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Community-Based Adaptation to Climate Change Bulletin

A Summary of the Third International Workshop on Community-Based Adaptation to Climate Change

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THIRD INTERNATIONAL WORKSHOP ON COMMUNITY-BASED ADAPTATION TO CLIMATE CHANGE: 18-24 FEBRUARY 2009

The Third International Workshop on Community-Based Adaptation to Climate Change was held at the Sheraton Hotel in Dhaka, Bangladesh, from 18-24 February 2009. The event was organized jointly by the Bangladesh Centre for Advanced Studies (BCAS), the International Institute for Environment and Development (IIED) and the RING Alliance of Policy Research Organizations. It was cosponsored by the British High Commission in Bangladesh, CARE Bangladesh, Christian Aid UK, the Danish Embassy in Bangladesh, the Food and Agriculture Organization (FAO), Oxfam-GB, Practical Action UK, and WWF UK.

The event consisted of three days of field visits to observe community-based adaptation (CBA) initiatives first hand. This was followed by three days of interactive workshop discussions in Dhaka. The aim of the event was to share the latest developments in adaptation planning and practices at different levels and disseminate knowledge among stakeholders, with a view to integrating adaptation into national and international development programmes. More than 140 participants representing governments, non-governmental organizations (NGOs), community-based organizations, research institutions, UN agencies and development organizations participated in the conference, along with grassroots and development practitioners and the media.

During the three days of site visits (19-21 February), participants journeyed to six different locations in Bangladesh to observe CBA in action. Locations included: drought-prone areas in the Chapai Nawabgonj District of northwest Bangladesh; flood and river erosion areas in the Gaibandha District, also in northwest Bangladesh; flood and water-logged areas in the Gopalganj Districts in southcentral Bangladesh; regions prone to increased salinity in the Sathkhira District in the southwest coastal region of the country; the coastal Districts of Noakhali and Laksmipur in the southeast; and the southwest Bagherhat District, prone to increased salinity and cyclones.

The subsequent three days of workshop discussions in Dhaka were structured around several technical and plenary sessions. The sessions alternated between technical and plenary sessions, and each of these sessions consisted of presentations and discussions on one or more themes relevant to CBA.

Reports from the technical sessions were presented in the subsequent plenary session, where panelists made further comments on the themes under discussion. The technical sessions addressed: methods and tools in designing CBA; adaptation measures and practices related to agriculture;



Pumping water in Dharmapur village in the drought-prone district of Chapai Nawabganj in northwest Bangladesh

women, education and awareness for adaptation; advancing adaptation through communication for development; mainstreaming and partnership for adaptation; disaster and climate change; and urban adaptation. A final technical session

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was held on scaling-up adaptation, and this was followed by a concluding high-level plenary session attended by the Planning and Finance Ministers of Bangladesh.

Participants at the workshop agreed to establish the Global Initiative on Community-Based Adaptation to Climate Change. The Global Initiative will seek to support CBA-related activities by generating and sharing relevant knowledge.

A BRIEF HISTORY OF CLIMATE CHANGE ADAPTATION AND DEVELOPMENT ISSUES

Climate change is considered to be one of the most serious threats to sustainable development, with adverse impacts expected on the environment, human health, food security, economic activity, natural resources and physical infrastructure. Global climate varies naturally, but scientists agree that rising concentrations of anthropogenically-produced greenhouse gases in the Earth's atmosphere are leading to changes in the climate. According to the Intergovernmental Panel on Climate Change (IPCC), the effects of climate change have already been observed, and scientific findings indicate that precautionary and prompt action is necessary.

While mitigation has traditionally been the pivotal issue for many climate change experts, adaptation to the effects of climate change is now acknowledged as necessary for responding effectively and equitably to the impacts of both climate change and climate variability. In recent years, adaptation has become a key focus of the scientific and policy-making communities and is now a major area of discussion in the multilateral climate change process. Adaptation has been implicitly and explicitly linked with development-focused action, particularly as the IPCC has underscored that developing countries are disproportionately vulnerable to climate change and lack adaptive capacity. Development processes and trajectories will be affected by the rate of climate change, and this is especially important for developing countries with growing economies. Particular attention will need to be paid to the management of water and other natural resources, agricultural activities, and the sources and generation of energy.

UNFCCC PROCESS: Under the UN Framework Convention on Climate Change (UNFCCC), adaptation appears as a cross-cutting theme. While the first Conference of the Parties (COP 1) in 1995 addressed funding for adaptation (decision 11/CP.1), it was not until the adoption of the Marrakesh Accords in 2001 that adaptation began to be more widely seen as a prominent area for action, as set out in decision 5/CP.7 (adverse effects of climate change). Following the release of the IPCC's Third Assessment Report, COP 9 in 2003 requested the UNFCCC Subsidiary Body for Scientific and Technological Advice (SBSTA) to initiate work on the scientific, technical and socioeconomic aspects of, and vulnerability and adaptation to, climate change (decision 10/CP.9).

Parties reached a milestone at COP 10 in 2004 with decision 1/CP.10, known as the Buenos Aires Programme of Work on Adaptation and Response Measures. COP 10 set up two complementary tracks for adaptation: the development of a structured five-year programme of work on the scientific, technical and socioeconomic aspects of vulnerability and adaptation to climate change under SBSTA, which was adopted at COP 11 in 2005 (decision 2/CP.11); and the improvement of information and methodologies, implementation of concrete adaptation activities, technology transfer and capacity building under the Subsidiary Body for Implementation (SBI). At

COP 12, parties concluded the initial list of activities to be undertaken under the five-year SBSTA programme of work and renamed it the "Nairobi Work Programme on Impacts, Vulnerability and Adaptation to Climate Change" or NWP. Parties also made progress on the governing principles of the Adaptation Fund, which was established by the Kyoto Protocol to fund adaptation activities through a two-percent levy on emission reduction projects undertaken under the Clean Development Mechanism (CDM).

The IPCC's Fourth Assessment Report and key finding from Working Group II on impacts, adaptation and vulnerability indicates that hundreds of millions of people will be exposed to increased water stress, that many millions more people will be exposed to flooding every year, and that access to food in many African countries will be severely compromised. Furthermore, the report states that adaptation will be necessary but that many impacts can be avoided, reduced or delayed by mitigation.

At COP 13, held in Bali, Indonesia, in December 2007, a roadmap for a post-2012 climate regime was agreed, with adaptation as one of the four building blocks (along with mitigation, finance and technology). A new agreement is expected to be concluded at Copenhagen in December 2009. Delegates further developed details and modalities of the Adaptation Fund at COP 14, held in Poznań in December 2008. The Fund is expected to be operational soon.

FIRST INTERNATIONAL WORKSHOP ON COMMUNITY-BASED ADAPTATION: The first international workshop on community-based adaptation took place from 16-18 January 2005, in Dhaka. Jointly organized by BCAS, IIED, RING and the World Conservation Union (IUCN), the workshop was attended by more than 80 experts, policy makers, NGO representatives and grassroots practitioners who discussed possible impacts of climate change on local communities living in vulnerable areas and how to enable them to adapt to climate change in the future.

SECOND INTERNATIONAL WORKSHOP ON COMMUNITY-BASED ADAPTATION: More than 110 participants attended the second workshop, which was held from 24-28 February 2007, in Dhaka, Bangladesh. Three days of technical sessions and interactive discussions were preceded by field visits to four different regions in Bangladesh, including flood and drought-prone regions. Technical sessions addressed agriculture, drought, food security, extreme events, health, mainstreaming and partnership, and communication and knowledge. The workshop resulted in the formation of a CBA Network.



A woman in front of a solar panel, which is providing electricity to pump safe drinking water in Pukuria Eco village in Nachol Upazila in northwest Bangladesh

REPORT OF THE WORKSHOP

On Wednesday, 18 February, an “inaugural session” was held in Dhaka, and the conference was declared officially open. Over the following three days, from 19-21 February, participants embarked on field visits to six different regions in Bangladesh to experience first hand what communities are doing to adapt to the impacts of climate change.

On 22 February, participants gathered once more in Dhaka for the workshop discussions. An opening plenary was held on climate change science and adaptation. This was followed by technical sessions on methods and tools and designing community-based adaptation (CBA), and on adaptation measures and practices in agriculture.

On 23 February, participants heard reports and presentations from the six field groups. Parallel technical sessions were then held on: women, education and awareness for adaptation; advancing adaptation through communication for development; mainstreaming and partnership for adaptation; disaster and climate change; and urban adaptation. On 24 February, a session was held on scaling-up CBA, and a closing session took place, attended by the Bangladeshi Ministers of Finance and Planning.

INAUGURAL SESSION

The event began with an opening ceremony on Wednesday evening, 18 February. Atiq Rahman, Executive Director, Bangladesh Centre for Advanced Studies (BCAS), welcomed participants and said the conference would provide an opportunity to exchange experiences, adding that climate change is the greatest threat facing mankind. Nojibur Rahman, Additional Secretary, Government of Bangladesh, and Director General, Department of Environment, said adaptation was critical for the short and medium term, and that CBA plays a vital role in building resilience. He emphasized an inclusive approach towards building community resilience through a mix of local knowledge and state of the art scientific technologies.

Saleemul Huq, Senior Fellow, International Institute for Environment and Development (IIED), provided an overview of the current status of adaptation, and explained the role of CBA within that framework. Noting the need for both mitigation and adaptation, he said adaptation was now well accepted in the policy-making domain and would constitute one of the four pillars of the post-2012 framework that is supposed to be agreed in Copenhagen. He stressed that poor countries must make their voices heard in the negotiations, and pointed to proposals already made by the Least Developed Countries (LDCs) to increase adaptation funding, such as a levy on international air travel to fund adaptation. He stressed, *inter alia*: enhancing adaptation science at the community

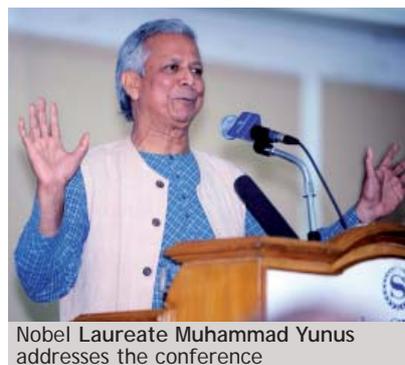
level; understanding how investment portfolios are vulnerable to climate change; and translating the climate change message into language that communities can understand.

Mozaharul Alam, Research Fellow, BCAS, outlined the conference objectives, which he said included sharing the latest developments in adaptation planning and practices, bringing stakeholders and practitioners together to share and discuss CBA, enhancing practitioner capacity to help the most vulnerable and furthering the integration of climate change into national and international development programmes.

Simon Lever, British High Commission, Dhaka, said the UK had committed £75 million for adaptation in Bangladesh. He said the money would be used for activities such as raising villages above flood levels. Danish Ambassador to Bangladesh Einar Hebogard Jensen noted steps taken by Bangladesh, including US\$45 million that the government has earmarked to go towards an adaptation strategy and action plan. He said a deal must be reached in Copenhagen to ensure the survival of countries like Bangladesh, and that any investment must take climate change into account. He urged integrating adaptation into national development plans.

KEYNOTE ADDRESS

On Sunday evening, 22 February, Nobel Laureate Mohammad Yunus addressed the conference. He said that,



Nobel Laureate Muhammad Yunus addresses the conference

while necessary, adaptation is not the answer. He labeled 2008 as a year of crises, pointing to the financial, food, energy and environmental calamities. He suggested that in the aftermath of these crises, a reconstitution or adaptation of the

existing system would be unacceptable, and called for the construction of a new one. He argued that the next financial system must be based on an inclusive ideology. He lamented that contemporary economic teachings have convinced much of humanity to see itself as selfish by nature, and called for the mainstreaming of social businesses with altruism at their core. Yunus concluded by illustrating how such businesses are already a reality, having worked to deliver micronutrients to undernourished children and clean water to the impoverished in Bangladesh.

PLENARY SESSION I: CLIMATE CHANGE SCIENCE AND ADAPTATION

On Sunday, 22 February, Atiq Rahman, BCAS, welcomed participants to the workshop, observing the increasing momentum towards CBA.

Ian Burton, University of Toronto, presented the findings of the Intergovernmental Panel on Climate Change (IPCC)’s Fourth Assessment Report. He stated that the latest science is less encouraging than previously anticipated, with more rapid and intense changes occurring than had previously been predicted. He called for reassessing the term “adaptation,” noting that it is primarily viewed as a local concern, and suggested that, like mitigation, it should also be treated as a global issue. He used rising sea levels and the associated possible displacement of millions of Bangladeshis as an example of the need to broaden the scope of adaptation from the local to the international level. Burton urged participants to



L-R: Saleemul Huq, Senior Fellow, International Institute for Environment and Development, and Atiq Rahman, Executive Director, Bangladesh Centre for Advanced Studies



keep in mind that key issues shift quickly and new problems are bound to arise. He also cautioned against maladaptive practices and highlighted the need to minimize palliative adaptation.

Saleemul Huq, IIED, discussed the evolution of the concept of adaptation to global climate change, focusing on the connection between adaptation and mitigation. He noted that although adaptation can never reduce impacts to zero, the avoided costs offered by mitigation can, emphasizing that mitigation is a first step towards adaptation. Huq then focused on the often unclear distinction between adaptation to climate change and adaptation to climate variation. He noted that the Institute for Development Studies (IDS) had agreed to host a CBA website for exchanging information (<http://www.cba-exchange.org/>). He also highlighted work being carried out with Google Earth to map adaptation projects globally, and said a proposed global CBA initiative would be discussed, and possibly agreed, during this conference.

Atiq Rahman, BCAS, discussed linkages between CBA and development, noting that CBA simultaneously addresses poverty and risk reduction from climate change. He emphasized the importance of climate justice and reiterated that mitigation is the best form of adaptation. He noted that Bangladeshi farmers have suffered huge losses because of the current financial crisis, and said the unfairness of climate change is compounded by mismanagement of the banking system. He concluded by calling for dedicated funds for CBA.

Mozaharul Alam, BCAS, provided an overview of the workshop and the schedule for the next three days, stressing the value of the field visits and the opportunity they had provided for participants to meet with vulnerable communities and interact within a small group.

During the ensuing group discussion, participants raised issues related to: distinguishing between adaptation science and other kinds of science; different interpretations of the term “resilience”; and how to scale-up work already being undertaken in Bangladesh.

TECHNICAL SESSIONS ON METHODS AND TOOLS FOR DESIGNING CBA, AND MEASURES AND PRACTICES FOR AGRICULTURE

On Sunday, 22 February, the first series of technical sessions were held, with several groups meeting in parallel to discuss two issues: methods and tools for designing CBA; and adaptation measures and practices in relation to agriculture. This section outlines the discussions on these two themes in each of the groups that convened.

METHODS AND TOOLS FOR DESIGNING CBA:

Session One: On Sunday morning, a group met to discuss this topic. The group was chaired by Monirul Mirza, Environment Canada.

Mozaharul Alam, BCAS, presented the Local Options for Communities to Adapt and Technologies to Enhance Capacity (LOCATE) framework to design and implement CBA projects. He explained that the framework involves finding vulnerability “hot spots” and identifying “project owners,” as well as designing, implementing, monitoring and evaluating the project. He stressed the importance of identifying what is happening on the ground to facilitate project conceptualization.

Penny Urquhart, sustainable development practitioner, South Africa, discussed linking CBA into broader development processes. She focused on the role of action learning and participatory methodologies, noting that the latter was critical for creating platforms for joint learning between local resource users and climate scientists.

Olivia Warrick, University of Waikato, New Zealand, addressed vulnerability and adaptation in rural Vanuatu. She emphasized: the varying nature of vulnerability according to specific contexts; a decreased motivation to be self-sufficient due to the expectation of disaster relief; and the need to adjust to social change as well as climate change.

Katie Dietrich, Pennsylvania State University, US, discussed anticipatory learning under uncertainty and building capacity for climate change adaptation. She described the anticipatory learning concept, which would allow communities to adapt before impacts are felt. She advocated inverting the mantra of adapting to the impacts of climate change to one that addresses the underlying causes of vulnerability and builds resilience.

Amilcar Lucas, Care Mozambique, discussed the Climate Vulnerability and Capacity Analysis (CVCA), which aims to gather information on vulnerability and adaptive capacity, and to analyze the implications of climate change for livelihoods. He said CVCA stresses a participatory approach, and that its applications include designing targeted programmes to reduce vulnerability, mainstreaming into other relevant programs, and advocacy.

During the ensuing discussion, participants considered whether cases in Vanuatu could be applied to Bangladesh, but Warrick stressed that Bangladesh is more vulnerable and requires different approaches. Responding to a query about LOCATE, Alam clarified that, while it is meant to provide a fresh look at vulnerability, it is not intended to replace existing frameworks.

Session Two: On Sunday afternoon, a second session on methods and tools was held, chaired by Jon Padgham, SysTem for Analysis Research and Training (START).

Rachel Berger, Practical Action, presented CBA as a conceptual framework, which she broke down into the components of vulnerability reduction, strengthening resilience and building adaptive capacity. She also highlighted three crucial aspects of adaptation and adaptation strategies: uncertainty, social networks and forecasting.

Andrew Crane-Droesch, UNDP, discussed UNDP’s Vulnerability Reduction Assessment (VRA), which he said uses four indicators – two based on vulnerabilities, one on barriers to adaptation, and one on adaptive capacity. Noting the VRA’s simplicity of use in practice, he said lessons learned included identifying stakeholders in advance and ensuring flexibility in the process, without compromising comparability.

Remeen Firoz, IUCN Bangladesh, illustrated current participatory vulnerability assessment tools and their roles in analyzing climate change effects and identifying adaptation needs in coastal regions. She noted many areas for future work, such as better access to soft loans, more government support for agricultural inputs, and mobile health clinics.

Terry Cannon, IIED, discussed CBA in Bangladesh and the importance of practical, easily operationalizable research which can be scaled-up automatically, with communities taking projects to the next level on their own. He criticized use of the word “community” in the term CBA, which, he said connotes an idyllic scenario that often does not exist in reality. Cannon concluded by highlighting a number of persistent gaps in CBA work, including those between outsider and local knowledge, and between what needs to be done and what can be achieved at the community level with the available resources.

In the ensuing discussion, one participant commented that indicators from nearby communities may also need to be factored into analyses. Responding to a query about local knowledge use, Berger said that local knowledge is often

either lacking, no longer applicable, or has been lost after long-term use of non-traditional practices. Cannon reflected that adaptation is often seen as requiring funding from outside, but too seldom as an opportunity to rearrange existing funding.

ADAPTATION MEASURES AND PRACTICES FOR AGRICULTURE: Session One: The first discussion on this topic was held on Sunday morning, and was chaired by Ian Noble, World Bank.

Harjeet Singh, ActionAid International, India, discussed a study investigating adaptation practices of smallholder farmers in five countries. He advocated using sustainable agricultural practices to increase resilience to climate change, which he argued can only happen through the broad reintroduction of well-funded government agricultural programmes.

Maria Campos, Southeast Asian Regional Center for Graduate Study and Research in Agriculture, Philippines, discussed climate change vulnerability and risks such as typhoons and flooding, in Filipino fishing communities. To cope with these risks, she said villagers reduce consumption, migrate, seek institutional support or build up inventory stocks.

Bimal Regmi, Local Initiatives for Biodiversity, Research and Development (LI-BIRD), Nepal, reported on farmer innovation and other local solutions to climate change-related issues such as shifting vegetation lines and bursting glacial lakes. He noted the introduction of hanging gardens and the reintroduction of local robust rice species.

Seema Gaiwad, CARE Bangladesh, and Sylvia Islam, Canadian International Development Agency (CIDA), discussed results of a follow-up to Bangladesh's first adaptation project three years after its completion. They reported that findings included: a significant increase in issue awareness; mainstreaming climate change into planning processes; and a continuation of practices introduced by the project, such as rainwater harvesting, storm resistant housing construction and floating gardens.

Mizan Khan, North South University, Bangladesh, discussed a study on using crop insurance as a climate risk adaptation instrument, concluding that such instruments are viable when properly overseen and subsidized for the poor.

Marc Gloekler and Qamar Zia, Commonwealth Agricultural Bureau International, discussed integrated approaches for community adaptation, focusing on improving management through plant health care networks and farmer field schools.

In the subsequent discussion, participants considered how to convince governments to reintroduce more intensive agricultural programmes. Singh suggested moving away from the commodification of food and towards a right to food

approach, noting that this principle, to which some nations have already agreed, would bind governments to act on agricultural issues. Participants also discussed the importance of using homegrown needs to promote local ownership, and insuring seasonal investments of farmers even though many farmers are not landowners themselves.

Session Two: This session on agriculture was also held on Sunday morning, and was chaired by Sk. Ghulam Hussain, Bangladesh Agricultural Research Council (BARC).

Abdelouahid Chriyaa, Centre Régional de la Recherche Agronomique de Settat, Morocco, discussed the adaptation of two contrasting rural communities in Morocco. He said information is lacking regarding appropriate technologies, government financial assistance and subsidies for adaptation, but that communities are still adapting through the use of indigenous knowledge.

Anshuman Das, Development Research Communication, India, discussed integrated farming as an adaptation strategy for small and marginal farmers in the lowlands of the Sundarbans. Das stressed economic diversification, rainwater harvesting and proper crop selection.

Sardar Shafiqul Alam and Aminur Rahman, BCAS, discussed enhancing the adaptive capacity of a drought-prone community in northwest Bangladesh, stressing crop and livelihood diversification to build local capacity and resilience to climate change and natural shocks.

Arun Jindal, Society for Sustainable Development, India, discussed a community initiative to save livelihoods through adaptation. He stressed that if traditional technologies were adapted or updated, the health and safety of local populations and natural resources would be more secure in the future.

Emmanuel Nzezbule, Nigerian Environmental/Study Action Team (NEST), discussed the potential for integrating climate change adaptation into Nigeria's Fadama Project, which aims to increase productivity of agricultural land. He highlighted a number of activities that could yield positive results, including engaging with Fadama Project management, developing a specific CBA project, and working with communities to assess local climate risks.

Session Three: This session was held on Sunday afternoon and chaired by Atiqur Rahman, International Fund for Agricultural Development (IFAD).

Muslem Uddin Miah, BCAS, discussed zero tillage in maize, priming chickpea, and mulching in potato cultivation in drought-prone areas of Bangladesh, including their impacts on farmers. He highlighted the multipurpose nature of maize, and said priming chickpea is an easy, beneficial and innovative farming technology involving drying before sowing.

Kalipada Chatterjee, Winrock International, India, presented on a three-year CBA project in a flood-prone area in Gorakhpur that was supported by IDRC. He discussed interventions related to livelihood enhancement, agriculture, disaster risk reduction, information and communication, and ecosystem strengthening. He said further interventions were needed related to technologies, alternative livelihoods, finance and insurance.

Moussa Na Abou Mamouda, Environmental Development Action in the Third World (ENDA), discussed community-led strategies to cope with food insecurity in a changing climate in the Maradi District, Niger, emphasizing that a majority of farmers consume their entire harvest within three months. He highlighted mechanisms undertaken by communities to ensure improved food security, and discussed human migration and mobility in cases of poor coping strategies.



Bicsittri Tirki demonstrating a drip irrigation technique in her garden in the drought-prone district of Chapai Nawabganj in northwest Bangladesh



Barkat Ullah, Practical Action, Bangladesh, discussed early experiences with climate change adaptation in flood-prone areas of Bangladesh, and climate-induced hazards, including floods and river bank erosion. He discussed various adaptation techniques such as early harvesting to avoid the monsoon and community-based disaster preparedness plans.

Participants then discussed linkages between zero tillage and duration of crop harvest, human mobility and social implications, community food banks and how they are managed and accessed, and the role of women in adaptation. Mamouda discussed food banks at various levels, noting that sometimes the government buys food from one district and distributes it to another.

Session Four: The session was held on Sunday afternoon, and chaired by Yvan Biot, UK Department for International Development (DFID).

Ainun Nishat, IUCN Bangladesh, discussed facilitating adaptation to climate variability and change through sector specific interventions in the Noakhali District of Bangladesh. He said one component of the project focused on traditional knowledge and resilience to climatic extremes.

Dinanath Bhandary, Practical Action, Nepal, discussed improving livelihoods in the midst of multiple hazards. He observed that while different hazards have specific effects, the ultimate impact is similar in that they all reduce livelihood assets, access to remaining assets, and human capacity and rights. Bhandary also noted that indigenous knowledge and coping mechanisms have not been sufficient to deal with the compounded impacts of multiple hazards.

Mohammed Abu Sayed Arfin Khan, Shahjalal University of Science and Technology, Bangladesh, discussed climate change adaptation and mitigation through community-based agroforestry in low-lying developing countries, noting that CBA reduces risks and increases benefits for smallholder farmers.

Krystel Dossou, Organisation des Femmes pour la gestion de l'Énergie, de l'Environnement et la promotion du Développement Intégré (OFEDI), Benin, discussed vulnerability and adaptation of communities to climate change in agrobiodiversity. He stressed that adaptation to environmental changes combine technical fixes, such as quick maturing crop species and varieties, with institutional support, via social networks and more formal organizations.

PLENARY SESSION II: REPORTS FROM THE TECHNICAL SESSIONS

This plenary session was held on Sunday afternoon, 22 February, and was chaired by Saleemul Huq, IIED. Huq announced the formation of working groups on: key terminology and concepts; intensifying efforts of Climate Action Network South Asia; pairing high quality practitioner presentations with academics to discuss the potential for producing publishable materials; and the proposed global CBA initiative.

The chairs of the technical sessions on methods and tools for designing CBA and on adaptation measures and practices in relation to agriculture (see section above), then reported back to plenary.

On methods and tools for designing CBA, Monirul Mirza, Environment Canada, said the presentations addressed, *inter alia*, top down and bottom up approaches to addressing adaptation, linking local level knowledge and practices to climate science, action learning, underlying difficulties not directly related to climate change and the concept of anticipatory learning.

Jon Padgham, START, said his group had noted the importance of traditional knowledge, while adding that new knowledge is also often requested by communities. Padgham also recalled comments that: scale mismatches often exist between local issues and information available only at the regional level; adaptation to trends does not always complement adaptation to shocks; and emphasis must be placed on non-farm opportunities for the poor in disaster-prone regions.

On measures and practices in agriculture, Sk. Ghulam Hussain, BARC, reported that his group's presentations had addressed contrasting adaptation strategies in two rural communities in Morocco, integrated farming for small and marginal farmers in the Sundarbans, enhancing adaptive capacity of a drought-prone community Bangladesh, saving livelihoods through adaptation, and potential for integrating adaptation into a Nigerian development programme.

Ian Noble, World Bank, said his group's presentations illustrated the need for improved methods to assess CBA strategies and the role values should play in science. He also said that as long as CBA strategies help those involved, they do not have to be related to climate change. Noble commended the patience of the first Bangladeshi follow-up to the adaptation study, saying that waiting three years before declaring it a success should be a lesson for others. He concluded by emphasizing gaps remaining in CBA projects, including communicating success, practical methods for scaling-up projects, and methods to relate projects to, or create change in, government policy.

Atiqur Rahman, IFAD, reported that his group on agriculture had addressed technical and agronomic aspects of agriculture, but noted that the gender component was not raised. He said the group discussed looking at integrated rural development with a climate change lens.

Yvan Biot, DFID, said the projects presented in his group were essentially well integrated development programmes with a focus on climate change. He discussed issues raised, such as the need for dealing with uncertainty through flexibility and the value of early warning systems and improved partnerships between scientists, communities and policy makers.

PANEL DISCUSSION: M. Asaduzzaman, Bangladesh Institute of Development Studies, noted limitations of CBA, and urged combining community strengths with those of other actors, enabling CBA to be as effective as possible. He highlighted uncertainty with respect to climate change and said by the time scientific solutions are found, new problems will have arisen. Noting that the old development path has changed, he said adaptation cannot be separated from the development process.

In the ensuing discussion one participant called for the explicit differentiation between the terms climate variability and climate change, while another, expressing concerns over misconceptions regarding biodiversity conservation, called for the inclusion of ecosystem assessments in CBA projects. Other issues raised related to the word "community" in CBA and the tendency to attribute local problems to climate change. Opposing views were heard on the analytical separation of adaptation from development, as opposed to adaptation as a component of development.

CONCLUDING REMARKS: In his closing remarks, Biot stressed the need for scaling-up to secure more donor funding, spread CBA and local action geographically, support durable

and sustainable adaptation interventions, and design strategies with the “brain and not the heart” so as to have the greatest impact with limited resources.

Padgham cautioned against over-attributing various problems to climate change, and stressed better assessment of the sources of non-climatic variability. Noting positive and negative implications for ecosystems, Hussain advocated that, when introducing exotic species or genetically modified organisms, ecosystems must be safeguarded.

Pointing to the current financial crisis, Rahman suggested a move away from individualism as a core economic concept. Asaduzzaman said community means different things in different contexts, and lauded the invention of public or semi-public goods in development. Mirza called for quantifying community capacity and communicating climate change science in plain language.

Noble said good development is not sufficient for adaptation, noting that in the World Bank certain climate change aspects go beyond existing development concepts. He said both top down and bottom up approaches were needed. In conclusion, Huq said global policy has a bad track record when it comes to helping the poor and vulnerable, and advocated outreach to those working with the poor so they have a better understanding of climate change and can incorporate it into their work.

PLENARY SESSION III: REPORTS FROM THE FIELD GROUPS

This plenary session was chaired by Anders Granlund, Swedish International Development Cooperation Agency (SIDA).

Alphonse Katunzi, INADES Formation Tanzania, and Purabi Bose, Wageningen University, the Netherlands, reported on a visit to Chapai Nawabganj, a drought-prone area in northwest Bangladesh, where the group visited a climate change information center and observed adaptation techniques, including re-excavation of ponds, rainwater harvesting, drip irrigation and cost effective technologies, such as solar electrification to provide drinking water. They stressed the importance of participatory approaches and the understanding of communities before undertaking new interventions.

Mason Inman, freelance journalist, reported on the field visit to Gaibandha, a northwest region prone to flooding and riverbank erosion. He said the group observed chars (islands in the middle of a river), and cluster villages built on sandy areas. He noted good community relationships with local NGOs, but not much government presence, and cautioned against focusing too much on climate change, which he said could divert attention away from other forms of vulnerability.

Apar Paudyal, LI-BIRD, Nepal, reported on a site visit to Shatkira. He observed that, due to sea level rise and salinity, fields were less suitable for crops, water was not potable, and shrimp cultivation had replaced freshwater aquaculture. He

said communities were losing homes and agricultural lands due to river bank erosion, and mentioned modification of school curriculum and folk theater to raise awareness.

Joana Lima, UNDP, reported on a visit to Tala, a region experiencing salinization, cyclones, floods and water logging. She said the community was engaged in adaptation through, *inter alia*, integrated farming, crab fattening, risk resilient housing and training children as agents for change.

James Pender, Church of Bangladesh Social Development Programme, discussed the field visit to Bagherhat, a region prone to salinity and erosion. He reported that increased salinity has reduced fish catches and plant yields, and has forced villagers to travel further to find potable water. He said cyclone shelters that are now ten years old are in disrepair, and water tanks for periods of drought require prohibitive installation costs. He noted discussions with a sub-district level official that he said illustrated a lack of understanding or appreciation of village needs.

Rita Dhakal, CARE Nepal, presented on the visit to a flood-prone area in Gopalganj. She identified young girls as the most vulnerable group due to a lack of adequate toilet facilities combined with cultural sensitivities around female defecation. She said adaptation to flooding included gender role shifts in crop planting practices. She noted that residents would like to see more government support in terms of evacuation routes and deeper bore wells for safe drinking water.

Miranda Verburg, ETC EcoCulture, reported on the visit to Noakhali, which she said experiences riverbank erosion. She said the group recommended that, in the case of projects implemented by the national government (such as cyclone shelters), communities should be consulted before project inception to avoid problems such as a lack of shelter for livestock and latrines for women.

In the subsequent discussion, one participant noted that for some, adaptation is moving into low-lying forests and protected nature reserves. While no differences were observed between adaptation strategies of Hindu and Muslim populations, it was noted that social discrimination is a very real problem, with religious and caste issues often making life very difficult for minorities. One participant highlighted that in one case a village committee had formed in response to an extreme weather event, and has now been in existence for more than a decade.

TECHNICAL SESSIONS ON WOMEN AND EDUCATION, COMMUNICATION, MAINSTREAMING AND PARTNERSHIP, DISASTER AND CLIMATE CHANGE, AND URBAN ADAPTATION

On Monday, 23 February, a series of parallel technical sessions were held. The sessions focused on the following issues: women, education and awareness; advancing adaptation through communication for development; mainstreaming and partnership; disaster and climate change; and urban adaptation to climate change. The section below outlines the presentations and discussions on each of these focus areas.

WOMEN, EDUCATION AND AWARENESS: This session was held on Monday morning, 23 February, and was chaired by Mahfuz Ullah, Centre for Sustainable Development (CFSD), Bangladesh.

Purabi Bose, Wageningen University, presented on CBA by tribal women in semi-arid India. She said tribal women are excluded from the community and have no property rights, and discussed a CBA initiative, including women’s self-help groups, which successfully mitigated the effects of a lack of finance due to crop damage from drought.



L-R: Alphonse Katunzi, INADES Formation Tanzania, and Purabi Bose, Wageningen University, report back to the conference on a field visit to Chapai Nawabganj, a drought-prone region in northwest Bangladesh

Gregory Pierce, University of Colorado, US, discussed a new learning paradigm of “spare-time” universities, which are accessible, adaptable and usable and for “anyone at anytime about anything, anywhere in anyway.” He said their focus is on freeing users traditionally tied to local learning by using modern portable media, and said this new approach provides on-demand information tailored to specific situations and users.

Nazria Islam, BCAS, discussed promoting the role of women in coping with water crises in saline- and drought-prone areas of Bangladesh, and outlined reasons why women are hit hardest by disasters. She said climate change has and will continue to exacerbate the scarcity of safe drinking water, and highlighted the project’s beneficial impact in terms of increased women’s awareness of how to cope better with the crisis and become more proactive in promoting long-term project sustainability.

Raquibul Amin, IUCN, Bangladesh, discussed a project on enhancing adaptation of coastal youth through education and awareness on climate change and climate variability. Amin said the project aims to create an enabling environment to face the challenges of climate vulnerabilities for appropriate adaptation and preparedness measures.

T. V. Padma, Science and Development Network, India, discussed the role of media in communicating adaptation, noting that journalists play a key role in communicating information on climate change to the public in a clear and concise manner. Noting that most developing country journalists lack access to key information and experts, he argued for greater support for the media in this respect, and highlighted the few foundations and organizations trying to address this need.

ADVANCING ADAPTATION THROUGH COMMUNICATION FOR DEVELOPMENT: This session was chaired by Mario Acunzo, Food and Agriculture Organization (FAO). He presented on enhancing CBA through the use of communication for development tools, which aim to: enhance local knowledge and communication processes; foster dialogue and mediation; and facilitate the convergence of appropriate technologies. Despite challenges, he said these tools can help develop knowledge and bridge the “glocal” information divide.

Maria Protz, Caribbean Institute of Media and Communications, Jamaica, discussed communication for development tools, such as Venn diagrams, community mapping, participatory video, and dramatic interpretations of natural resource management. She said such techniques facilitate, *inter alia*, identification of wider CBA options and enhancement of knowledge sharing.

In a subsequent presentation on mainstreaming communication for adaptation in the Caribbean, Protz identified best practices. She also noted gaps in communication, such as successful practices not being packaged for dissemination to other islands.

Mamanur Rashid of Bangladesh’s Ministry of Food and Disaster Management discussed endowed wisdom in rural Bangladesh. He focused on community-initiated adaptation strategies to address salinity and flooding problems. He cautioned that academia’s sometimes narrow focus often conflicts with the broad, holistic problems and views of local populations.

Defining communication as an enabling agent, Cleofe Torres, University of Los Baños, Philippines, discussed how mainstreaming communication enabled CBA in Bangladesh.



Village residents in a community information center, where information on climate change and adaptation techniques is available, in Dharmapur village in northwest Bangladesh

He cited the use of climate field schools that facilitated experiential learning using communication for development. She noted that, if planned well, even very low-cost communication technologies can have important impacts.

Esperance Bayedila Bakanda, Communication for Sustainable Development Initiative (CSDI), addressed how enhanced communication has improved adaptation in the Democratic Republic of Congo. She discussed the use of communication for development tools, local knowledge, technology dissemination, and the translation of scientific language for local populations.

Simone Sala and Federica Matteoli, FAO, discussed the FAO’s new CSDI and its planned work on building communication capacities. They identified expected outputs, including innovative communication strategies, improved knowledge and skills on environmental communication, and strategic partnerships.

In the ensuing discussion, Protz and Bayedila were careful to point out that communication for development is not about social marketing or public awareness campaigns, but rather about empowerment.

MAINSTREAMING AND PARTNERSHIP FOR ADAPTATION: There were three different groups/sessions held on this issue.

Session One: This session was chaired by Ambassador Bagher Asadi of Iran.

Nicolas Parker, University of Michigan, US, discussed foreign aid and adaptation to drought in rural Tanzania, including how foreign aid can improve institutional systems in ways that can help people adapt to climate change. He raised concerns regarding donor commitments and timeframes, and discussed sustainability and implications of long-term donor commitments, structuring them for CBA, and institutional limitations to carrying them out when funding requires short-term results.

Tiffany Hodgson, UNFCCC Secretariat, discussed community-level adaptation in the UNFCCC process, identifying channels for involvement. She reviewed adaptation under relevant UNFCCC subsidiary bodies, including the various subsidiary bodies, noting that adaptation is one of the four building blocks of the post-2012 regime being negotiated in 2009.

Atiqur Rahman, IFAD, addressed mainstreaming climate change in IFAD’s activities at the institutional, country and community levels, and discussed financial mainstreaming through channeling GEF funding. He said IFAD is proposing support for the Agricultural Research for Climate Change

Adaptation grant in Bangladesh, which will promote pro-poor research on innovative approaches and technological options to enhance field-level impacts.

Marie-Ange Baudoin, Université Libre de Bruxelles, Belgium, discussed EU integration of climate change into development aid policies. She distinguished between mainstreaming adaptation and sector specific approaches, discussed the funding options of each approach, and highlighted advantages and disadvantages of each approach. She raised the issue of ensuring that adaptation strategies reach a large number of beneficiaries.

In the subsequent discussion, participants discussed: how to ensure funding reaches communities given that it is often channeled through governments; corruption and inefficient distribution and the need for monitoring mechanisms to ensure that funds reach communities; phasing in projects until sustainability is achieved; the importance of avoiding maladaptation; frequent misunderstanding of core concepts in funding proposals; and the need for demand-driven projects and co-financing.

One participant discussed risks associated with having two independent funding sources, that is, through mainstreaming and climate proofing development, and through an independent financial architecture under the UNFCCC.

In her concluding remarks, Hodgson noted the UNFCCC does not specifically work on CBA, emphasized the UNFCCC's catalyzing role in networks and in working with NGOs, and urged participants to submit proposals on monitoring and transparency of funding. Rahman noted that IFAD channels money directly to communities through its grant window. Baudoin stressed the need for environment and climate change experts within development agencies, and for more funding, but not more funding entities.

Session Two: This session was chaired by Kristie Ebi, Technical Support Unit (TSU), IPCC Working Group II.

Tim Forsyth, London School of Economics and Political Science, presented on the possibilities of reframing the link between adaptation and mitigation by focusing on social vulnerability. Using two case studies, he explored different forms of community-based projects that incorporate the poor into municipal services.

Moinul Islam Sharif, UNEP Risoe Centre on Energy, Climate and Sustainable Development, reported on a Danish mainstreaming project linking poverty alleviation, sectoral issues, and the Millennium Development Goals (MDGs) with climate change and disaster risk reduction. He described a range of mainstreaming activities within four pilot countries, emphasizing the importance of bringing together various government ministries.

Chun Knee Tan, United Nations University, spoke about the integration of communities into multilateral environmental agreements (MEAs), particularly through the implementation of action plans at the national level, such as National Adaptation Programmes of Action (NAPAs) and National Biodiversity Strategy and Action Plans. Tan discussed communication strategies that channel local wisdom and strengthen the local community's role in national policy to address the gap in knowledge about MEA implementation.

Aminul Islam, UNDP Bangladesh, identified a multitude of gaps in climate change theory and realities. He gave particular emphasis to the gaps apparent in climate change and development research, including how to share knowledge and build synergies with communities, and how to strengthen social science practice in climate change.

In the subsequent discussion, participants considered the role of communication in sensitizing communities to climate change issues and other environmental concerns. They also addressed the use of local governments as a crucial entry point for financing and implementing projects, and the importance of restructuring how we approach problems by changing the funding paradigm of two-year projects. One participant expressed concern over the failure to address issues of power relations inherent in all the projects presented, and encouraged further consideration of this issue.

Session Three: This session on mainstreaming and partnerships was chaired by Fiona Rotberg, Uppsala University, Sweden.

Gitte Motzfeldt, Development Fund, Norway, discussed a report on identifying sustainable pathways for climate adaptation and poverty reduction, and highlighted the report's objectives, including examining poverty reduction projects and programmes to identify, plan, monitor and evaluate climate adaptation activities. Motzfeldt also presented some guiding principles for mainstreaming adaptation into poverty reduction strategies and activities.

S.M. Alauddin, BCAS, presented on advancing community adaptation by building local capacity in coastal and flood plain ecosystems in Bangladesh, noting a focus on local capacity building as a key for gaining a better understanding about the risks of, and collective responses to, climate variability and extreme events.

Anwara Begum, Caritas Fisheries Programme, Bangladesh, said his organization's CBA programme has built upon community-led adaptive capacity, facilitated sustainable community management of natural resources, and helped influence policy.

In the subsequent discussion, participants raised issues related to: scaling up CBA to the regional level; building partnerships with communities and other stakeholders; knowledge sharing as vital to project success; avoiding undermining local coping strategies; conserving genetic resources; preserving institutional sustainability; and developing models for scaling up. Participants also distinguished between scaling up and replication, advocated addressing the absence of local and national level government involvement in CBA, and said both failures and successes must be analyzed.

DISASTER AND CLIMATE CHANGE: There were two sessions held on this topic.

Session One: Penny Urquhart, sustainable development practitioner, South Africa, chaired this session.

Katy Oswald, IDS, noted that children are at the heart of CBA and disaster risk reduction. She stressed intergenerational equity, building resilience in order to break the vulnerability cycle, and viewing children as empowered agents of change. She discussed rights and justice issues, differing perceptions of risk between adults and children, and the importance of understanding risk communication pathways.

In a subsequent presentation, Oswald discussed adaptation, disaster risk reduction, and social protection. She also introduced the concept of "adaptive social protection." She noted that social protection initiatives, such as cash transfers, are already building resilience and assisting in adaptation to climate change, and could address structural poverty and adaptation.

Khandakar Hasan Mahmud, Prokaushali Sangsad Ltd., Bangladesh, discussed livelihood reconstruction and disaster management in South Khali, an area affected by Cyclone Sidr.

He discussed reconstruction activities, including emergency rehabilitation, and water and sanitation facilities, and outlined CBA activities in agroforestry, agrofishing, beekeeping and improved cooking stoves.

Ashraf Amin, BCAS, discussed adaptation to climate change for sustainable disaster risk reduction in Bangladesh, noting that more than 70 percent of Bangladesh is affected by natural disasters. He addressed direct impacts of flood and cyclones on health and livelihoods, noted the existence of 1841 cyclone shelters in Bangladesh, and urged a balance between survival and luxury, and between north and south when addressing adaptation.

During the ensuing discussion, participants considered: the benefits of social protection programmes run by governments rather than NGOs; closer links between disaster risk reduction and adaptation in some countries, such as Bangladesh; gender aspects of cash transfers; compensation by governments and related political sensitivities; educating children in developed countries about sustainable lifestyles; the unsustainability of relocation as an adaptation strategy; and community empowerment and linking scientific knowledge with CBA. On precise links between adaptation and disaster risk reduction, one participant said the latter involves more humanitarian work and takes a more historic perspective, while adaptation involves scientific theory and is more forward looking.

Session Two: Pratap Kumar Shrestha, LI-BIRD, Nepal, chaired this session on disaster risk reduction and climate change.

Fariba Alamgir, International Centre for Diarrhoeal Disease Research, Bangladesh, reported on findings from a study on the perceptions of health security within the context of disasters. Alamgir said the study revealed the importance of food security rather than health facilities for participants' understanding of health security, and identified possible health security indicators in the context of disasters.

R.C. Bhattacharjee, Global Research Institute of Management and Technology, India, provided an overview of the Institute for Sustainable Development and Research in India, describing its projects within the context of the 2004 tsunami. He described the Institute's post-tsunami assessment activities and the emphasis on revitalizing agricultural land and aquaculture as coping strategies.

Cristina Ruiz and Jessica Dator-Bercilla, Christian Aid, presented a working model for building resilient communities through mutual understanding and joint decision making with the community. They said the model was applied to a case study in the Philippines that included learning cycles and connecting communities, NGOs and science institutions, and using knowledge production through activities such as local weather data collection and text-messaging weather bulletins.

Rebecca Joan McNaught, Red Cross/Red Crescent Climate Centre, presented case studies on integrating disaster risk reduction with climate change adaptation by using climate information across the time spectrum. She advocated educating and raising awareness of youth, and non-traditional networks of organizations. She also supported appealing to information providers to work with and listen to other stakeholders' needs.

In the subsequent discussion, participants questions focused on the linkage between disaster risk reduction, adaptation and sustainable livelihoods. Participants were challenged to determine whether these areas are competing, and if these terminologies are confusing communities.

URBAN ADAPTATION TO CLIMATE CHANGE: This session was chaired by Nazrul Islam, Dhaka University.

David Dodman, IIED, discussed using disasters as opportunities by the urban poor in the Philippines. He provided examples of how typhoon, earthquake and flood damage was used to help improve housing, land tenure and access to water. Dodman then illustrated how the Shack/Slum Dwellers International method of community savings can help strengthen complementary capacities and values to create and consolidate monetary assets for development.

Linda Stephen, Capacity Strengthening of LDCs for Adaptation to Climate Change (CLACC), looked at climate change vulnerability mapping in Dar es Salaam, Tanzania, where 70 percent of the population lives in informal settlements, and where infrastructure, city planning, and the accountability and capacity of government are limited. She said the city is regularly flooded, with tremendous health and welfare impacts. She called for mainstreaming climate change into city planning strategies.

Mirza Arifah Ahmad, BCAS, reported on climate change vulnerability mapping in Khulna, Bangladesh. He said the goals of the study are to identify existing climate-related problems and their impacts on different sections of the city.

Sherpard Zvigadza, CLACC, explained the effects of climate change on the urban poor in Harare, Zimbabwe, reporting that rising temperatures and more extreme weather events have had detrimental effects on water stress, energy consumption and health. Zvigadza also noted that, although many NGOs are aware of climate change issues, no mandate exists to act upon that knowledge.

Huraera Jabeen, BRAC University, Dhaka, presented on urban poverty, climate change and the built environment. She argued that informal housing does not present sustainability issues, but that sustainability is threatened by the poverty trap set by cities refusing to accommodate informal settlements through the provision of infrastructure, services or land tenure.

Michael Redclift, King's College London, presented local adaptation strategies on Mexico's Yucatan coast under conditions of dramatic increases in tourism and the local population. He said ongoing research is analyzing the impacts of what changing governance structures and rapid urbanization have meant for local populations and their adaptive capacities.

In the ensuing discussion, one participant queried whether differentiating between urban and rural risk was necessary. Dodman and Redclift both answered in the affirmative. Dodman focused on the central role of government institutions in everyday urban life and the overall higher concentration of people and therefore risk in cities, whereas Redclift pointed out that urban dwellers are normally farther removed from direct control of their livelihoods.

PLENARY SESSION IV: REPORTS FROM THE TECHNICAL SESSIONS

On Tuesday afternoon, 23 February, participants met in a plenary session chaired by Atiq Rahman, BCAS. The chairs of the previous round of technical sessions then reported to plenary on their discussions.



A woman holding two glasses of water, one of which is pumped using a pond sand filter, in Krishnapur village in Chapai Nawabganj district

Mahfuz Ullah, CFSD, reported that the group on women, education and awareness for adaptation had emphasized the need for more discussion on the role of women in adaptation. He noted challenges in media coverage of issue-based topics such as climate change, as opposed to event-based coverage.

Mario Acunzo, FAO, reported on the group that discussed advancing adaptation through communication for development, noting the current piecemeal efforts to promote climate change awareness, and urging strategic planning methodologies to improve efforts.

Bagher Asadi, Iran, reported on a mainstreaming and partnership group that had focused on policies and institutions. He said that participants had exchanged views on what mainstreaming of climate change into development implies and the challenges involved.

Reporting on another mainstreaming session, Kristie Ebi, IPCC, said climate change is challenging the fact that very little communication exists between ministries at the national level. She said the group had discussed how to improve the link between the national and local levels. She talked about connecting the research and practitioner communities to ensure a range of vulnerabilities are adequately addressed. She also said power structures within communities and government institutions should be reviewed, and noted the group's discussions on how to start scaling up, incentivizing adaptation and training more people on the ground.

Reporting on the final mainstreaming group, Fiona Rotberg, University of Uppsala, highlighted comments on the importance of climate justice, the need to keep conservation in mind, the value of sustaining community institutions, the complex governance issues, learning from cases of failure, and developing monitoring programmes from the beginning.

Reporting on one of the groups on disaster risk reduction and climate change, Penny Urquhart, sustainable development practitioner, noted discussions on intergenerational equity with respect to empowering children instead of treating them as victims.

Pratap Kumar Shrestha, LI-BIRD, reported on another disaster and climate change group, cautioning against attributing all natural disasters to climate change.

Atiq Rahman reported back on urban adaptation on behalf of group chair Nazrul Islam, noting the group had agreed that rapid population growth serves both as a stimulus for organization and a source of vulnerability, and that infrastructure and city planning for the poor are among the chief problems facing urban areas. Recommendations included better mapping of urban areas, pro-poor adaptation models, incorporating climate change into urban planning, and improving access to city information for the poor.

PANEL DISCUSSION: Sylvia Islam, CIDA, stressed the importance of developing strong communication strategies to bring CBA ideas beyond the conference forum, including with the media, policy planners, potential new project partners, and funding agencies.

Harvey Demaine, Danish International Development Agency (DANIDA), focused on two main points – mainstreaming and communication. With regards to mainstreaming, he stressed the substantive integration of climate change into the development agenda, and scaling up as an integral part of future projects. He emphasized stepping up communication, especially prioritizing the prevention of roadblocks midway up or down the ladder of communication. Demaine emphasized that CBA must not reinvent the wheel and should actively borrow from other community-based initiatives.

In the ensuing discussion, one participant noted controversy over use of the term “community” in CBA, and suggested looking more at the connections with other parts of society in which communities are located, rather than at individual communities. He expressed concern that many issues addressed during the conference were development issues, and suggested adopting new ways of thinking about climate change issues as societal problems with an environmental component.

Participants also discussed: dismantling the current concept of development and looking instead at sustainable and unsustainable societies; using planned migration as a necessary adaptive strategy; the political economy of climate change and the desire of those in power to retain power; looking at how adaptation efforts fit into other world problems; ensuring that communities are able to produce goods and services that can be sold in the local market; and distinguishing between CBA and “community level,” with the former implying community empowerment.

Noting the potential increase in funds after Copenhagen, participants stressed the importance of good ideas to command respect and funding, and said that the potential for replication was necessary to attract funding. One participant suggested contemplating a monitoring and evaluation framework with indicators that communities can adopt in order to access resources more quickly.

In conclusion, Rahman noted more nuanced discussions than at previous workshops, advocated integrating multidisciplinary approaches to ensure the best results, and suggested going beyond just NGOs and governments in the dialogue.

TECHNICAL SESSION ON SCALING UP CBA

This session was held on Tuesday morning, 24 February, and was chaired by Saleemul Huq, IIED.

REPORTS FROM TERMINOLOGY AND GLOBAL CBA INITIATIVE WORKING GROUPS: Charles Ehrhart, CARE, reported on discussions in a working group that had been meeting to discuss terminology and definitions. He said the group had discussed key concepts, including adaptation, community, CBA, mainstreaming and resilience. He indicated that the group's work will be posted online to enable elaboration on definitions, and noted possible publication as a journal article and as a guiding document for use by other organizations.

Announcement of the Global Initiative on Community-Based Adaptation to Climate Change: Adéle Arendse, SouthSouthNorth, South Africa, reported back on working group discussions on the proposed CBA initiative, noting the group agreed to establish the Global Initiative on Community-Based Adaptation to Climate Change. She said the Initiative's objectives are to: reflect ongoing action through promoting CBA nationally and globally; generate and share knowledge and experiences; and support the CBA-exchange website and international conferences.

Huq said the Initiative would initially not try to address fundraising or advocacy, and expressed confidence that the initiation of activities would attract funding. He said Tanzania had offered to host the next CBA workshop, and that Bangladesh would continue to host the conference every two years to enable participants to see progress made on the ground.

FAO announced the possibility of providing some translation for Latin American audiences and funding a few small-scale CBA projects. One participant advocated moving



away from the rich country-mitigation/poor country-adaptation mentality, and said developed country adaptation partners should be actively sought.

REFLECTIONS FROM SELECTED INSTITUTIONS AND FUNDING AGENCIES: Representatives of selected institutions and funding agencies were then invited to comment.

Delfin Ganapin, UNDP/Small Grants Programme (SGP), said scaling up CBA work must be ambitious and aggressive. He outlined a proposed CBA Fund Facility, in partnership with UN agencies, governments, civil society and private foundations, which would add value to what is already being done, noting it would provide broader types of support for “non-GEFable” CBA activities. He highlighted the SGP Mechanism for CBA, based on a decentralized, country-driven approach.

Ian Noble, World Bank, briefly discussed the Bank’s Pilot Programme for Climate Resilience, which aims to effectively integrate climate resilience into development programmes. He said the World Bank’s 2009 Development Marketplace would focus on adaptation, and that winners of the grant competition would receive between US\$50,000 and 300,000, plus assistance to further develop concepts through the World Bank or other entities. He highlighted successful scaling up of winning projects, and said criteria for submissions include innovation, sustainability, and potential for scaling up and replication.

Anders Granlund, SIDA, introduced the Swedish Environmental Secretariat for Asia (SENSA) and its Regional Climate Adaptation Knowledge Platform for Asia, developed in partnership with UNEP and the Stockholm Environment Institute. He said the Platform’s aims are to: enhance joint learning through a clearing house mechanism; expand multilateral and regional cooperation on climate change adaptation; and promote regional consultations and dialogue. He said Sweden has dedicated US\$600 million for climate change and adaptation over the next three years, with US\$200 million of this being administered by SIDA. He suggested that the next CBA conference include participants from the private sector.

Yvan Biot, DFID, noted a £100 million commitment for climate specific research over the next five years. He outlined relevant activities, including an economics of adaptation project, funding for adaptation innovation in Africa, and a climate change and development center that could provide on-demand services, such as packaging scientific knowledge for decision makers. Biot also discussed the Adaptation Fund in his capacity as a Board member, noting that it aims to enable direct access to funding without intermediaries, and allocate money to the most vulnerable.

CONCLUDING SESSION

On Tuesday, 24 February, Atiq Rahman, BCAS, opened the concluding high-level session with a recap of the workshop’s discussions and activities. He highlighted the importance of mainstreaming climate change into development policy.

Saleemul Huq, IIED, lauded the exceptional analytical quality and practical relevance of presentations and participation at the workshop, and said the Global Initiative on Community-Based Adaptation to Climate Change should help attract donor funding for CBA activities. He also recommended that Bangladesh appoint a special climate change envoy in the lead up to Copenhagen. Huq announced that, beginning in 2010, he will be working with BCAS, the

Independent University in Bangladesh and IIED, to inaugurate an international center for climate change and development, which will offer training and post-graduate programmes of learning.

Terry Cannon, IIED, challenged everyone to go beyond their comfort zones at the community level and come up with new ideas, and reflected on how the arrival of significant funding might alter CBA work and approaches. He emphasized that, when scaling up interventions, participatory approaches may not always be possible, and said merit and profit-based approaches would need to be utilized. He suggested that planned or supported migration will be inevitable, and stressed the importance of non-farm income-generating activities.

Ian Burton, University of Toronto, noted the failure to communicate the adaptation message effectively, and said adaptation was a new entry point for social change. He said three adaptation myths had been overcome, namely that adaptation was local, that it was antithetical to mitigation, and that it was defeatist.

Elvin Nyukuri, CLACC, reflected on policy issues. Highlighting models that challenge assumptions and transform policy discourse, he stressed demand-driven policy, social learning at all levels, and incorporation of participatory research and communication into the policy forum.

Abul Maal Abdul Muhith, Minister of Finance, Bangladesh, said the newly-elected government’s manifesto has placed the environment high on the agenda. However, he felt that, to date, CBA has not yet received adequate attention in Bangladesh. He said the issues of air pollution and future mass migration require more attention and planning. Muhith supported the proposal to create a special Bangladeshi envoy for Copenhagen.

Kristie Ebi, IPCC, reviewed the IPCC’s work and emphasized the challenge of transforming CBA into more iterative forms and processes that can be operationalized. She also stressed the importance of consulting modelers to ensure long-term CBA project sustainability. She lamented the lack of publications on how salination affects communities, stressing that the CBA community must work to change this.

Rezaul Kabir, Secretary, Ministry of Environment and Forests, Bangladesh, noted that adaptation is now Bangladesh’s primary concern and emphasized the importance of increased public awareness on this issue. He also recalled a Bangladeshi proposal to establish an official development assistance (ODA) fund for mitigating climate change impacts in poor countries, put forward during COP 14 in Poznań.

A.K. Khandaker, Minister of Planning of Bangladesh, noted Bangladesh’s position on the front lines in the battle against climate change and emphasized the importance of undertaking more work to study the linkages between climate change, growth and poverty. He stressed the importance of recognizing the different methodologies required for short-term, as opposed to long-term, adaptation planning and projects.

Bringing the workshop to an end, Atiq Rahman discussed the way forward and pointed to the significant progress made since the previous CBA conference 2007. He emphasized good science is the basis for good policy, and said addressing climate risk reduction and poverty reduction must be undertaken simultaneously. He reiterated that Bangladesh is the only country that has established a climate fund to reduce climate change risks in the amount of US\$45 million. Thanking participants, he declared the meeting closed at 1:10 pm.

UPCOMING MEETINGS

INTERNATIONAL WORKSHOP ON ADAPTATION TO CLIMATE CHANGE IN WEST AFRICAN AGRICULTURE:

This workshop will take place on 1 March 2009, in Ouagadougou, Burkina Faso. The World Meteorological Organization, along with the Drylands Development Centre of the UN Development Programme and the UN Environment Programme, are organizing this workshop. For more information, contact: Aida de la Rosa; tel: +4122 7308148; e-mail: zdelarosa@wmo.int; Internet: http://www.wmo.int/pages/prog/wcp/agm/meetings/iwacc08/index_en.html#TOP

BEYOND KYOTO: ADDRESSING THE CHALLENGES OF CLIMATE CHANGE:

This conference will take place from 5-7 March 2009, in Aarhus, Denmark, and will focus on the need for innovative solutions, technology development, public participation and cooperation to address the climate change challenge. For more information, contact: Conference Secretariat; tel: +45 8629 6960; fax: +45 8629 6980; e-mail: bk@kongreskompagniet.dk; Internet: <http://www.klima.au.dk/dk/forside/konferencebeyondkyotoconferen/>

NAIROBI WORK PROGRAMME: TECHNICAL WORKSHOP ON ADAPTATION PLANNING AND PRACTICES:

This workshop will take place from 10-12 March 2009, in Havana, Cuba, and will address integrating practices, tools and systems for climate risk assessment and management and disaster risk reduction strategies into national policies and programmes. For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; Internet: <http://unfccc.int>

INTERNATIONAL SCIENTIFIC CONGRESS ON CLIMATE CHANGE: GLOBAL RISKS, CHALLENGES AND DECISIONS:

This congress will take place from 10-12 March 2009, in Copenhagen, Denmark, as part of the run-up to the Climate Change Conference in Copenhagen in December 2009. The congress will aim to synthesize existing and emerging scientific knowledge concerning the application of climate change mitigation and adaptation strategies. For more information, contact: Torben Mandrup Timmermann; tel: +4535324106; e-mail: tmti@adm.ku.dk; Internet: <http://climatecongress.ku.dk/>

IPCC SCOPING MEETING FOR SPECIAL REPORT ON "EXTREME EVENTS AND DISASTERS: MANAGING THE RISKS":

This meeting, hosted by the Norwegian Pollution Control Authority, will take place from 23-26 March 2009, in Oslo, Norway. For more information, contact: IPCC Secretariat; tel: +41-22-730-8208; fax: +41-22-730-8025; e-mail: IPCC-Sec@wmo.int; Internet: <http://www.ipcc.ch/meetings/calendar.htm>

FIFTH ADAPTATION FUND BOARD MEETING: This meeting will take place from 24-27 March 2009, in Bonn, Germany. The Adaptation Fund was established to finance concrete adaptation projects and programmes in developing countries party to the Kyoto Protocol. For more information, contact: Adaptation Fund Secretariat; e-mail: secretariat@adaptation-fund.org; Internet: <http://www.adaptation-fund.org/>

AWG-LCA 5 AND AWG-KP 7: The fifth meeting of the *Ad Hoc* Working Group on Long-Term Cooperative Action (AWG-LCA) and the seventh session of the *Ad Hoc* Working Group on Further Commitments for Annex I Parties under the

Kyoto Protocol (AWG-KP) will take place from 30 March to 8 April 2009, in Bonn, Germany. For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; Internet: <http://unfccc.int>

THIRTIETH SESSION OF THE IPCC: This event will take place from 21-23 April 2009, in Antalya, Turkey. The 39th session of the IPCC Bureau will convene one day earlier on 20 April 2009. For more information, contact: IPCC Secretariat; tel: +41-22-730-8208; fax: +41-22-730-8025; e-mail: IPCC-Sec@wmo.int; Internet: <http://www.ipcc.ch/meetings/session30.htm>

NAIROBI WORK PROGRAMME: TECHNICAL WORKSHOP ON ECONOMIC DIVERSIFICATION:

This workshop will take place from 28-30 April 2009, in Cairo, Egypt, and will address increasing economic resilience to climate change and reducing reliance on vulnerable economic sectors. For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; Internet: <http://unfccc.int>

THIRTIETH SESSION OF THE UNFCCC

SUBSIDIARY BODIES: This meeting will take place from 1-12 June 2009, in Bonn, Germany. The SBI and the SBSTA are expected to meet, as will the AWG-LCA and the AWG-KP. For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; Internet: http://unfccc.int/meetings/unfccc_calendar/items/2655.php?year=2009

WORLD CLIMATE CONFERENCE 3: This conference will take place from 31 August to 4 September 2009 in, Geneva, Switzerland. The third conference has the theme "Better climate information for a better future," and will focus on how humankind can benefit from the advances in climate prediction and knowledge. For more information, contact: Buruhani Nyenzi, WCC-3 Secretariat, WMO; tel: +41-22-730-8273; fax: +41-22-730-8042; e-mail: wcc-3@wmo.int; Internet: http://www.wmo.int/pages/world_climate_conference

AWG-LCA 7 AND AWG-KP 9: The seventh meeting of the AWG-LCA and the ninth session of the AWG-KP will take place from 28 September to 9 October 2009, in Bangkok, Thailand. For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; Internet: http://unfccc.int/meetings/unfccc_calendar/items/2655.php?year=2009

FIFTEENTH CONFERENCE OF THE PARTIES TO THE UNFCCC AND FIFTH MEETING OF THE PARTIES TO THE KYOTO PROTOCOL:

The fifteenth Conference of the Parties to the UNFCCC and fifth meeting of the Parties to the Kyoto Protocol are scheduled to take place from 7-18 December 2009, in Copenhagen, Denmark. These meetings will coincide with the 31st meetings of the UNFCCC's subsidiary bodies. Under the "roadmap" agreed at the UN Climate Change Conference in Bali in December 2007, COP 15 and COP/MOP 5 are expected to finalize an agreement on a framework for combating climate change post-2012 (when the Kyoto Protocol's first commitment period ends). For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; Internet: http://unfccc.int/meetings/unfccc_calendar/items/2655.php?year=2009