i>1. <a href="http://energie.enda.sn/">http://energie.enda.sn/</a> for general information about Enda Energy Program) 2. <a href="http://www.endaenergy.org">www.endaenergy.org</a> for events and news</i>	<i>Improvement in making ENDA website as a source for general information and training materials</i>

<i><b>Project Logical Framework</b></i>	<i><b>Actual Implementation</b></i>	<i><b>Activities</b></i>	<i><b>Comments</b></i>
<i>organization to complete all of its duties, as outlined in this MOU.</i>		<i>concerning Enda Energy activities</i>	
<i>Conduct outreach activities in Senegal and provide input into other capacity building initiatives.</i>	<i>Availability of C3D members as resource persons on capacity building initiatives</i>	<i>Work with the NCCCC, SCC background information to government, local decision makers and other workshop and seminars</i>	<i>ENDA becoming a recognised source of expertise on Vulnerability and Adaptation Assessment on climate Change; nationally, Sub regionally and internationally</i>
<i>Contribute as an active member of the Project Steering Committee.</i>	<i>Ongoing</i>	<i>Electronic communication on project implementation</i>	<i>No personal PSC meeting</i>
<i>Actively collaborate in Project Advisory Panel meetings</i>	<i>Ongoing</i>		<i>Attended SB-23, COP-12.</i>
<i>Prepare and hold a Vulnerability and Adaptation Training of trainers' workshop.</i>	<i>TOT2 process Ongoing</i>	<i>Looking for potential participants for the workshop</i>	<i>Workshop will be held in Dakar in August 2007</i>
<i>Adapting the existing training material on the clean development mechanism, mitigation and sustainable development and climate change to produce a suitable version for West African audience</i>	<i>Ongoing</i>		

## **2. Selected Outputs/Activities**

### **2.1 Production of set of five climate change fact sheets with emphasis on gender, business and trade for use in awareness raising with private sector.**

During Jan-Feb 2007, five fact sheets were produced for distribution among other orgs., dissemination at meetings and workshops, and use in training and capacity building work. These fact sheets feature, in summary form, climate change process and impacts and implications for existing gendered inequalities, business and trade. They are entitled:

- What is climate change and what are its causes and agents?
- What are the impacts of climate change in Africa?
- The gendered implications of climate change in Africa
- What are the implications for business of climate change in Africa?
- What are the implications for trade of climate change in Africa?

Each fact sheet comprises definition, context, specific concerns, and recommendations

## **2.2 Production of set of system charts showing interrelationships between human and physical processes in the production of vulnerability and the way that adaptation feeds into the cycle (November-December 2006) – for development in 2007 into a booklet.**

During November and December 2006, a set of charts was produced showing the different sets of social and biophysical relations and processes that take place in relation to human development. Climate change is featured as one of these processes, itself the product of anthropological and biophysical inputs, it impacts on human and ecological networks that have interacted in a complex web to produce human and environmental vulnerability and resilience that enhanced or sped up climate change and variability now impacts. The purpose here is to identify all the processes in play, including climate change, that are affected or take part in the production of vulnerability, to show these operating within a system with inputs, processes and outputs (one of which is social and ecological vulnerability) and to demonstrate how adaptation then feeds back into the same system.

These charts are currently being used in training modules and will later be incorporated into either a set of fact sheets or a booklet to be used as a pedagogic tool.

## **2.3 Development and translation of ENDA strategic plan for vulnerability and adaptation to climate change**

The ENDA strategic Plan for Climate, vulnerability and adaptation was written between August and October 2006 with several drafts in order for the ENDA vision, mission and strategy to be concisely articulated. This document is of value to ENDA Energy itself, to other ENDA partner organisations, other institutions and organisations including the donor community. It is used in a variety of situation to explain ENDA's position, standpoint and agenda. It is not a static document as adaptation theory and practice themselves are shifting within a dynamic evolving process. However, the basic principles that guide all ENDA's work can be seen at the helm throughout the document.

## **2.4 ENDA Fellowship programme**

The ENDA-C3D Fellowship programme entitled '*Building Africa's Capacity; Understanding Vulnerability to Climate Change and Preparing for Adaptation*' was developed during December-January 2007. The fellowship programme addresses Africa's need for capacity development, knowledge sharing and education in the field of human and environmental vulnerability and adaptation to the impacts of climate change. The emphasis is on contributing to a growing reservoir of African knowledge and expertise in the stated theme of the fellowship which is:

*Socio-economic and Ecological Vulnerability and Adaptation in the Arena of Climate Change, with a Focus on Livelihoods*

The fellowship represents one component of ENDA's work in C3D and harmonises with a central plank of ENDA's Strategic Plan for work in vulnerability and adaptation.

The first fellowship course lasts for 6 months commencing on 23<sup>rd</sup> April 2007. It comprises three basic elements:

1. Two weeks of intensive targeted capacity development in Dakar, the home of ENDA's headquarters, in the form of teaching seminars, practical field visits, discussion forums, skills input and a workshop session;
2. This will be followed by five months development of individual projects that speak to the central theme of the fellowship located at the institution of origin of each selected fellow;
3. Two final weeks at the end of the fellowship, at ENDA in Dakar to work individually with fellows to finalise and evaluate their project's results.

In Element 1, there are nine modules and these feature intensive training in contemporary theory and conceptual analysis, and how to assess vulnerability and map it, and how to assess adaptive capacity and integrate this into a process of adaptation action from entry point with community consultation to exit point after completion of implementation, evaluation. Action research is featured heavily and field visits form part of the training session. Further heavy emphasis is given to effective communications strategies and the idea of social learning. Finally, each project is refined and appropriately budgeted during this period so that fellows can go away from the course and commence activities immediately.

### Objectives

The fellowship aims to:

- Extend the knowledge and understanding of the fellows selected in the fields of identification and assessment of vulnerability and identification, assessment of capability and planning for adaptation with a focus on livelihoods;
- Identify, articulate, plan and execute a piece of *action research* on the above theme in a limited time-frame using an agreed methodology;
- By so doing, develop the knowledge and skills of the home institution of the selected fellows in the stated themes;
- Produce research projects, together with working papers that will be of contemporary practical value to the home country/organisation of the fellow as well as to the fellow in his/her future career development and could form the basis of concrete proposals for action.
- Address the outflow of skills and knowledge on vulnerability and adaptation to non-African institutions and organisations

### Projected Outcomes

- A pool of knowledge about the differential way in which climate dynamics and their impacts are interpreted on a variety of scales from local to government in Africa and the way that people adapt to climate variability.
- A reservoir of knowledge and skills located in individuals and institutions throughout Africa, competent of identifying and accurately assessing social and environmental vulnerability, and accomplished at devising strategies to enhance

existing capacity to reduce and adapt to such vulnerability with new adaptive skills and technologies

- African mentors and institutions capable of mentoring, teaching and nurturing new African expertise
- For ENDA and other institutions appointed by ENDA to supply teaching/mentoring/evaluation resources, the implementation of successful fellowships will enhance existing capacity and professionalism in the genre 'African training of African trainers'. By this we mean that the experience gained by specialists involved in training at ENDA and its partner organisations around Africa will add to the strengths and capacity building resources of those organisations themselves.

### Course outline

Day 1	Welcome speech ; Objectives of the training (1 hour)	Climate and Development (2 hours)	Sustainable livelihoods (1 hour)	Vulnerability (3 hours)
Day 2	Vulnerability (2 hours)	Sustainable livelihoods (2 hour)	Climate and Development (2 hours)	
Day 3	Searching the Web (3 hours)	Individual research projects (2 hours)	Sustainable livelihoods (1 hour)	
Day 4	Climate and Development (2 hours)	Film and Panel Discussion (2 hours)	Sustainable livelihoods (1 hour)	Individual research projects (1 hour)
Day 5	Vulnerability (1 hour)	Adaptation (3 hours)	Presentation of Individual research projects followed by discussions (2 hours)	
Day 6	Field Visit			
Day 7	Free			
Day 8	Vulnerability (2 hours)	Sustainable livelihoods (2 hours)	Adaptation (2 hours)	
Day 9	International Labour Day			
Day 10	Individual research projects (2 hours)	Adaptation (3 hours)	Individual research projects (1 hour)	
Day 11	Individual research projects	Climate and Development (1 hour)	Sustainable livelihoods (2 hours)	Field Visit

	(1 hour)			
Day 12	Individual research projects / MOUs			

The fellowship got underway with the first element on April 23<sup>rd</sup> 2007.

## **2.5 Support to Mauritanian experts for the 2nd National Communication (NC)**

Enda provided support to Mauritanian experts' team who worked on their second NC. The Enda C3D members provided input on guidelines on NC and vulnerability and adaptation assessment related to different sectors: agriculture, health, water resources, forestry and coastal zones. A workshop, which took place in Nouakchott, Mauritania from 24-27 October 2007 was aimed at assisting Mauritanian experts who are involved in their second NC to be more familiar on the current methods and tools to assess vulnerability and adaptation in those different sectors.

## **2.6 ENDA participation to the UNFCCC COP12, Nairobi, Kenya**

The 12th Conference of the Parties (COP12) to the United Nations Framework Convention on Climate Change (UNFCCC) and the Second Meeting of the Parties to the Kyoto Protocol (COP/MOP 2) that took place in Nairobi, Kenya (6 – 17 November 2006) was the first to be held in sub-Saharan Africa. On this occasion, ENDA TM with its "Energy, Environment and Development" Programme happened to be the only Africa-based international nongovernmental organization of its kind to hold an exhibition and showcase its activities and publications with a view to mobilizing civil society actors around the issues at stake for the continent. In addition to the exposition, which was ENDA's main attraction, other initiatives included two teleconferences, several side-events and the publication of an e-bulletin entitled "Environment and Development".

- The exhibition focused on the general theme of 'How to integrate climate and development? Background case study experiences for LDCs, in particular in the field of adaptation in agriculture, health, human settlements and energy; and presentation of training materials on vulnerability and adaptation (V&A)' and featured the various publications, reports, projects and initiatives that are carried out by the Energy, Environment and Development Programme of ENDA in the field of climate change and development. ENDA's booth became the meeting point for many participants and delegates who could watch thought-provoking films on 'Gender, Energy and Poverty', 'Vulnerability and Adaptation in sub-Saharan Africa', and 'a community carbon forestry project'. The publications on V&A, especially the CD containing training tools as well as the case studies on community-carbon forestry, were the most appreciated by visitors. The exhibition also featured the publications and activities of ENDA's partners and like-minded organisations including the University of Twente (The Netherlands), ENEFIBIO (ITEBE, France and CRAW, Belgium), GNEED, (Global Network on Energy for Sustainable Development), C3D (Climate Change Capacity Development), AREED (African Rural Energy Enterprise Development), and the Sahara and Sahel Observatory (OSS).

- In order to allow those NGO and civil society representatives who could not travel to Nairobi to personally participate in the COP events due to financial constraints, ENDA convened two teleconferences on the challenges and opportunities of this international negotiation session. The first teleconference took place on 8 November. Participants were updated on the debates that took place on the Adaptation Fund, Financial Mechanism, capacity-building and awareness-raising and were invited to share their views with ENDA representatives and negotiators attending the COP12. The second teleconference took place on 15 November to appraise the status of the negotiations and the various issues at stake. Both conferences provided participating civil society representatives from Benin, Mali and Senegal with the opportunity to be directly updated, from their respective countries, on the progress made over the two weeks of negotiations.
- ENDA representatives were invited as panelists at a number of side-events organized by partner institutions in parallel to the COP. These include the African Development Bank (AfDB) that organized a side-event on its 'Strategy for clean energy and climate change'; the Netherlands Environment Assessment Agency (MNP) on 'Integrated development and climate policies: how to realize benefits at national/international level', and the International Institute for Environment and Development (IIED) that held its usual and well-known 'Development and Adaptation Days'.
- During the four months preceding the Nairobi Conference, ENDA set out to raise awareness and sensitize African civil society organisations on the issues at stake through the launch of its monthly e-bulletin 'Environment and Development'. Four issues were published and distributed targeting the Least Developed Countries (LDCs). Two other issues were published during the COP in Nairobi and a summary issue will appear soon. ENDA's active participation and strong mobilization at COP12 accounts for the organization's clearly expressed desire to direct all relevant stakeholders towards concrete action on climate change adaptation for African populations. For this first Conference of the Parties to be held in sub-Saharan Africa, that was billed 'the Africa COP', the issue of adaptation to climate change by LDCs was of vital concern and it is rewarding that the Parties have adopted the Five-Year Programme of Work on Impacts, Vulnerability and Adaptation to Climate Change. Yet even this result is far from meeting total expectations, -- the agreement covers the next two years only and no concrete action is expected to be launched, meanwhile the financial aspects of the agreement (Adaptation Fund) have been postponed to the next COP. Still, it is clear at least that this COP has managed to win the recognition of the international community on the issue of climate change adaptation which is of paramount importance to African populations. It is ENDA's hope that African negotiators as well as civil society will endeavor to take this recognition one step further.

## **2.7 Case studies**

During March 2007, the Zambian case study work got underway. In essence, this responds to an identified example of vulnerability to new climate issues in a region where climate variation has always been a central issue for local lives and livelihoods. In terms of applicability, Zambia has been a core research country of one of the ENDA

vulnerability and adaptation team for some ten years and many links have been built up during that time.

The direct objectives of this study are:

1. To improve the choices and options for a community suffering extreme social and ecological vulnerability where the main adaptation action in times of exigency, up to now, has been migration
2. To build the capacity of a local organization that ENDA is partnering with throughout the case study work period in the handling of issues regarding climate-related vulnerability and adaptation, including assessment and mapping of vulnerability in all its social and biophysical dimensions, methods of identifying adaptation strategies, assessment of adaptation capacity
3. To test the theories and practices that ENDA espouses and teaches in training workshops, fellowship schemes, conferences and other fora, in 'real life' day-to-day contemporary case-study work in partnership with local communities, their representative bodies and local decision makers and local researchers.
4. To review and enhance ENDA's existing knowledge base and skills on the same climate, vulnerability and adaptation issues.
5. To engage policy makers in Zambia and elsewhere on these same climate issues with the benefit of local experiential knowledge (this will take place towards the end of the initial project cycle)

In January 2007, a pilot study among local communities was carried out in three separate clusters of villages around the eastern edge of the Bulozhi floodplain. The study was aimed at contextualizing the way that local people interpreted climate and its impacts on local lives and livelihoods. The results have been used both in the preparation of material that ENDA has used in multifarious fora and for the preparation of the first stage of the West Zambia project.

In March 2007, an ENDA climate, vulnerability and adaptation specialist went to Zambia to meet representatives from all the potential stakeholder groups. These included the Zambian Minister for Environment and Tourism, the Zambian Deputy Foreign Minister, the Permanent Secretary for Zambia's Western Province, the Litunga (or King) of Barotseland (the local name for the region in question), the chief council chamber of the local traditional authority (the Barotse Royal Establishment [BRE]), the local representatives of Zambia's Meteorological Department, Agriculture, Livestock and Fisheries departments, local communities to confirm the interest already expressed, the Director of the Institute of Economic and Social Research at the University of Zambia, members of staff at Barotseland.com the local organization ENDA will be partnering with, and the manager of a community radio station, based in Mongu, the chief town of Western Province.

The outcomes of this visit were:

1. A raised awareness of ENDA, its mission and purpose in government and across all stakeholders in the region concerned
2. Legitimacy gained and enthusiasm expressed by the Zambian Minister of the Environment for ENDA's aims and stated methodology. Particular enthusiasm was expressed for the idea of building on to and adding to indigenous knowledge

- networks and not replacing them, and also for the principles of community ownership that began with the pilot survey and capacity building
3. Enthusiasm for project partnership expressed by: traditional authority which has most influence with rural people in the region; Barotseland.com; national and regional government; and the University of Zambia.
  4. Agreement among all parties to participate in a local decision makers workshop which will be held in late October 2007 organized by ENDA and the local org which will take place under the ENDA-C3D banner at which local people from a variety of interest groups will be invited to present 'real life stories' of local lives and livelihoods under the influence of changing climate. This will also be an opportunity to sensitize local decision makers and representatives of livelihood groups to the very real variations likely to take place in the future. This workshop will be held in Mongu, in the heart of the region concerned.

ENDA is now engaged in the next stage of the project which is preparation for the aforementioned workshop at which it is hoped at least two ENDA specialists will participate.





**Climate Change  
Capacity Development**



## **INTERIM REPORT**

February 2007  
Energy Research Centre  
University of Cape Town

## **1.0 Project Activities**

### **1.1 Project Objectives - Background**

The Energy Research Centre (ERC), under the auspices of UNITAR's Climate Change Capacity Development Programme (C3D) and alongside with ENDA-TM (Senegal) and MIND (Sri Lanka), has participated in a project that endeavours to promote institutionalised and sustainable approach to capacity building strengthening human and institutional capacity. Focusing in its first phase on implementing a training programme, ERC has concentrated its resources on designing, managing and implementing the training programme focused on climate change mitigation. The training manual ERC has developed covers the following modules: Greenhouse gas inventories, mitigation, and the Clean Development Mechanism. These modules have been developed in response to the need for capacity building initiatives that are country driven and regionally focused, address specific needs and conditions of the country, and involve stakeholders.

In doing so, the overall aim is to assist non-Annex 1 countries to participate effectively in the UNFCCC and its Kyoto Protocol, and to ensure the sustainability of these programmes. There are two important points to note. Firstly, the training manual is tailored to the specific needs and contexts of those being targeted, but with sufficient flexibility to avoid a 'one-size-fits-all' training programme. Secondly, although the manual is prepared in South Africa, it is designed in a flexible form and can be modified by using case studies and exercises relevant to the country teams with diverse backgrounds.

In developing the training manual, MIND and ENDA provided good opportunities to network for ERC, given their various skills, specialisation and the unavoidable linkages in training modules, with MIND developing a training manual on sustainable development, and ENDA on vulnerability and adaptation. This made it easier to call on the strength of other partners when such a need arose.

Consistent with the C3D desired objectives of meeting the challenges of climate change in the future and of providing support and skills, the framework developed endeavours to achieve the following:

- Improve their participation in the UNFCCC process
- Provide a better coordination and integration of national climate policies with sustainable development policies
- Provide a timely implementation of the UNFCCC and Kyoto Protocol
- Contribute to a sound implementation of EC and bilateral aid to developing countries in the area of climate change.
- Increase the capacity of country officials to integrate into the climate change debate
- Integrate climate change policies into the overall national sustainable development strategy

In addition to dedicated staff, necessary inputs to achieve these objectives requires, among other things, a well organised training of trainer's programme to produce trainers capable of delivering high level training; information sharing, coordination and networking with other project partners; an electronic and virtual network; and identification of suitable methods and technologies for training, opportunities, barriers and constraints. Success in this endeavour can be measured against increased capacity of the officials (involved in training) to integrate into the intergovernmental climate policy debate, their integration of climate change policies in the overall dimensions of sustainable development, and their following up at the national level to meet their obligations under the UNFCCC.

### **1.2 Project Implementation**

- The division of responsibilities with regard to the various outputs is as follows:

<i><b>Vulnerability and Adaptation</b></i>	<i>Debbie Sparks, Pierre Mukheibir, Jabavu Nkomo<sup>1</sup></i>
<i><b>Mitigation</b></i>	<i>Harald Winkler, Stanford Mwakasonda, Andrew Marquard</i>
<i><b>SD/CC</b></i>	<i>Stanford Mwakasonda, Pierre Mukheibir</i>

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<sup>1</sup> Prof JC Nkomo participated actively in the UNITAR programme as regional training manager and on V&A. He left ERC in September 2006 to take up a position with IDRC in Nairobi.

<b>Project manager (reporting finance)</b>	<i>Pierre Mukheibir</i>
<b>IT/Technical</b>	<i>Pierre Mukheibir</i>

- The allocation of the ERC staff on the actual Training Manual on Mitigation was as follows:

<b>GHG Inventories</b>	<i>Stanford Mwakasonda</i>
<b>Mitigation</b>	<i>Harald Winkler, Stanford Mwakasonda</i>
<b>CDM</b>	<i>Stanford Mwakasonda, Harald Winkler</i>

- ERC's is geared to stimulate the trainees' intellectual and managerial capacity particularly with regards to design, development, delivery and skills training in negotiation, policy analysis and coordination.

### **1.3 Project Milestones – 2006 to 2007**

Important project milestones covered are summarised below.

<b>Milestone</b>	<b>Date</b>
<i>Memorandum of Understanding signed</i>	<i>MOU 2006 ERC C3D 1 August 2006 – August 2007</i>
<i>New MOU Scope</i>	<i>Updating of training manuals and other activities</i>
<i>UNITAR meetings with regional centres</i>	<i>December 2006 (Nairobi, Kenya) at COP 12, informal meeting</i>
<i>ERC C3D internal meetings</i>	<i>Almost monthly</i>
<i>Assessment of ERC needs and constraints</i>	<i>August - November 2006; IT needs assessed</i>
<i>Communication with project partners</i>	<i>On telephone/email/Skype chat basis as need arose</i>
<i>Creation and maintenance of virtual IT network</i>	<i>On-going</i>
<i>Training of trainers programme</i>	<i>Training undertaken March 2006, separate report available</i>
<i>Training of policy makers and other climate change stakeholders</i>	<i>Undertaken, August/September 2006</i>
<i>Expertise contribution to UNDP National Communication Support Program training</i>	<i>One C3D member, September 2006, UNDP Workshop for Francophone and Anglophone countries, Pretoria, South Africa.</i>
<i>UNITAR partners invited meeting meetings:</i>	<i>December 2007 (Nairobi, Kenya), at COP12 With the European Commission for new project proposal formulation.</i>
<i>Identification of training needs for ERC: specifically, in impact of response measures; adaptation /vulnerability assessment; future commitments; climate change mitigation and poverty.</i>	<i>Continued: need for training of ERC staff on mitigation analysis using LEAAP and MARKAL models</i>
<i>Training of ERC staff</i>	<i>- February 2007; LEAP modelling, one C3D member</i>
<i>Attendance of NCCC meetings</i>	<i>Three ERC C3D team members are also members of NCCC and attendance depends on the agenda and timing as well as on our need to present C3D relevant material</i>

## 1.4 Assessment of Results – 2006 to 2007

<b>Project Logical Framework</b>	<b>Actual Implementation</b>	<b>Activities</b>	<b>Comments</b>
<i>Review and amend, where necessary, UNITAR's draft Memorandum of Understanding (MoU) and to ratify the final version of the document</i>	<i>Completed, 2006</i>	<i>Provided inputs to MOU.</i>	<i>Done. ERC's review and amendment was forwarded to UNITAR in time</i>
<i>Review and amend UNITAR's MOU and ratify the final version of the document</i>	<i>New MOU has been signed (Aug 2006 – Aug 2007)</i>	<i>Details in MOUs being implemented</i>	<i>MOU 2006 ERC C3D 1 signed</i>
<i>Network and coordinate with other regional trainers, international expert and individuals to assist in undertaking its task</i>	<i>ERC is a member of the NCCC in South Africa, Western Cape Provincial Climate Change Committee(PCCC) continues to collaborate with African negotiators within SADC</i>	<i>Regular attendance of NCCC, PCCC meetings.  ERC a member of future commitments and capacity building working committees within NCCC.</i>	<i>Networking was successful, not only with the NCCC members, but also other NGOs in South Africa, particularly the South South North (SSN) organisation</i>
<i>Conduct internal human capacity development activities within its organization, including, but not limited to: reviewing staffing needs; hiring new staff, if necessary; and training/building the capacity of staff through internal peer-to-peer seminars or external training activities.</i>	<i>Capacity enhancement on LEAP and MARKAL modelling, Excel spreadsheets and Power Point identified. One C3D member attended LEAP training</i>	<i>Excel, Power Point, LEAP and MARKAL training for C3D members to be implemented</i>	<i>LEAP training was a success, MARKAL training to be done internally by ERC modelling group. Resource person for Excel and Power Point training to be identified. Further plans for internships are being developed to provide a solid structure for human capacity development at ERC and beyond, see section 2.5.</i>
<i>Launch the C3D internship programme at ERC and train the first cohort of interns in the next 15 months.</i>	<i>Advertisements for intern positions launched.</i>	<i>Identification and selection in process</i>	<i>Need for South Africa intern from formerly disadvantaged groups (non-white) expressed.</i>
<i>Produce two applied case studies of Southern Africa</i>	<i>Ongoing</i>	<i>ERC has developed concepts and is working on three adaptation studies:</i> <ul style="list-style-type: none"> <li><i>Water resource management strategies in response to climate change in South Africa</i></li> <li><i>energy and water conservation,</i></li> <li><i>adaptation strategy in the wine farming areas</i></li> </ul>	
<i>Review and finalise user-oriented training tools, including methods, materials, approaches, case studies, and practical applications for the Clean Development Mechanism,</i>	<i>GHG and CDM training manuals updating in process</i>	<i>Inclusion of new GHG guidelines and software, update on CDM information</i>	<i>Need to harmonise training manual objectives and comments from experts and stakeholders</i>

<i>including making the material more interactive.</i>			
<i>Prepare and hold two Short Courses on climate change, mitigation, adaptation and sustainable development; one in Eastern Africa and one in Southern Africa</i>	<i>One workshop conducted.</i>	<i>Logistics for second workshop in process by liaising with climate change focal points.</i>	<i>First workshop conducted, August 2006, Cape Town, see below. Second workshop for East African countries, tentative venue Dar es Salaam, Tanzania.</i>
<i>Monitor, maintenance and, where necessary, increase ERC's information and communication technology (ICT) capacity to enable the organization to complete all of its duties, as outlined in this MOU.</i>	<i>On going</i>	<i>ERC website updating</i>	<i>Improvement in making ERC website as a source for training materials and papers</i>
<i>Conduct outreach activities in South Africa and provide input into other capacity building initiatives.</i>	<i>Availability of C3D members as resource persons on capacity building initiatives</i>	<i>Work with the NCSP, background information to government NCCC, PCCC and other workshop and seminars</i>	<i>ERC becoming a recognised source of expertise on energy and climate nationally and internationally</i>
<i>Contribute as an active member of the Project Steering Committee.</i>	<i>Ongoing</i>	<i>Electronic communication on project implementation</i>	<i>No personal PSC meeting</i>
<i>Actively collaborate in the Project Advisory Panel meetings:</i>	<i>Ongoing</i>		<i>Attended SB-23, COP-12.</i>
<i>Assist in the preparation of documentation, and participate in the C3D side event at the UNFCCC's COP/MOP.</i>			

## **2.0 Selected Outputs/Activities**

### **2.1 Energy and Climate Change Short Course – Overview**

The Energy Research Centre at the University of Cape Town recently held a successful Energy and Climate Change short course from 28 August – 1 September 2006, as part of our UNITAR C3D project. The course was advertised widely (government departments, NGOs etc.) and targeted at executives and policy-makers in South Africa. It was aimed at capacity building by equipping participants with current and relevant knowledge on Energy and Climate Change.

The course drew applicants from the Department of Science and Technology, Department of Environmental Affairs and Tourism, Eskom and the City of Cape Town. In addition, the ERC registered Masters students attended the course as part of their Masters module on Energy and Climate Change. There were 9 registered participants, 8 of which attended. Whilst this is not a large number of participants, and we had hoped to draw a broader group, there were some benefits to this, in that some of those attending commented on the value of attending a course where the group size was limited. Attendance was influenced by two other activities during July and August, with some participants declining to attend because of coincidence between the course and other key activities or similar courses elsewhere.

The course lectures and seminars covered areas such as the science of climate change, adaptation to climate change in Africa, greenhouse gas emissions, mitigation of climate change, technology transfer and climate change, the Clean Development Mechanism and future climate change commitments (see course outline below). Participants were provided with materials to better equip them for the aspects of their jobs related to energy and climate change, and in addition were given a platform for networking with others in the field. Participants were given certificates of completion at the end of the course, and were given the opportunity to network with ERC staff on an informal level.

### **2.1.1 Course outline**

Day 1	Science of Climate Change; Introduction to Vulnerability and Adaptation
	Vulnerability and Adaptation: Case Study
	Politics of Climate Change
Day 2	Implications of stabilizing GHG Concentrations
	GHG Emission Accounting and National Inventories: Part 1
	GHG Emission Accounting and National Inventories: Part 2
	Mitigation of Climate Change and Energy Supply
Day 3	Mitigation of Climate Change and Energy Use
	Mitigation of Climate Change, Renewables and Energy Efficiency : A National Policy Focus
	Carbon Capture and Storage
	Climate Change Impacts on Hydroelectricity
	Measures for GHG reductions: Market based, regulatory, and voluntary mechanisms
Day 4	Climate Change Impacts in Africa
	Kyoto Protocol and its Mechanisms
	CDM Institutional set up and Project Development
	Technology Transfer in Climate Change
Day 5	Climate Change and Sustainable Development
	National Communications to UNFCCC
	Future Climate Change Commitments: Introduction
	Future Climate Change Commitments: Sustainable Development Approaches and Sectoral CDM
	Closure and Certificate Presentation Ceremony

## **2.2 Support to UNDP NCSP workshop**

ERC provided training support to the UNDP National Communication Support Program (NCSP) workshop on second national communications (SNC). The ERC C3D member provided input on mitigation issues. The workshop took place in Pretoria, South Africa, from 13-16 September 2006, and was designed to assist national SNC project coordinators to gain practical guidance in effective planning and management of the SNC process. Forty-four participants from 28 African countries were present at the workshop.

The mitigation session was intended to highlight the key outputs from mitigation analysis, factors determining the scope and methodology and ways to present outputs in a user-friendly and policy-relevant manner. The objective of mitigation analysis was elaborated within the context of the reporting commitments of non-Annex I Parties to the UNFCCC, as well as national development planning. The need for practical and policy-relevant mitigation assessments was highlighted, and explanations were given on the reasons for, and benefits of, undertaking the assessments. The importance of considering mitigation options within the context of national circumstances and development objectives was highlighted. Emphasis was given on relating mitigation options to national development objectives. It was noted that the most attractive mitigation options will be those that meet a country's sustainable development objectives, for example, the Millennium Development Goals (MDGs).

## **2.3 ERC Participation at COP 12, Nairobi, Kenya**

Participation at COP 12 in Nairobi, Kenya was by three C3D members, with one member attending as part of the South African national delegation. There was no C3D side event at COP 3, but the C3D members were invited to give presentations at a number of side events. These presentations were not directly related to C3D project activities.

The most relevant meeting to the C3D project was the meeting with the European Commission, where the C3D work was commended and synergies between the C3D work and other projects discussed for a new proposal development. Members from the C3D team at the meeting included Annie Roncerel (UNITAR), Stanford Mwakasonda (ERC), Mohan Munasinghe (MIND), Moussa Na Abou and Isabelle Niang from ENDA. The European Commission gave assurance of a max of 1.5M Euros that could be availed for a joint project with other partners, and Annie Roncerel was tasked with coordinating the preparation of a project proposal for all the partners. This project is likely to start in 2008.

## ***2.4 Development of internship capacity building program***

ERC is in the process of recruiting interns to work on climate change and energy issues (see advert in the appendix). Candidates for the internship program are required to have an academic background in one of the following, or a related discipline:

- energy studies
- engineering (particularly chemical engineering)
- economics
- environmental and geographical science
- applied mathematics
- policy studies or international relations

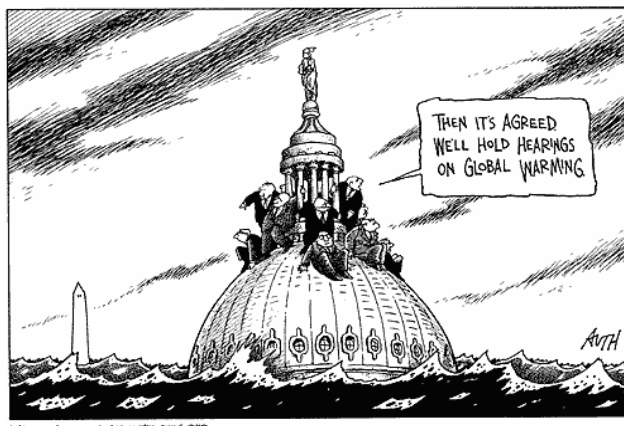
There have been a number of enquiries and interests on this program, but the recruitment of the interns has yet to be finalized. A particular focus is on developing black South African researchers on climate change mitigation.

## ***2.5 Preparation for the East Africa short-course***

As part of our capacity building endeavour, ERC will be hosting a short course on Energy and Climate Change essentially for East African participants. It is also possible that some of the participants will be drawn from the Southern African countries. ERC is currently in liaison with East African countries climate change focal points to identify training needs on energy and climate change in the region. This will determine the workshop program and whether participants from Southern African countries will be invited. Southern African countries have received a number of training and some aspects of training may be redundant to the countries. It is envisaged that the workshop will be carried out in May 2007.

## Appendix: Interns Advert

Don't wait until it's too late!



### Apply for one of our internships in energy and climate change research

The **Energy Research Centre** at UCT undertakes multi-disciplinary work on energy policy and climate change for a range of clients, from the City of Cape Town, to national government, to the United Nations. We are currently doing ground-breaking research on ways in which the South African energy system can be made more climate-friendly. We are looking for **two interns** to assist us with these projects.

#### Who should apply?

Candidates who have an academic background in one of the following, or a related discipline:

- energy studies
- engineering (particularly chemical engineering)
- economics
- environmental and geographical science
- applied mathematics
- policy studies or international relations

We also require candidates to be registered for a Masters or PhD degree in one of these disciplines, or to register for one of these degrees in the Energy Research Centre. Ideally, the work you do as an intern will contribute to your dissertation.

Candidates should be numerate, familiar with Excel, be able to write clearly and precisely (in English), be familiar with energy issues and technology, and be able to work under pressure and meet deadlines. In addition, we are particularly looking for black South African interns. Outstanding candidates who do not meet all the above requirements will also be considered.

#### How will you benefit?

Working as climate change intern in the ERC will provide you with a valuable opportunity to gain experience in a dynamic research environment, under the supervision of experienced researchers. You will gain practical research skills in what is currently one of the most exciting and challenging areas of public policy. There may also be the opportunity to travel internationally, and you will also be contributing to the solution of what is currently one of the most pressing global challenges. The internship will also help prepare you for a career in finding solutions to the problem of climate change, in the Energy Research Centre or elsewhere – exciting career possibilities in climate change research now exist in government, in the private sector, in universities, and in international organisations.

If you wish to apply for one of these internships, please send your condensed CV (3 pages or less), or any further queries you might have, to Dr Andrew Marquard at the Energy Research Centre ([Andrew.Marquard@uct.ac.za](mailto:Andrew.Marquard@uct.ac.za)).

More information on the Energy Research Centre, and on the kind of research that we do, is available at [www.erc.uct.ac.za](http://www.erc.uct.ac.za).

**Applications close on the 15<sup>th</sup> March.**



# Climate Change Capacity Development



## INTERIM REPORT

MARCH 2007  
**MIND**  
Colombo, Sri Lanka



### **MIND STAFF PARTICIPATION IN TRAINING COURSES AND WORKSHOPS: AUGUST 2006 TO FEBRUARY 2007**

MM = Mohan Munasinghe; SM = Sria Munasinghe; YD = Yvani Deraniyagala; SP = Sudarshana Perera; PJ = Priyangi Jayasinghe; ND = Nishanthi De Silva.

#### **A. MIND TRAINING WORKSHOPS AND COURSES**

<b>Conference Title and Organisers</b>	<b>Venue</b>	<b>Duration</b>	<b>Participating Staff</b>	<b>Comments</b>
China Training Workshop 1 - MIND and China Meteorological Agency (CMA)	Beijing, China	2-4 August 2006	MM, SM, SP	MIND training workshop for 270 senior Chinese officials
South Asia Regional Consultation on Adaptation Opportunities and the Way Forward – South Asia Cooperation for Environmental Protection (SACEP) and MIND	Colombo, Sri Lanka	10 January 2007	MM, SM, SP, PJ, YD	MIND training session on CC-SD and AIM application – for adaptation capacity building and networking for 22 participants from 6 S. Asian countries
India Training Course 1 – Training for Senior Civil Servants on CC & SD. MIND and TERI University, Delhi.	Delhi, India	1-7 February 2007	MM, SM	MIND training course for 22 senior civil servants, including AIM and case studies prepared by students

#### **B. EXTERNAL STAFF TRAINING COURSES AND CONFERENCES**

<b>Conference Title and Organisers</b>	<b>Venue</b>	<b>Duration</b>	<b>Participating Staff</b>	<b>Comments</b>
South Asia Consultations on International Climate Regime Beyond 2012 - IGES, Japan	New Delhi, India	9-10 August 2006	YD	Meeting on status of South Asian Countries to Climate Change
Stakeholder workshop on vulnerability to extreme events: lessons learned from the effects of tsunami on the coastal eco-systems – FAO, United Nations.	Colombo, Sri Lanka	5 October 2006	PJ	Training and Information dissemination workshop

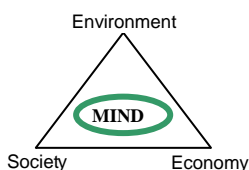
Coastal Community Resilience Workshop – US Ocean Tsunami Warning System Programme	Colombo, Sri Lanka	9 -10, October 2006	SP	National Workshop
Workshop on Water, Development and Technology - M.S. Swaminathan Foundation & Meridian Inst. USA	Chennai, India	10-12 <sup>th</sup> October 2006	YD	Developing networks for nanotechnology and water
Disaster vulnerability & post- Tsunami rehabilitation - Federation of Chambers of Commerce and Industry, Sri Lanka	Colombo, Sri Lanka	5-6 December 2006	SP	International Conference
International Conference on Humid Tropical Ecosystems - UNESCO (MAB secretariat), National MAB committee, & National Science Foundation, Sri Lanka	Kandy, Sri Lanka	5–9 December 2006	PJ	Workshop on vulnerability and status of ecosystems.
Coastal Community Resilience and vulnerability to extreme events I – US Ocean Tsunami Warning System Programme	Colombo, Sri Lanka Colombo	22 January 2007	PJ	Partnership strategy meeting
Consultative Meeting on Climate Change Adaptation - UNDP	Colombo, Sri Lanka	22 January 2007	SP	Networking meeting for Climate Change adaptation
Coastal Community Resilience and vulnerability to extreme events- US Ocean Tsunami Warning System Programme, NOAA, and University of Rhode Island	Ahungalla, Sri Lanka	26 Feb – 2 March 2007	PJ	National Training Work Shop
2 <sup>nd</sup> International Workshop on Community Based Adaptation to Climate Change - Bangladesh Centre for Advanced Studies (BCAS)	Dhaka, Bangladesh	24-28 Feb. 2007	MM, YD	International conference on knowledge sharing on community adaptation to climate change

# **MIND-C3D China Training Workshop 1** **Report**

## **Third International Seminar on Climate System and Climate Change: Training on Climate Change and Sustainable Development**

**July-August 2006  
China Meteorological Administration (CMA)  
Beijing, China**

*Prepared by:*



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**THIRD INTERNATIONAL SEMINAR ON CLIMATE SYSTEM AND CLIMATE  
CHANGE: TRAINING ON CLIMATE CHANGE AND SUSTAINABLE  
DEVELOPMENT, JULY-AUGUST 2006  
CHINA METEOROLOGICAL ADMINISTRATION, BEIJING, CHINA**

**CONFERENCE REPORT**

**1. INTRODUCTION**

The Third International Seminar on Climate System and Climate Change (ISCS) sponsored by China Meteorological Administration (CMA), was conducted during July-August 2006 in CMA with the support of State Administration of Foreign Experts Affairs, China (SAFEA), National Natural Science Foundation of China (NSFC), and Global Change System for Analysis Research and Training, and hosted by the Beijing Climate Centre (BCC). Approximately 270 officials, experts and students from 40 institutions and universities such as the Chinese Academy of Sciences (CAS), Chinese Academy of Social Sciences, Ministry of Science and Technology, Ministry of Education as well as CMA National Climate Centre, Chinese Academy of Meteorological Sciences (CAMS) and eight meteorological institutes, National Satellite Meteorological Centre, seven Regional Meteorological Centres, provincial meteorological bureaus, etc attended the meeting. Previously, the First and the second International School on Climate System and Climate Change (ISCS) had been held in CMA during August-September 2004 and from July-August 2005, respectively.

Dr. Qin Dahe, Administrator of CMA and President of ISCS, made the keynote address on “the climate change and environment change in China” at the opening ceremony. Then he presented letters of appointment as Visiting Professors, to the invited resource persons who conducted seminars and workshops under different topics relating to Climate Change -- Prof. Mohan Munasinghe, Vice Chair of IPCC and Chairman of the Munasinghe Institute for Development (MIND), Dr. Susan Solomon, Co-chair of IPCC WGI, Dr. Dominique Raynaud, Director of National Council for Scientific Research (CNRS), and Dr. Filippo Giorgi, Vice Chair of WGI of IPCC and the head of the Physics of Weather and Climate Section of the International Center for Theoretical Physics (ICTP), Italy.

Following are the key topics covered in the conference (see Annex 1 for detailed conference programme).

- Relationship between climate change and sustainable development;
- Climate effect of atmospheric chemistry and aerosol;
- Bio-chemistry circulation;
- Effect of cryosphere on climate system and climate change;
- Regional climate model and simulation;
- Introduction of RegCM3 model

## **2. OVERVIEW OF THE CONFERENCE**

### General Sessions

The full twelve day conference consisted of around 50 sessions on various topics in climate change – 17 lecture sessions, 6 training sessions on the RegCM3 model, a training session on Action Impact Matrix (AIM), 14 teaching assistance sessions in Chinese language, 3 plenary discussions and 3 project presentation sessions (see Annex 1 for Conference Programme). All lecture sessions were conducted by the highly qualified international resource persons. The broad knowledge of the participants (who came from many reputed research organisations and universities) led to very interesting discussions, which permitted participants to share and discuss their views about climate change in China with foreign experts, in depth.

### MIND CC-SD training Module

MIND was entrusted with the task of providing training to over 250 Chinese officials, on linkages between climate change and sustainable development – within the C3D framework. This module spanned 12 hours over three days, including 6 hours of lectures and Action Impact Matrix (AIM) training in English by MIND trainers (Prof. Mohan Munasinghe, Ms. Sria Munasinghe and Mr. Sudarshana Perera), and 6 hours of complementary instruction by Chinese instructors (under the guidance of Prof. Munasinghe). The training sessions helped participants to understand interactions among three key elements i.e. national development policies and goals, key vulnerability and adaptation areas, and climate change adaptation. Key objectives of the AIM workshop was to make the participants aware of the main characteristics of the analytical tool, and train them in screening and problem identification by preparing a preliminary matrix that identified broad relationships between development goals and economic-environment-social issues arising from Climate Change.

## **3. CONFERENCE OBJECTIVES AND PARTICIPANTS**

One of the major objectives of the conference was to strengthen the study and research on the processes and mechanisms of the climate system and climate change in order to combat the negative impact of climate change, and understand its rules and the complicated relations. In addition it was expected to upgrade the knowledge of participants on the latest research results, as well as advances in research methods and concepts in the world.

Researchers from CMA and many other Research Institutes in China, as well as the doctoral and master degree candidates participated at the seminar (see Annexes 3 and 4 for conference photographs and list of participants).

#### **4. SESSIONS ON MIND CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT (CC-SD) MODULE**

The MIND module on climate change and sustainable development was delivered during 8 sessions of 1.5 hours each, totalling 12 hours -- including 6 hours of English instruction and 6 hours of Chinese instruction. The main readings for the MIND module were:

1. Munasinghe, M. and Swart, R. (2005), *Primer on Climate Change and Sustainable Development: Facts, Policy Analysis and Applications*, Cambridge University Press, Cambridge, UK.
2. MIND (2004) *Action Impact Matrix Guide – Application to Climate Change Adaptation*, Munasinghe Institute for Development, Colombo, Sri Lanka (URL: [www.mindlanka.org](http://www.mindlanka.org)).
3. MIND (2004) *Action Impact Matrix Guide – Application to Climate Change Mitigation*, Munasinghe Institute for Development, Colombo, Sri Lanka (URL: [www.mindlanka.org](http://www.mindlanka.org)).

##### **Session 1 (English): Climate Change and Sustainable Development - Global Overview**

Circular linkages between climate change and sustainable development  
Challenges, worldwide status, concepts, definitions, models and analytical methods  
Key findings of the IPCC, issues and options  
Global negotiations, bargaining strategies, financial mechanisms – COP/MOP process, GEF, etc.  
Kyoto protocol and post-Kyoto issues – Clean Dev. Mechanism (CDM), Joint Implementation (JI), emissions trading  
Sustainable development challenges, worldwide status and basic facts  
Relevance of Agenda 21, millennium development goals, WSSD targets, etc.  
Future global scenarios and globalization: international goods, capital and labour markets  
Basic SD concepts: Bruntland report, other definitions, criticisms and practical problems  
Sustainomics transdisciplinary framework for making development more sustainable (MDMS)  
Economic, social and environmental dimensions of SD, and respective definitions of SD  
Key concepts and bridging role of economics: poverty, equity, sustainability of growth, etc.  
Multiple indicators of SD  
Practical case studies illustrating CC-SD interactions at the global, trans-national, national, sub-national, local and project levels.

##### **Session 2 (Chinese): Climate Change and Sustainable Development - Global Overview**

Exposition and explanation of Session 1 topics by Chinese trainers, including detailed discussion with students, and question and answer session.

### **Session 3 (English): Climate Change and Sustainable Development – Country Strategy**

Integrating CC response policies (adaptation and mitigation) into SD strategy at the national and sub-national levels  
Vulnerability, impacts, adaptation, and adaptive capacity  
Mitigation and mitigative capacity  
Framework for applications at the macroeconomic, sectoral and local levels  
Integrating economic, social and environmental approaches  
Optimality and optimization models, Durability models  
Sustainable development assessment (SDA – CBA, EA, SA etc.)  
Analytical methods: cost-benefit analysis (CBA), multi-criteria analysis, decision rules  
Environmental assessment (EA) and social assessment (SA) procedures  
Economic valuation of environmental and social impacts  
Role of markets and shadow prices  
Internalizing externalities  
Macroeconomic policies and the environment, Macro-models  
Green national income accounting, SEEA, real savings  
Introduction to Action impact matrix (AIM)  
Practical Application to Sri Lanka  
Preliminary Action Impact Matrix (AIM) linking CC and SD in Sri Lanka  
Vulnerability of agriculture to climate change in Asia, Africa and Latin America  
Case study of agricultural vulnerability in Sri Lanka

### **Session 4 (Chinese): Climate Change and Sustainable Development – Country Strategy**

Exposition and explanation of Session 3 topics by Chinese trainers, including detailed discussion with students, and question and answer session.

### **Session 5 (English): Action Impact Matrix (AIM) and CC Adaptation and Mitigation Response Issues in China**

Overview of CC-SD linkages in China  
Vulnerability and adaptation issues in China  
Mitigation issues in China  
Application of AIM procedure to China: Pilot example – Part 1 (Sample AIM for vulnerability and adaptation shown in Annex 2)

Climate Change Vulnerability and Adaptation-SD Linkages  
Determining the most important national goals and policies

Determining critical vulnerable areas relevant to SD and climate change  
Incorporating the impacts of Climate Change  
Identifying how development goals/policies might affect Vulnerable Areas (DEA-AIM)  
Identifying how vulnerable areas might affect development goals/policies (AED-AIM)

#### Climate Change Mitigation-SD Linkages

Determining the most important national goals and policies  
Determining critical mitigation options relevant to SD and climate change  
Incorporating the impacts of Climate Change  
Identifying how development goals/policies might affect mitigation options (DEM-AIM)  
Identifying how mitigation options might affect development goals/policies (MED-AIM)

### **Session 6 (Chinese): Action Impact Matrix (AIM) and CC Adaptation and Mitigation Response Options in China**

Exposition and explanation of Session 5 topics by Chinese trainers, including detailed discussion with students, and question and answer session.

### **Session 7 (English): Climate Change Policy Review and Implementation in China**

Menu of vulnerability and adaptation policy options in China  
Menu of mitigation policy options in China  
Application of AIM procedure to China: Pilot example – Part 2

#### Climate Change Vulnerability and Adaptation Policy Options

Prioritizing most important adaptation-SD interactions and determining appropriate adaptation policies and measures (preliminary AIM), integrated into national SD strategy  
How to perform more detailed studies and analyses of key interactions and adaptation policy options identified above  
How to update and refine above steps to revise the preliminary AIM

#### Climate Change Mitigation Policy Options

Prioritizing most important interactions and determining appropriate mitigation policies and measures (preliminary AIM), integrated into national SD strategy  
How to perform more detailed studies and analyses of key interactions and mitigation policy options identified above  
How to update and refine above steps to revise the preliminary AIM

### **Session 8 (Chinese): Climate Change Policy Review and Implementation in China**

Exposition and explanation of Session 7 topics by Chinese trainers, including detailed discussion with students, and question and answer session.

## 5. CONCLUSIONS

At the very outset, several factors posed a significant challenge, including the exceptionally big class size (over 250 trainees), limited English proficiency, diverse disciplinary backgrounds, and complexity and large size of the country (China).

However, the MIND training team and their Chinese counterparts were able to address these difficulties. Evidence of success is demonstrated by several outcomes:

1. Post-training evaluations by students gave the highest rating to the MIND module (compared to other components of the CMA Seminar which dealt primarily with the science of climate change).
2. The Chinese Government has promptly invited MIND to repeat the same course in summer 2007.
3. The main course text (Munasinghe, M. and Swart, R. 2005. *Primer on Climate Change and Sustainable Development: Facts, Policy Analysis and Applications*, Cambridge University Press, Cambridge, UK) is being translated into Chinese for use in the summer 2007 course and for long term use by the government.
4. Chinese trainers who received hands-on training during the course will conduct additional short follow-up training courses in Beijing and other different provinces of China.

**ANNEX 1: CONFERENCE PROGRAMME**  
**Third International Seminar on Climate System and Climate Change**  
**17 – 28 July 2006, China Meteorological Administration**  
**Beijing, China**

Day	1	2	3	4	5	6
Morning	Opening ceremony	S. Solomon: Ozone in the troposphere and stratosphere with links to air quality	S. Solomon: Ozone and Antarctic climate	D. Raynaud: Climate – ice sheet interactions	Sightseeing for students	F. Giorgi: Uncertainties
	Qin Dahe: The climate and environment change in China	Teaching Assistance in Chinese	Teaching Assistance in Chinese	Teaching Assistance in Chinese		Teaching Assistance in Chinese
Afternoon	S. Solomon: Radiative forcing and chemistry	D. Raynaud: The greenhouse gases	D. Raynaud: The ice core record of past climate and environment: a window on the future	Plenary discussion: Ice core	Reception for students	F. Giorgi: Brief introduction of RegCM3
	D. Raynaud: Climate forcing and climate variability	Teaching Assistance in Chinese	Teaching Assistance in Chinese	C.K.Shum: Role of Space Geodesy in the study of the Atmosphere, Earth Mass Fluxes and Global Sea level Change		Teaching Assistance in Chinese
Evening	Teaching Assistance in Chinese	Teaching Assistance in Chinese	Plenary discussion: Atmospheric chemistry	Movie show	Reception for students	RegCM3 training:1

Day	7	8	9	10	11	12
Morning	F. Giorgi: Aerosol effect	RegCM3 training: 3	Teaching Assistance in Chinese	Plenary discussion: Regional Modeling	Visiting Center for Atmospheric Watch and Services: Laboratory facilities and service	Visiting National Climate center: national climate and climate change service
	RegCM3 training: 2	M.Munasinghe: Climate change & Sust. Development - Global Overview	M.Munasinghe: Action Impact Matrix (AIM): CC Response Options in China	M.Munasinghe: CC Policy Review & Implementation in China		
Afternoon	F. Giorgi: Prediction	M.Munasinghe: Climate change & Sust. Development - Country sStrategy	RegCM3 training: 5	Teaching Assistance in Chinese	Project Presentation	Plenary Discussion: Climate and Climate Change service
	Teaching Assistance in Chinese	RegCM3 training: 4	Teaching Assistance in Chinese	Plenary discussion: Climate Adaptation	Project Presentation	Closing Ceremony
Evening	XU Xiaofeng: Special Report	Teaching Assistance in Chinese	RegCM3 training: 6	Preparation of project presentation	Project Presentation	

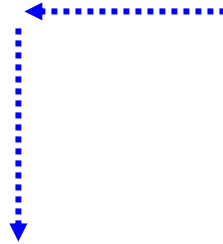
Morning: 8.30 – 10.00  
Break  
10:15 – 11.45

Afternoon: 14:00 – 15.30  
Break  
15:45 – 17.15

Evening: 19.00 – 20.30

**Annex 2: Sample Action Impact Matrix (AIM)**  
**2.1. Effects of Key Vulnerabilities on Development (VED)**

		Economic				Environmental				Social	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Agriculture & Livestock	Hydro Energy	Infrastructure	Industry & Tourism	Water resources (excl. hydro use)	Forest Resources	Bio-diversity (flora & fauna)	Coastal resources, Wetlands	Human Settlements & Livelihoods	Human health
(S0)	Risk (Only Natural Variability)										
(S1)	Risk (With Climate Change)										
	<b>Development Goals/Policies</b>										
(A)	Economic Growth										
(B)	Poverty alleviation - Equity										
(C)	Food Security										
(D)	Employment										
(E)	Trade & Globalisation										
(F)	Macroeconomic stabilization - inflation etc										
(G)	Public Sector Reform										
(H)	Environment										
(I)	Energy Security										
(J)	Regional Development										



**ANNEX 3. CONFERENCE PHOTOGRAPHS**



**Photo 1: MIND China Training Workshop, Beijing, August 2006 -- Participants**



**Photo 1: MIND China Training Workshop, Beijing, August 2006 – Prof. Munasinghe Training Chinese Trainers Chen Ying and He Yong**

ANNEX 4: LIST OF PARTICIPANTS

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4	孙滌荣	男	国家气候中心	68400093	
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25	王桂珍	女	国家气候中心	68408528	
26	王丽华	女	国家气候中心	68406107	
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# **MIND-C3D Workshop on Climate Change and Sustainable Development in South Asia**

*Conducted by the Munasinghe Institute for Development (MIND)*

at the

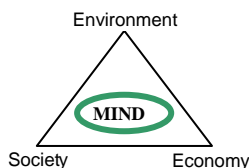
## **Regional Consultation on Adaptation Opportunities and the Way Forward**

*Organised by South Asia Cooperative Environment Programme (SACEP)  
and  
South Asia Association for Regional Cooperation (SAARC)*

10 January 2007

Cinnamon Grand Hotel, Colombo 7, Sri Lanka

## **Conference Report**



**MUNASINGHE INSTITUTE FOR DEVELOPMENT**  
“Making Development More Sustainable – MDMS”

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## **Regional Consultation on Adaptation Opportunities and the Way Forward**

**Organised by SACEP and CEE**

Cinnamon Grand Hotel, Colombo, Sri Lanka

*10<sup>th</sup> January 2007*

### **CONFERENCE REPORT**

#### **1. INTRODUCTION**

The South Asia Cooperative Environment Programme (SACEP) attempts to fulfill its mandate of providing and enabling technical assistance at the regional level to address environmental challenges with a bearing on the developmental agenda of the countries in the South Asia Association for Regional Cooperation (SAARC). SACEP recognizes the enormous significance of adaptation to climate change in this context. This is in response to a felt need to synergize expertise and efforts through mutually reinforcing interventions centered on a participatory process as articulated by the Governing Council of SACEP.

The regional consultation on the 10th January 2007, in Colombo organized by SACEP, signified the launch of such a need-based initiative and consolidated a logical framework to guide sector-specific stock-taking and appropriate adaptation action.

The present SACEP-SAARC initiative focuses on improving preparedness of stakeholders to initiate and sustain adaptation-based activities in the region. The main goal of the gathering on 10<sup>th</sup> January 2007 in Colombo was to help decision makers in the government, financial institutions and project implementers understand project-based opportunities on adaptation to climate change. The goal is intended to be achieved by helping the participants gain access to significant information on aspects of funding, tools and techniques used for development of adaptation frameworks, project-based thrust areas with respect to the various sectors of development; supported by examples of interventions in various stages of evolution.

Within this broader context, the Munasinghe Institute for Development (MIND) was invited to launch the meeting with a special on the same topic -- in view of its recognised status and role as an Asian centre of excellence on climate change and sustainable development issues,.

#### **2. OVERVIEW OF THE CONFERENCE**

A full day conference was held on the 10<sup>th</sup> of January 2007 in the Cedar Room of the Cinnamon Grand Hotel, Colombo, Sri Lanka (see Annex 1 for conference programme and Annex 2 for photographs). The sessions were inaugurated by Dr A.A. Boaz, Director General, SACEP. Prof. Mohan Munasinghe then gave a keynote address on climate change adaptation and sustainable development in the South Asia region, and conducted a workshop focusing especially on the Action Impact Matrix (AIM) methodology. This was followed by 7 technical presentations by experts in selected fields in order to help participants gain useful insights on the aspects stated above. Discussions were focused on the barriers faced by Governments, Funding mechanisms, Project coordinators and Field-level implementers. A paper jointly developed by the SACEP and CEE was presented which highlighted project opportunities and barriers.

The final part of the deliberations focused on discussions and proposals for joint action with SACEP. The conference recommendations would be presented to the Governing Council of SACEP, and then transmitted to the next SAARC Heads of State meeting.

### **3. CONFERENCE OBJECTIVES AND PARTICIPANTS**

The main objective of the conference was to help decision makers in the government, financial institutions and project implementers understand project-based opportunities on adaptation to climate change. The meeting allowed for an exchange of ideas between researchers, and decision makers with diverse expertise in environment, science, economics and disaster management, and direct the outcomes towards development of standardized procedures and measures to deal with future disasters.

The meeting also aimed at providing a compendium on adaptation containing important documents relating to

- a. The concept of adaptation
- b. Project and funding opportunities
- c. How to initiate and sustain adaptation at the local-micro level.

22 participants including senior government officials, climate change experts, international organisation staff, civil society representatives, and other stakeholders, participated actively in the sessions (See Annex 3 for list of participants). The following South Asian countries were represented: Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka.

### **4. SESSIONS AND INTERACTIONS**

#### **Opening Session and MIND Workshop on CC-SD**

Dr. A.A. Boaz presented the overall framework for the meeting, while giving a background of the work done by SACEP, and stressing on the importance of project level activities and capacity building in the context of adaptation to climate change.

Professor Mohan Munasinghe, Chairman of the Munasinghe Institute for Development (MIND) and Vice Chair, Intergovernmental Panel on Climate Change (IPCC) made a keynote presentation on 'Understanding and Analyzing Links between Climate Change and Sustainable Development in South Asia'. He emphasized the importance of adaptation measures in the South Asian region. Borrowing knowledge for CC from the north has been in practice so far, but it is also important generate our own knowledge with a southern perspective to the whole CC discussion. There is thus an urgent need for collaborative research in the South Asian region and for capacity building.

He highlighted that decision makers see climate change as a minor element in national sustainable development strategy. Therefore, mechanisms to provide an integrated view of climate change and sustainable development are important to decision makers. The Action Impact Matrix (AIM) is such a tool developed by MIND, which has conducted training workshops on the AIM in many countries in the African and Asian regions.

The Action Impact Matrix (AIM) is an analytical tool which helps to study the inter-linkages that exist among seemingly independent policies, activities and issues. Prof. Munasinghe conducted the workshop with the assistance of the MIND training team consisting of Sria Munasinghe, Yvani Deraniyagala, Sudarshana Perera, and Priyangi Jayasinghe. Prof. Munasinghe introduced the characteristics and benefits of the AIM adapted to integrate adaptation options into sustainable development strategy of a country. He further explained the mechanism for identifying and analysing economic-environmental-social interactions that play a key role in the implementation of sustainable development goals, and the major climate change impacts on development goals. The MIND team interacted with the other participants and used a case study of AIM applied to Sri Lanka, to illustrate the methodology. The AIM process analyses the complex interaction of climate change impacts, sustainable development goals, and vulnerable areas (see sample Figure below).

## **Adaptation Effects on Development (VED-AIM) in Sri Lanka – CC Impacts and Effects of VA on Development Goals/Policies**

<b>Notation</b> + Beneficial - Harmful 3 High 2 Moderate 1 Low		<b>Key Vulnerable Areas (VA)</b>									
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Agric. Output	Hydro Power	Deforestation	Bio-div. (flora & fauna)	Wet-lands & coastal ecosystems	Water resources	Poor communities	Human health	Infra-struct.	Industries & Tourism
(S0)	Status (Nat. Variability)	-1	0	-2	-1	-1	-2	-1	0	2	2
(S1)	Status (+CC Impacts =>)	-2	-1	-2	-2	-2	-3	-2	-1	-1	-1
<b>Dev. Goals/Policies (+CC Impacts)</b>											
(A)	Growth	-1	-1	-1	-1	-1	-2	-2	-1	-1	-1
(B)	Poverty alleviation	-2	0	-1	-1	-1	-2	-2	-2	-1	-1
(C)	Food Security	<b>-3</b>	0	-1	-1	-1	<b>-3</b>	-1	-1	0	0
(D)	Employment	-1	0	-1	0	-1	-2	-1	-2	-1	-2
(E)	Trade & Globalisation	-2	-1	0	0	0	-1	-1	0	-2	-1
(F)	Budget Deficit Reduction	-1	-1	0	0	0	0	0	-2	0	-1
(G)	Privatisation	0	1	1	0	0	1	0	0	-1	-1



Munasinghe Institute for Development

Since many of the experts were interested in the methodology Prof. Munasinghe announced that MIND is ready to help any institute to develop capacity in applying the AIM and prioritise the most important links between development goals and economic-environment-social issue.

## **Summary of Technical Presentations**

Prof. Kotagama from the University of Colombo, stressed the urgent need for adaptation due to the persistent threats and uncertainty of climate change being experienced in Sri Lanka. The use of traditional knowledge and increased research into the impacts of climate change are essential. He indicated the need to build capacity in all sectors and mainstream adaptation into the development process.

Dr. Jyoti Parikh, Integrated Research and Action for Development, New Delhi discussed about Priorities & Modalities for Climate Change Adaptation and stressed the importance of adaptation to reduce the impact of climate change on agriculture sector. Adaptation should be done at two levels i.e. national level preparation and local level implementation, while strengthening capacity for global negotiations. Dr. Parikh stressed that adaptation should be integrated with development priorities, existing policies, programs and projects. She highlighted the usefulness of tools like AIM, particularly for integrating climate concerns into overall development objectives, and prioritising the activities in the most vulnerable sectors.

Mr. B. R. Manandhar, Environmental Engineer, Ministry of Environment, Science and Technology, from the Government of Nepal described the policy focus on climate change in the 10<sup>th</sup> development plan of Nepal. The plan focuses on carbon trading for resource management and for poverty reduction, promotion of the use of environment-friendly technologies and implementation of multilateral environmental agreements (MEA's) including UNFCCC. He also stressed the requirement of urgent adaptation programmes in Nepal to deal with the severe impacts such as the shrinking of glaciers.

Dr. R. Sukumar, Centre for Ecological Sciences, Indian Institute of Science, Bangalore emphasized in his presentation on "Climate Change and Forests in India: Adaptation in the Forest Sector" that Climate change could cause irreversible damage to unique forest ecosystems and biodiversity unless proper adaptation programmes are available. He added that according to recent studies, over 85% of forest grids would undergo changes in forest type and is likely to have a large scale impact on the bio-diversity in India by 2085. In order to understand the impact on forestry sector and to prioritise other sectors, a well developed mechanism such as AIM is necessary to ensure that public investment or donor funds on adaptation are utilized effectively.

Mr. P. Sodhi and Ms. Shireen from the UNDP-Small Grants Programme, stated that SGP projects address climate change mitigation opportunities that involve communities; removes cultural, institutional, economic etc. barriers to energy conservation and efficiency. They also promote the adoption of renewable energy by decreasing implementation costs as well as promoting the use of sustainable transport systems. They stressed the need for increased funding for small scale adaptation projects.

## **5. CONFERENCE SUMMARY AND CONCLUSIONS**

Representatives from India, Nepal, Pakistan, Sri Lanka associated with action at the local, regional and global levels deliberated at the conference and contributed to the development of an integrated approach for way forward. Competence of specialists in the launch ranged from IPCC co-chair, government representatives, senior academics, heads of research organizations, community project leaders to junior researchers and graduate students. Reality checks, capacity building, consolidating funding mechanisms, development of proposals to initiate and sustain support, intensive interactions with governments and other agencies are essential elements of such a process with results to be delivered in well-defined time frames. Task forces have been initiated and the final frame work of action which lends itself to significant adaptation will emerge soon after the deliberations at the next SACEP Governing Council, for potential submission to the SAARC Heads of State.

The AIM methodology was endorsed by all participants as a useful tool to integrate national sustainable development policies with climate change vulnerable areas and adaptation options.

It was agreed that the AIM would help to achieve the main goal of the workshop which was to assist decision makers in the government, financial institutions and project implementers to understand and prioritise project-based opportunities and policy options on adaptation to climate change.

The participants agreed to the formation of 8-10 thematic groups, which included:

1. Agriculture
2. Forestry
3. Disaster Management
4. Oceans, Coastal and Marine Resources
5. Mountainous Ecosystems
6. Health
7. Soil
8. Water

It was agreed that a Team Leader would be nominated for each of these groups, along with experts from each country. The groups would be in charge of collecting data and sharing information on the respective areas.

## **ANNEX 1: CONFERENCE PROGRAMME**

**Cinnamon Grand Hotel, Colombo, 10 January 2007**

- 0830 hrs Registration & Tea
- **Inaugural Session and Framework for Analysis**

0900 hrs

- Welcome Address & Technical Framework  
Dr. A.A. Boaz, Director-General, SACEP
- Special Guest Address:  
Prof. Mohan Munasinghe, Chairman, MIND

### **MIND Workshop on Climate Change and Sustainable Development**

Chairperson: Prof. Mohan Munasinghe

- **Technical Session 1 : Project Opportunities**

Chairpersons: DG SACEP & Representative of the Government of Sri Lanka

1100 hrs     The urgent need to support adaptation.  
Prof. Sarath Kotagama – Sri Lanka

1120 hrs     Development needs and challenges.  
Dr. Jyoti Parikh -- India

1140 hrs     Experiences of a mountain state.  
Dr. Manandar – Nepal

1200 hrs     Adaptation projects in forestry sector  
Prof. R. Sukumar -- India

1220 hrs     General Discussion

1300 hrs                **LUNCH**

- **Technical Session 2 : Experiences in implementation**

Chairpersons: USAID – Sri Lanka & Dr Jyoti Parikh

1400 hrs     The SGP Experience.  
South Asia Region – Ms. Shireen, SGP Sri Lanka

1420 hrs      Implementing adaptation projects in Bangladesh  
Dr. Atiq Rahman - Bangladesh

1440 hrs      GEF Climate change adaptation fund –  
Mr. Prabhjot Sodhi – UNDP/GEF

1500 hrs      Bjudan Government perspective.  
Mr Jigme – Bhutan

1520 hrs      A capacity building approach to overcome barriers –  
SACEP & CEE.

1545 hrs      DISCUSSION

1600 hrs      **TEA**

- **Technical Session 3 : The way forward**

Chairpersons: DG SACEP

1630 hrs: Discussions.

1730 hrs: Recommendations and concluding remarks by DG SACEP

## **ANNEX 2: CONFERENCE PHOTOGRAPHS**



Head Table at the Opening Session of the SACEP Regional Consultative Conference on Climate Change Adaptation Opportunities and Way Forward: Dr. A.A. Boaz, DG-SACEP; Prof. M. Munasinghe, Chairman, MIND; and Dr. J. Parikh, Director, IRADE, India..



Participants at the MIND Workshop on Climate Change and Sustainable Development

### ANNEX 3: LIST OF PARTICIPANTS

**LIST OF  
PARTICIPANTS  
" REGIONAL CONSULTATION ON CLIMATE CHANGE ADAPTATION OPPORTUNITIES AND  
THE WAY FORWARD"  
10 January 2007 ,  
Colombo, Sri Lanka**

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# **MIND-C3D India Training Course 1**

## **Report**

### **Training Course for Senior Civil Servants on Climate Change and Sustainable Development**

**1-7 February 2006  
TERI University, New Delhi, India**

*Prepared by:*



**MUNASINGHE INSTITUTE FOR DEVELOPMENT**  
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1. Background
2. Course Objectives and Role of MIND
3. Session Details -- MIND CC-SD Module
4. Conclusions

*Annex 1. List of Participants*

*Annex 2. Course Photographs*

**TRAINING COURSE FOR SENIOR CIVIL SERVANTS ON  
CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT  
1-7 FEBRUARY 2007, NEW DELHI, INDIA**

**COURSE REPORT**

**1. BACKGROUND**

The M.A. (Public Policy and Sustainable Development) offered by the TERI University, New Delhi, is an accredited degree programme for senior civil servants of the government as well as the non-government and corporate sectors with a view to facilitating development oriented policy decision-making. The course deals with the various facets of policies in the much-changed scenario of economic reforms and sustainable development. The special module on sustainable development and climate change offered by the Munasinghe Institute of Development (MIND) is a key part of the core course requirement.

In the first year of the programme during which the primary requirement is coursework, the students are exposed to basic concepts of the public policy environment. This segment has a practical orientation, and new methodologies and tools are demonstrated to the students. The first year of the programme includes a set of core and elective courses at the TERI University in New Delhi, with a brief term of five weeks at the Lyndon B Johnson School of Public Affairs, University of Texas at Austin, USA, and one week at the School of Forestry and Environmental Studies, Yale University, USA.

A major portion of the second year is devoted to project or dissertation work in an area chosen by the participant and to be undertaken at his or her workplace. Towards the end of the second year, participants return with their completed dissertations and spend about three weeks at TERI University, during which they present their projects and complete the remaining requirements for the award of the degree.

**2. COURSE OBJECTIVES AND ROLE OF MIND**

MIND was entrusted with the key task of providing training to 22 senior government and private sector officials and managers, on sustainable development and its linkages with climate change – within the C3D framework (see Annexe 1 for the list of participants). This module spanned 15 hours of lectures and participatory classroom exercises over six days, including detailed Action Impact Matrix (AIM) training by MIND trainers (Prof. Mohan Munasinghe and Ms. Sria Munasinghe). The lectures provided participants understand critical sustainable development issues, and introduced them to the sustainomics transdisciplinary framework for making development more sustainable, applied to the Indian context (see Annex 2 for course photographs).

Special attention was paid to interactions among three key elements i.e. national development policies and goals, key vulnerability and adaptation areas, and climate change adaptation response options. Key objectives of the AIM training included making the participants aware of the main characteristics of the analytical tool, and

training them in screening and problem identification by preparing a preliminary matrix for India that identified broad relationships between development goals and economic-environment-social issues arising from Climate Change.

One of the major objectives of the training course was to strengthen the understanding and research on the processes and mechanisms of climate change in order to combat negative impacts, and analyse the complicated interactions between sustainable development and climate change. In addition the MIND module sought to upgrade the knowledge of participants on the latest research results, as well as advances in research methods and concepts in the world.

### **3. SESSIONS DETAILS -- MIND CC-SD TRAINING MODULE**

The MIND module on climate change and sustainable development was delivered during 6 sessions of 2.5 hours each, totalling 15 hours -- including lectures and participative classroom exercises.

#### **Session 1: Introduction to Sustainable Development and Sustainomics Framework**

Self-introduction, course description, specific modules and topics, course requirements, etc.  
Sustainable development challenges, worldwide status and basic facts  
Relevance of Agenda 21, millennium development goals, WSSD targets, etc.  
Globalization: internationalization of goods, capital and labour markets  
Future global scenarios  
Framework for making development more sustainable: sustainomics approach  
Basic SD concepts: Bruntland report, other definitions, criticisms and practical problems  
Sustainomics core concepts and principles: MDMS, SD triangle, transcending boundaries, integrative full cycle analysis  
Economic, social and environmental dimensions of SD, definitions of sustainability (Hicks-Lindahl, resilience, etc.).  
Key concepts and illustrative examples: poverty, equity, sustainability of growth, economic efficiency, etc.  
Integrating economic, social and environmental approaches -- optimality and durability models  
Sustainable development assessment (SDA) and evaluation, multiple indicators of SD  
Analytical methods used in economics: cost-benefit analysis, decision rules  
Willingness to pay (WTP), economic valuation of environmental and social impacts  
Role of markets and shadow prices, internalizing externalities  
Environmental and social assessment (EA and SA)  
Multi-criteria analysis (MCA)  
Macropolicies and the environment, Macro-models, Green national accounting, SEEA, real savings  
Action impact matrix (AIM)  
Practical case studies illustrating CC-SD interactions at the global, trans-national, national, sub-national, local and project levels.

#### **Session 2: Climate Change and Sustainable Development**

Circular linkages between climate change and sustainable development  
Challenges, worldwide status, concepts, definitions, models and analytical methods.  
Key findings of the IPCC, issues and options

Kyoto protocol and post-Kyoto issues – Clean Dev. Mechanism (CDM), Joint Implementation (JI), emissions trading  
Global negotiations and bargaining strategies  
Vulnerability, impacts, adaptation, and adaptive capacity  
Mitigation and mitigative capacity  
Introduction to Action impact matrix (AIM)  
Example of practical application to Sri Lanka -- preliminary Action Impact Matrix (AIM) linking CC and SD in Sri Lanka  
Vulnerability of agriculture to climate change in Asia, Africa and Latin America  
Case study of agricultural vulnerability in Sri Lanka

### **Lecture 3: Sustainable Energy Development (SED)**

Sustainable energy development (SED): challenges, worldwide status and facts, concepts, and definitions.  
Commercial energy – electricity, oil, gas and coal  
Traditional fuels and renewables – fuelwood, biomass, solar, small hydro, wind, etc.  
Integrated national energy planning (INEP) framework and analytical methods  
Energy policy instruments: sustainable pricing policy, demand management and conservation, command and control  
Energy sector reform and restructuring  
CASE STUDY 1: SED analysis of small hydro in Sri Lanka  
CASE STUDY 2: Large dams and sustainable development – multistakeholder, multilevel processes and participation

### **Lecture 4: Practical Application of AIM - Sustainable Adaptation to Climate Change in India**

Overview of CC-SD linkages in India  
Vulnerability and adaptation issues in India  
Mitigation issues in India  
Form student teams for classroom exercises  
**CLASSROOM PARTICIPATIVE EXERCISE 1:** Action Impact Matrix (AIM) – Application to Sustainable Adaptation to Climate Change in India  
Climate Change Vulnerability and Adaptation-SD Linkages

- Determining the most important national goals and policies
- Determining critical vulnerable areas relevant to SD and climate change
- Incorporating the impacts of Climate Change
- Identifying how development goals/policies affect vulnerable areas (DEA-AIM)
- Identifying how vulnerable areas affect development goals/policies (AED-AIM)

Climate Change Vulnerability and Adaptation Policy Options

- Menu of vulnerability and adaptation policy options in India
- Prioritizing most important adaptation-SD interactions and determining appropriate adaptation policies and measures (preliminary AIM), integrated into national SD strategy
- How to perform more detailed studies and analyses of key interactions and adaptation policy options identified above
- How to update and refine above steps to revise the preliminary AIM

## **Lecture 6: Developing Practical Skills In CC-SD Policy Analysis, Research and Communication:**

Determining priority issues  
Formulating problems  
Building trans-disciplinary teams  
Identifying data and applying analytical tools  
Determining and prioritizing policy options  
Presenting results to decision makers.

**CLASSROOM PARTICIPATIVE EXERCISE 2:** Presentation of projects by student teams

The main readings for the MIND module were:

1. Munasinghe, M. and Swart, R. (2005), *Primer on Climate Change and Sustainable Development: Facts, Policy Analysis and Applications*, Cambridge University Press, Cambridge, UK.
2. MIND (2004) *Action Impact Matrix Guide – Application to Climate Change Adaptation*, Munasinghe Institute for Development, Colombo, Sri Lanka (URL: [www.mindlanka.org](http://www.mindlanka.org)).
3. MIND (2004) *Action Impact Matrix Guide – Application to Climate Change Mitigation*, Munasinghe Institute for Development, Colombo, Sri Lanka (URL: [www.mindlanka.org](http://www.mindlanka.org)).

## **5. CONCLUSIONS**

Several factors posed a significant challenge, including the limited knowledge of SD issues among participants, diverse disciplinary backgrounds, the natural scepticism of senior officials who tend to be more action oriented, and the complexity and large size of the country (India).

However, the MIND training team was able to overcome these difficulties, especially since the students were keen, attentive, intelligent, and responded very well to the participatory classroom exercises. Evidence of success is demonstrated by several outcomes:

1. Post-training evaluations by students gave the highest rating to the MIND module (compared to other components of the programme).
2. MIND has been invited already to repeat the same course in 2008.
3. Participants indicated their desire to apply the sustainomics framework and AIM methodology in their work, using their classroom project exercises as templates.

### **ANNEX 1: LIST OF PARTICIPANTS**

<b>No.</b>	<b>Name</b>	<b>Designation</b>	<b>Organisation</b>	<b>Education</b>
1	Mr Nikhil Chandra	Deputy Secretary (PAC)	Dept.of Revenue, Central Board - Customs & Excise	M.A.; LLB
2	Mr Chiranjiv Choudhary	Deputy Director (Senior)	LBS National Academy of Administration	M.A.; Dipl. in Forestry
3	Mr Ashok Kumar Dash	Joint Secretary	Union Public Service Commission	M.Sc.; PGDM
4	Mr Dinesh Kapila	Deputy Secretary (External Assistance)	Ministry of Water Resources	B.com
5	Mr Rajeev Kumar	Joint Secretary	Ministry of Tribal Welfares	L.L.B; PGDM
6	Mr Manoj Kumar	Director	Ministry of Chemicals and Fertilizers, Dept.of Fertilizers	M.A., LLB
7	Ms Seema Malik	Commissioner, Central Excise & Service Tax	3rd floor, Central Revenue (Annexe) Building	B.Sc; M.Ed; LLB; M.Phil
8	Mr Satyendra Kumar Mishra	Director, Administration & Vigilance	Ministry of Non-conventional Energy Sources (MNES)	M.Sc.
9	Ms Chandni Raina	Deputy Director	International Labour Affairs, Ministry of Labour and Employment	M.A.
10	Mr Akshay Kumar Rout	Additional Director General (News)	News Service Division, All India Radio, New Delhi	M.A.
11	Mr Mahesh Kumar Rustogi	Officer on Special Duty	Ministry of Finance, Department of Revenue	B.Tech.
12	Mr Kuntal Sensarma	Deputy Secretary	Dept. of Agriculture & Cooperation	M.A.
13	Mr B Narayanan	Joint Director	Ministry of Information & Broadcasting	B.Sc
14	Mr Amitabh Singh	Director, Postal Services	Department of Posts	M.A.; PG Dip in IRPM
15	Mr Anil Singhal	Controller of Stores, COFMOW	Ministry of Railways	B.Sc (Eng.I; Dipl. In Public Admn.
16	Mr Deepak Kumar Sinha	Dy Conservator of Forests	Panipat Forest Division	M.Sc.; PGD in Forestry Management
17	Mr T Venkatesh	PS to Minister of State of Mines	Ministry of Mines	M.Tech.
18	Mr Aswini Kumar Choudhury	PS to Minister of Commerce, Transp., Labour & Employment	Minister of Commerce, Transport, Labour, Employment, Orrisa	M.A.; PGDM
19	Mr Sujan Singh	Director (Tpt)	Planning Commission	M.A.
20	Dr Bhabaranjan Ray	FA & CAO/F&B/S.Rly	Ministry of Railways	BA, MA, Ph.D (Econ)
21	Dr S Venkata Reddy	Additional Director (Scientific)	Ozone Cell, Ministry of Environment and Forests	M.Sc. Ph.D



## **ANNEX 2. CONFERENCE PHOTOGRAPHS**



**Photo 1: MIND India Training Workshop 1, New Delhi, February 2007 – Participants**





**Photo 2: MIND India Training Workshop 1, New Delhi, February 2007 – participant making his presentation during interactive session.**





## Final Programme

# Asia-Europe Dialogue on the Climate Challenge of the 21st Century 7-8, September, Helsinki

### Thursday 7<sup>th</sup> September

Finlandia-Hall, Elissa-room

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10.00 AM	<b>Press conference</b> <b>Finlandia-Hall Elissa-room</b> <b>Possibility of the media to interview speakers of the Dialogue</b>
	Registration Finlandia-Hall, lobby
12.00	Lunch                      Finlandia-Hall, Restaurant 3, hosted by Mr Jan-Erik Enestam, Minister of Environment, Finland

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1.00 PM	Session 1 <b>Scientific and economic perspective on climate change</b>
	Chair <b>Ms Jutta Urpilainen</b> MP, Chair of Finnish Parliament Group for Global Issues, Finland
	Welcoming words <b>Mr Jan-Erik Enestam</b> Minister for Environment, Finland
	Changing climate – current scientific status <b>Prof Jacqueline McGlade</b> Executive Director, European Environment Agency (EEA)
	<b>The challenge of climate change and sustainable development</b> <b>Dr Mohan Munasinghe</b> Vice-Chair, Intergovernmental Panel on Climate Change (IPCC)
	The challenge of emission reduction and global economic development <b>Dr Richard Bradley</b> Head, Energy, Efficiency and Environ. Division, International Energy Agency
	Structural change of vision – global political and legal context <b>Prof Joyeeta Gupta</b> Free University of Amsterdam
	Debate and conclusions

## Thursday 7<sup>th</sup> September

Finlandia-Hall, Elissa-Room

Programme continued

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3.30 PM	Refreshment break Possibility to informal talks with Mr Erkki Tuomioja, Minister of Foreign Affairs, Finland
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4.00	<b>Session 2</b>	<b>The Challenge of Climate Change</b>
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Chair	<b>Mr Reinhard Loske</b> MP, Germany
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Address from the Finnish Government  
**Mr Erkki Tuomioja**  
Minister for Foreign Affairs, Finland

Fossil dependency and security  
**Mr Gary Gardner**  
Director of Research, Worldwatch Institute

How have industrialised countries performed so far in implementing Kyoto?  
**Mr Zhao Jun**  
Third Secretary, Dpt of Treaty and Law, Ministry of Foreign Affairs, China

Climate related finance flows and technological cooperation between Europe and Asia  
**Mr Jos Delbeke**  
Director, Environment DG, European Commission

Adaptation – key challenge of climate change  
**Hon Suresh Prabhu**  
MP, Former Minister for Environment and Energy, India

Debate and conclusions

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7.00 PM	Dinner Reception (Finlandia-Hall, Restaurant 3)
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Welcoming words <b>Mr Arne Mogren</b> Head of Public Affairs, Vattenfall AB
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## Friday 8<sup>th</sup> September

Finnish Parliament House, Main building, auditorium

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9.00 AM	Morning coffee	Parliament House, Auditorium
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9.30 AM	<b>Session 1</b>	<b>Technology visions</b>
	Chair	<b>Ms Satu Hassi</b> Member of the European Parliament
	Economics of atmospheric stabilization	<b>Dr Ottmar Edenhofer</b> Chief Economist, Potsdam Institute for Climate Impact Research, Germany
	Climate friendly technology potential in Asia vs energy demand of a developing country	<b>Prof. Wenying Chen</b> Tshinghua University, China
	Technology co-operation between Japan and China	<b>Mr Teruo Okazaki</b> General Manager, Dpt of Environment, Nippon Steel Corporation, Japan
	Innovation, intellectual property rights and climate protection	<b>Mr Martin Khor</b> Director, Third World Network, Malaysia
	Debate and conclusions	

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12.00	Lunch	Restaurant Ostrobotnia, Museokatu 10 appr. 5 min walk, leaving together after session
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## Friday 8<sup>th</sup> September

Finnish Parliament House, Main building, auditorium

Programme continued

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1.30 PM	<b>Session 2</b>	<b>Different proposals for global climate regime after 2012</b>
	Chair	<b>Ms Christine Loh</b> Chief Executive Officer, Civic Exchange, Hong Kong
	Contraction and convergence	<b>Ms Sunita Narain</b> Director of Centre for Science and Environment (CSE), India
	Comment	<b>Ms Sirpa Smolsky</b> Managing Director, Association of Finnish Steel and Metal Producers
	Global carbon market	<b>Mr Lars G. Josefsson</b> CEO, Vattenfall AB, Sweden
	Comment	<b>Mr K. P. Nyati</b> Principal Adviser, Confederation of Indian Industries, India
	"No lose sectoral target"	<b>Dr Niklas Höhne</b> Manager, Energy & Climate Strategy, Ecofys, Germany
	Comment	<b>Dr Tom Spencer</b> Executive Director, European Centre for Public Affairs, U.K.
	The way forward to stay below 2 degrees - a truly global approach by Climate Action Network	<b>Dr Stephan Singer</b> Head of Climate Policy, WWF-International
	Comment	<b>Dr Daniel Murdiyarso</b> Senior Scientist, Centre for International Forestry Research (CIFOR), Indonesia

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3.30 PM	Refreshment Break
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## Friday 8<sup>th</sup> September

Finnish Parliament House, Main building, auditorium

Programme continued

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4.00 PM

### **Closing discussion of all participants**

Chair

**Mr Anders Wijkman**  
MEP, President Globe-EU

à **Discussion on climate protection after 2012**

à **Mobilizing the will of change**

à **Formulation of a statement to be delivered to the ASEM-leaders on climate change**

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7.00 PM

Evening reception    Helsinki City Hall (Aleksanterinkatu 20)

Welcoming words    Representative of the City of Helsinki

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Programme correct as of the 31st August 2006