

About LDCs

The Least Developed Countries (LDCs) are a group of 50 countries considered to be the world's poorest based on three criteria of *low income*, *human resource weakness* and *economic vulnerability* developed by the Economic and Social Council of the United Nations. The low-income criterion, based on a three year average estimate of the GDP per capita is that it must be under US\$900 to be included in the LDC group and above US\$1035 to graduate from the group. The human resource weakness criterion uses the Augmented Physical Quality of Life Index (APQLI) based on nutrition, health, education and adult literacy while the economic vulnerability criterion uses the Economic Vulnerability Index (EVI) based on such indicators as instability of agricultural production, instability of export of goods and services, economic importance of non-traditional activities (share of manufacturing and modern services in GDP), merchandise export concentration, and the handicap of economic smallness. In general, LDCs have very low levels of capital, human and technological development. The LDCs share of the world's per capita GDP is less than 1% despite having more than 10% of the world population. Source: UNCTAD, <http://www.unctad.org/lfdc>

About CLACC

The Capacity Strengthening in the Least Developed Countries for Adaptation to Climate Change (CLACC) is a global support programme working in the Least Developed Countries (LDCs) to strengthen their efforts to adapt to the impacts of climate change. CLACC aims at strengthening civil society to enable them to participate effectively in the climate change initiatives including government led processes such as the National Adaptation Programmes of Action (NAPA).

Our Objectives

- Strengthening the capacity of civil society in LDCs to adapt to climate change and fostering adaptive capacity among the most vulnerable groups.
- Establishing an information and knowledge system to support countries to deal with the adverse impacts of climate change.
- Mainstreaming the NAPA process with key non-governmental stakeholders.

Why LDCs

The LDCs are the most vulnerable to the impacts of climate change, due to their geographical location in some of the most vulnerable areas and their low capacity to cope with drought, floods, cyclones among others.

LDCs and Climate Change Impacts

Africa is the most vulnerable region to climate change, due to the extreme poverty of many Africans, frequent natural disasters such as droughts and floods, and agricultural systems heavily dependent on rainfall. The main climate change impacts will be on water resources, food security and agriculture, natural resource management, biodiversity and human health. Although most LDCs are located in Africa, those in Asia are also vulnerable. Issues of concern in Asia include water availability, food security and agriculture, ecosystems, biodiversity and human health. Several LDCs are also small island states. These will face similar challenges, and countries such as the Maldives and Kiribati may even disappear if significant sea-level rise occurs.

Adaptation Strategies in Response to Climate Change

Funding

The United Nations Framework Convention on Climate Change (UNFCCC) has financial mechanisms in place. The LDC Fund was created during the sixth Conference of Parties (COP) in Bonn, Germany in July 2001. The fund is operated by the Global Environment Facility (GEF). The LDC fund supports the preparation of National Adaptation Programmes of Action (NAPAs).

The Special Climate Change Fund was established at the seventh COP. The fund finances activities relating to climate in the areas of adaptation, technology transfer, energy, transport, industry, agriculture, forestry and waste management.

The Kyoto Protocol Adaptation Fund is expected to support "concrete adaptation projects and programmes in developing countries that have become parties to the protocol". This fund is to be financed from a levy on Clean Development Mechanisms (CDM) and is dependent upon the protocol which came into force in February 2005.

National Adaptation Programmes of Action (NAPAs)

The National Adaptation Programmes of Action (NAPA) process which started under the aegis of the United Nations Framework Convention on Climate Change (UNFCCC) is a mechanism through which national stakeholders can understand the problem of climate change and their role in building resilience to its adverse impacts, and identify a portfolio of appropriate adaptation projects. It provides a means through which LDCs identify their priority activities for adaptation to climate change.

NAPA takes into account existing coping strategies at the grass root level and builds upon that to identify priority activities. The NAPA process is supposed to be participatory and incorporate inputs from local level communities. Community level input is considered important because grassroots communities are the main

stakeholders. NAPA focuses on urgent and immediate needs- those for which further delay could increase vulnerability or lead to increased costs at a later stage, hence the documents are prepared in a simple and easily understood format for both the public and decision makers. CLACC Fellows are actively participating in this process.

The Need for Capacity Building and Technology Transfer

Despite their low contribution to global warming in terms of fossil consumption, LDCs would suffer most from impacts of climate change. They lack both human and economic resources while technologies to adapt are least developed making it difficult to adjust to long-term changes in climate. Capacity building and technology transfer are some of the ways through which adaptive capacity in LDCs may be enhanced. Capacity building for the LDCs should aim at strengthening the social, economic and technical resilience of the poorest and most vulnerable against extreme climate events now and in future.

CLACC Management

CLACC is being undertaken by the Regional and International Networking Group (RING*), and is managed by the International Institute for Environment and Development (IIED) on behalf of the group.

Activities

The CLACC activities take place at the local, national, regional and international level. The LDCs in which they are being implemented include: **Bangladesh, Bhutan and Nepal** in South Asia; **Sudan, Tanzania and Uganda** in East Africa; **Malawi, Mozambique and Zambia** in Southern Africa and **Benin, Mali and Mauritania** in West Africa. The activities include:

- i. Action-research and awareness-raising with vulnerable communities in twelve LDCs.
- ii. Engagement with national policy and stakeholder processes, including the NAPAs.

*The ring is a global alliance of research and policy organizations that seeks to enhance and promote sustainable development through a programme of collaborative research, dissemination and policy advocacy. Its members include: ACTS (Kenya), BCAS (Bangladesh), CENESTA (Iran), DA (India), ENDATM (Senegal), IIED (UK), IIED-AL (Argentina), IISD (Canada and Switzerland), IUCN (Iran), NEST (Nigeria), RIDES (Chile), SDPI (Pakistan), SEI-Boston (USA), SEI-Asia (Thailand), TDRI (Thailand), Vitae Civilis (Brazil) and ZERO (Zimbabwe).

Project Meeting in Bonn

A one day project meeting was held in Bonn on the 18th May 2005 during the SB22 where an update on the CLACC Fellowship and funding was given by the coordinator. A presentation on climate change and health outlining the procedure to be followed in the in-country studies scheduled to commence in the last quarter of 2005 was made by Hannah Reid on behalf of Sari Kovats. Other members, including the regional fellows also gave an update on on-going activities in their respective institutions and regions.

Project Meeting in Montreal

All CLACC team members are expected to attend a project meeting scheduled for 2nd December, 2005 in Montreal Canada. Team members will also participate in the adaptation and development days among other meetings during COP 11.

- iii. Engagement with regional level discussions in South Asia, East Africa, West Africa and Southern Africa.
- iv. Engagement with international policy processes including the UNFCCC.

The CLACC project is currently supporting a Fellowship Programme and an Action/Research Programme.

CLACC Fellowship Programme

The Fellowship Programme started with four Regional Fellows from southern organizations visiting northern institutes for a period of two months in 2004 to work on adaptation to climate change under the supervision of more experienced colleagues. The four Regional Fellows are **Mozaharul Alam** from BCAS hosted by IIED, UK; **Johannes Chigwada** from ZERO hosted by PIK, Germany; **Victor Orindi** (ACTS) hosted by CICERO, Norway; and **Salimata Wade** from ENDA hosted by SEI-Oxford and IIED, UK. Outputs from the fellowships include reports on adaptation to climate change in the four regions. The Regional Fellows in turn hosted the country fellows as from January 2005. The fellows contributed to on-going climate change activities in their host institutions and explored opportunities to collaborate in future initiatives.

Research on Climate Change and Human Health

In-country research on climate change and human health in 12 LDCs will be carried out for one year. An initial training workshop led by Saleemul Huq and Sari Kovats was held in Kisumu, Kenya from 24-28 October, 2005. The in-country studies are focusing on the most vulnerable groups (both geographically and socio-economically), the health impacts associated with climate hazards and ways through which their capacities to deal with impacts of climate change may be strengthened. Apart from the presentations and developing the methodology, there was also a one day field trip led by Andrew Githeko of KEMRI/CDC to nearby locations in western Kenya where research on climate change and human health are being carried out. The in-country studies are financially supported by the UK's Department for International Development (DFID).

People behind CLACC

Mozaharul Alam is a Research Fellow with Bangladesh Centre for Advanced Studies (BCAS) working with a multidisciplinary

team in the field of climate change, environment, natural resource management and geographic information systems. mzaharul.alam@bcas.net

Albertina Bambaige holds an MSc degree in Environmental Policy and Planning and is currently an Environmental, Health and Safety Manager at Nacala Port, Mozambique. She is a member of the Action Group for Renewable Energies and Sustainable Development (GED), working on climate change issues. tynnaa@hotmail.com, office@ged.org

Sidi Ould Ahmed Chein has a Masters degree in Law from the University Med V Morocco and has vast experience in management of the urban, semi urban and rural space as well as natural resource management. He is a Sociologist for Nouakchott, an NGO in Mauritania. tenmiya@toptechnology.mr

Johannes Chigwada holds a Bachelors Degree in Chemistry and Botany. He has worked for the Ministry of Energy, Water Resources and Development. Currently, he is the Program Manager on Sustainable Development for Zimbabwe Regional Environmental Organization (ZERO) and the Chairman of the Southern Africa Climate Action Network. johannes@zero.org.zw

Krystal Dossou holds an MSc in Socio-economy for Rural Development from Abomey-Calavi's University. He has worked as a researcher, consultant and scientific assistant at the National Institute of Agricultural Researches (INRAB), Benin. Currently, he is the Program Manager of OFEDI, Benin and is in charge of the Economy, Energy & Environment Board. Krystod7@yahoo.fr

Thomas E. Downing holds a PhD from Clark University and is currently the director of the Stockholm Environment Institute- Oxford Office and coordinates its Risk, Livelihoods and Vulnerability Programme. He works extensively on climate adaptation and risk management, food security and water vulnerability. tomdowning.sei@gmail.com

Sumaya Zaki Eldeen holds a PhD degree in plants Eco-physiology and has extensive research experience on climate change, genetic resources and remote sensing. She is an Assistant Professor at the Institute of Environmental Studies, University of Khartoum and an executive committee member of the Sudanese Environment Conservation Society (SECS). zakiields@yahoo.com

Saleemul Huq taught at the University of Dhaka until 1984 when he founded the Bangladesh Centre for Advanced

Studies (BCAS). In 2001, he joined the International Institute of Environment and Development in London as the Director of Climate Change Programme. He is well published and was the lead author of the chapter on "Adaptation and Sustainable Development" in the third assessment of the Intergovernmental Panel on Climate Change and is a co-author of the cross-cutting theme on "Adaptation and Mitigation" for the Fourth Assessment Report. He is the CLACC Coordinator and Climate Change Programme Director at IIED. saleemul.huq@iied.org

George Kasali is a Microbiologist by profession and has a PhD from the University of Strathclyde. He has served as a research scientist for the National Institute for Scientific and Industrial Research (NISIR). Currently, he is a researcher with Energy and Environmental Concerns (EECZ), Zambia. kasaligeorge@yahoo.com

Euster Kibona holds a Bachelors degree in Environmental Sciences and Management from Sokoine University of Agriculture, Tanzania. She has specialized in Environmental Impact Assessment, Risk Assessment, Ecological and Biodiversity Management amongst other environmental management activities. Currently, she is a Senior Environmental Programme Officer with the Environment Protection Management Services (EPMS) in Dar es Salaam. Her work focuses on participatory methods of project development and sustainable development issues such as climate change impacts, vulnerability, adaptation and mainstreaming issues. eusterkibona@yahoo.com; epms@bol.co.tz

Richard Klein is a senior researcher and deputy department head at the Potsdam Institute for Climate Impact Research (PIK). He has an interdisciplinary background with degrees from the Vrije Universiteit Amsterdam, the University of East Anglia and the Christian-Albrechts-Universität zu Kiel. He joined PIK in 1999, where he has been a principal investigator in a number of international research activities on societal vulnerability and adaptation to climate variability and change. From 2000 to 2004 he directed the interdisciplinary project on Environmental Vulnerability Assessment. Since 2002 he has also been an associate fellow of the Oxford Office of the Stockholm Environment Institute. richardklein@pik-postdam.de

Sari Kovats is a Lecturer in Environmental Epidemiology and is an expert on the assessment of the current and potential impacts of climate on human population

health. Her recent work has focused on the epidemiology of heat waves for the EC-funded CCASSH and EUROHEAT projects on preventing the health impacts of weather extremes. Sari was an expert advisor since 1996 on climate variability, climate change and health for WHO Geneva, and the WHO European Centre for Environment and Health (Rome). She is also a member of the WMO-Commission on Climatology Expert Team on health-related climate indices and their use in early warning systems, and was a member of the Technical Working Group on Research Needs for the EC Environment and Health Strategy in 2003/4. Sari is currently a lead author in fourth assessment report of the Intergovernmental Panel on Climate Change, and has worked extensively on previous assessments for the IPCC. sari.kovats@lshtm.ac.uk

Everhart Nangoma holds a Bachelors Degree in Environmental Studies and Demography from the Chancellor College, University of Malawi with specialization in Natural Resource Management. He is a Senior Program Officer for the Coordination Unit for the Rehabilitation of the Environment (CURE), Malawi. He previously served as the NGO focal point person on UNCCD. e_nangoma@hotmail.com

Victor A. Orindi has a Masters in Environmental Science from Kenyatta University and works for the African Centre for Technology Studies (ACTS) in the Energy and Water Security Programme where he coordinates the climate change activities. Before joining ACTS, he taught for one year in the department of Environmental Science, Kenyatta University. v.orindi@cgiar.org

Aminur Rahman holds a Masters in Agricultural Extension from Bangladesh Agricultural University, Mymensingh. He works for the Agriculture Coordination Unit at Rangpur Dinajpur Rural Services (RDRS) in Bangladesh as a Monitoring Officer. Previously, he worked for Bangladesh Rural Advancement Committee (BRAC) as a Program Organizer. He is the CLACC Fellow for Bangladesh.

Mizanur Rahman obtained an Master of science degree from the Institute of Marine Sciences, Chittagong University, Bangladesh. He has served as an Assistant Farm Manager, Biologist and Research Associate for Research & Development Collective. Currently, he is the Coordinator of Sustainable Resources Management in the Brackish Water Areas project at CARITAS Fisheries Program. sjmmrahman@yahoo.com

Bimal Raj Regmi holds a Master of Science in Forestry and has worked as a natural resource trainer for Forestry Instructors-Peace Corps in Nepal. Currently, he is the Senior Programme Officer in Local Initiatives for Biodiversity, Research & Development. bregmi@libird.org

Hannah Reid is a Research Associate working with the Climate Change Programme at IIED. Prior to this she spent 3 years in South Africa for a PhD in Biodiversity Management

assessing whether community owned national parks were ecologically, socially and economically sustainable. She has worked in Philippines, Australia, Zimbabwe and Zambia with a variety of government agencies, NGOs, donors and community organizations. hannah.reid@iied.org

Oumar Sango holds a Masters degree in Socio-anthropology and currently, he is the Project Coordinator for AMADE- PELCODE, Mali. This is a national NGO active in the domain of environment protection and children care. The NGO has established dynamic partnerships with actors from the private, public and civil society sectors towards working with rural and urban communities in developing local technologies with regard to biodiversity and climate change issues.

Dago Tshering is a diploma holder in forestry from the Natural Resources Training Institute in Bhutan. He has worked for the government forestry division and is currently a Field Coordinator for RSPN in Phobjikha Conservation Area in implementing the Integrated Conservation and Development Program (ICDP). dagot@rspn-bhutan.org

Ben Twinomugisha is currently pursuing a Masters Degree in Development Management and is the Programme Support Officer-Networking and Membership for DENIVA, Uganda. He sits on the National Working Committee on Water and Sanitation Policy Review focusing on private sector participation (PSP) in the Ministry of Water, Land and Environment in Uganda. twinomu.gishaben@yahoo.co.uk, btw@deniva.org.ug

Salimata Wade holds a PhD in Geography and Environmental Law and is a member of the Environment Development Third World (ENDA), working on various linked issues such as: energy, governance, decentralization, gender, climate change, vulnerability and adaptation. She is in charge of CLACC Fellows from Benin, Mali and Mauritania. energy2@enda.sn, saly_wade@yahoo.sn

CLACC Publications

1. Orindi, V.A and Murray, L.A (2005). Adapting to climate change in East Africa: a strategic approach. Gatekeeper 117. IIED, London. www.iied.org/sarl/gatekeepers/gk_abs/documents/GK117.pdf
2. Alam, M and Murray, L.A (2005). Facing up to climate change in South Asia. Gatekeeper 118. IIED, London. http://www.iied.org/sarl/gatekeepers/gk_abs/documents/GK118.pdf
3. Orindi V. A and Eriksen, S (2005). Mainstreaming Adaptation to Climate Change in the Development Process in Uganda. Ecopolity 15, ACTS, Nairobi. <http://www.acts.or.ke/pages/publications/ecopolity%2015%20uganda%20pdf%20version.pdf>

To learn more about CLACC, visit: www.clacc.net

CLACC Partners

East Africa

African Centre for Technology Studies (ACTS), Kenya. www.acts.or.ke

Development Network for Indigenous Voluntary Association (DENIVA), Uganda. www.deniva.or.ug

Environmental Protection and Management Services (EPMS), Tanzania

Sudanese Environment Conservation Society (SECS), Sudan

Europe

Centre for International Climate and Environmental Research (CICERO), Norway www.cicero.uio.no

International Institute of Environment and Development (IIED), UK. www.iied.org

London School of Hygiene and Tropical Medicine (LSHM), UK www.lshtm.ac.uk

Potsdam Institute for Climate Impact Research (PIK), Germany. www.pik-potsdam.de

Stockholm Environment Institute-Oxford, UK www.sei.se/oxford

South Asia

Bangladesh Centre for Advanced Studies (BCAS), Bangladesh. www.bcas.net

CARITAS Bangladesh, Bangladesh

Local Initiatives for Biodiversity, Research and Development (LI-BIRD), Nepal. www.libird.org

Royal Society for Protection of Nature (RSPN), Bhutan. www.rspn-bhutan.org

Rangpur Dinajpur Rural Service (RDRS), Bangladesh. www.rdrsbangla.net

Southern Africa

Action Group for Renewable Energies and Sustainable Development (GED), Mozambique

Energy and Environmental Concerns for Zambia (EECZ), Zambia

Coordination Unit for the Rehabilitation of the Environment (CURE), Malawi

Zimbabwe Regional Environmental Organization (ZERO), Zimbabwe. www.zeroregional.com

West Africa

AMADE-PELCODE, Mali

Environmental Development Action in the Third World (ENDA), Senegal. www.enda.sn

Organisation des Femmes pour la Gestion de l'Ennergie de l'Environnement et la promotion