

**THE FOURTH INTERNATIONAL
COMMUNITY-BASED ADAPTATION
TO CLIMATE CHANGE CONFERENCE**

CONFERENCE ABSTRACTS

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STRENGTHENING INSTITUTIONS FOR CBA

GOVERNANCE OF COMMUNITY BASED ADAPTATION

Rachel Berger
Practical Action

When funds begin to flow for adaptation, they will flow to governments. Yet those most affected by climate change are often remote, poor rural communities. Governments do not have a good record of channelling money to their most remote or vulnerable citizens. In addition, it is evident that when most governments think about adaptation, they are considering the need to modify infrastructure, or make changes to export agriculture, or provide for additional health risks, rather than supporting vulnerable communities.

There will a demand and a need for oversight of how international adaptation funds are disbursed and spent, to ensure that they achieve the objective of enabling adaptation. This paper sets out some key principles for governance of adaptation that provide oversight and help ensure that the voices of the most severely affected by climate change were heard and influenced how funds were allocated, and spent. The paper draws on Practical Action's work on CBA and on governance in the countries where it is based.

FROM NAPAS TO LAPAS INSTITUTIONALISING COMMUNITY-BASED ADAPTATION

Jessica Ayers¹, Nanki Kaur*², Simon Anderson²

¹London School of Economics and political Science (LSE)

²International Institute for Environment and Development (IIED)

Effective adaptation has to be planned and delivered across a range of scales. Recognising this, the Copenhagen adaptation text has included the principle of “subsidiarity”, or making decisions and implementing response measures at the most appropriate level. In theory, subsidiarity should be operationalised through decentralised institutional designs that are responsive to local level vulnerability contexts, but also accommodate wider adaptation planning scales.

However, existing institutional designs for adaptation generally focus either at the national level through National Adaptation Programmes of Action (NAPAs), or comprise of community-based adaptation initiatives that have tended to take a projectised approach and are detached from broader climate and development policy contexts. There are a lack of middle-range proposals for adaptation planning and delivery that can meet the requirements of subsidiarity in practice.

This paper examines one proposal for incorporating a CBA-type approach into NAPAs that is currently being developed in Nepal: “Local Adaptation Plans of Action” (LAPAs). LAPAs are envisaged as a way of taking CBA a step further by using similar, detailed methods of local-level vulnerability assessments, but with a focus on the institutions at the local level that will play a role in the delivery of NAPAs, linking local level planning with national level

delivery frameworks.

COMMUNITY INSTITUTIONS AND CLIMATE CHANGE ADAPTATION POLICY ADVOCACY: A CASE STUDY OF MALAWI

William Chadza

Centre for Environmental Policy and Advocacy

As a result of increased frequency in occurrence of climate change related events, such as droughts and floods, least developed countries such as Malawi have seen significant growth in climate change adaptation programmes and projects, most of them implemented by external funded environment and natural resources management non-governmental organizations (NGO). The development of NGO interest in climate change adaptation has come with an introduction of new institutional and management frameworks which have added responsibilities and perhaps further confusion at local community level.

Among the many institutional arrangements introduced are “democratically elected” sectoral committees and NGO based committees. However, these have often ignored existing informal institutions and traditional leadership. The proliferation and multiplicity of committees poses challenges in effective implementation of community based climate change adaptation programmes and projects.

This paper seeks to analyze the scope and constraints to local level institutional arrangements in general. The paper will also consider how to harmonize existing informal institutions and traditional leadership on one hand and introduced institutional arrangements for community based climate change adaptation. In addition, it will highlight experiences on community based climate change adaptation governance in Malawi. The emphasis will be on ensuring effective integration of newly introduced community based climate change adaptation institutional arrangements and how to make them accountable to local communities.

CIVIL SOCIETY ORGANISATION NETWORKING TO ENHANCE CLIMATE CHANGE ADAPTATION

Shepard Zvigadza

ZERO

CSOs have never been so organised to tackle climate Change challenges. In parallel to the preparation for the COP 15 several civil society networks were started. These initiatives across Africa, covering specifically, southern Africa, East Africa and West Africa, were supported by IIED. The presentation shows efforts by nine CLACC fellows to try to organise CSOs to discuss climate change issues in the run up to the Copenhagen Summit held from 7th to 18 December 2009.

Efforts made to try to discuss Climate change Policy issues at international level (UNFCCC Negotiations, understand how to overcome practical climate change challenges (adaptation) are also highlighted. Such efforts include Training of Trainers, dialogues, and other capacity

building efforts. Processes taken to come up with the networks themselves will be highlighted. Also current activities as well as future plans of these networks are a major showcase.

THE STRENGTHS AND WEAKNESSES OF USING VOLUNTARY GRASSROOTS STRUCTURES IN DISASTER MANAGEMENT: LESSONS FROM MALAWI

Robertson Khataza
IITA-Malawi

In the recent past, climate change has impacted negatively on the livelihoods of people particularly the rural dwellers. Nearly the entire country experiences natural disasters largely in form of drought and floods, albeit in different magnitudes. When such disasters strike, it is the poor households that become the most affected due to ill-health, reduced production potential or lack of bargaining power for their traded commodities. Recurrent droughts or floods easily erode development gains and impoverish the rural communities through environmental degradation, food insecurity, disease outbreaks, and loss of assets including livestock and social infrastructures and in critical situations loss of lives.

The main objective of this paper was to assess the strengths and weaknesses and draw lessons on the use of grassroots structures in disaster management programs. Much as this approach scores highly on cost-effectiveness, accountability and sustainability, the issues of community preference or affinity towards incentive-based and remunerative system tends to diffuse the potential synergy which can be regarded as a necessary ingredient in community-based disaster management. This spirit poses great threat on the effectiveness and continuity of the program. There is great need for community awareness and proper understanding of the volunteers if such a system could last long.

WATER

INTEGRATING COMMUNITY-BASED ADAPTATION IN WATER PROJECTS ACROSS EAST AFRICA

Katharine Cross¹ and Cynthia Awuor*²

¹IUCN, Eastern and Southern Africa Regional Office (ESARO), Kenya

²CARE International in Kenya, Kenya

The International Union for Conservation of Nature (IUCN) and CARE International conducted climate change vulnerability assessments for water focused projects within the Global Water Initiative (GWI¹) using a combination of climate change adaptation tools, specifically the Climate Vulnerability and Capacity Analysis (CVCA) Tool and CRiSTAL (Community-based Risk Screening Tool - Adaptation & Livelihoods). There is potential to link the identified adaptation activities to delivery of National adaptation Programmes of Action (NAPA) where they exist.

One of the objectives for GWI is for vulnerable rural communities and their environments to have increased resilience to water-related shocks. Consequently, vulnerability assessments were carried out in Ethiopia, Uganda, Tanzania and Kenya. Community members participated in identifying climatic hazards, the impacts of these hazards and defining the coping strategies they use to deal with the impacts. They also brainstormed on alternative coping strategies and the resources needed to put them in place. Facilitators were trained to assist with the collection of data. The trained facilitators then went on to analyse the information to assess whether a project is climate proof and what feasible adaptation approaches could be implemented to reduce the vulnerability of the communities to climate change.

This paper presents the lessons learned and next steps for the projects, which includes prioritizing adaptation strategies with communities. Activities that are outlined in National Adaptation Programme of Action (NAPAs) and identified through vulnerability assessments can be demonstrated and operationalised at the local level. This can be achieved by piloting successful approaches of managing water resources to improve resilience and promoting learning opportunities to exchange information across scales – from the local to the national level.

EXPERIENCES ON CLIMATE CHANGE ADAPTATION AND SUSTAINABLE DEVELOPMENT

Felix Mutemachimwe
IFAD

In spite of the effects of climate change on developing countries as a result partly of their natural geography and level of technological and economic development, not much has been done to support the vulnerable small farmers. Without the requisite conservation and food production knowledge and skills, food insecurity will continue to rise, further threatening

livelihoods and the socio-economic wellbeing of the vulnerable communities.

Zimbabwe has been experiencing recurrent droughts and dry spells. Africare works with communities on technologies that enhance farmers' capacities to cope. Technologies employed include water harvesting techniques such as small water holding ponds, infiltration pits and dead level contours. Working with farmers in the Zvishavane district of Zimbabwe, dry land has been transformed into crop sustaining land. Africare showcases stories about how farmers transformed semi arid arable land into a micro environment that supports the production of fruit trees, a wide range of annual crops, vegetables, reeds, swampy area crops (yams), fish and bird life.

With the rainfall seasonality and variability becoming unpredictable, Africare promotes drought tolerant varieties of crops such as sweet potatoes, and cassava, helping increase months of food security even during drought years and value addition through agro processing of sunflower, soybean and groundnuts. Some farmers in the districts of Zvishavane, Shurugwi and Mberengwa have successfully formed a Root and Tuber Association to promote the adoption of the drought tolerant crops so as to enhance food security and sustain livelihoods.

VULNERABILITY AND ADAPTATION OF LAKE NAIVASHA FRESHWATER ECOSYSTEMS

John Nyangena
World Wildlife Fund

Lake Naivasha freshwater ecosystem has recently witnessed dramatic and probably threatening changes. Most studies have tended to attribute these to the burgeoning flower industry in the downstream and land use changes in the upstream ignoring the effects of climate change. This paper, using MAGIC/SCENGEN scenarios assesses the vulnerability of the ecosystem to climate change and adaptation options. The results show an increase both in mean annual temperature ranging between 2-3.5°C and in mean annual precipitation of 3% by 2050. Current vulnerability is manifested in droughts, flashy floods, and higher evapo-transpiration losses. These are responsible for shifts in environment and in local livelihoods. Although lake level has receded at an alarming rate, the role of climate change is not easily discernable. Working in cohort with other anthropogenic environment degradation, it is likely that the lake ecosystems will change from one dominated by equilibrium species to one dominated by low diversity opportunistic species that would thrive in a variable, unstable and unpredictable climatic regime. Vulnerability of freshwater ecosystems to climate change is a wake up call to incorporate climate adaptation in the management and conservation of the Lake. Key measures are protection and restoration of ecosystem services, strengthening enforcement mechanisms on water allocation, and diversification of livelihoods, reduction of non-climate pressures, better information and knowledge and implementation of technology-based water-use technologies.

ADAPTING TO CLIMATE CHANGE IN THE WATER OF SECTOR: ASSESSING EFFECTIVENESS OF COMMUNITY BASED ADAPTATION INTERVENTIONS IN EASTERN ETHIOPIA

**Nanki Kaur, Million Getnet*¹, Beneberu Shimelis, Zegeye Tesfaye, Gebeyehu Syoum,
and Endale Atnafu**

¹Haramaya University, Ethiopia

The study has assessed the effectiveness of community based adaptation interventions in reducing vulnerability to climate variability and change in water based livelihoods. With regard to coping strategies of households, it was found that better off wealth groups are more able to rely on supply side strategies while the poor resort more to demand side strategies. With regard to community based adaptation projects it showed that small scale irrigation, if equitable access is assured and if based on ground water sources, can create and enhance the asset base of communities, build their capacity to cope with and reduce exposure to climate change. Regarding improved rangeland management, introduction of improved fodder species and development of water points which are based on strong customary institutions consultations are found to be crucial. Effectiveness of Productive Safety Net Programs was also found to rely on carefully consideration on targeting and increasing investment in water resource development. With regard to multiple water use, the study finds that such projects are more effective when there is enough water for multiple uses and this requires basing such projects on ground water and combine this with natural resource management works which enhance local recharge. The study was carried out under the RiPPLE program (Research-inspired Policy and Practice Learning in Ethiopia and the Nile Region (www.rippleethiopia.org), a DFID-funded Research Program Consortium led by ODI (Overseas Development Institute, www.odi.org))

DEVELOPING AND EARLY WARNING GROUND WATER MONITORING SYSTEMS TO INCREASE ADAPTIVE CAPACITY

Bettina Koelle* and Shannon Parring
Indigo Development & Change

Small scale farmers in the Suid Bokkeveld (South Africa) are farming in a harsh environment: with varying and low rainfall people's livelihoods are depending on livestock, rooibos tea and subsistence farming. With rainfall mainly in winter and frequent droughts experienced in consecutive years— farmers identified the local water sector as a priority area to address to respond to extreme weather conditions and to increase resilience to climate change. Water is a key resource for livestock and subsistence farming as well as for household use. This affects especially the most vulnerable in the community.

With the support from Indigo the farmers established a monitoring system to record the levels of boreholes and water quality of fountains. Close collaboration with scientists on this matter is key to exploring local aquifers, to increase the understanding of groundwater resources and the processes that enhance ground water accumulation.

The system aims at setting up an early warning system that will inform farmers of dropping borehole levels and allow them to develop appropriate strategies and to finally take action before the water crisis becomes acute. Water monitors across the area are also monitoring water quality of fountains to detect any changes.

While the process of monitoring is an important one, the learning process has been key to increase adaptive capacity: not by developing a technical solution, but by strengthening networks and problem solving capacity of the farmers themselves.

CLIMATE CHANGE AND ITS IMPACTS ON WATER RESOURCES: A CASE OF MALAWI

Oswald K. Mwamsamali

Ministry of Irrigation and Water Development, Malawi

Malawi is a signatory to the United Nations Convention on Climate Change (UNFCCC), which it ratified in 1994. The UNFCCC recognizes that “...economic and social development and poverty eradication are overriding priorities of developing countries ...” in the fight against climate change and climate variability. The vulnerability of Malawi to climate change and climate variability stems from the global influence on its rainfall bearing and weather influencing systems. For instance, the inter-tropical convergence zone (ITCZ) greatly influences the rainfall receipt in the country and hence the type of climate experienced.

Malawi, as a country, is already experiencing climate change and climate variability as seen from frequent floods and droughts. This, therefore, calls for an expedited implementation of adaptation measures to mitigate the suffering of the communities from the effects of climate change and climate variability. This paper therefore aims to briefly document and describe what have been identified as climate vulnerable areas in Malawi before examining some of the impacts of climate change and climate variability on water resources as well as the strategies that have been employed especially in the water sector to adapt to climate change in the country.

BUILDING ADAPTIVE CAPACITY

COMMUNITY ADAPTATION: THE CASE OF LITETA IN CHIBOMBO DISTRICT, ZAMBIA

Vincent Ziba
LITETA

The LITETA (Local Initiative: Training for Enterprise, Transformation & Agriculture) Project is found in the central province of Zambia, 61 Kilometres North of Lusaka. The district has 3 constituencies namely Kembe, Chisamba and Liteta. According to the head count by the Ministry of Health the population stands at 304,000 people because of movement of people from Lusaka and other areas. Zambia has been affected by climate change as the rain fall months are becoming shorter, flash floods and droughts in some cases are becoming frequent. In the Chibombo District there is poor land management practices which result into land degradation with a high population growth has led to negative trends; Farmers in the area practice a subsistence single season mono-crop (maize) food production system which is affected by the unpredictable rainfall pattern.

The project incorporates various initiatives, the first the Traditional Leaders' Workshop that facilitated the formation of the natural resource management committees to work together with local authorities in order to curb the devastating charcoal burning practice in the area. An awareness campaign on environmental degradation was also launched, carried out by the project staff and the natural resources management committee. In addition, 750 farmers were trained in compost production, fertility trenches, and use of animal manure, green maturing and soil fertility enriching crops to encourage more sustainable farming technologies. Small livestock were promoted in areas where chemical fertiliser were used, and tree planting was promoted in the community to replace the trees that have been cut due to charcoal burning and shifting cultivation. Tree nurseries were introduced in most of the zones to replace the ones that have been cut. Natural regeneration and tree replanting is done by the farmers club and the natural resource management committees that are in place.

ENABLING CLIMATE ADAPTATION: FROM INFORMATION PROVISION TO NETWORK BUILDING AND KNOWLEDGE INTEGRATION

Anna Taylor, Sukaina Bharwani and Basra Ali*
SEI

There is a wide variety of data, information and knowledge that is relevant to making adaptation decisions in a given context (a certain location, scale, set of actors, physical environment, policy environment, etc.). This might include data on climate observations, knowledge about local development priorities, information on the distribution of impacts caused by a certain climate hazard, knowledge of downscaled climate scenarios, data on existing coping and adaptation strategies, information on disaster risk management policy instruments, knowledge about how to access adaptation funding, and lots more besides. The reality is that many individuals, organisations and communities of practice hold different

‘subsets’ of this existing data, information and knowledge, and have differential access to that which they do not hold. This is partly to do with: the medium through which it can and is disseminated or communicated (i.e. an important distinction); the motivation to engage with it; and the skills and expertise needed to use it to address climate risks and vulnerabilities, whether this be by modifying livelihood strategies, developing new policy measures, designing projects, making funding decisions, raising public awareness, etc.

We explore this in the case of Kenya, where we conducted a knowledge network mapping exercise with various governmental, NGO, CBO, research, donor, private sector and media actors working on climate adaptation to identify the current scope of information access and sharing. The network analysis revealed that NGOs were considered an important bridging group, for example facilitating information flows between CBOs and research organizations. However, there are weaker links between CBOs and the two most ‘influential’ groups – donors and the media – leading to a perceived lack of knowledge regarding ongoing work ‘on the ground’, thought to be resulting in mis-matched priorities and inappropriate funding decisions.

We are testing the potential use of Google Earth to enhance access to, and the communication of, information from various sources relevant to climate adaptation, linking perceptions of risk and adaptation strategies on the ground with the best available climate and impacts science in an ‘adaptation story’, considering also the impacts and potential solutions for those with limited internet access. Recognising the power of such a technology in communicating an adaptation story to motivate for and justify actions at a range of scales, we have been building the tools needed to streamline the process of inputting, finding and selecting the set of relevant information for the user, and supporting the growth of the socio-institutional networks fundamental to generating and sharing information, and integrating knowledge.

PROMOTING ADAPTIVE CAPACITY OF PASTORALISTS THROUGH INCLUSIVE AND PARTICIPATORY PLANNING APPROACH

Abdirahman Ahmed

Ogaden Welfare and Development Association (OWDA), Ethiopia

Presented by: **Beshir Abdulahi Abdikarim**

Climate changes pose dire threat to the lives and livelihoods of pastoralists around world. The frequency of drought, famine, resource-based conflict, animal and human disease outbreaks and dependency on food aid has dramatically increased in the last decades. Pastoralists were/are never passive recipient of what fate climate change may dictate rather they survive and thrive in some of the harshest landscapes of the world. However, their inherent adaptive capacity to climate change has been insufficiently accounted and addressed in development programming. In this paper, argument is put forward in support of promoting adaptive capacity of pastoralists to enable them with stand the natural and manmade shocks affecting their lives. Much of the information presented in this paper is derived from field experiences of an integrated pastoral community development project implemented by OWDA with financial support of DF-Norway in Adadley district of South Eastern Ethiopia. Mainstreaming the adaptive capacity of pastoralists through inclusive and participatory approaches to bring the grass root pastoral community, Kebale and district authorities together to co-plan and take responsibility for their local development initiatives to improve livelihood

and reduce vulnerability is very essential.

BUILDING LOCAL ADAPTIVE CAPACITY IN THE PACIFIC

Pelenise Alofa Maike Pilitati

Churches Education

Director's Association in Kiribati

Kiribati Global Warming & Climate Change Action Group

Low lying Pacific nations such as Tuvalu, Fiji, Tonga and Kiribati will be amongst the first to face the impact of climate change and rising sea levels” (Pacific Calling Partnership Resource Book). The urgency for action through mitigation and adaptation is a call from Kiribati and from the 1000+ most vulnerable Pacific low lying islands which are affected by climate change. Climate change is a threat to culture, livelihood, health, food, water, security of the people and resources. It is a threat to life itself!

Kiribati President, Anote Tong, (Vanuatu meeting, 2010) commented on climate change that he does not accept migration (or relocation) as a first response for I-Kiribati but recognized that it is necessary and wants to see citizens skilled or trained if they were to be moved. As an NGO, the Kiribati Global Warming and Climate Change Action group, and affiliated to the Pacific Calling Partnership based in Sydney, Australia has one of its goals to support labour mobility and to ensure orderly migration. The KGWCCAG started its adaptation programs in 2008 with building capacities or upskilling I-Kiribati. This falls in the areas of literacy and health/food education. And furthermore, it has started its research on village stays, water harvesting and land use (agriculture), recycling of wastes, raised portable communities, creating extended reef system, and the restoration of Banaba, the highest island in Kiribati.

The challenge is to maintain the momentum of programs in Kiribati with committed human resource, ample time, funds and a strong local and international network.

CLIMATE CHANGE AND COMMUNITY ADAPTATION STRATEGIES IN SEMI-ARID REGIONS OF NYERI AND LAIKIPIA DISTRICTS, KENYA

P.N. Macharia^{*1}, J.K. Lugadiru², S. Wakori² and E.G. Thurania¹

¹Kenya Agricultural Research Institute, ²Kenya Forestry Research Institute,

A recent study conducted in the semi-arid regions of Kieni and Lamuria Divisions in Nyeri and Laikipia Districts, respectively, revealed that 100% of the farmers were aware of climate change and its impacts. About 61% of them were of the opinion that climate change effects started to be felt in the last 10 years. Climate change was attributed to tree cutting and general environmental destruction by the communities for short term economic gains which led to unsustainable utilization of resources. The main indicators of climate change have been increased failure of the rains leading to increased droughts, scarcity of water, changes in rainfall patterns, and high and low temperatures. Others have been increased pests (centipedes, millipedes and birds) and disappearance of biodiversity (wild animals and insects such as safari ants). The result has been food insecurity and hunger due to low or no harvests,

poverty, water conflicts and lack of pastures for livestock. Due to experiences of impacts of climate change and scarcity of resources, the communities have now realized the need to take up some community and individual adaptation strategies towards food security and conservation of the environment. The biggest efforts have been towards tree planting and husbandry especially by the communities living far away from natural forests. Other efforts have been to attend capacity building sessions, environmental rehabilitation, water harvesting (run-off and roof catchment), adoption of appropriate technologies and farming methods, and community mobilization. Due to lack of pastures, there has been a tendency to reduce cattle numbers in favour of sheep, goats, chicken and rabbits due to their simple management and are also easy sources of cash, meat and milk. Efforts have also been made to involve the youth more through training and participation in community-based actions as they will be the adults of tomorrow. However, in order to increase their resilience and effectively contribute to mitigation against climate change, the communities feel they need the support of government and non-governmental organizations through capacity building, appropriate technologies, enforcement of environmental laws and policies, and financial resources.

**MAINSTREAMING CLIMATE CHANGE IN INTEGRATED WATER
RESOURCES MANAGEMENT:
A CASE STUDY OF BUILDING ADAPTIVE CAPACITY IN THE PANGANI RIVER
BASIN, TANZANIA**

**Katharine Cross¹, Emmanuel Mwendera¹, Alfei Daniels², Excellent HaSylvand
Kamugisha³ Onesmo Zakaria*⁴, John Owino¹ and Hamza Sadiki⁴**

¹IUCN, Eastern and Southern Africa Regional Office (ESARO), Nairobi, Kenya

²IUCN, Climate Change and Development Project (CCDP), Dar es Salaam, Tanzania

³IUCN, Pangani River Basin Management Project (PRBMP), Moshi, Tanzania

⁴Pangani Basin Water Office (PBWO), Moshi, Tanzania

The Pangani River Basin Management Project is building climate resilience in the Pangani River Basin in Tanzania by combining social and economic dimensions of development with environmental restoration and management. The interventions include determining sustainable water allocations based on future flow scenarios, establishing water management institutions, assessing the vulnerability of the communities to climate change and identifying practical adaptation measures. The aim of the project is to enhance the adaptive capacity and improve the resilience of communities in the basin to climate change impacts.

The project is using state of the art climate change modelling combined with an integrated flows assessment, strengthening water governance institutions and community climate change vulnerability assessments to identify and implement adaptation strategies at the local and basin levels. The climate change modelling has provided sound scientific evidence to predicting future climate scenarios in the basin. Both the climate modelling outputs and flows assessment provide guidance on allocating water within the limits of the river's flow, including allocation of water to sustain natural infrastructure such as wetlands and estuary habitats. Water governance institutions, such as furrow committees, water user associations and sub-basin forums are being strengthened. The outputs from the assessments and modelling are being used to raise awareness among water users and transfer knowledge so that water user associations can effectively manage their water resources. Finally, the vulnerability assessment is integrating community approaches to adaptation and implemented

activities such as supporting the restoration of catchment areas; developing groundwater resources, maintaining and repairing water infrastructure. These approaches are considered integral components for management plans which integrate maintenance of ecosystem goods and services.

INSURANCE AND MICROFINANCE

A CASE STUDY OF WEATHER INDEX INSURANCE AND COMMUNITY-BASED ADAPTATION IN ETHIOPIA

Mengesha Gebremichael¹ and Yohannes Gebremeskel²

¹Relief Society of Tigray

²Dedebit Credit & Savings Institution

Bringing together subsistence farmers, NGOs, academics, government, and the private sector, the Horn of Africa Risk Transfer for Adaptation (HARITA) pilot project is exploring an innovative approach to community-based climate change adaptation in Ethiopia. Over the last two years, the HARITA project partners have worked on designing a climate risk management package for smallholders in Ethiopia's northernmost state of Tigray. HARITA aims to foster holistic, community-based adaptation in a replicable and scalable approach.

The project has broken new ground in the field of climate change adaptation and micro-insurance by addressing the needs of poor farmers through an unusual mix of disaster risk reduction, micro-insurance, and credit.

Mengesha Gebremichael will discuss how one HARITA partner, REST, is tackling climate change. He will also illustrate how community participation resulted in critical insights into micro-insurance as a risk management tool.

Yohannes Gebremeskel will discuss how DECSI, another HARITA partner, is helping farmers manage risk and increase their willingness to make investments critical to adaptation.

WEATHER RISK INSURANCE FOR AGRICULTURE

Satya Priya

AIT/UNEP Regional Resource Center for Asia and the Pacific
Bangkok, Thailand

Development of weather risk Insurance capabilities for agriculture is perhaps one of the sustainable market based adaptation approach in the context of climate change. This presentation would cover weather risk insurance in four key steps:

- 1) Identify significant exposure of an agricultural grower/producer to weather
- 2) Quantify the impact of adverse weather on their revenues
- 3) Structure a contract that pays out when adverse weather occurs and
- 4) Execution of contract

In the first step, it will cover the regions at risk from weather and the weather stations that reflect the risks over a period of time, such as risks that are prevalent and identify the weather index providing the best proxy for the weather exposure.

In the second step, it will include the scale and resolutions of actual data observations points

on which these products are created, meaning, how the weather variables, impact robustness of an insurance product, and

Finally, in order to illustrate the structure of the insurance contract - a weather index is developed using combination of measurable weather variables include temperature and rainfall. Specific crop weather variables will be illustrated that influences crop yield and production. Other discussion points will reflect if weather is insurable? And if insurance is a choice for adaptation?

COMMUNITY BASED ADAPTATION OF FARMERS IN THE PHILIPPINES TO CLIMATE CHANGE

Maria Rebecca A. Campos

University of the Philippines Open University

About five million small farmers in the Philippines are now affected by climate change. This study describes their demographic and socioeconomic characteristics, and compares them to the average Filipino citizen. The production and profitability of farming corn, rice, banana, sugarcane, tomato and tomato has been affected by climate change, with losses resulting from typhoons, floods, droughts, ENSO and pests and diseases. Although farmers have natural adaptation practices prior to, during and after these natural calamities, they still need assistance from institutions in order to cope with the impacts of climate change. Foremost of this is in terms of a bridge financing scheme that can be an effective and efficient instrument to enable them to carry on their livelihood activities and support their families' basic needs and slowly recover from their losses. At present, about half a million farmers are dependent the Department of Agriculture for loans to fund their farming operations. Their repayment rate was about 90 percent. But with the occurrence of natural calamities, farmers cannot pay their and renew their loans. The proposed bridge financing scheme will enable them to continue their farming activities so that it will not jeopardize the welfare of the entire household.

POLICY LINKAGES

COMMUNITY GOVERNANCE IN MAINSTREAMING CLIMATE CHANGE ADAPTATION IN LOCAL DEVELOPMENT: EXPERIENCE FROM SOUTH ASIA

P.M.D. Ranga N. Pallawala

Presented By: **Bhathiya Kekulandala**

Practical Action, Sri Lanka

South Asia is recognized as a “disaster hot-spot” as a result of climate change. Severe impacts of climate change have made the lives and livelihoods of millions of poor and marginalized people in the region more vulnerable. Yet, the local governance structures existing in the region are not promoting active and meaningful participation of poor and marginalized communities in development decision making process.

Community governance- the people led planning and decision making approaches- for local development has been tested in poverty stricken areas of Sri Lanka (86 villages) and State of Orissa in India (326 villages) in early and mid 2000’s . Even though the pilot programmes have not considered climate change either as a main section or a cross cutting issue, as the evaluations of the programmes show, the community governance system has contributed towards climate change adaptation. The post-programme analyses of community governance approaches against climate change adaptive capacity indicators show that all the activities have directly contributed towards building adaptive capacities of communities.

The experience shows that the potential to adopt community governance concept for local level development in South Asia is very high. Community led governance mechanisms can be used as a tool to mainstream climate change adaptation in local development that could ultimately lead to poverty reduction. Further, the community governance process can face the challenges of rapidly changing climate and its increasing unpredictability.

INCREASED CLIMATE UNCERTAINTY CALLS FOR ROBUST POLICY ENVIRONMENTS TO REDUCE DISASTER RISKS AND MAKE ADAPTATION EFFORTS SUSTAINABLE IN THE HINDU KUSH, HIMALAYAN REGION

Mats Eriksson*¹, Julie Dekens², Lisa Shipper³, and Tighe Geoghegan⁴

¹ICIMOD

²International Institute for Sustainable Development

³SEI

⁴International Institute for Environment and Development

The Hindu Kush - Himalayan region is marked by profound differences in water availability between wet and dry seasons, providing a very hazardous environment marked by floods and droughts, and creating difficulties for societies to adjust water needs to the seasonally poorly distributed availability. However, this situation is not new. The region has always faced

difficulties related to too much or too little water, and people have out of necessity adapted to this situation. It could therefore be assumed that adaptation practices in this environment, developed over generations, will be beneficial in the process of adaptation to increasing climate related stress. However, five case studies in the region show that this is not always the case. Although the studies point out many creative responses to water stress and hazards, they also show that these need to be aligned with other drivers of change if they are to reduce the risk for disasters and be sustainable. The effectiveness of these responses are influenced by the development context in which people live, which thereby needs to be better understood. Changes in e.g. population density, infrastructure, market access, national policies and institutions influences peoples adaptation capacity, for better or worse. Simultaneously, climate change increases uncertainty in terms of when, where and in which magnitude and force that water will become available next time. This uncertainty calls for increasing action by government and other policy forming agencies to ensure robust policy environments in which local spontaneous adaptation efforts to water-induced disasters are supported, thereby leading to increased community resilience.

**REIMAANLOK: ‘LOOKING FORWARD’
IMPLEMENTING A NATIONAL STRATEGY FOR ECOSYSTEM-BASED
CLIMATE CHANGE ADAPTATION BY COMMUNITIES ON OUTER ATOLLS OF
THE REPUBLIC OF MARSHALL ISLANDS**

Albon Ishoda¹ and James Hardcastle*²

¹ Marshall Islands Conservation Society

² The Nature Conservancy, Asia-Pacific

Ecosystem-based adaptation activities by community land-owners in the Namdrik atoll chain include shoreline vegetation restoration for erosion control and water-lens protection; pest control; changes in agricultural practice; and protection for key ecosystems.

These activities provide a demonstration for a national strategy on community engagement for ecosystem-based adaptation, called ‘Reimaanlok’ (Way Forward). Designed to provide guidance for a range of Government and civil society partners to engage outer island communities, the Reimaanlok adds a ‘climate lens’ to a series of steps in participatory community development planning, to identify adaptation strategies at the local level, in the Marshallese context.

The Reimaanlok strategy places remote island communities and ecosystems at the heart of national climate change strategies. It builds on the ‘Micronesia Challenge’ commitment made in 2006, which provides strong political will for effective management of ecosystem services. The work on Namdrik highlights the ability of Government and civil society to begin to respond to climate change on outer atolls. However, expectations are high. There is a significant investment cost in community engagement, and there is limited capacity to respond to all community requests for assistance. That said, the endogenous capacity of many atoll communities to engage in adaptation activities is remarkably robust.

AGRICULTURE

AGRICULTURAL SERVICES SUPPORT PROGRAMME AND AGRICULTURAL SECTOR DEVELOPMENT PROGRAMME - LIVESTOCK, ZANZIBAR

Seif A. Seif and Khalfan M. Saleh
IFAD

It is now widely accepted that climate change is occurring as a result of the accumulation of greenhouse gases in the atmosphere arising from the combustion of fossil fuels. Climate change does affect agriculture through a range of pathways, for example as a result of reduced frequency and intensity of rains, increased hot and dry seasons, changes in the distribution of vector borne diseases and effects on the risks of disasters and malnutrition. The overall balance of effects in agriculture is likely to be negative and farming communities in low-income countries like Tanzania are particularly vulnerable to adverse effects. Adaptation to climate change requires special strategies by the farmers and the nation at large. IFAD supported Agricultural Services Support Programme and Agricultural Sector Development Programme -Livestock (ASSP/ASDP-L) Zanzibar, Tanzania have been addressing issues of Sustainable Natural Resource Management and Adaptation to Climate Change to community level. Participatory Action Research (PAR) conducted by Farmer Field Schools (FFS) specialized on cassava have helped farmers to adapt changes on their cultivation by selecting high yielding, heat tolerant and quick maturity varieties of Mwari and Sepideh which are now considered as the most successful cassava varieties.

CLIMATE CHANGE AND FOOD SECURITY IN MARADI DISTRICT – NIGER

Moussa na Abou Mamouda
ENDA

In Maradi district, 75% of the population is composed of farmers practicing a rain fed agriculture. However, because of climate variability and changes, rainfall has become uncertain, or the seasons are becoming shorter and annual temperatures more extreme. This has resulted in food production decreasing every year despite efforts to counter the pace. After a raining season, the harvested food is only sufficient to cover all households' food needs for about three months before. Irrigation has become less productive because of water scarcity and higher minimum annual temperatures. The only one river (Goulbi) flowing across Maradi city and which use to flow for at least six months after the raining season is now flowing for only one to two months because of a dam set upstream in Nigeria. The Combination of all these stressors makes Maradi district frequently exposed to food insecurity.

In case of bad food production led inter alia by scarce rainfall as a result of climatic variability and changes, communities tend to implement several coping mechanisms to ensure their food security. These mechanisms include the sale of animals, crafts etc at the household level; the search for and purchase of food, particularly from inter-community or State cereal banks; temporary migration to neighboring countries to conduct income generating activities, and

make remittances in advance of following rainy season; or even permanent migration over longer distances to where work opportunities are available either on a legitimate or clandestine basis.

ENDA's role in fighting against food insecurity in Maradi consists of building a sustainable partnership and work closely with local communities in a participatory manner. Our basic principle is that communities who have been living there over centuries have experienced many climate related hazards and changes and have more or less succeeded to survive so far. Partnering with these communities and building on local knowledge and best practices to reduce food insecurity in Maradi is a key to ensure total involvement, empowerment and fostering trust and ownership from local actors. In Maradi district, irrigation can still be possible as adaptation strategy to complement rain fed agriculture. However, due to the fact that the water is coming from another country (Nigeria), there is a need to encourage decision makers from both Niger and Nigeria to talk to each other and find ways of a shared Trans boundary efficient water use. Support should be given to sustainable coping mechanisms already in place in communities. Tinclude food banks, diversification of and income generating activities, mobilisation of social capital (solidarity, networking, etc.).

This study has learned many lessons. Firstly, the root causes of migrations are the unreliable conditions of local livelihoods because recent surveys have shown that people may have not migrated if means of life were available locally. People migrate temporarily from Maradi towards neighbouring West African countries. Owing to permanent climatic changes, they tend to move and settle permanently in countries like Nigeria, Ivory Coast or Libya. Those who migrate to Libya tend to reach European countries legally or not. There were also lessons learned about action over research. Local communities are now imposing new approaches and ways of doing action research by either NGOs or other development agencies. ENDA also saw that implementation of adaptation and other coping strategies by communities, is often of very low cost. Overall the study demonstrates that adaptation to climate change should no longer be considered only as a local but a multi level multi scale process. For example, the construction of a dam at Jibya, upstream on the Goulbi River which flows from Nigeria to Maradi district in Niger, means that irrigation using the Goulbi River water as adaptation option in Maradi requires cooperation and dialogue between decision makers both in Niger and Nigeria. This is important to avoid mal-adaptation in Maradi and obviate conflicts around use of trans-boundary ecosystem like the Goulbi of Maradi. Indeed, a proper understanding and implementation of adaptation strategies locally requires analysis both at community level and at other scales, in this case including trans-boundary, where key drivers occur.

SHARING LESSONS FROM THE USE OF DIFFERENT TYPE OF ORGANIC MANURES: MALAWI

Mahara Nyirenda

FAIR, Malawi

Presented by: **Dalitso Kafuwa**

Malawi is one of three countries in central Africa. It has experienced effects of Climate Change (CC) including drought and floods as being very common. These have remarkable effects to the land locked and agriculturally based nation.

Such effects of climate change have so far have been exacerbated by some agriculture practices that promote the use of inorganic farm inputs since the country's independence (1964) and due to uncontrolled cutting down of trees among several factors. These have left the land bare and soils completely degraded for substantial agricultural production without external use of farm inputs.

To that effect the government has already started looking at alternatives of ensuring access of farm input by targeting smallholder farmers (85% of country's farmers with weak resource base) by introducing Subsidised Farm Input Programme. This alternative is not only sustainable or reliable as governments change from time to time but it also for specific crops and does not reach to every farmer.

FAIR has been working in Malawi since 2001; implementing sustainable environmental technologies. One of them is use of organic manure. Use of manure has been promoted through Trials and On Farm Demonstrations. The results have been positive leading to increased adoption by many farmers from within and outside our work areas. Among the advantages are that materials for making manure are readily available and affordable but also crop applied to manure withstands moisture stress better those applied to inorganic farm inputs. Therefore, during the Workshop, FAIR will want to share lessons/ successful stories from use of different types of organic manures.

**VULNERABILITY ASSESSMENT OF RAIN-FED AGRICULTURE TO
CLIMATE CHANGE
AND VARIABILITY: BIOPHYSICAL AND SOCIO-ECONOMIC ANALYSIS
IN SEMI-ARID
REGION OF TANZANIA**

H. J. Mongi*¹, A. E. Majule², and J. G. Lyimo²

¹Tumbi Agricultural Research Institute

²Institute of Resource Assessment

A vulnerability assessment of rain-fed agriculture to climate change and variability in semi-arid parts of Tabora Region in Tanzania was conducted and results are presented. Four village clusters, three forming the MVP were selected from Uyui district and the fourth from outside this project but in neighbourhood was selected from Tabora urban district. Villages selected were Mbola, Mpenge and Isila from Uyui District and Tumbi from Tabora urban. Both secondary and primary data on temperature, rainfall, and dry spells were collected using through structured interviews, focus group discussion, documentary review and field observations. Structured interviews were administered to a randomly selected 7% of all farmers and to 30 research and extension officers obtained through accidental purposeful sampling. Simple regression and t-test analyses of numeric data for rainfall and temperature collected over the last 35 growing seasons were performed using MS Excel and SAS respectively. Non-numeric data were coded, summarized and analyzed using SPSS spreadsheet. Results are presented and discussed. Overall rainfall amount was found to decline while distribution was varying both in time and space. Inter-seasonal dry spells between January and February appeared to increase both in duration and frequency. Increase in temperature was highly significant ($p < 0.01$), however, with minimum temperature increasing much faster than maximum. Farmers, research and extension officers also

perceived these changes by the help of a series of indicators. Nevertheless, perception on the climate change indicators varied depending on the type of livelihood activity most affected. Major implications on rain-fed agriculture are discussed. These include possible shrinking of the growing season, increasing moisture and heat stress to common food and cash crops, increased insects and disease pests and eventually low income and food security. This study concludes that there is strong evidence demonstrating the vulnerability of rain-fed agriculture to negative impacts of CC&V in the study area. Among recommendations made is a need for multi-level interventions on adaptation to climate change and variability taking into account a wide range of stakeholders' involvement.

CLIMATE CHANGE ADAPTATION: EMPOWERING LOCAL COMMUNITY AT AYUOM IN GHANA

E.Yeboah¹, P. Ofori¹, J.W. Six² and B. Vanlauwe³

¹ CSIR-Soil Research Institute, Academy Post Office, Kwadaso, Kumasi, Ghana

² Plant Sciences, One Shields Avenue, University of California, Davis, USA

³Tropical Soil Biology and Fertility Institute of CIAT, Nairobi, Kenya

Climate change is already occurring and future changes are inevitable. West Africa is one of the most vulnerable regions to climate change. In some countries, yield from rainfed agriculture is likely to decrease to 50 % by 2020 thereby threatening the food security situation and other aspects of the Millennium Development Goals. Ayuom is a farming community in the semi-deciduous forest zone of Ghana with a population of about 1000 peoples. Continuous cropping with little external inputs in the form of inorganic fertilizers has resulted in soil fertility decline and its associated problem of decline in crop yields. The effect of climate change (unreliable rainfall) coupled with loss of soil fertility has resulted in food insecurity of the farming community. Poverty is high in the community. There is the urgent need to empower local communities to debate on climate change as they are most vulnerable. Through a farmer participatory on farm studies on Integrated Soil Fertility Management (ISFM) initiated in 2002, the community is already adapting to the impact of climate change. Such local approaches however, are fragmented and mechanisms for communicating successful practices remain limited. Through stakeholder involvement in workshops, learning forums, farmer field schools and farmer participatory research, awareness to climate change is being created. The study also involves greater participation of both the print and the electronic media to create awareness of climate change adaptation options available to the community. Farmers are adapting to the precarious situation through the use of indigenous knowledge, changing in cropping systems, use of drought tolerant maize varieties, changing of food habits and use of agrochemicals. Many indigenous and traditional farming practices have immense potential for wider use to increase adaptation to climate change. National environmental policies need to be focused on those areas where they will be most effective.

ECONOMICS OF CBA

INEQUALITIES IN ECONOMIC BENEFITS AND ENVIRONMENTAL PROTECTION

Lington S.M. and Kassim A.L.N*

Mbutu Agricultural Society

Presented by: **K.A.L. Nushela**

Social and economic inequalities can influence both the distribution of the costs and benefits from environmental degradation and the extent of environmental protection. Most of the developing countries had opened doors for foreign investors to invest in mining sector, forest and tourism, industries etc and the rate of environmental pollution has increased. When those who benefit from environmentally degrading economic activities are powerful relative to those who bear the costs, environmental protection is generally weaker than when the reverse is true. This can lead to environmental inequalities along lines of class, race, ethnicity, gender, and age. At the same time, inequalities may affect the overall extent of environmental quality. There are good theoretical reasons to expect inequalities to reduce environmental protection and exacerbate environmental degradation. The available empirical evidence generally is consistent with this expectation.

CBA IN THE FRENCH-SPEAKING NATIONS

PROGRAMME DE PROMOTION DE REVENU RURAUX, MADAGASCAR

Aimé Randriambola and Niaina Rakotondrastima
IFAD

Madagascar a connu plusieurs événements extrêmes liés aux variabilités climatiques actuelles et passées durant ces dernières décennies. Les plus importants sont les cyclones, les inondations et les sécheresses. Ces perturbations deviennent de plus en plus fréquentes et intenses et génèrent des impacts importants notamment en matière de pertes de vie humaine, de diminution de production agricole et animale, de destruction des infrastructures, de dégradation des ressources naturelles (eaux, sols et forêts) et d'érosion côtière, rendant ainsi précaires la sécurité alimentaire, l'alimentation en eau potable et l'irrigation, la santé publique et la gestion de l'environnement et du mode de vie. Ces impacts mettent la population malgache et ses activités de développement en situation de vulnérabilité répétitive et croissante.

Le projet FIDA PHBM (Projet du Haut Bassin de Mandrare) situé au sud-est de l'île (zone sèche) s'est clôturé en 2009 et a conduit plusieurs activités de reboisement en étroite collaboration avec le Service malgache de l'environnement et des Eaux-et-Forêts de Tsivory. Le projet PPRR (Programme de Promotion de revenu ruraux) est en cours et se situe dans la côte est du pays (régions cyclonique). Le projet a conduit plusieurs activités liées à la construction d'infrastructure anticyclonique. Les deux projets ont touchés près de 50,000 ménages jusqu'à présent.

ASSISTED NATURAL REGENERATION AS A WAY TO FIGHT CLIMATE CHANGE IN RURAL AREAS

Par Awaiss Yahaya
Care International au Niger

L'environnement naturel du Niger est aride. La pluviométrie est faible et variable et les températures sont élevées. Malgré les contraintes naturelles et la variabilité du climat, le secteur rural constitue une partie très importante de l'économie nationale. L'agriculture, l'élevage représentent les principales activités de la majorité des populations rurales. Ainsi, pour lutter contre la désertification et la dégradation des ressources naturelles, qui ont pour conséquence une augmentation de la pauvreté et vulnérabilité des populations rurales, la Régénération Naturelle Assistée (RNA) est une pratique bien adoptée par beaucoup de ruraux de la région de Maradi.

La RNA consiste à laisser aux champs un certain nombre de jeunes pousses, de souches ou de rejets sur souches selon une certaine densité à l'hectare afin de régénérer la végétation dans les champs. Les impacts socio-économiques de la RNA comprennent la réduction de la pauvreté à travers l'augmentation de la production agricole, de la production de fourrage pour les animaux, du bois pour le besoin du ménage et pour la vente, la diversifier l'alimentation avec des impacts positifs sur la nutrition et la santé. Bien qu'étant intégrée dans le système

d'exploitation des paysan, cette pratique connait quelques difficultés notamment le droit d'exploitation des arbres entretenus, les coupes frauduleuses, le surpâturage...C'est pour améliorer cette pratique au niveau communautaire et permettre aux populations de développer des stratégies résilientes au climat que Care Niger va développer des programmes dans la région de Maradi.

MAKING SHORT VIDEOS ON CBA

Isabelle Lemaire
InsightShare

Now that video tools are easily accessible and affordable, organisations have been able to cheaply, quickly and effectively communicate lessons from the field and help to share adaptation strategies. CBA videos aim to spread these adaptation stories across communities, organisations and nations. The template insures that the necessary information is told within each film and that their production remains accessible to most organisations.

ADAPTING PASTORAL AND AGRICULTURAL PRACTICES TO THE REALITIES OF CLIMATE CHANGE IN NIGER

Adeline Aubry
UNDP

The Community-Based Adaptation Programme (CBA) is a five- year United Nations Development Programme (UNDP) global initiative funded by the Global Environmental Facility (GEF). The project's implementing partner is the GEF Small Grants Programme (SGP). Co-financing partners include the Government of Japan, AusAID, UN Volunteers, and local NGOs. The CBA's goal is to strengthen the resiliency of communities to adverse climate change impacts.

The CBA project, "Adapting pastoral and agricultural practices to the realities of climate change", focuses on the village of Rombou in the Maradi region of central Niger. The Sahara desert and bordering semi- arid Sahel zone cover approximately 80 percent of the country's land. A majority of Niger's water resources are concentrated in a small green belt in the south. The Tarka Valley is one of the nation's few remaining fertile areas. Although it borders the Tarka Valley, the village of Roumbou is at risk of desertification as the semi-arid Sahel zone expands. The project area has a strong tradition of pastoralism, dating back to its original inhabitants, the nomadic Touareg and Peulh tribes. Farmers from the Haoussa tribe also moved into the area during the 1960s in search of fertile land. Both pastoralists and farmers now depend on increasingly scarce natural resources for their livelihoods. Plagued by high levels of poverty and structural food insecurity, the area suffers from unsustainable agropastoral practices and increasing risks of conflicts over natural resources. Working with three communities consisting of about 6,000 people, the CBA project will involve 2,000 participants in activities that promote more sustainable agricultural and pastoral practices and will help the population deal with predicted climate changes.

ABSTRACT DU RÉSEAU AFRICAAADAPT

Binetou Diagne
AfricaAdapt

Le réseau AfricaAdapt (<http://www.africa-adapt.net/AA/Default.aspx>) vise à promouvoir le partage de connaissances sur l'adaptation aux changements climatiques en Afrique. Il veut capitaliser et communiquer les nombreuses connaissances locales et leçons qui ont été tirées des expériences sur le terrain. Le réseau invite tous les acteurs au partage, notamment les communautés à la base qui restent encore en marge des processus formels de partage de connaissances.

Grâce une approche intégrée, le réseau AfricaAdapt utilise aussi bien les nouvelles technologies de l'information que les moyens de communication traditionnels pour toucher ses publics variés : chercheurs, décideurs politiques, société civile et communautés locales. Le réseau innove aussi en lançant son Fond d'Innovation pour le Partage de Connaissances qui promeut les initiatives de partage de connaissances au niveau communautaire. Son partenariat avec les radios communautaires vise notamment à améliorer la compréhension du changement climatique à l'échelon communautaire et à renforcer les capacités de résilience des populations.

DRYLANDS AND PASTORALISM

ESTABLISHING COMMUNITY BASED SUSTAINABLE RANGELAND RESOURCE MANAGEMENT SYSTEMS AS A COPING MECHANISM TO TACKLE CLIMATE CHANGE IN GASH BARKA ZONE, ERITREA

Amanuel Negasi, Mesghena Ghilay Hagos and Tsegai Araya
IFAD

The livestock in the western lowlands of Eritrea rely almost entirely on grazing and browsing on the rangelands and riverine vegetations following the grazing routes. Due to recurrent drought caused by climate change, the rangeland resources have been declining. As a result shortage of grazing resources, hindrance of cattle movement and environmental degradation has been observed.

With the objective of tackling critical drought season by extending grazing period and minimizing season of migration for livestock, the introduction of community based Rangeland management system since 2004 with the commencement of IFAD funded projects brings regeneration of natural resource in general and increasing herbaceous and tree layer biomass in particular. The establishments of Voluntary Livestock Exclusion Areas, treatment using various soil and water conservation measures to denuded rangelands and over sowing adaptive native grass seeds, construction and distribution of livestock watering points were the main activities.

According to the impact assessment report the total area closures after the project has increased tremendously compared to that before the project with a total area of 105,450 ha and 15,696 ha respectively. Hence, the production has increased significantly with 527,250 tons as opposed to only 47,088 tons before the project.

CONDITIONS FOR THE SURVIVAL OF PASTORALISM IN NORTHERN KENYA AS CLIMATE CHANGES

Eric Kisiangani
Practical Action

The links between development and climate change adaptation, and reducing social and environmental vulnerability are now more urgent than ever in pastoral areas of northern Kenya. Supportive government policies are essential. Here are four policy areas that have emerged from the project work where action and resources are needed:

1. Security and peaceful coexistence among local communities in northern Kenya must be strengthened for effective adaptation of pastoralists through better access to pasture and water.
2. Mobility of livestock herds for accessing pasture and water is the best adaptation strategy for pastoralists. This must be recognized and supported by government agencies responsible for protecting pastoralists' land and resource rights.

3. Increased access to additional adaptive skills in planning and managing rangeland resources as well as linking to sources of information e.g. seasonal forecasts and market intelligence.
4. Remove constraints to efficient livestock markets: improve market infrastructure, vet services, flood-proof roads and communication links

PASTORALISM AND CLIMATE CHANGE: ENABLING ADAPTIVE CAPACITY

Brian Otiende
OXFAM GB

The effects of climate change on the drylands of the Horn and East Africa pose particular and difficult policy challenges in the region. The drylands are characterised by an arid climate that makes them highly vulnerable to the impacts of climate change. Climate science already projects increasing temperatures, rainfall variability and increasing frequency and severity of extreme weather events mainly droughts. In addition to the chronic poverty levels amongst pastoral communities, under-exploited development potential, poor policies that conflict with the unique needs of the drylands, climate change will result to loss of pastoral livelihoods and exacerbate poverty levels amongst dryland communities.

The study argues that, climate change presents both a challenge and opportunity for development within drylands. Of all the natural resource-based land uses in the drylands, the dominant land use system – pastoralism – has unique adaptive characteristics. However, this has to be supported by the right enabling policies and investment. Pastoralism functions best within the prevalent context of wide rainfall variability and unpredictability. Pastoralism presents a logical adaptation route in areas of increased climatic variability, and has an important role to play where other livelihoods are likely to fail.

Pastoralists' resilience to drought can be improved through strengthening their inherent adaptive capacity (autonomous adaptation), rather than providing adaptation strategies for them, improved drought preparedness, disaster management structures and risk reduction efforts (anticipatory adaptation), and using climate information or foresight in development planning (planned adaptation).

COMMUNITY BASED CLIMATE CHANGE ADAPTATION STRATEGIES AMONG PASTORALISTS IN SHINILE WOREDA OF SOMALI REGIONAL STATE, ETHIOPIA

Nur Abdi Mohammed
Pastoralist Welfare Organization (PWO)

Pastoralists perceive climate change as increased temperature, expanded desertification, droughts and reduction of grazing lands. Moreover, they perceive climate change as reduced livestock productivity (milk, ghee and meat), change in livestock feed availability, reduced quality of natural pasture, and increased human and livestock diseases. In this regard,

Pastoralist Welfare Organization (PWO) has recently conducted a rapid assessment on community based climate change adaptation strategies in Shinile woreda of Somali Regional State, Ethiopia. The assessment was focused on the major climate change hazards, their impacts on the livelihoods and traditional adaptation strategies and to some extent development interventions. The results of the assessment indicated that, there are evidences of climate variability and climate changes as drought, extreme temperature, increased human and animal diseases and range land degradation. These climate variability's and changes have created pasture and water shortages, increased livestock deaths and heightened vulnerabilities to climate change hazards among pastoralists. The assessment result has also indicated that, communities are doing their level best to cope with the climate change hazards such as spatial mobility, digging of water wells in the riverbeds and birka construction among others. These traditional adaptation strategies are currently less effective due to prolonged droughts, heavy floods, deepening of underground water, inadequate skills and inter/intra-clan conflicts. The development/non-traditional interventions are also challenged by the climate changes which can be explained by drying up of many water sources as shallow/hand dug wells, ponds and reservoirs. As per the projected climate change scenarios in the lowland parts of Ethiopia, the climate change hazards may continue to harm the traditional adaptation strategies as well as modern development interventions. In order to reduce impacts of these climate change hazards, there is a need to diversify pastoral livelihood activities. In addition to modifying livestock diversity, composition and numbers, there is a need to engage in saving and credit, education and skill development among others.

LOCAL CLIMATE CHANGE ADAPTATION STRATEGIES AMONG PASTORAL COMMUNITIES: THE CASE OF AWASH FENTALE WOREDA, AFAR NATIONAL REGIONAL STATE, ETHIOPIA

Wendessen Gulelat Wolde
Pastoralist forum Ethiopia

Various studies showed that pastoral communities are the first to be affected by the adverse effect of the current and future climate change in Africa. Pastoral communities of Ethiopia have been adapting their livelihoods to changing environmental conditions for centuries. Pastoralist Forum Ethiopia (PFE) in partnership with PROLINOVA Ethiopia, has conducted an in depth study on climate change variables and local adaptation strategies of Afar pastoral communities in Fentale Woreda, Afar National Regional state. The result of the study showed that there is an evidence of variability in rain fall and temperature across the years and an increasing trend in wind speed. The result also showed that, pastoralists have innovatively adapted to the harsh climate situations. Mobility with its own specific pattern was found to be one of the key local innovations in adapting climate change. Social safety nets; development of local level conflict management system; herd splitting, species diversification; Livestock selling and bank deposit; animal disease management; Livelihood diversification such as petty trade and daily labor were also found as an important local adaptation strategies in the study area. However, the non climatic factors such as establishment of National parks and large scale commercial farms (loss of small farm land owned by the community, loss of pastureland, blockage of water access); bush encroachment (Prosopis) were found the major factors eroding the communities' adaptive capacity.

URBAN AREAS

OLD NOTION-NEW RELEVANCE: EXPLORING THE CONCEPT OF SOCIAL CAPITAL IN THE CONTEXT OF CLIMATE CHANGE ADAPTATION IN EAST-AFRICAN COASTAL CITIES

Justus Kithia

Department of Environment and Geography, Macquarie University, Australia

Most studies using the concept of social capital have focused more on its role in facilitating development outcomes in rural than in urban areas. Few studies have shown how this old sociological notion can attain new relevance by motivating the initiation and accomplishment of measures to overcome urban climate change risks, more so in Africa. Yet, not only are millions of city dwellers in Africa at risk from the impacts of climate change, but communication and linkages that bring critical resources to bear are easier in the cities than in rural areas. Addressing adaptation to the uncertain climate using social capital discourses will of necessity involve removing the informal-formal barriers and allowing social cohesion through engagement in mutually-beneficial, vulnerability reducing collective actions. This paper builds on the existing conceptualization of social capital and associated concepts in climate change theory/policy. The application of the concepts, and their use in framing the debate and thinking of the role of social capital in facilitating adaptation to climate change in East African cities of Mombasa and Dar es Salaam is explored.

THE CLIMATE CHANGE ADAPTATION DEFICIT OF LUSAKA CITY IN ZAMBIA

George B. Kasali

EECZ, Zambia

The paper examines the exposure of Lusaka, the capital city of Zambia, to the climate extremes of droughts and floods. The sensitivity of the city to these extremes is investigated in terms of the impacts on water supply, sanitation, health, infrastructure and food prices. The adaptation deficit is assessed by evaluating the adaptive capacity of the city in terms of institutional and community responses to climate-induced disasters that have occurred over the years. Recommendations are then made as to the required measures for planned adaptation of Lusaka City to the changing climate.

REDUCING THE VULNERABILITY OF URBAN POOR IN INDIAN CITIES TO CLIMATE CHANGE THROUGH ADAPTATION STRATEGIES

Yenneti Komalirani*¹ and Joshi Gauravkumar²

¹ Environmental Research Planner, CEPT University, Indian Youth Climate Network

² PGPIM, Infrastructure Management, Adani Institute of Infrastructure Management

Climate-related disasters have brought widespread misery and huge economic losses to the globe and India, adversely affecting public health, food security, agriculture, water resources and biodiversity. In the case of cities in India, the size and vulnerability of informal settlements, generally built in fragile areas, such as coastal zones, flood-prone planes and ravines, and geologically unstable slopes, greatly increases their vulnerability which makes Indian cities to follow a path of adaptation for a sustainable development. The rapid pace of urbanization with the concentration of an ever increasing share of the population has also significantly increased the overall vulnerability of urban areas to such dangers. With regard with this, the paper would deal with the assessment of the impacts, vulnerability, and adaptation to climate change in Indian cities. While dealing with the relationship between climate change and Indian cities, the paper would focus on assessment of the climate change impacts and vulnerability of the urban poor in Indian cities.

It is expected that the outcome would provide reasonable solutions to some of the long term problems in implementation of the adaptation strategies in Indian cities. This paper would also identify some adaptation measures that can be undertaken by the urban poor and Government especially through analysing the case studies in Indian context.

The lessons learned are that the success and failures of implementation of adaptation measures depends mainly on the decision making of the policy makers and it requires strengthening the institutional and financial capacity of the city decision makers and administrators, who are ultimate controllers of built environment and has the power to implement the changes. This sensitisation would provide to be an effective tool to protect the microenvironment and also create awareness in poor for such sensitive issues.

STRENGTHENING URBAN GOVERNMENTS IN PLANNING ADAPTATION

Lucinda Fairhurst
ICLEI

Climate change is expected to have severe physical, social, environmental and economic impacts on cities in Africa. It is predicted that certain areas will be affected by sea-level rise, increased precipitation, increased wind speeds and incidences of cyclones, more incidences of droughts and increased temperatures. This project aims to address the knowledge, resource, capacity and networking gaps of five Southern African cities by strengthening their ability to plan for, and adapt to, the impacts associated with climate change. There are five urban centres chosen for this project, one of which is Windhoek, Namibia.

The project will test the theory that the most vulnerable people living and working in these different geographical, climatic and ecosystem zones will be impacted by climate change in very distinctive ways. Therefore, unique sets of actions will be required to be undertaken by the respective local governments in order to address their vulnerability to climate change. Through this project, tailor-made Local Climate Adaptation Frameworks will be developed for each local government.

These Frameworks will provide the steps necessary to enable the future extension of a participatory approach, with multiple stakeholders, for the implementation of climate change adaptation strategies and policies. Furthermore, it will review the important economic, social

and environmental costs of climate change, with particular reference to gender impacts and issues and emphasise the importance of early action. The frameworks will highlight areas of concern within the five project cities and encourage the development of early warning systems that will reduce the risks of climate change. Lastly, the frameworks will provide the necessary steps for increasing adaptive capacity and lay the groundwork for a Local Climate Adaptation Strategy and Action Plan for each of the project cities.

Through a participatory process, this project will build on, and/or establish long-term, multi-disciplinary and multi-sectoral stakeholder platforms in the five Southern African cities. These platforms will comprise of academics, communities and the local government and will facilitate knowledge-sharing and promote proactive climate adaptation and resource opportunities in the cities. Networks of stakeholders within each urban centre will be established, feeding into a larger regional network of local authorities and partners in Sub-Saharan Africa, and globally through the existing ICLEI global network, ensuring global best practice, roll-out, and long-term sustainability.

MANAGING AND COMMUNICATING KNOWLEDGE ABOUT GOOD CBA

HOW ONLINE TOOLS CAN BE EFFECTIVE IN LEARNING AND SHARING ABOUT CLIMATE CHANGE ADAPTATION: EXPERIENCES FROM THE OXFAM AND WEADAPT COLLABORATION

Anna Taylor¹ and Charlotte Sterrett²

¹ weADAPT

² Oxfam

Oxfam GB has been working in collaboration with weADAPT since mid 2009 to design a suitable online knowledge base and web platform for learning and sharing on climate adaptation that can be easily accessed and used by Oxfam practitioners. The overall aim of the collaboration is to ‘Create and sustain a global online learning and sharing resource for Oxfam GB programme practitioners working on climate change adaptation’.

weADAPT offers the technology and an expanding network of leading organisations across a range of sectors to grow, manage and deliver critical information and knowledge to make better informed adaptation decisions, plans and strategies from local to national and regional scales. weADAPT transforms information into knowledge by creating meaningful links between resources using state-of-the-art semantic search technologies, and thereby supports users in their learning process.

This presentation will detail the process of developing the platform, including how in-country practitioners have guided its development, and why involving users has been integral to this process. The presentation will also give an introduction to the platform and its key features, including how it is used to build a shared understanding of critical climate change issues, translating the science and linking it to documented experiences of, and lessons from, implementation efforts on the ground. Ultimately we hope that through doing this we will be able to identify emergent properties of good CBA practice.

CLIMATE THROUGH CULTURE – BRITISH COUNCIL CLIMATE CHANGE WORK IN SUB-SAHARAN AFRICA AND HOW WE SUPPORT THE SHAPING OF FUTURE POLICY

Hannah Cowin

British Council

This presentation will help conference participants understand the British Council’s role in supporting Climate Change and, through examples of our work in the SSA, will encourage partnerships to develop and implement future activities and projects.

The BC has been engaged in climate change activities since the 1992 Rio summit. In recent years this work has been focused on developing informed and connected young leaders who have the ability to influence decision makers to take positive action to prevent or reduce climate change on local, national and international levels.

The British Council sent a group of “International Climate Champions,” from across the globe, to the UNFCCC Kyoto Protocol (COP3) in 1997. This was so successful that a further group attended the recent summit in Copenhagen. In SSA there are now groups of BC International Climate Champions in ten countries: Kenya, Nigeria, Tanzania, Ghana, Uganda, Sudan, South Africa, Botswana, Malawi, and Zimbabwe. Champions are young people with a passionate interest in climate change who want to make a difference. They spend a year working with their local communities carrying out projects that raise awareness of climate change and encourage people to change their behaviour. The BC supports the Champions with training and skills-building in project management and communication. Champions work with their local communities to implement changes, on projects like plastic bag bans or “greening the school”. An important part of local work is encouraging others within the community to get involved.

Africa Talks Climate, is a research conducted with the BBC WST in ten African countries. Its focus is to engage, inform and empower Africans at local, national and international levels about climate change. The initiative collates community opinions and gives voice to people at all levels of society. ATC will inform the work of the British Council and others working on regional climate change projects with the publishing of the results in early 2010. We expect the findings to inform the development of a climate change communications strategy and help shape future project development.

The BC focuses on youth and leadership: raising awareness, empowering and informing young people who are our future community, national and international leaders and policymakers. Overall we hope our projects will reach out to rural and urban communities across the region, and influence leaders through the voices of the young, and help climate adaptation and mitigation methodologies become a part of daily life for people in Africa and across the world. As a cultural relations organisation, our focus is on cross-cultural, international knowledge exchange and acquisition and trying to emphasise the global interdependency in this issue. The BC hope to ensure work help all sectors of society to work together, regardless of status or income, to take a community approach to solving a global problem.

REGIONAL CLIMATE CHANGE ADAPTATION KNOWLEDGE PLATFORM FOR ASIA

Satya Priya and Roopa Rakshit*
UNEP

The science is clear: climate change is here and will be challenging us for the coming decades. It is necessary to adapt not only to these specific changes, but to the new uncertainty about our future climate.

The Regional Climate Change Adaptation Knowledge Platform for Asia (*Adaptation Knowledge Platform*) has been developed to respond to demand for effective mechanisms for sharing information on climate change adaptation and developing adaptive capacities in Asian countries, many of whom are the most vulnerable to the effects of climate change. The Adaptation Knowledge Platform supports research and capacity building, policy making and

information sharing to help countries in Asia adapt to the challenges of climate change. The Adaptation Knowledge Platform will seek to facilitate climate change adaptation at local, national and regional levels and to strengthen adaptive capacity of countries in the region – while working with existing and emerging networks and initiatives.

The *Adaptation Knowledge Platform* supports mainstreaming of climate change adaptation into regional economic and development policies, working together in partnerships, complementing and bridging existing and emerging networks and knowledge. Activities that are implemented by the *Adaptation Knowledge Platform* fall under three main components:

- generation of new knowledge on climate change adaptation,
- translation of science to policy relevant knowledge, and
- working towards an effective knowledge sharing system, at regional and national levels.

This initiative is established jointly by the Stockholm Environment Institute (SEI), the Swedish Environment Secretariat for Asia (SENSA), the United Nations Environment Programme Regional Office of Asia and the Pacific (UNEP ROAP), United Nations Environment Programme Regional Resource Centre for Asia and the Pacific (UNEP RRC.AP) with support from the Swedish International Development Cooperation Agency (SIDA).

In 2009 activities have been initiated in the five pilot countries, Bangladesh, Cambodia, Nepal, Thailand and Vietnam, with local partners' mobilized and key knowledge and capacity gaps identified. Some work is still underway; however, key findings of 2009 activities of the platform will be presented in this conference. Further, the presentation will highlight strategies and approaches for effective creation, capturing, sharing, and managing knowledge in Climate Change Adaptation.

COLLABORATIVE CHANGE: APPROACHES AND EXPERIENCES IN COMDEV APPLIED TO CBA

Cleofe Torres¹ and Federica Matteoli²

¹University of Los Baños

²FAO

CBA approaches emphasize the need to empower rural communities and identify, through participatory learning methodologies, suitable adaptation options. Planned knowledge and communication activities have to be acknowledged as strategic assets to improve information sharing, people's participation and concerted action towards social learning for livelihood adaptation.

As recommended by participants to the 3rd CBA conference, communication processes and strategies are essential to enhance rural institutions' capacity to assist small farmers and reduce communities' vulnerability. These should be fully integrated and mainstreamed within the CBA approach, in order to:

- facilitate equitable access to knowledge and information

- enhance learning and action → co-creation of knowledge
- promote peoples' participation and direct involvement in the design of coping strategies
- bridge the “glocal information divide” between global environmental systems and local communities improving linkages among research, extension, advisory services and farmers.

FAO is implementing the Communication for Sustainable Development Initiative (CSDI), a global programme to test, document and share communication strategies, services and tools for climate change adaptation and sustainable NRM. Based on two cases in Congo and Bangladesh, this presentation will draw on field experience to demonstrate that sharing knowledge on good practices among peers fosters horizontal collaboration and helps rural people define new adaptation strategies to climate change, while reaffirming their right to communication services.

The contribution will also introduce a CSDI initiative in response to the need for enhanced communication capacities among development practitioners, field agents and decision-makers. It aims to establish a cross-regional and cross-institutional community of practice, for sharing information and knowledge on communication applied to climate adaptation, through networking and partnerships with development programmes, institutions, NGOs, universities and research centres.

AN INNOVATIVE KNOWLEDGE SHARING NETWORK FOR CLIMATE CHANGE ADAPTATION IN AFRICA

Moussa na Abou Mamouda
AfricaAdapt

Africa. The Network's aim is to facilitate the flow of climate change adaptation knowledge for sustainable livelihoods between researchers, policy makers, civil society organizations and communities who are vulnerable to climate variability and change across the continent.

The network uses an interactive web-based information portal, as well as other media such as community radio, mobile phones, print publications, face-to-face meetings, etc. to share knowledge, know-how and any information to support climate change adaptation in Africa for the benefit of vulnerable communities.

Whilst the use of information technology is expanding rapidly across Africa, information and knowledge do not reach large sectors of the population particularly the poorest so that an important part of those vulnerable groups will still be excluded from that knowledge exchange chain and this fact is likely to exacerbate their vulnerability. AfricaAdapt Knowledge Sharing Innovation Fund focuses attention on those marginalized and hard-to-reach groups, and is looking to fund initiatives that involve them in the process of knowledge sharing through innovative ways of communication, ideas and methodologies.

The impacts of climate change and variability are already affecting the livelihoods of the very African communities. As media who have a fundamental interest in broadcasting about issues that are of key relevance to their listeners, Community Radio broadcasters have a

responsibility to understand and communicate how climate change is affecting the people in their areas. They are also strategically placed as media who can interact with local communities in languages and formats that are easily understood, for a better knowledge and information sharing at all levels.

In this presentation, all these services provided by AfricaAdapt Network, its achievements and challenges faced are explored.

COMMUNITY BASED ADAPTATION EXCHANGE (CBA-X)

Blane Harvey
IDS, Sussex, UK

CBAX is a shared online web space designed to bring together the CBA community. It is supported by IIED and hosted by Eldis at IDS. CBAX facilitates the exchange of community based adaptation knowledge, between continents, sectors and disciplines, with a focus on: news and commentary; cutting edge research; relevant case studies; and tools and practice. There are over 650 members, 65% of which are from the global south.

CBAX uses a number of interactive and multimedia tools such as: blogs and discussions, calendar of events and videos.

The uploaded resources on the CBAX platform are linked to summaries on the Eldis Climate Change Resource guide, which provides access to more than 1600 fully summarised climate-related documents and links to over 250 organisations working on climate change issues.

A number of complementary IDS knowledge Services on Climate Change will be introduced as well as an overview of how CBAX can help you in your work.

THE ROLE OF RADIO IN CREATING BETTER RESPONSES TO CLIMATE CHANGE

CASE STUDY: THE DEVELOPMENT BROADCASTING UNIT (DBU) IN MALAWI

Hamilton Chimala* and Charles Chikapa
The Development Broadcasting Unit (DBU) in Malawi

The Development Broadcasting Unit was established in September 1999 as an autonomous not-for-profit, public sector unit under the MALAWI Broadcasting Corporation-MBC. The Unit engages in development communication programming using participatory approaches to provide a platform for the marginalized of the poor. The format uses Radio Listening Clubs spread all over the country, where local leaders decide issues which they would like Government or any other stakeholder to address in their respective areas. The Development Broadcasting Unit plays a facilitating role by linking the listening clubs with the relevant specialists on particular topic. A forum is organized where the official or officials are put on the spotlight by the local communities. The dialogues are recorded and packaged by the

communities themselves and sent to the DBU offices where they are edited and then aired on national Radio. The Project has proved hugely popular and plans are underway to seek funding to start “live” broadcasts, with long term goal of establishing Community Radios using the RLCs as focal points. Success stories using this Radio for Development approach in Malawi are well documented. Facilities such as Health Centres, Clinics, Water points to mention but a few have been provided in the remote parts of the country. Climate Change is a new topic that the DBU has taken on board, and currently several projects are in the formulation stages to be rolled out in the coming year.

SCALING UP AND REPLICATING BEST PRACTICE

INCORPORATING SUSTAINABLE LIVELIHOODS, DISASTER RISK REDUCTION AND NATURAL RESOURCE MANAGEMENT INTO CLIMATE CHANGE ADAPTATION APPROACHES: AN OXFAM GB PERSPECTIVE

Charlotte Sterrett* and **Steve Jennings**
Oxfam GB

Oxfam GB believes that lifting people out of poverty and overcoming injustice is central to our mission, which is why tackling climate change is a major priority for our humanitarian, campaigning, and long-term development work.

This session will detail Oxfam's approach to CCA which focuses on the core areas of Disaster Risk Reduction, livelihoods, and natural-resource management, ensuring that gender is addressed as a crosscutting issue. It is an approach that includes working at multiple levels, from community and local, to national and international. It is an approach that advocates for a range of interventions that deal specifically with climate change impacts, as well as address underlying vulnerability to climate risk.

This session will also explain how Oxfam is addressing climate change through its programme management cycle; from identification and analysis, to programme planning and design, implementation and management, through to monitoring, evaluation and learning.

THE CRITICAL SUCCESS FACTORS FOR UP-SCALING COMMUNITY BASED ADAPTATION TECHNOLOGIES IN SEMI-ARID AREAS: EXPERIENCES FROM FOOD SECURITY INITIATIVES IN ZIMBABWE

Douglas Gumbo
Practical Action, Zimbabwe

The Food security initiatives implemented by Practical Action in Zimbabwe included rainwater harvesting technology as a major component; these initiatives will be used as a case study to identify the different scaling up models and their critical success factors. The paper contributes to answering the question posed by development practitioners on how successful rainwater technologies can be promoted and adapted to other regions, countries and sectors, in order to improve their replication and up-scaling. The enabling environments necessary for upscaling and replication elsewhere will also be explored. The terms replication and up scaling tend to be used in tandem but this paper will also try and distinguish between the two and demonstrate how support organisations can promote RWH technologies be taken to higher levels, in terms of increasing economic benefit as well as social and environmental gains. The paper will conclude by suggesting the major steps that support organisations and policy makers can adopt in mobilizing communities to upscale rainwater harvesting technologies to improve food security in areas facing low and reducing rainfall.

INSTITUTIONAL COLLABORATION AND UP-SCALING OF WATER HARVESTING AS KEY ADAPTATION MEASURE IN TIGRAY, ETHIOPIA: THE EXPERIENCE OF THE RELIEF SOCIETY OF TIGRAY (REST)

Teklewoini Assefa
The Relief Society of Tigray (REST)

Up scaling community based adaptation (CBA) is key for communities to adapt to future changes and to respond to planning processes and adaptation finances. Experiences on up-scaling CBA already exist and can form a basis for future learning. This presentation focuses on the adaptation experience of communities in Tigray region, in northern Ethiopia, in response to the growing challenge of climate change. The presentation focuses particularly on technologies for water harvesting activities, and highlight how these activities are up-scaled in collaboration with other institutions and the regional and local government. The presence of strong institutional collaboration and community governance was critical to the successful up-scaling of these crucial adaptation measures. The presentation will also highlight the key role played by the NGO Relief Society of Tigray (REST) in facilitating institutional collective actions and responsibilities by creating a common planning platform to increase local and regional institutional capacities.

GREENING DARFUR - SCALING UP WORK TO INCREASE RESILIENCE TO DROUGHT THROUGH STRENGTHENING OF CIVIL SOCIETY ORGANISATIONS TO MANAGE DEVELOPMENT

Mohamed Siddig Suliman
Practical Action, Sudan

Practical Action has continued to implement development work in north Darfur throughout the conflict period, focusing on increasing food security through better soil and water management. A key aspect of the work has been building the capacity of community based organisations, and forming networks of the CBOs.

Building on this work, a new programme is just getting under way: Greening Darfur. The intended outcome of the Greening Darfur is Adaptive Livelihoods. This will be achieved by bringing together the following elements:

- Civil society networks (networks of VDCs and WDAs) achieving effective linkages between their members and government institutions
- Systematic gathering of relevant information on land , water, agriculture, livestock, climate
- Communication and awareness this information for all stakeholders conducting Participatory Action Planning.
- Presentation of Participatory Action Plans as projects to draw down financial resources -including international adaptation funds
- Implementation of the Action Plans - for example construction of a water harvesting dam.

- This planning process will be replicated at all levels from village level up to territorial level.

The presentation will show how this differs radically from the conventional model where the NGO secures the project resources and directly implements a water harvesting dam. The critical element essential for building in the adaptive capacity is the extensive phase of information gathering and sharing behind the design and implementation of project activities.

VULNERABLE GROUPS: WOMEN AND CHILDREN

COUNTING ON WOMEN CLIMATE CHANGE ADAPTATION IN THE HIMALAYAS

Brigitte Leduc

ICIMOD

Presented by: **Mats Eriksson**

With the increase trends of men out-migration and the feminization of agriculture, Himalayan women will play a crucial role in the adaptation strategies to climate change of their household and community. ICIMOD-led studies in the Himalayan region on local adaptation to water stresses, on gender perspectives in rangeland resources management and on climate change adaptation show that women hold a rich knowledge and a variety of skills for maximizing the use of natural resources of the fragile mountain ecosystem and in farming practices. If their role were more fairly acknowledged, their experience could be an important asset for mountain communities in adapting to the new challenges of the climate change impacts.

However, the gender perspective is still rarely integrated in climate change policy and strategies both at international and national levels. Similarly, the mountain perspective and the implication of its feminization are also often lacking. ICIMOD is conducting gender analysis of the impacts of climate change in the mountain context; promote mountain women knowledge and skills; and advocate for the integration of a gender perspective in any plan and strategy for addressing both women's and men's needs and reduce gender inequities in order to build mountain people resilience to climate change.

In this presentation, we will discuss why it is important to mainstream gender in climate change adaptation strategies in the Himalayas and what aspects need to be documented and analysed through a gender lens when conducting a study on climate change adaptation.

CHILD-CENTRED ADAPTATION AND DISASTER RISK REDUCTION: LESSONS FROM MOZAMBIQUE

Lydia Baker

Save The Children

The impact of climate change on children is no longer a distant, futuristic scenario. Its effects are being felt today and the poorest children are already bearing the brunt. Water scarcity, reduced agricultural yields and the increased frequency of disasters all hit children the hardest. Children also have many more years than adults in which they must face the impacts of climate change.

But rather than only its victims, children are also leaders in the fight against climate change and disasters. Given the space and opportunity to do so, children lead risk reduction and adaptation activities, engage the wider community as well as ensure they themselves are

protected. Children can also influence the policy and practice of their local and national governments.

This presentation will focus on child-centred DRR and adaptation experience in Mozambique showing the extensive and diverse roles children can play. It will present experience from a 'junior farmer life school' where children learn about alternative agricultural practices and climate change as well as innovative DRR activities such as child parliaments where children can express their views to decision makers.

THE CASE OF OYOLA/WAKESI COMMUNITY FLOOD AND DROUGHT MANAGEMENT STRATEGIES AND PARTICIPATORY VIDEO FOR PARTICIPATORY MONITORING AND EVALUATION, KENYA

Judi W. Wakhungu, Elvin Nyukuri, Dan Ongor, and Charles Tonui*¹

¹ACTS, Kenya

Adaptation has become part of the discourse of global warming and is now widely recognized as a fundamental and necessary response to the threat posed by the climatic changes that will occur, or are already occurring due to past and present carbon emissions (UNFCCC 2007). A new statistical analysis has estimated the global-scale net effect to climate change on crop yields for the world's six most widely grown crops. According to this study, "the historical temperature-yield relationships indicate that at the global scale, warming from 1981-2002 very likely offset some of the yield gains for wheat, maize and barley). From technological advances, rising Carbon Dioxide and other non-climatic factors had minimal effects on the yields for rice, soy, and sorghum. (Lobell and Field 2007). This shows how most countries in Africa that highly depend on such commodities are facing the adverse impacts of climate change both in terms of food security and human security. In Kenya, droughts and floods have become more frequent and intense. The country has also seen increased average temperatures, more extreme hot days, and colder nights, successive crop failures, as well as the spread of vector-borne diseases like malaria to places where the disease is not known to be endemic. These climate driven changes affect resources critical to the health and prosperity of Kenya. For example, the 1999/2000 *La Nina* droughts resulted into 4.7 million Kenyans facing starvation, while the effects of the 2008/2009 drought could be worse with unofficial reports putting the number of people facing hunger at some 10 million. These impacts and others portend a worsening of the situation in the future given that the global green house gases (GHG) emissions are continuing unabated. At the local level, efforts are being made to document how communities are responding to these challenges. Here we focus on two communities, Oyola and Wakesi peoples who reside on the fringes of Lake Victoria in the Kano Plains of Western Kenya. The African Centre for Technology Studies (ACTS), in partnership with Uhai Lake Forum are undertaking an action research and testing an adaptation tool called Local Options for Communities to Adapt and Technologies to Enhance Capacity (LOCATE) methodology to document the findings.

LIVED EXPERIENCES: ADAPTATION TO CLIMATE CHANGE IN GOGONYO SUB-COUNTY – PALISA DISTRICT, UGANDA

Judi W. Wakhungu, Susan Nanduddu*¹, Elvin Nyukuri, and Charles Tonui
¹DENIVA, Uganda

Climate change has become a local phenomenon just as it is global. The magnitude of climate variability is now being felt at almost all scales and in all regions with extreme events such as drought, excessive rainfall, cold and heat waves as well as dry spells affecting much of rural Africa, Uganda inclusive. Climate change adaptation has now become indispensable due to the increasing vulnerability of rural populations to the effects. Communities which are remotely located in countries such as Uganda, have limited access to social services, dependent on natural resources for their livelihoods and may have limited opportunity to influence the policies that affect their lives are, therefore, likely to be more vulnerable. Gogonyo Sub-County in Pallisa District, Eastern Uganda, represents some of these characteristics and has been affected lately by droughts, excessive rainfall and dry spells, exposing people to hunger to such an extent that some food handouts were distributed in the area. This report presents results of a study that was conducted to assess the effects of climate change on rural livelihoods in Gogonyo with the aim of identifying practical adaptation and mitigation strategies for the population. The study assesses community perceptions on climate change, vulnerability. It also examines the impacts to livelihoods and socio-economic setup of the Gogonyo sub-county.

**GENDER, FOOD INSECURITY AND CLIMATE CHANGE AMONGST PASTORAL
COMMUNITIES:
CASE STUDIES OF MANDERA AND TURKANA IN NORTHERN KENYA**

Nancy Omolo

University of Kwa Zulu Natal

Kenyan pastoralists earn livelihoods in the Arid and Semi-arid lands. The roles, relations, responsibilities, opportunities and constraints of pastoralists pose different challenges to women and men because of uneven access and control of resources. With few studies undertaken on the impact of climate change and its consequences, this study focuses on using quantitative and qualitative methods and a multidimensional approach to assess vulnerability. Using data on pastoralist's attitudes and perceptions related to climate change and variability on food security, it was found that women's workloads and the pastoralists over-reliance on food relief increased because of climate variability and change.

THE ROLE OF ECOSYSTEMS IN ADAPTATION

ECOSYSTEM ADAPTATION: WHAT IT IS AND WHY IT'S IMPORTANT TO INTEGRATE IT WITH COMMUNITY ADAPTATION

Beth Marshall¹, Judy Oglethorpe², and Jonathan Cook²

Presented By: **Kit Vaughan**

¹WWF UK

²WWF US

At the same time that communities are experiencing climate change, the natural systems on which they depend are also experiencing them. This is resulting in shifts in the abundance and distribution of species which provide communities with natural resources (e.g. fuelwood, timber, foods, medicinal plants). Ecosystem services such as water supplies, crop pollination, and protection from natural disasters are also affected. Like people, natural systems need to adapt. They can do this better if other stresses are minimized, like habitat destruction, over-harvesting of resources, and pollution. But as climate change threatens people's livelihoods in rural areas of the developing world, they tend to fall back on natural systems as a safety net, which can further impair these systems' ability to adapt and continue to support human populations. Hence it is very important to plan adaptation holistically, taking into account the needs of both people and nature, and the close interrelationships between them. This means working at larger scales than a single community. Not mainstreaming ecosystem adaptation into community adaptation risks short-term solutions for people that place increased pressure on the environment, leading to maladaptation and worse conditions for communities in the longer term.

ADAPTIVE MECHANISMS AT COMMUNITY LEVEL WITHIN THE CONTEXT OF CLIMATE CHANGE AND HUMAN/WILDLIFE INTERACTIONS IN THE MOUNT KENYA ENVIRONS

Liz Esiromo

IFAD

Mount Kenya Forest is one of the largest and most commercially important forest areas and deserves protection because of its exceptional biodiversity, presence of threatened species and is a major water catchment area (water tower), supplying more than 80 % of Nairobi water requirements and hydroelectric power.

Commercial logging continued after independence in 1963, and demands for land resulted in excisions being made into the Forest Reserve, which contributed to substantial degradation of the forest. The Forest Act 2005 has resulted into local participation in forest management between government and communities. The project clearly identifies poverty as the core driving force to environmental degradation, which ultimately generates more poverty. An integrated approach addresses issues of current climate change and how communities are adapting to these new challenges with regard to water, livelihoods, community empowerment, and environmental conservation management. These community initiatives especially with regard to human/wildlife interactions are leading to improved land productivity and incomes

and subsequent better quality of life communities in these areas.

EFFECTIVE ECOSYSTEM BASED ADAPTATION IN MADAGASCAR: EXISTING CHALLENGES AND FUTURE PRIORITIES

Tiana Ramahaleo* and **Alison Clausen**

WWF Madagascar and Western Indian Ocean Programme Office

Madagascar is a country of exceptional biodiversity. Over 5% of the world's species, including a quarter of all primate species, are endemic to the Island. The country's 20 million inhabitants are predominantly rural and highly dependent on the goods and services provided by natural ecosystems. Overexploitation of resources has already had significant effects on species and ecosystems; approximately 90% of original natural forest has been lost and the habitat that remains is poorly connected while marine ecosystems suffer from sedimentation and overfishing. While climate historically played a central role in the development of the diversity found in Madagascar, the rate and unpredictability of current climate change has the potential to severely disrupt the fragile balance between human communities and ecosystems. Coupled with forecast significant population growth, adaptation for ecosystems and human communities will be essential. Ecosystem based adaptation is a promising adaptation strategy for Madagascar. WWF's Madagascar and Western Indian Ocean Programme Office is currently implementing a number of ecosystem based adaptation activities. Early results from implementation of these projects, which are amongst the first adaptation activities to be implemented in Madagascar, have allowed conclusions to be reached about the key challenges to effective adaptation and the priorities for future adaptation directions.

INTEGRATED APPROACH TO COMMUNITY BASED ADAPTION IN NEPAL

Moon Shrestha

WWF

Since Climate Change and Energy Unit started in 2003, Climate Adaptation has always been an important component for WWF Nepal. Initially, the program focused more on understanding the impacts of climate change in Himalayas and vulnerability of the ecosystem and livelihood. Based on research and various assessments, WWF Nepal is piloting community based adaptation in its priority area.

Understanding the vulnerability is done based on scientific data as well as using various participatory tools with communities which proved to be an effective tool for incorporating communities' perception and experience. Communities are in forefront and are very active in the whole process from identification of adaptation priorities to implementation.

The approach of the pilot project is an integrated one that looks at vulnerability of the communities and ecosystem. The project has 5 major components to build the resilience from climate impacts.

1. Assessing Climate Data
2. Disaster Risk Reduction
3. Building the resilience of the communities
4. Improving climate change policy, and
5. Communication of best practices

This pilot project has been able to integrate different components of climate adaptation work of WWF Nepal (such as hydro-meteorological researches, biodiversity and habitat shift study, livelihood and fresh water component, policy aspects etc.) and develop one project. Based on the learning from this project, WWF Nepal is planning to replicate and up-scale this integrated approach in its priority landscapes.

BUILDING RESILIENCE TO GLOBAL CLIMATE CHANGE WITHIN THE MESOAMERICAN REEF

Nadia Bood

WWF-Central America

Climate change (CC) is expected to impact both natural and human systems, altering the productivity and functions of many ecosystems and human livelihoods around the world; with the Mesoamerican Reef (MAR) being no exception. For reef and mangrove resource-dependent communities of the MAR, CC will compound existing vulnerabilities. Heavy dependence on such ecosystem services places communities' welfare at the mercy of environmental conditions such that if the availability and quality of these natural resources decline in the MAR, so too will be the security of livelihoods and other social benefits tied to such resources. With climate-related impacts already being observed in the MAR, there is an urgent need for adaptive response measures to build resilience to climate driven threats. World Wildlife Fund has a project underway to foster climate change resilience building within both natural and human systems of the Mesoamerican Reef. Major focus is being placed on assessing reef resilience, coral garden exploration, mangrove mapping and pilot mangrove restoration, coastal community vulnerability assessment and local based adaptation exploration, among others. The project has a holistic approach; addressing the significant and growing threat of climate change with an integrated vision. Efforts are currently underway in Belize and Honduras.

DISASTER RISK REDUCTION

BUILDING RESILIENCE TO CLIMATE RELATED SHOCKS IN THE GREATER HORN OF AFRICA

Mark Gordon and Hans Vikoler
WFP

The Greater Horn of Africa (HoA) (Djibouti, Eritrea, Somalia, Ethiopia, Kenya, North Eastern Uganda and Northern Tanzania), since the beginning of the new millennium has been affected ever increasingly by recurring droughts and flooding. The most recent of these events was the HoA crisis in 2008/2009 which affected over 21 million people in this region.

Traditional livelihoods in the HoA have developed over centuries allowing households to adapt to specific environments; and a key factor in determining these livelihoods is the climate regime within which a household is located. Historically, the HoA has been affected by a major drought every 10 years. Although destructive, the ensuing interval allowed farmers, agro-pastoralists and pastoralists to recover and develop resilience for the next event. However, since the end of the 20th century, more pronounced climate variability has meant the increasing frequency of droughts and flooding, eroding household recovery and resilience.

In the Greater HoA, vulnerable and food insecure communities/households in partnership with WFP, government and NGO, engage in food for asset activities that develop livelihood assets, including irrigation ditches, rain water harvesting weirs, water catchments points and hill slope recovery and stabilization. These assets strengthen household and community resilience to the recurrent climate related shocks which are likely to further intensify in the coming decades.

BUILDING AN INDEPENDENT PARTICIPATORY MONITORING PROCESS FOR CLIMATE ADAPTATION AND DISASTER RISK REDUCTION

Marcus Oxley
Global Network of Civil Society Organisations for Disaster Reduction

Bridging the gap between international / national policy aspirations and the realities of policy execution at the local level is the greatest challenge to building resilient communities. It requires an impartial local-level policy monitoring process that can deliver the following:-

- An independent overview of progress at the local level
- Credible evidence-base to link policy and practice
- Establish local baselines to measure future progress
- Strengthen public accountability for policy execution
- Open political space for policy dialogue between different stakeholders
- Builds consensus and trust between actors (social capital)
- Increased awareness and understanding of policy and practice

- Increased “social demand” for appropriate resilience building
- Increased transparency and domestic accountability (increases political commitment)
- Enhanced local research, analytical, monitoring and advocacy capacities

Recent experiences gained in local monitoring of national risk reduction policies are of direct relevance to building climate-resilience given there is close convergence of these issues at the household level. Accordingly, in the next phase, it should be possible to bring together a truly global alliance of disaster risk reduction, environmental and development civil society organisations in a collaborative venture. This could provide a means to impartially measure progress towards building the resilience of communities that would serve to connect measurable *outputs* and *outcomes* at sub-national level with measurable *inputs* at the national and international levels ahead of the 2012 post-Kyoto agreement.

CLIMATE-SMART DISASTER RISK MANAGEMENT: THE STRENGTHENING CLIMATE RESILIENCE (SCR) AND AFRICA CLIMATE CHANGE RESILIENCE ALLIANCE (ACCRA) PROGRAMME OF WORK

Katie Harris^{*1}, Alemayehu Konde², Mohamed Adow³, and Alphonse Katunzi⁴

¹Institute of Development Studies

²Plan International Tanzania

³Christian Aid, Kenya

⁴Inades, Tanzania

The Strengthening Climate Resilience (SCR) project, in partnership with the African Climate Change Resilience Alliance (ACCRA), have initiated a programme of work which seeks to increase resilience to climate change amongst vulnerable people by enhancing the ability of governments and civil society organisations to manage disaster risk and uncertainties more effectively in the context of climate change. To do so, the two consortia are jointly developing a framework which will allow them to assess and collect evidence of where disaster risk management interventions contribute to climate resilience and then use this evidence to advocate for changes in practice and policy. In this context, the framework will identify characteristics and indicators of climate smart disaster risk management, while bearing in mind the question – what do disaster risk managers and linked practitioners and policymakers working across all development sectors need to do differently considering the impacts of climate change?

As a first step, the SCR consortia has begun to develop the concept of ‘climate-smart disaster risk management’ and the ACCRA consortia will be looking at a range of disaster risk management and development interventions used with communities and by governments and civil society organisations to see what we can infer about climate resilience. Both consortia are working in East Africa through a number of partner agencies.

We would like to take the opportunity provided within the CBA Conference to: introduce the two consortia, their aims, objectives and geographical remit; present the consultation version of the framework that is to be field tested over the next two years; receive initial feedback from experts on the framework; explain the next steps in field testing and how other agencies can become actively involved in the refinement and promotion of the framework.

In order to do this, we propose that a joint presentation be made. Representatives from the Institute of Development Studies (lead agency for SCR) and Oxfam (lead agency for ACCRA) will present the overall programme of work and the consultation version of the framework. Representatives from partner agencies (Christian Aid, Plan International and Inades) will then explain how the programme of work will impact on their own initiatives, drawing explicitly on their field experience.

HOW COMMUNITIES ARE PREPARING TO FACE THE CHALLENGES OF CLIMATE RISK AND DISASTER RISK

Provash Mondal
Oxfam, Vietnam

Vietnam is one of the vulnerable countries to climate change and regularly affected by disasters, especially typhoons, floods and landslides. Oxfam is facilitating community based adaptation and risk reduction activities in the most vulnerable provinces to sea level rise, warmer temperature, unpredicted rain and disasters.

Communities are working together to develop community based adaptation plans using Participatory Capacity and Vulnerability Analysis (PCVA) tools, and methodologies to adapt to the new challenges of climate change and related disasters. They have identified specific measures for improving vulnerable livelihoods by introducing disaster and salinity resistant crops, extension services, early warning systems, water supply systems, improving public health knowledge as well as empowering women through improving income generation and community forestation activities.

Communities are in process of improving their capacities to respond to the emergencies and live with adverse climate by participating in IEC events, training courses on early warning, swimming, rescue & evacuation, contingency planning, M&E, gender and humanitarian issues, standards and accountability, and humanitarian needs assessment.

Many disaster prone communities are capable of preparing themselves to live with disasters. Oxfam experiences have been considered to improve the local governments' DRR and adaptation plans.

CBA METHODOLOGIES

CEDRA (CLIMATE CHANGE AND ENVIRONMENTAL DEGRADATION RISK AND ADAPTATION ASSESSMENT): A NEW TOOL FOR CLIMATE RISK ASSESSMENT AND ADAPTATION

Oenone Chadburn

Tearfund

CEDRA (Climate change and Environmental Degradation Risk and Adaptation assessment) is an environmental field tool for agencies working in developing countries. It helps agencies working in developing countries to access and understand the science of climate change and environmental degradation and compare this with local community experience of environmental change. It's essentially a logical guide to finding out what climate change projections there are for your country/ district, reviewing how resilient your programmes of work are (across all sectors), and deciding, in consultation with a sample of communities, how you may need to adjust your programmes to make them more resilient to climate and environmental change. Using CEDRA, civil society organisations can prioritise which environmental hazards may pose a risk to their existing project locations, enabling them to make decisions to adapt some projects, stop doing some projects or start new ones. Adaptation options are discussed, and decision-making tools are provided to help organisations plan their responses to the hazards identified. NGOs working in Disaster Risk Reduction (DRR) as well as general development NGOs will find CEDRA useful. CEDRA is designed, ideally, to be used by people who are experienced in planning and managing development projects. This is a tool endorsed by USAID and number of other international aid agencies.

THE IMPACTS OF CLIMATE CHANGE AND POSSIBLE ADAPTATION ACTIVITIES: A CASE STUDY IN THE LOWER RUFUJI, TANZANIA

Alfei Daniel*, **Jessica Campese** and **Doyi Mazenzele**
IUCN Climate Change and Development Project (CCDP)

Lower Rufiji is exposed to the impacts of climate change. Floods, drought and strong winds are the main climate hazards. The livelihoods include farming, fishing and beekeeping. Livelihood resources, especially natural resources (like land, water, forests, etc) are severely impacted by these hazards.

Climate change vulnerability assessment was undertaken in four villages of lower Rufiji (Nyamwage, Nyamwimbe, Nyaminywili and Mtanzamsona) using the Community based Risk Screening Tool-Adaptations and Livelihoods.

During the assessment, community representatives identified some coping strategies that are used to cope with climate change hazards. They included gathering and eating wild fruits and roots, water rationing, supplementary feed to bees, temporary settlements, use of traditional medicine, water rationing, income diversification, etc. However, most of the strategies were

either not working or not sustainable in the face of long term climate change impacts. Thus, out of this came a need to revise coping strategies into adaptation activities that are both working and sustainable to the long terms impacts of climate change.

The list of revised coping strategies that translated into adaptation measures includes Promoting conservation farming, Construction of permanent water sources; Improving hygiene and sanitation; Planting of trees around/along waters sources, farms and settlements; establishing irrigation system ;entrepreneurial skill training etc. The assessment shows that time and resources needs for implementation of the adaptation measures are substantial.

PARTICIPATORY FOREST MANAGEMENT PROCESS: A CASE STUDY FROM NORTHERN MALAWI

Jando Nkhwazi

Rural Foundation for Afforestation (RUFA), Malawi

Participatory Forestry Management Planning Process empowers the rural communities to manage the forest resources, fostering ownership and sustainable utilization. Enabling communities to formulate own bye-laws and sign agreements with government as a bond of recognition, ensures sustainable use of forest areas.

RUFA has been working with rural communities since 2001, implementing sustainable afforestation programmes. It has been observed that community ownership of the initiatives is the best way to deal with environmental problems. The presentation will share why it is so important to involve rural communities in conservation practices, because the tendency has been to ignore them when policies are being formulated.

The conclusion of a Forest Management Agreement will confer on the community concerned the authority to license commercial forestry activities within its Village Forest Area (VFA), so long as these activities are consistent with the forest management plan. Revenues arising from the licensing of commercial forestry activities by a Village Natural Resource Management Committee will be retained by the Village Natural Resource Management Committee and disposed of in accordance with its constitution and bye-laws.

CONSERVATION BASED ADAPTATION PLANS IN VULNERABLE ECOSYSTEMS OF ANDEAN-AMAZON LANDSCAPES

Luis Germán Naranjo

WWF Colombia

The Eastern Cordillera Real contain the source of the Amazon River and the headwaters of important tributaries such as the Caquetá, Putumayo, Napo, Pastaza, Santiago, and Chinchipe rivers. The communities living in these mountains are highly dependent on the provision of goods and services from the high elevation grasslands (páramos) and the cloud forests of the Andean slopes which currently face the exacerbation of major threats due to alterations of

local weather which are the consequences of regional and global climate change. Similar situations have been identified in other watersheds of the Northern Andes such as the coffee-growing mountainous region of the Quindío, Risaralda, Caldas and Tolima Provinces inhabited mostly by farming communities, and the Chiles community and the Güiza basin in Nariño Province in southern Colombia, populated by indigenous communities. Based on participatory vulnerability assessments at the watershed scale combined with GIS modeling of climate, biological and socio-economic variables at the regional scale, we estimated climate change vulnerability indexes that guided the participatory design of local and regional adaptation plans.

PARTICIPATORY VIDEO MONITORING AND EVALUATION WORK IN WITH KENYA AND ZIMBABWE THROUGH THE CBAA PROGRAM

Isabelle Lemaire
InsightShare

It is not easy to gauge and communicate what a programme or activity has meant to the lives of beneficiaries. Those best positioned to explore and convey these messages are the beneficiaries themselves – they are trusted sources and speak first-hand about impacts and outcomes. For this reason, Participatory Video (PV) adds value, encourage iterative learning and explore qualitative data often missed through traditional M&E methods.

The presentation will include video footage from PV M&E pilot projects in Kenya and Zimbabwe.

FUNDING CBA

MAKING THE ADAPTATION FUND WORK FOR THE MOST VULNERABLE

Sven Harmeling

Presented By: **Alpha Kaloga**
Germanwatch

This presentation aims to make the link between CBA and the development of the Adaptation Fund under the KP which has a focus on particularly vulnerable communities as one of its strategic objectives, and how this priority can be taken up by governments and NGOs now as the Fund enters into a decisive phase. I think this can be an interesting contribution to the conference, although, to be honest, it is not about a direct funding opportunity for CBA from NGOs, but about the international funding context. This could also include a brief resume of CPH on adaptation, if desired.

COMMUNITY BASED ADAPTATION TO CLIMATE CHANGE: LESSONS AND FUTURE OUTLOOK FROM UNDP

Delfin Ganapin

UNDP/GEF Small Grants Programme

UNDP has been running and testing methodologies for effective Community Based Adaptation for many years through the Small Grants Programme (SGP). In the last 21 months, there has been the systematic piloting of GEF-supported CBA projects in 10 countries. Last year the SGP also launched a Mekong and Asia-Pacific CBA Program with AusAID support. Lessons arising from these programs that include: effective measures for increasing adaptive capacities of communities; influencing national policies; networking among member countries and practitioners; sharing and replication of knowledge and good practices globally will be shared. The Vulnerability Reduction Assessment (VRA) methodology, project development and approval processes, monitoring and evaluation scheme will be discussed and their potential replication by other partners explored. Current programmatic achievements, networks and knowledge products already in use will be highlighted. Gender mainstreaming activities and practices using successful case studies across regions will also be discussed and materials shared. Further, plans of UNDP, in particular with respect to scaling up financial support for CBA including a Global Partnership on CBA involving UN agencies and civil society with support from the private sector and foundations will be presented.

DFID'S SUPPORT FOR ADAPTATION TO CLIMATE CHANGE

Andrew Clayton

DFID

This presentation will summarise DFID's support for adaptation to climate change at a country level. This will cover resourcing and capacity building for national governments as well as DFID mechanisms for supporting civil society. The presentation will reflect on lessons for adaptation from DFID's experiences in sustainable livelihoods, DRR and social protection. It will then highlight some of the key challenges for DFID in providing more effective support to community based adaptation.