



Development and Adaptation Days Bulletin

A Summary Report of the Development and Adaptation Days at COP 13

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SUMMARY OF THE DEVELOPMENT AND CLIMATE DAYS AT COP 13: 8-9 DECEMBER 2007

The “Development and Climate Days at COP 13” (D&C Days) event took place at the Conrad Hotel, Nusa Dua, Bali, Indonesia from 8-9 December. The event was organized by the International Institute for Environment and Development (IIED), the RING alliance of policy research organizations, the Stockholm Environment Institute (SEI) and the International Institute for Sustainable Development (IISD). The event was held in parallel with the thirteenth Conference of the Parties to the UN Framework Convention on Climate Change (UNFCCC COP 13) and the third Meeting of the Parties to the Kyoto Protocol (COP/MOP 3) taking place in Bali from 3-14 December 2007.

The event featured more than 44 speakers and numerous extended discussions and question-and-answer sessions. Over 300 participants attended the two-day meeting, including representatives of governments, international organizations, academia, research institutes, business, and non-governmental organizations.

The event was held in the context of a growing call for knowledge sharing on the links between climate change and poverty. The purpose is to provide a platform for individuals and organizations working on the issues of development, adaptation and climate change to exchange experiences, and discuss challenges and emerging ideas on how to reduce vulnerability to climate change.

D&C Days started as an Adaptation Day in 2002. The Development Day was added in 2004 to bring in development practitioners who would not normally attend the Conference of the Parties (COP), but had relevant information to share and whose work might be influenced by the work of the climate change community. This year the event was renamed Development and Climate days to reflect that adaptation is now fairly well mainstreamed into the development agenda and good adaptation presupposes development. Sessions on Saturday, 8 December focused on disaster reduction and extreme events, cities and health; these were followed by a panel discussion on financing adaptation. On Sunday, 9 December sessions took place on food and agriculture, community-based adaptation and energy, and the event closed with a panel discussion on communicating for communities, across sectors and timescales.

A BRIEF HISTORY OF CLIMATE CHANGE 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.



The front view of the Conrad Hotel

Global climate varies naturally, but scientists agree that rising concentrations of anthropogenically-produced greenhouse gases (GHGs) 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. Man-made climate change is the result of increasing GHG emissions caused by development factors such as economic growth, technology, population and

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governance. Evidence of climate change impacts on both natural and human systems is increasing. Until recently, climate change was viewed largely as an environmental concern, of little relevance to development policy makers or practitioners. Likewise, development approaches have been given less attention within the climate change community, who instead favor natural science approaches focusing on reducing GHG emissions.

Unsustainable development is the underlying cause of climate change and development pathways will determine the degree to which social systems are vulnerable to climate change. Climate change will have direct impacts on development with regard to climate-sensitive activities such as agriculture and indirect consequences on social issues such as poverty and education. Furthermore, climate change is likely to exacerbate inequalities due to the uneven distribution of damage, since poor communities tend to live on marginal lands and in areas prone to extreme weather events. Without addressing climate change issues, much development policy and practice will be wasted. Alternative development pathways will influence the capacity of communities and countries to adapt to climate change and will also determine future GHG emissions.

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, it 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, 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. Funding for adaptation through the Kyoto Protocol Adaptation Fund is the current focus of intense discussion and debate in the UNFCCC process.

REPORT OF THE EVENT

Saleemul Huq, IIED, opened the event on Saturday 8 December and welcomed participants. He identified the Development and Climate Days as a useful entry point for enhancing the understanding of the nexus between development and climate change and emphasized synergies between mitigation and adaptation for addressing climate change.



Saleemul Huq, IIED

DISASTER REDUCTION/EXTREME EVENTS

This session highlighted successful experiences on integrating climate change into disaster risk reduction strategies programmes and was facilitated by Madeleen Helmer, Red Cross/Red Crescent Climate Centre.

Presentations: Marcus Moench, Institute for Social and Environmental Transition (ISET), highlighted changes in the availability of water resources resulting from extreme weather events, such as floods and droughts. Citing examples from South Asia, he noted that progress is being made in linking disaster risk reduction to climate change, noting, however, that not all disaster risk strategies are equal, and that there is a need to increase pilot projects, support increased adaptive capacity and bring the issues into the policy debate.



Marcus Moench, ISET

Shiraz Wajih, Gorakhpur Environmental Action Group, described an adaptive capacity pilot project in Uttar Pradesh, India. He said the area is prone to droughts, floods and water logging and highlighted adaptive strategies such as the diversification of farming systems and off-farm activities, as well as the development of an adaptation strategy agenda rather than a reactive agenda. He highlighted a people-led flood warning system functioning between India and Nepal, which utilizes the mobile phone network and food-for-work schemes to address water logging.

Bruno Haghebaert, Pro Vention Consortium, Switzerland, outlined the Pro Vention Consortium's community risk assessment toolkit. He highlighted two challenges: to make climate adaptation interventions more participatory and to incorporate simplified, focused climate change concerns into community risk assessments. He also recommended climate change and disaster risk assessment synergies through sharing experiences, tools and methods.

Pablo Suarez, Red Cross/Red Crescent Climate Centre, said disaster managers find climate change media reports confusing and are often not able to understand climate change issues. He introduced a booklet entitled "Red Cross and Red Crescent Climate Guide", which aims to communicate climate science effectively and provide information on institutions, disaster management, community risk reduction and health care.

Clement Kalonga, Action Aid, reported on risk reduction projects in Malawi. He identified the country's vulnerability to floods and drought, with implications for infrastructure, access to education, and food production. Projects include creating community action plans, building safer schools, raising awareness, and engaging with national policy makers. He stressed the need for community knowledge, funding, and strengthening of legal and policy frameworks.

Sreeja Nair, The Energy and Resources Institute (TERI), India, presented a study conducted with the Institute of Development Studies (IDS) on climate risk screening and adaptation assessment for development projects. She described the Opportunities and Risks from Climate Change and Disasters (ORCHID) process, a step-wise approach that enables multi-criteria analysis of adaptation options and identification of risk reduction opportunities. She called for holistic vulnerability reviews, linkages with existing policies, community-based research, and district-level adaptation plans.

Molly Hellmuth, International Research Institute for Climate and Society (IRI), highlighted a new initiative: "A partnership to save lives" between her organization and the

International Federation of the Red Cross. She explained that efforts are centered on managing climate risk and climate response to improve development, health outcomes and disaster risk reduction, using climate science and socioeconomic information. Hellmuth described efforts to help the International Federation of the Red Cross to move from early warning and response to early action and improved preparedness. She noted the need for capacity building for effective information communication.

John Harding, World Bank, discussed an international strategy for disaster risk reduction, noting the shift from responding to extreme weather events to addressing the underlying vulnerability at the community level. He said that although regional institutions have taken the lead, national institutional capacity to address disaster risk reduction is limited. He added that in recent years governments have become engaged in the 2005 Kyoto framework for action on disaster risk reduction. Harding emphasized the need for a risk-based approach to climate change to overcome the disconnect between the global climate change agenda and ongoing extreme events.

Discussion: Participants discussed: renewal of emphasis on the environment as a cross-cutting theme in adaptation and disaster risk reduction; the need to communicate with local communities; the possible implementing role of disaster risk reduction strategies for adaptation; the need to coordinate and organize diverse adaptation work; the provision of aid versus developing resilience; national level implementation; inclusion of disaster risk reduction in a post-2012 framework; and the use indigenous knowledge as a foundation for disaster management plans.



John Harding, World Bank

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CITIES

The session was facilitated by Hannah Reid, IIED, who suggested that cities could be key to tackling climate change mitigation and adaptation.

Presentations: Pierre Mukheibir, University of Cape Town, illustrated a South African case study on water resource vulnerability. He focused on the municipal adaptation plan's initial steps of identifying vulnerability and possible impacts. He noted that water supply costs could increase by 25% annually during the next three decades, with the greatest implications for middle- and low-income users. He called for timely investments, as well as reducing uncertainties in forecasts of demand growth.



Cities Panel. L-R: Sonia Fadrgio, Homeless Peoples Federation, Philippines; Jocelyn Cantoria, Homeless Peoples Federation, Philippines; Mihir Bhatt, All India Disaster Mitigation Institute; Cynthia Awour, Africa Centre for Technology Studies (ACTS); Thomas Tanner, Institute of Development Studies, UK; and Pierre Mukheibir, University of Cape Town, South Africa.

Thomas Tanner, IDS, presented lessons learned from ten Asian cities on good governance for enhancing urban resiliency and adaptability. He emphasized decentralization and autonomy; accountability and transparency; responsiveness and flexibility; and experience and support.

Sonia Fadrgio, Homeless Peoples Federation, Philippines, reported on a community-driven rehabilitation initiative, which promotes a monetary savings scheme to respond to disasters and works to secure land tenure and upgrade slums. She highlighted two disaster interventions resulting from the southern Leyte mudslide and the Albay Bicaol typhoon mudslide. She explained that the interventions have revived and strengthened community investment activities but noted challenges including the prevailing relief dependency syndrome and the lack of available, affordable land for rehabilitation.

Jocelyn Cantoria, Homeless Peoples Federation, Philippines, highlighted the challenges experienced by the urban poor following disasters, including: the need to relocate affected families to safer sites; slow governmental response; limited local government resources for relocation sites; and bureaucracy involving building regulations and the transfer of relevant permits.

Cynthia Awour, African Centre for Technology Studies (ACTS), Kenya, gave insights into Mombasa's vulnerability to climate change due to low elevation, high temperatures and humidity, poverty, poor urban planning and cultural attachment to ancestral lands. She called for better climate prediction and early warning systems, and coordination of disaster relief. She also identified the need to address land tenure in urban planning and increase economic diversification.

Mihir Bhatt, All India Disaster Mitigation Institute, highlighted climate change in the context of urban development, pointing to the vulnerability of direct and indirect urban investment and the unclear role of cities in adaptation and coping measures. He stressed the need to build a mechanism to integrate climate risk at the city level and develop a focus on city flooding.

Discussion: In the ensuing discussion, the participants discussed how to differentiate between natural and human-induced disasters and how cities can engage in mitigation.

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Health Panel. L-R: Fatima Denton, International Development Research Centre; Kristie Ebi, IPCC; Alexander von Hildebrand, WHO; Jonathan Patz, University of Wisconsin, USA; Pablo Suarez, Red Cross/Red Crescent Climate Centre.

HEALTH

This session was chaired by Alex von Hildebrand, WHO, who noted the increasing focus on climate change impacts on health.

Presentations: Jonathan Patz, University of Wisconsin, US, highlighted the ethical dimensions of climate change and health, describing the issue as intergenerationally inequitable and as a moral crisis because the vulnerable, particularly the elderly and young children, are most at risk from climate-related impacts such as: air pollution and aero-allergens, water- and vector-borne diseases, heat waves, malnutrition, mental health problems and climate-induced displacement. He outlined the corresponding relationship between global warming and malaria epidemics, reiterating that the people most vulnerable to climate change, particularly those from low-income households, are the least responsible for the problem.

Pablo Suarez, Red Cross/Red Crescent Climate Centre, outlined efforts to increase awareness for capacity building and for training on climate change impacts on health. He described the linkages between food security issues, climate-induced migration and HIV/AIDS, emphasizing the need for communicating climate change health impacts in a relevant format.

Fatima Denton, International Development Research Centre (IDRC), outlined a project examining the linkages between health, water and climate change in North and West Africa, which is aimed at building institutional capacity, identifying innovative methodologies, and fostering the cross fertilization of ideas and knowledge sharing. She highlighted the iterative nature of the project and the engagement of policy makers from the onset.

Kristie Ebi, IPCC, gave an overview of a proposed Global Environment Facility (GEF)-funded project between seven countries and the WHO, designed to facilitate health sector adaptation to climate change. She predicted an estimated US \$10,689 – \$17,957 million increase in treatment costs for malaria, severe malnutrition and diarrheal diseases by 2030 due to climate change.

Discussion: Participants discussed the need to communicate climate change issues to health practitioners, as well as to build capacity and train health organizations. Patz added that health practitioners need to lead by example, citing the US health care system as the second largest national energy consumer. He also noted the significant health-related co-benefits of mitigation. One participant enquired about defining additionality in the health sector, which several panelists acknowledged as a key challenge. The paucity of data and weak sectoral linkages were also mentioned. Participants also discussed the allocation of funds across sectors, regions and timescales. Responses focused on devoting resources to the world's most vulnerable people, including those in developed countries.

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FINANCING ADAPTATION TO MEET NATIONAL NEEDS

This session was facilitated by Effendy Sumardja, UNDP, Indonesia, and comprised a panel discussion on financing for adaptation needs.

Panelists Remarks: Håkan Björkman, UNDP, explained that climate change would sabotage poverty reduction strategies in Indonesia and emphasized the need for national development and budgeting to be “climate smart.” He said this entails detailed mapping of impacts and medium-term costs sectorally at both the provincial and district levels, with corresponding responsibilities for national and local authorities in facilitating public-private partnerships, investment and financing support for communities. Björkman then invited the panel to consider four issues: how national policies can support adaptation; how international finance can support national/local adaptation; donor coordination challenges experienced by countries; and innovative ways for raising international funds.

Maria Mutagamba, Minister of State for Water, Uganda, responding to how national policies can support adaptation, emphasized that governments have to realize that climate change cannot be tackled through fragmented policies and that financing for adaptation should be incorporated into a country's budget framework. She pointed out that Uganda has developed its National Adaptation Programme of Action (NAPA), which recommends activities to be factored into national programmes. She acknowledged challenges relating to the absence of effective institutions; limited disaster risk reduction strategies and early warning systems; low income levels; dependence on agriculture for livelihoods; and the lack of understanding of climate change science and impacts.



Maria Mutagamba, Minister of State for Water, Uganda

Fatou Gaye, Department of Livestock Services, Gambia, outlined her country's national policies to support adaptation financing, including: incorporating adaptation in sectoral budgets; realizing the Millennium Development Goals and implementing poverty alleviation strategies; and continuing work on Gambia's 2020 Vision: National Development Framework and NAPA. She said the proposed Adaptation Fund may augment the GEF funds, but warned that this may not be adequate.



Agriculture and Food Security session panelists. L-R: Sithabiso Gandure, Action Aid, Malawi; Marie Rarieya, Renssealer Polytechnic Institute, USA; Tabet-Aoul Mahi, ARCE, Algeria; Peter Cooper, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT); Tharsis Hyena, EPMS, Tanzania; Louis Verchot, Consultative Group on International Agricultural Research (CGIAR); and Gustavo Best (FAO).

Ian Noble, World Bank, supported the development of national policies to mainstream or integrate adaptation into the development process, to make development projects climate resilient. He also stressed the need to engage with the private sector and provide infrastructure and incentives to facilitate adaptation.

Antonio Hill, Oxfam International, suggested that adaptation financing should emanate from those responsible for climate impacts. He stated that the carbon market is the most promising finance-generating mechanism. Hill said that funding should be additional to official development assistance (ODA), reliable and predictable and consistent with domestic mitigation incentives. He also stressed that it should meet the scale of needs and involve government participation.

Melanie Speight, Department for International Development (DFID), UK, identified five principles for enhancing adaptation financing: adequate scale, above and beyond current finance levels; allocation on the basis of vulnerability and poverty; delivery that supports country-level decision-making, accountability and integration; participation of civil society and affected communities in decision-making; and enhanced donor community coordination. She called for finance needs estimates, identification of cost effective adaptation approaches, and a shared global vision. Speight noted that the UK is creating an integrated, programmatic, hands-off approach to explore additional adaptation options.

Discussion: A participant questioned the current negotiations' focus on which entity should control the Adaptation Fund, given the more important task of generating funds. Participants asked about the macroeconomic effects of large scale adaptation funding, funding priorities, how to ensure adaptation funding reaches the grassroots level and the most vulnerable, especially women. Pablo Suarez tabled the idea of imposing a penalty or charging interest for delaying investment in adaptation, which would provide an incentive for donors to make timely contributions. Another participant pointed out that adaptation funding from industrialized countries should be viewed as compensation, not aid, and that donors should be providing funding additional to ODA targets of 0.7% GDP. Another stressed the importance of channeling some adaptation funding to civil society to more effectively reach the grassroots level. Others raised issues concerning programmatic approaches to adaptation; equity; low access to the carbon market and Clean Development Mechanism (CDM) projects for least developed countries (LDCs); the viability of incremental or phased adaptation strategies and accountability for historical emissions.

Responding to questions regarding the carbon market, Gaye suggested that carbon trading is a new form of colonialism, while Noble said that he did not see potential for the carbon market to generate much adaptation funding. He noted the need for domestic accountability for funding, recognizing that a proportion of funds do not reach the intended recipients and supported earmarking funds for civil society. Speight emphasized the increasing importance of donor coordination, which is currently being pursued. Regarding additional ODA funds, she said the focus should be on what adaptation can be achieved with current resources and on addressing the funding shortfall in the future.

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Food and agriculture panel. From left to right: Krystel Dossou, Women's Organisation for Energy, Nagmeldin Goutbi Elhassan, Ministry of Environment Sudan, Louis Verchot, CGIAR, Mark Radka, UNEP, Diana Liverman, Oxford University, Francis Johnson, SEI.

FOOD AND AGRICULTURE

Richard Klein, SEI, Sweden, opened the session, which consisted of a presentation and responses from the panel. He noted that progress on adaptation had yet to be realized in Bali, and that negotiators are not convinced of the urgency of the issue.

Presentation: Diana Liverman, Oxford University, presented on the Global Environmental Change and Food Systems (GECAFS) approach. She noted the need to focus more holistically not only on agricultural production but on all components of the food system, such as food transport, packaging and cooking. She also called for addressing mitigation policy implications for food systems in addition to assessments of climate impacts on food systems. Climate impacts on wild foods as well as crops also require further research. She stated that GECAFS objectives are to determine coping strategies for climate impacts on food systems and to assess the environmental and socioeconomic consequences of adaptive responses. She called for more research on additional food cultivars and for accounting for food system modernization in impact assessments. Liverman discussed model uncertainty, as modelers have yet to identify the future direction of precipitation and soil moisture change in large regions of the world. She concluded by highlighting several issues regarding genetically modified (GM) crops, aquaculture, carbon labels, biofuels, and impacts on free and fair trade.

Panel response to presentation: Peter Kenmore, FAO, introduced a recent publication, "Climate Change and Food Security: A Framework Document," that incorporates the GECAFS food system framework. He highlighted that hunger is linked to competition for land (in Asia and Europe) and labor shortages (in Africa where HIV/AIDS is impacting the working population). He also noted: a projected increase in nitrous oxide emissions due to intensification of agriculture, which will exacerbate warming; the dominant role of corporations with regard to food availability, access and utilization; changing pest lifecycles due to rising temperatures; and the potential of GM crops.



Peter Kenmore, FAO

Mark Radka, UNEP, discussed the links between biofuels and food security, biodiversity, water resources and other societal priorities. He stressed that the drivers for biofuel production are energy security and supply diversification rather than climate change mitigation, noting that there can be net increases in emissions, such as in the midwestern US, where coal-derived power is used to extract corn-based ethanol and in

Brazil where increased demand for land for growing sugar cane for ethanol production could lead to indirect deforestation, as it drives livestock keepers into forests.

Louis Verchot, Consultative Group on International Agricultural Research, (CGIAR) highlighted that more spending goes toward debt relief than toward improving the livelihoods of the poor, and commended the non-traditional investment project entitled, "Agricultural Green Revolution in Africa." He also said biofuels could improve the livelihoods of the rural poor if increased demand generates higher revenues from production. He noted that GM crops can redress deficiencies in micro-nutrients, reduce the use of pesticides and address disease prevention.

Nagmeldin Elhassan, Higher Council for Environment and Natural Resources, Sudan, drew attention to the paucity of data from Africa in the IPCC Fourth Assessment Report, which he attributed to the lack of observatory data and limited capacity to document available data. He questioned whether trade could be used to address adaptation especially in light of socio-cultural barriers. On the issue of GM crops he called for the consideration of environmentally-friendly options and observed that market mechanisms are increasingly being adopted under the Kyoto Protocol to address mitigation without corresponding beneficial financial flows for most developing countries.

Krystal Dossou, Women's Organization for Energy, Environment and Sustainable Development, Benin, pointed out that GECAFS are not a concept new to Africa and adaptation has existed for centuries. He discussed adaptive strategies implemented in West Africa, such as extensive agriculture and pastoral livestock farming on non-crop land and the "Zai method," which utilizes manure from cows and donkeys to fertilize soil in Burkina Faso, Mali and Benin. Regarding the GECAFS approach, Dossou proposed improvements including increasing the number of research support organizations in West Africa.

Discussion: In the ensuing discussion, one participant noted the need to look at improving food systems' adaptive capacity and to strengthen seed and breed systems to improve their resilience, irrespective of changes in precipitation patterns. Another asked how the LDCs could best adapt to climate change. Liverman responded that it is important to look at the success of traditional adaptation in the context of climate change and to inform communities of the significance and implications of climate change.

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COMMUNITY-BASED ADAPTATION TO CLIMATE CHANGE

This session was chaired by Atiq Rahman, Bangladesh Centre for Advanced Studies (BCAS). He noted that the scientific community has yet to fully understand community knowledge and, correspondingly, learn from community-based adaptation strategies.

Presentations: Lisa Westerhoff, University of Guelph, Canada, presented on the needs and prospects for adaptation in the Afram Plains, Ghana. She introduced a vulnerability assessment approach, which calculates vulnerability as a



Lisa Westerhoff, University of Guelph, Canada

function of two factors: exposure to climatic and other forces, and coping, or adaptive, ability. She discussed preliminary results from a vulnerability assessment, which involved stakeholder engagement, as well as assessments of exposure, adaptive strategies, constraints and institutional involvement. She concluded on the need to consider stresses beyond those that are solely climatic in nature, address present constraints to ongoing development issues, and coordinate climate adaptation initiatives with existing programs.

Dwijen Mallick, BCAS, reported on a project to enhance the adaptive capacity of a drought-vulnerable community in a northwestern region of Bangladesh. Project objectives include capacity building, awareness raising, and resilience strengthening. Lessons learned include that: climate change is location and content specific; adaptation cannot be isolated from rural development; and adaptation must promote livelihood protection and promotion.

Barry Smit, University of Guelph, Canada, reported on engaging with local communities to identify key vulnerabilities in the Arctic in an integrated and policy-orientated manner. He explained that rising temperatures are changing the stability of traditional routes over the icepack, causing permafrost thaw, which destabilizes infrastructure and changes storms and prevailing winds. He underscored the reliance on the flow edge for hunting, which is changing in nature and location. Smit highlighted that modern technologies can be useful as well as detrimental; for example, geographic positioning systems can be used for navigation, but snowmobiles cannot determine ice thickness, whereas sleigh dogs can.



Barry Smit, University of Guelph, Canada

Rachel Berger, Practical Action, UK, discussed scaling up community-based adaptation, drawing on experiences in Southeast Asia. She stressed the importance of, firstly, communicating why the climate is changing, in order to empower communities, and, secondly, building partnerships with local government and stakeholders, to allow for continued efforts after the project ends. She gave examples of lessons learned as a result of the floods in Bangladesh, including the importance of: growing floating vegetable gardens; diversifying into duck and fish rearing; and growing rice varieties which can be harvested early, before monsoons. To scale up adaptation action, Berger called for awareness raising at the national level, adequate funding from the international community, and more work in vulnerable communities and beyond national boundaries. She also noted that there are limits to adaptation.

Mozaharul Alam, BCAS, presented a short film depicting the key messages from the second International Workshop on Community-based Adaptation to Climate Change, which was held in Dhaka, Bangladesh in February 2007.

Discussion: One participant enquired about the extent to which Inuit people use traditional knowledge to enhance their adaptive capacity to climate change, while another pointed to the limitations of maintaining traditional lifestyles when faced with diminishing natural resources. The issue of whether socio-cultural barriers or considerations have a bearing on how local communities interpret risk and perceive hazards was raised, and the extent to which this constrains them from taking action. One participant asked how the UNFCCC process could address community-based adaptation. Limitations in scaling up actions, the strength of the climate imperative, and the role of national governments in scaling up community-based adaptation issues were also highlighted.

In response, Mallick affirmed that traditional knowledge can be a resource for increasing adaptive capacity. Smit added that local communities do not make decisions based on whether to use traditional knowledge or modern technology but, rather, based on the best options for sustaining their lives and livelihoods. Responding to the issue of socio-cultural practices, he said that sometimes they facilitate and in other instances impede adaptive strategies, and he underlined the importance of communication from the local community level to climate scientists. Westerhoff, on the same issue, said that often communities adopt the most financially lucrative option. She noted that her work had revealed a local community dependence on NGOs, leading to a lack of community mobilization and leadership, which itself is a constraint on adaptation. Alam highlighted the Nairobi Work Programme under the UNFCCC, which aims to improve understanding and assessment of impacts and vulnerability in developing countries, especially LDCs and Small Island Developing States. On scaling up, Berger clarified that her organization works at the community level and noted that the acceleration and extent of climate change is leading to changes in perceptions and a willingness to listen and learn. She emphasized the importance of communication and highlighted some communication tools used by her organization.

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INCREASING CLEAN DEVELOPMENT INVESTMENTS IN DEVELOPING COUNTRIES TO ENABLE THEM TO LEAPFROG ONTO A CLEAN DEVELOPMENT PATHWAY

The session was facilitated by John Drexhage, IISD, who provided the historical context. He invited the panelists to consider the question, "How do we square the circle?" and challenged them to elaborate on the best approaches for clean energy investment in developing countries, while balancing development, equity and the environmental imperative.

Presentations: Priyadarshi Shukla, Indian Institute of Management, noted that developing countries' clean energy markets, as well as energy demands, are rising and are providing future opportunities and co-benefits. He raised several issues concerning: investment in clean energy; clean energy industrial development within developing countries; and the climate treaty's ability to achieve these goals.



Panel on Increasing Clean Development Investments in Developing Countries, to enable them to Leapfrog onto a Clean Development Pathway. L-R: Aaron Cosbey, IISD; John Drexhage, IISD; Suzana Kahn Ribeiro, COPPE/Federal University of Rio de Janeiro; Priyadarshi Shukla, India; and Nogoye Thiam, ENDA Senegal.

Suzana Kahn Ribeiro, Federal University of Rio de Janeiro, Brazil, addressed energy efficiency and conservation and low-carbon fuel use. With regard to energy efficiency, she suggested that there are opportunities for emissions reductions in the transportation sector. In terms of low-carbon fuels, she noted that alternative energy sources are available. She explained that developing countries often do not have access to technologies or options for encouraging clean energy such as mandatory markets and labeling standards.

Nogoye Thiam, Energy Environment and Development Programme, Senegal, identified renewable energy as an option for addressing low rural access, since decentralized systems can be employed. She lamented the lack of sustainability in renewable energy projects, which tend to fail once the project ends, and barriers to investment due to governmental requirements for highly labor-intensive projects.

Aaron Cosbey, IISD, said energy is fundamental to development and drew attention to the disparity between the IPCC statement that emissions should be reduced by 50% by 2050 and the International Energy Agency projections of a large growth in emissions by 2030. He highlighted that 1.6 billion people rely on biomass for energy, which results in profound health impacts. Lastly, he highlighted criteria used by investors when considering investment in developing countries and stressed the need for domestic institutions and policies to foster clean energy.

Discussion: Drexhage gave an overview of the trade ministerial meeting held during COP 13 and COP/MOP3 and said Kyoto Protocol targets are less important than determining a carbon price and sending global signals for investment. Dennis Tirpak, IISD, observed that the UNFCCC Secretariat's report on financial flows indicates that the bulk of funding will need to come from private and state banks and domestic capital. He also highlighted the low proportion of ODA used in the energy sector, stating that investments could be greened by providing incentives or levying taxes and penalties on the basis of the project's "greenness."



John Drexhage, IISD

Participants asked about: the feasibility of replacing conventional energy systems over time; experiences relating to biofuel “land grabbing” in Latin America; barriers regarding renewable energy CDM projects; and the importance of indirect investment into energy-saving technologies such as insulation.

Panel response: Shukla observed that the deployment of clean technologies cannot keep pace with rapid economic growth in China and India. On why renewable energy projects struggle for continuity, Nagoye said that CDM projects present a mitigation opportunity, but that the methodologies required are restrictive. Ribeiro responded to whether biofuels constitute a disaster for the world’s poor by stating that solutions are dependent upon regional contexts. Cosbey discussed the need for raising awareness in the banking community about the CDM and clean technologies, as well as the potential role for energy service companies (ESCOs) in financing and providing clean energy. In response to a participant cautioning that these are only “kilowatt solutions to megawatt problems,” participants discussed prices and barriers to clean energy investment such as domestic regulatory constraints. Drexhage concluded by asking the panel whether the global community could stabilize at a 2°C rise in temperature or would have to prepare for a 3 to 3.5°C warmer world. Responses referred to peaking at higher concentrations and then stabilizing afterwards, and the private sector’s role in stabilization.

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PANEL DISCUSSION ON COMMUNICATING TO COMMUNITIES, ACROSS SECTORS AND TIMESCALES

This session was facilitated by Alex Kirby, who emphasized the need to break down barriers to communication because the message is being lost in academia.

Indi McLymont-Lafayette, Panos Caribbean, stressed the need for effectively communicating climate change impacts in an easily accessible format, since climate change is often seen as a distant phenomenon and thus does not resonate at the individual level. She noted the need to enhance the capacity of the media to understand and cover climate change issues effectively, as well as to bridge the science-policy divide.

Jonathan Lash, World Resources Institute, lamented the lack of urgency during the COP 13 and COP/MOP 3 negotiations in Bali. He highlighted obstacles to communicating the problem, to realizing potential returns of mitigation and to governance of climate change. Lash also noted the absence of a national focus on adaptation.

Youba Sokona, Sahara and Sahel Observatory, Tunisia, disagreed with the notion of a communication problem, suggesting that there is little to communicate, and, moreover, that the imperative of communicating climate change no longer exists. He noted that those who communicate are not necessarily those who can act. Sokona also stressed the need for observational and early warning systems for adaptation.

Farha Kabir, Action Aid, Bangladesh, argued that many journalists and policymakers do not have a clear understanding of climate change and community impacts. She identified the need for communication among grassroots, national and international levels, and for language that is transparent and accessible.



Panel Discussion on Communication to Communities, across Sectors and Scales. L-R: Barry Smit, University of Guelph, Canada; Farah Koubir, actionaid; Youba Sokona, OSS; Jonathan Lash, WRI; and Indi McLymont-Lafayette, PANAS Caribbean.

Barry Smit, University of Guelph, Canada, precipitated laughter when he gave a musical rendition of adaptation, capacity building and poverty, entitled “Let Us See,” to the tune of the Beatles’ “Let It Be.”

Discussion: Sokona’s statement that there is little to communicate elicited discussion on scaling up communication, turning to what will be achieved during the Bali Climate Change Conference. Responding to Sokona, a journalist said there is a significant communication gap, while another highlighted the importance of communicating with the youth. Participants discussed the importance of: knowledge sharing on forecasts and predictions to enable communities to avoid extreme weather events; use of appropriate and relevant communication strategies at the local community level; and continuous media engagement rather than just during extreme events. Discussion also focused on the question of the extent to which schools have incorporated climate change in their curricula and on communicating in ways that are “understandable,” “sexy” and appealing to editors.

A participant narrated lessons learned from addressing HIV/AIDS in Zambia, which empowered the government through learning-by-doing. Another lamented the continued lack of technology transfer due to private sector interests.

Participants also discussed the need to change behavior and to look to other regimes, such as biodiversity and desertification, for appropriate models. In addition, a participant raised the distinction between communicating messages at the international level and having inward conversations with communities.

Panel response: Kirby suggested the need for leadership from the top, pressure from the bottom and an “instructive disaster” to precipitate action. Lash responded that disasters such as Hurricane Katrina and droughts in Australia had failed to serve as “instructive disasters” and said that disasters are only instructive when “they happen to you.” Kabir said the Bangladesh disaster provides a lot of material to enable journalists to connect with climate change, and endorsed raising awareness among the youth because they engage in issue politics, as opposed to party politics. She also suggested that the media mindset can change and called for national level dialogue.

Smit and Kabir referred to schooling projects in the Arctic and Bangladesh, supported by McLymont-Lafayette, who said that in a recent survey, 50% of Jamaicans said they had learned about climate change in school. Success stories were provided by the panelists, including lessons learned from the Sahel drought in the 1970s and the 1991 floods in Bangladesh.

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CLOSING REMARKS

Huq concluded by noting the tendency to equate all development needs with adaptation needs. He argued that awareness levels and a sense of urgency have increased, and that the message that everyone will be affected by climate change, including the rich, their children and grandchildren, has been effective. He ended with the assertion that the Bali meeting does matter and presents a critical window to take action before COP 15 in Copenhagen.

UPCOMING MEETINGS

FOURTH AUSTRIAN JI/CDM WORKSHOP: This workshop will take place in Vienna, Austria, from 24-25 January 2008. Addressing Joint Implementation (JI) and the Clean Development Mechanism (CDM) under the Kyoto Protocol, the workshop will bring together project developers, investors, validators and governmental authorities with the aim of updating participants about recent developments and future perspectives after the UN climate change conference in Bali. The workshop is aimed at companies and institutions interested in exchanging information and lessons learned. For more information, contact: Peter Kogler, Kommunal Kredit; tel: +43-1-31-631; fax: +43-1- 31-631-104; e-mail: p.kogler@kommunkredit.at; internet: <http://www.ji-cdm-austria.at/en/portal/index.php>

LIVING WITH CLIMATE CHANGE: ARE THERE LIMITS TO ADAPTATION?: Organized by the Tyndall Centre for Climate Change Research and the University of Oslo, this conference will take place at the Royal Geographical Society in London, the UK, from 7-8 February 2008. The conference will consider strategies for adapting to climate change, in particular to explore the potential barriers to adaptation that may limit the ability of societies to adapt to climate change and to identify opportunities for overcoming these barriers. For more information, contact: Vanessa McGregor, Tyndall Centre for Climate Change Research; tel: +44-1603-593900; fax: +44-1603- 593901; e-mail: adaptation2008@uea.ac.uk; internet: <http://www.tyndall.ac.uk/research/programme3/adaptation2008/index.html>

DELHI SUSTAINABLE DEVELOPMENT SUMMIT 2008: SUSTAINABLE DEVELOPMENT AND CLIMATE CHANGE: This Summit, organized by The Energy and Resources Institute (TERI), will take place in New Delhi, India, from 7-9 February 2008, and will offer a platform for leading figures from North and South to address the vital issues of climate change and sustainable development, and to set the stage for an intensified search for global solutions during the year. For more information, contact: Summit Secretariat, TERI; tel: +91-11-2468-2100; fax: +91-11-2468-2144; e-mail: dsds@teri.res.in; internet: <http://www.teriin.org/dsds/2008>

WASHINGTON INTERNATIONAL RENEWABLE ENERGY CONFERENCE 2008: This conference will be held in Washington, D.C., US, from 4-6 March 2008. The event will aim to advance goals on energy security, climate change, air quality, and sustainable development, including agriculture and rural development. It will also seek to demonstrate global leadership in renewable energy research, policy development, technology innovation, and commercialization and development, and to foster industry and government collaboration. For more information, contact: American Council on Renewable Energy; tel: +1-202-393-0001; fax: +1-202-393-06061; internet: <http://www.wirec2008.org>

FOOD SECURITY AND ENVIRONMENTAL CHANGE: LINKING SCIENCE, DEVELOPMENT AND POLICY FOR ADAPTATION:

This meeting, organized by Global Environmental Change and Food Systems, will be held at the University of Oxford, UK, from 2-4 April 2008. For more information, contact: Food Security Conference Secretariat, tel: +44-1865-843095; fax: +44-1865-843958; email: foodsecurity@elsevier.com; internet: <http://www.foodsecurity.elsevier.com>

28TH SESSION OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE: This meeting is tentatively scheduled to be held in Budapest, Hungary, from 9-10 April 2008. For more information, contact: IPCC Secretariat; tel: +41-22-730-8208; fax: +41-22-7 30-8025/13; e-mail: IPCC-Sec@wmo.int; internet: <http://www.ipcc.ch>

RESILIENCE 2008: RESILIENCE, ADAPTATION AND TRANSFORMATION IN TURBULENT TIMES:

The International Science and Policy Conference organize this meeting to be held in Stockholm, Sweden, from 14-17 April 2008. For more information contact: The International Science and Policy Conference; e-mail: chris@beijer.kva.se; internet: <http://resilience2008.org>

INTERNATIONAL GEF WORKSHOP ON EVALUATING CLIMATE CHANGE AND DEVELOPMENT: RESULTS, METHODS AND CAPACITIES:

The GEF Evaluation Office is organizing this workshop in Alexandria, Egypt, from 10-13 May 2008. The event will permit sharing of experiences in evaluating projects and programmes aimed at the nexus between climate change and development. Special attention will be paid to the results reported and whether there is convergence in findings throughout agencies. The workshop aims to realize the potential of evaluations to contribute to climate change mitigation and adaptation. For more information contact: The GEF; tel: +1 202 458 8537; e-mail: IntWorkshop@TheGEF.org; internet: <http://www.esdevaluation.org>

28TH SESSIONS OF THE UNFCCC SUBSIDIARY

BODIES: The 28th sessions of the Subsidiary Bodies of the UN Framework Convention on Climate Change (UNFCCC) – the Subsidiary Body for Implementation (SBI) and the Subsidiary Body for Scientific and Technological Advice (SBSTA) – are scheduled to take place from 2-13 June 2008, 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/meetings/unfccc_calendar/items/2655.php?year=2008

GLOSSARY

CDM	Clean Development Mechanism
COP	Conference of the Parties
COP/MOP	Conference of the Parties serving as the meeting of the Parties
GECAFS	Global Environmental Change and Food Systems
GEF	Global Environment Facility
GHG	Green house gases
GM	Genetically modified
LDCs	Least Developed Countries
NAPA	National Adaptation Programme of Action
ODA	Official development assistance
UNFCCC	United Nations Framework Convention on Climate Change