### **PROCEEDINGS REPORT**



**ASIA-PACIFIC CLIMATE CHANGE ADAPTATION FORUM 2010:** Mainstreaming Adaptation into Development Planning

October 21 to 22, 2010, Bangkok, Thailand

#### Acknowledgements

The is an outcome of the Asia Pacific Climate Change Adaptation Forum 2010, held on October 21 and 22, 2010, at the United Nations Conference Centre, Bangkok, Thailand.

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**ACCCRN** ASIAN CITIES CLIMATE CHANGE RESILIENCE NETWORK **ADPC** ASIAN DISASTER PREPAREDNESS CENTER AIT-UNEP RRC.AP ASIAN INSTITUTE OF TECHNOLOGY-UNITED NATIONS ENVIRONMENT PROGRAMME REGIONAL RESOURCE CENTRE FOR ASIA AND THE PACIFIC APAN ASIA PACIFIC ADAPTATION NETWORK **ASEAN** ASSOCIATION OF SOUTHEAST ASIAN NATIONS AUEDM ASIAN UNIVERSITY NETWORK OF ENVIRONMENT AND DISASTER MANAGEMENT **BELA** BANGLADESH ENVIRONMENT LAWYERS ASSOCIATION CAIFA CLIMATE AGRICULTURE IMPACTS FORECAST ADAPTATION **CBA** COMMUNITY-BASED ADAPTATION **CCAI** MEKONG CLIMATE CHANGE AND ADAPTATION INITIATIVE **CDKN** CLIMATE & DEVELOPMENT KNOWLEDGE NETWORK CIRCA CENTRE FOR INITIATIVES AND RESEARCH ON CLIMATE ADAPTATION **COP** CONFERENCE OF PARTIES **CZM** COASTAL ZONE MANAGEMENT **GAN** GLOBAL ADAPTATION NETWORK **GHG** GREENHOUSE GAS IAAS INTERNATIONAL ASSOCIATION OF STUDENT IN AGRICULTURAL AND RELATED **SCIENCES** IAHS INTERNATIONAL ASSOCIATION OF HYDROLOGICAL SCIENCES ICWQ INTERNATIONAL COMMISSION ON WATER QUALITY **IGES** INSTITUTE FOR GLOBAL ENVIRONMENTAL STRATEGIES **IISD** INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT LMB LOWER MEKONG BASIN MDG MILLENNIUM DEVELOPMENT GOALS MRC MEKONG RIVER COMMISSION NCCARF NATIONAL CLIMATE CHANGE ADAPTATION RESEARCH FACILITY NCDM NEPAL CENTER FOR DISASTER MANAGEMENT **PICS** PACIFIC ISLAND COUNTRIES **SDCC-AIT** CENTER OF EXCELLENCE IN THE CONTEXT OF CLIMATE CHANGE, ASIAN INSTITUTE OF TECHNOLOGY **SDF** SUSTAINABLE DEVELOPMENT FOUNDATION SENSA SWEDISH ENVIRONMENTAL SECRETARIAT FOR ASIA SIDA SWEDISH INTERNATIONAL DEVELOPMENT COOPERATION AGENCY **SEI** STOCKHOLM ENVIRONMENT INSTITUTE **UNDP** UNITED NATIONS DEVELOPMENT PROGRAMME **UNEP UNITED NATIONS ENVIRONMENT PROGRAMME** UNFCCC UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

**USER** UNIT FOR SOCIAL AND ENVIRONMENTAL RESEARCH OF AIT

WRI WORLD RESOURCES INSTITUTE

Knowledge-sharing, capacity development and financing were emphasised as the key elements for successful climate change adaptation efforts.

One of the biggest climate adaptation events ever witnessed in the region with a record participation of experts, the Asia-Pacific Climate Change Adaptation Forum 2010 was held at the UN headquarters in Bangkok on October 21 and 22 to discuss ways to mainstream adaptation into development planning in Asia and the Pacific.

Organised by the Regional Climate Change Adaptation Knowledge Platform for Asia and the Asia Pacific Adaptation Network (APAN), the Adaptation Forum 2010 attracted more than 550 policymakers, scientists, and representatives of Asian and Pacific countries as well as bilateral and multilateral donors. It took to a new level the debate on the way forward for the Asia-Pacific region to cope up with the large-scale effects of climate change.

The Adaptation Forum 2010 was a held a year after the Prime Minister of Thailand, Mr. Abhisit Vejjajiva, launched the Regional Climate Change Adaptation Knowledge Platform for Asia in Bangkok to help countries in the region adapt to the impacts of climate change through research, capacity building and sharing of information.

The deliberations were opened by Dr. Young-Woo Park, Regional Director and Representative for Asia and the Pacific for UNEP, who reminded the audience that responding to climate change – "the defining issue of our time" – was particularly critical for developing countries and the Asia-Pacific region.

UNEP Executive Director Achim Steiner, speaking via video, emphasised on building resilience, scientific knowhow and effective partnerships for moving forward on both adaptation and mitigation.

The Adaptation Forum 2010 approached the theme 'Integration of Climate Change Adaptation" through three key parallel sessions: Vertical Integration (multi-level governance by applying different approaches, including science, to policy); horizontal integration (cross-sectoral integration, marrying policies to implementation); and financing adaptation (access to adaptation funds; role of both the public & private sector in development and planning).

Knowledge-sharing, capacity development and financing were emphasised as the key elements for successful climate change adaptation efforts. The discussions at the Adaptation Forum 2010 threw up three main learnings. First was the need for practical knowledge. The participants underlined the significance of translating climate science into language and products easily comprehensible to decision makers in the government and civil society. They also emphasised the need for giving practical guidelines on ways to incorporate adaptation into programs, plans and projects. It was felt that downscaled projections of future climate change were required as a basis for vulnerability assessment and adaptation planning. APAN and Adaptation Knowledge Platform are expected to play an important role in gathering and disseminating such knowledge.

Second was the need for collaboration among various stakeholders. It was felt that adaptation to climate change could be effective only if the workers at the grassroots were given adequate support by national governments and international organizations to develop their capacity. It's also important for all regions to join hands for better preparedness.

Thirdly, everyone was unanimous about the significance of assured and flexible financial support for the adaptation efforts.

Focus events were also held discussing, amongst other things, Initiatives on Urban Adaptation, Child-Based Adaptation, Disaster Preparedness, Community-Based Adaptation, Business and Climate Change Adaptation, Climate-Proofing Coastal Ecosystems and a Roundtable on Local Governance.

The Programme Schedule of the Adaptation A Forum 2010 is included in Annex I.

The Adaptation Forum 2010 was organised by the Regional Climate Change Adaptation Knowledge Platform for Asia (Adaptation Knowledge Platform) and the Asia Pacific Adaptation Network (Adaptation Network).

The Adaptation Knowledge Platform has been jointly established by the Asian Institute of Technology-United Nations Environment Programme Regional Resource Centre for Asia and the Pacific (AIT-UNEP RRC.AP), the Stockholm Environment Institute (SEI), the Swedish Environmental Secretariat for Asia (SENSA) and the United Nations Environment Programme (UNEP) with funding from the Swedish International Development Cooperation Agency (SIDA).

The Adaptation Network is facilitated by the UNEP, Institute for Global Environment Strategies (IGES), AIT - UNEP RRC.AP, and Asian Development Bank (ADB) in partnership with other key players in the region.

#### WELCOME REMARKS

#### **Young-Woo Park**

Regional Director and Representative of Asia and the Pacific, United Nations Environment Programme

The Adaptation Forum 2010 was opened by Mr. Young-Woo Park, Regional Director and Representative of Asia and the Pacific for the United Nations Environment Programme (UNEP), who reminded the audience that an urgent response to climate change was particularly critical for developing countries and the Asia-Pacific region. Home to two-third of the world's poor, it was a challenge for the region to adapt to climate change, while pursuing sustainable development.

He hoped to use the outcomes of the Adaptation Forum 2010 to inform the climate change deliberations at important international climate conferences. Dr. Park concluded by telling the participant that the Adaptation Forum 2010 was not an ad hoc event, but the first in a series of annual events that will strengthen collaboration at the regional level and enhance the transfer of knowledge to countries in Asia and the Pacific.



Mr. Steiner addressed the participants via video and spoke of the urgent need for action to mitigate and adapt to the effects of climate change. He told the participants about the three steps they could take to face these challenges: by building resilience to vulnerabilities; by building science to understand future climate scenarios and ways to respond to them; and by building partnerships to evolve and mobilise various sectors.

Mr. Steiner emphasised that developing countries should integrate their efforts to achieve low carbon economies with climate change adaptation. "Adaptation is not the poor cousin of climate change mitigation," said the Executive Director. "We have to build the strength to deal with change."



In his opening remarks, Mr. Mori stated that one of the key features of the Adaptation Forum 2010, was its multi-stakeholder approach which was illustrated by the impressive array of organisations participating in the event. He continued by saying that some of the key problems posed by climate change must be understood and predicted at the local level, where real action is taken. However, these issues are also transnational in nature and cannot be addressed by a single country alone.

He hoped that the Adaptation Forum 2010 would set a sterling example that other regions would feel compelled to emulate.



Adaptation is not the poor cousin of climate change mitigation.

**Achim Steiner** 



#### MINISTERIAL SEGMENT



**H.E. Mr. Staffan Tillander**Climate Change Ambassador, Government of Sweden **Global Scenario of Climate Change Adaptation** 

Mr. Tillander welcomed the participants and said the Government of Sweden was pleased to support the Adaptation Forum 2010 as well as the Regional Climate Change Adaptation Knowledge Platform for Asia.

Mr. Tillander stated that there was good news and bad news about global efforts to address climate change. The bad news was that not enough progress had been made on developing a global, legally binding instrument to mitigate the effects of climate change. He lamented that international negotiations had not achieved the required

outcome, and warned that faltering mitigation efforts would make adaptation and sustainable development an even greater challenge.

Mr. Tillander observed that while things may not have moved much at the global level, efforts on the ground were picking up pace. Since climate change required action at multiple levels, one should not be overly disappointed by bad news on one front.

Climate change, he noted, had added another layer of risk to the daily lives of millions of people besides creating uncertainty in efforts to achieve sustainable development.

Dwelling on the need for systematic collection and dissemination of information about climate change, he rued that even though so much was known about the subject, it was not accessible to the relevant stakeholders. Decision makers often did not have the tools, staff and capacity to interpret the data, set priorities, and draw up adaptation strategies. There was a need to address these gaps in information, institutional setups, knowledge and capacity, he asserted. The Regional Climate Change Adaptation Knowledge Platform for Asia is working with many of the national partners present at the Adaptation Forum 2010 to identify and close these gaps by assessing the main areas of interest, and by conducting impact and vulnerability studies through a cross-sectoral approach.

All adaptation programmes should be integrated into national development policies, so that climate action can be part of the efforts to ensure sustainable and environmentally sound development. But this would require cooperation among all actors.

Mr. Tillander concluded by congratulating all partners involved in the Forum.



**H.E. Faumunia Tiatia Liuga**the Minister of Natural Resources and Environment for Samoa

### Regional Need for Climate Change Adaptation: The Pacific Perspective

Mr. Liuga presented an overview of climate adaptation efforts in the Pacific, in which he detailed specific actions being taken by countries to adapt to climate change.

One such initiative is being implemented by the Secretariat of the Pacific Regional Environment Programme (SPREP). The effort, called the Pacific Adaptation to

Climate Change (PACC) Project, aims to reduce vulnerability to sea level rise in three arenas: coastal areas, food production and food security, and water resources management.

Mr. Liuga disclosed that PACC had already begun helping Pacific Small Island Developing States (SIDS) to mainstream climate adaptation by creating a guide for incorporating climate change into development planning, policy development, national decision making, and budgetary planning processes at all levels.

In Samoa, PACC is protecting coastal communities from soil erosion caused by sea level rise. Samoa is also implementing its fourth National Adaptation Program of Action, which seeks to integrate adaptation into key sectors of the economy.

Mr. Liuga then reiterated the need for mainstreaming adaptation into national development plans and in technical capacity development. He concluded by calling for action. At once.



# H.E. Virachai Virameteekul Minister of Science and Technology, Thailand Regional Need of Climate Change Adaptation: The Asia Perspective

Mr. Virameteekul declared that the Government of Thailand was very pleased to join the Adaptation Forum 2010 in partnership with the United Nations Environment Programme (UNEP) and other partners, such as the Swedish Environment Secretariat for Asia (SENSA), the Stockholm Environment Institute (SEI), and the Governments of Japan and Sweden.

He noted that climate change was a very serious challenge for development, and that while funding for climate risk management was expanding, it did not come close to what was needed to fully address the rising risk. It is necessary to be smarter and more efficient in handling such issues, he said.

The Adaptation Forum 2010 shows that we have already got an early start, and we are ready to go far, together, so that no one has to bear the costs of climate change alone

H.E. Virachai Virameteekul

Applauding the timing of the Forum, Mr. Virameteekul noted that it was being held at a time when the international community was embarking on a pre-Cancun meeting to secure a new global framework to help developing countries adapt to the effects of climate change.

Regarding the importance of adaptation, Mr. Virameteekul stated that building resilience to the increasingly variable climate was the most significant climate challenge facing many developing countries. He said it was his firm belief that adaptation was necessary, and it could also meet the development objectives of the countries in the region.

Elaborating on the adaptation efforts in Asia and the Pacific, Mr. Virameteekul underlined the importance of identifying gaps in knowledge about this subject besides developing tools and scientific capacity for good adaptation practices. Equally important was knowledge and lesson sharing at the sub-regional and regional level.

On transboundary issues, Mr. Virameteekul said it was important to move away from autonomous to planned adaptation either by respective governments or through regionally-led investments. He hoped that the international community would provide the knowhow, infrastructure, and markets to make this happen in the most effective way.

Thailand, he assured participants, was taking adaptation to heart.

Mr. Virameteekul ended with a Chinese proverb which goes: if you want to go quickly, go alone, if you want to go far, go together.

"The Adaptation Forum 2010 shows that we have already got an early start, and we are ready to go far, together, so that no one has to bear the costs of climate change alone," he concluded with a flourish.

#### **KEYNOTE ADDRESS**



#### **Dr. Ursula Schaefer-Preuss**

Vice President, Knowledge Management and Sustainable Development, Asian Development Bank (ADB)

### **Knowledge, Capacity Development and Finance: Three Pillars for Successful Adaptation**

Dr. Schaefer-Preuss said the Adaptation Forum 2010 was a tremendous opportunity to share knowledge and experiences on how to adapt to climate change, one of the greatest challenges facing the world.

Successful adaptation, she said, will rest on three pillars: knowledge, capacity development and finance. The importance of these three pillars was apparent in the themes of the forum.

Starting with the first pillar, knowledge gaps and public good, Dr. Schaefer-Preuss said it was no longer possible to make decisions based on past climate behavior. She continued by saying that this lack of scientifically credible projections of future climate trends, especially at the local level, represented a major gap in our knowledge, and limited our capacity to design effective adaptation responses. However, the scientific community has been able to develop approaches that can provide projections based on down-scaling of global models. But these models remain beyond the reach of many developing countries due to lack of funds and human capacity.

She further pointed out that by looking at climate projections as public goods, many of these obstacles can be overcome. When these projections are properly developed, they can find a wide range of applications and they can be applied to new projects without incurring new costs. She emphasised that ADB, along with its partners, was ready to play an important role in facilitating the creation of such regional public goods that supported effective adaptation to climate change.

Coming to the next pillar, capacity development, Dr. Schaefer-Preuss, stated that capacity development for adaptation was a cross-cutting area of support. It was central to effective implementation of adaptation measures and to appropriate policy development. Both of these required high-level cross-sectoral coordination with adequate levels of ownership by all departments and line agencies involved. Better integration of disaster risk reduction and adaptation programs would be another area of focus. It was also increasingly essential to develop capacity for mainstreaming adaptation into development planning.

Addressing the need to engage the private sector, she stated that, policy makers must establish a policy environment that would enable private sector participation in adaptation activities. New and innovative financing and risk sharing approaches and associated institutional arrangements are also needed to promote the integration of adaptation and disaster risk reduction through insurance and other disaster risk finance instruments.

Dr Schaefer-Preuss also underscored the need for local-level empowerment to address climate adaptation effectively. Adaptation strategies should therefore build upon the existing livelihoods, and take into account the existing knowledge and coping strategies of the poor. Formalization of participatory approaches for adaptation should be an important part of this effort.

Coming to the last pillar of finance, she noted that resources will need to be dedicated to improving the resilience of vulnerable sectors and critical infrastructure, and that this will be extremely expensive for developing countries, with some estimates putting this number at around US \$40 billion annually for the region.

Dr. Schaefer-Preuss added that financing for climate change adaptation needs to be adequate, predictable and sustainable; and it should be provided in a measurable, reportable and verifiable manner. She also pointed out that countries face a bewildering set of financing modalities, and have to contend with high transaction costs and lack of predictability in accessing incremental finance. Financing channels must continue to evolve to reduce transaction costs, while focusing on responsiveness, results and accountability.

In conclusion, she acknowledged the key role that regional knowledge networks like APAN have to play in filling the gaps and promised that ADB will commit to support APAN and help enrich its knowledge base. She said ADB's developing member countries will clearly benefit from the knowledge products to be disseminated through APAN.



#### SUMMARY OF DISCUSSIONS

#### Theme 1 Vertical Integration: Multi-level Governance, Science and Policy

The session deliberated on the need to redefine, "the vulnerable" and the concept of "sustainable development" to integrate uncertainty into development planning. Vulnerability should revolve around "power and resources", the key factors that help people fight uncertainties. Development is also "learning" from adaptation. A lot of work has been done on disaster risk reduction in recent years, for example, and this is being integrated into development.

Climate change adaptation is about science and policy. The one defining the questions on science and policy is often defining the answers as well. It is therefore important to understand the power relationship when we talk about vertical integration.

It is realised that both vertical and horizontal integration have to be integrated into the mainstream discussion for climate change, and one without another is incomplete.

Climate change adaptation can be considered as "development done right", but there are also specific aspects of adaptation that distinguish it from traditional development approaches. In particular, adaptation integrates and depends on science and scientific findings to a degree not seen in traditional development.

We also need to emphasise the link between sustainable development and ecosystem services. Adaptation is about making our systems more efficient. For example, the meteorology department's capacity to share information on early warning system has to increase if it is to respond to climate change effectively. Similarly, communities' capacity to respond to this change has to be increased and that should not be done by a welfare approach.

The voices of developing countries, and of the poor within these countries, must be heard and taken into account for adaptation to succeed.

# Theme 2 Horizontal Integration: Cross Sectoral Policy Planning and Implementation

The world is looking at the Asia-Pacific region for a model to mainstream adaptation. But there is fragmentation within this region even though climate change adaptation needs an integrated approach despite the many trans-disciplinary issues. The provocateur's questions dwelt on the sectors that needed to be brought together, Who are the key players within and outside the government at various levels? How can they be made to work together? What are the learning mechanisms? How can capacity building be made more meaningful? And what kinds of finance delivery mechanisms are available?

It was observed that water is the centerpiece in both adaption and mitigation issues. The speaker cautioned

that the use of past data in predicting the future was limited, and questioned the need to plan with high levels of uncertainty, given that it was already a player in the present. The speakers suggested that adaptation should be kept simple and what needed to be done should be done without over-thinking the issue. Climate change adaptation is a long-term adaptive process with the overall goal based on a common understanding.

Speakers suggested that the incentive for government could be to make it "vote catching" while private investors could look at it as a "money catching" strategy. Adaptation cannot wait for "perfect information" or scientific certainty. Policymakers and decision makers operate under uncertainty all the time, and must do so in this case as well. There is still a gap between advocates for climate change adaptation and affected communities, between creators of knowledge and users of knowledge. Both must work together for adaptation to be effective. Further, all sectors have a role to play in adaptation. Incentives must be in place to ensure participation of government, private sector and civil society.



## Theme 3 Financing Adaptation & Aid Effectiveness

The session demonstrated the complexity of multistakeholder involvement in climate finance and the overall climate finance from Copenhagen Accord, followed by a discussion on the outstanding questions on adaptation finance: how much of the USD 30 Billion Fast Start Finance (FSF) is for adaptation? Which contributing country will give how much? Through which funding channels would these be routed? Which developing countries will receive these funds? And how much will be "new and additional" as stated in the Copenhagen Accord?

With relation to the above questions, a panellist elaborated on the current status of climate finance, and informed that a number of A1 countries had made pledges for contribution to FSF. Many developed countries prefer to use bilateral and multilateral channels, while developing countries prefer United Nations Framework Convention on Climate Change

(UNFCCC) channels. A1 countries seem to be double counting Official Development Assistance (ODA) and FSF. All these issues need to be clarified by COP16 at Cancun in December 2010

Enumerating the key recommendations from the Asia Pacific aid effectiveness and climate change finance dialogues held in October 2010, another panelist reiterated that ODA management experiences should inform climate discussion. This would tantamount to 60 years of multi-aid management experience translating into an effective climate finance. Other recommendations were: need for a responsive political leadership, use of existing financing and planning mechanism, policy and budgeting framework, clear national priorities and domestic funding framework, and common approach to external funding at country level. The dialogues also highlighted the need to increase funding by identifying 'new' money for adaptation, besides gauging its predictability.

The session also raised the following issues: of imbalance between adaptation and mitigation financing; reduction of total annual pledges for FSF



during 2010-2012; channeling new and additional financing; processes by which to select countries to be provided pledges; and adequate and predictable private sector engagement for effective financing.

The session reiterated the need for the government to create an enabling environment, especially in the form of incentives, for private sector involvement in the climate sector.

## Theme 4 Role of Science in Adaptive Development

The session reflected on adaptive development and its myriad dimensions. It also dwelt on the ways in which the scientific community could bridge the gap between scientific data collection and information dissemination besides strengthening the societal growth of scientific knowledge.

The role of science within the climate change adaptation community is not always benign. Scientists

are not always working with communities. Sometimes adaptation is used as a justification for very expensive research like climate modeling without proper thought about what is needed by decision makers. At times scientists generate knowledge that is not appropriate for end users. While scientists may be good at figuring out mean climate change, et al., what the end users need to know is the change in extreme climate. There is a disconnect between what scientists deliver and what end users need.

Another panelist called for going beyond a transdisciplinary approach. Adaptation is not as straightforward as mitigation, which can use costbenefit analysis. Adaptation entails cooperation among many people from various streams such as science, economy, et al.

#### Theme 5 Vulnerability-Based Adaptation

It is very difficult to compare vulnerability across countries. Attempts to compare whether the Maldives or Bhutan, to take two examples, are "more vulnerable"



to climate change are not constructive. Vulnerability is a confluence of development choices and individual choices, and the way in which countries are ranked in terms of vulnerability levels for climate financing needs to be carefully studied. The speakers agreed that vulnerability is in part a political issue and participation and fairness must be emphasised in addressing adaptation deficits. That said, relative vulnerability must be taken into account when allocating resources – both among countries and in assessing regions and communities within countries. There is a justice dimension to climate change impacts that must be taken into account when allocating resources.

CARE's work in Irrawaddy delta in Myanmar showed the importance of understanding the underlying causes of vulnerability, which could be related to environmental degradation as well as political dynamics.

In the backdrop of adaptation deficit, addressing the issue of climate change should provide multiple interventions that promote an overall sustainable development objective. There are already existing econometric tools that can inform adaptation planning, which should consider social and economic effects of climate hazards. Methodological baselines are crucial for adaptation responses such as EbA and for other issues related to trans-boundary challenges.

EbA, as a climate change adaptation option, is more than just protection area management and conservation. It should encompass an over-all approach for sustainable development where economic, social and environmental dimensions are addressed.

## Theme 6 Market-Based Mechanisms for Adaptation

The provocateur raised a host of issues regarding market-based mechanism to adaptation. Is climate risk management equivalent to adaptation? Who will pay for it? Will market or private sector pay for adaptation? Is adaptation bankable from a private sector perspective similar to mitigation? What is in it for industry? What is needed to secure market-based mechanism



for adaptation? What risk return characteristics are needed? Insurance is currently the most prominent, but will it displace existing social mechanisms? Will an index for insurance enable access to credit? What are the benefits of market-based mechanisms?

The discussion revolved around issues of land reform, land mapping, limited access to information, lack of integrated agencies and departments, the need for accurate and timely data, and the pros and cons of introducing adaptation credits. Some speakers suggested that market-based mechanisms were not new and thus, may not be enough to address adaptation needs. There is a need for new incentives and mechanisms.

A speaker cited how private sector incentive to invest in the Philippines was due to a recently introduced legislation in 2008 that supported micro-finance. Another said the insurance industry should take a leaf from the Indian banking sector which is using mobiles to access its customers.

The panelist also discussed the concept of risk transfer as a holistic approach along with institution risk mitigation. They felt that the solution to the Asia-Pacific agriculture could lie in index insurance, but there is a need to reduce transaction costs.

#### **CLOSING PLENARY**

The first day wrapped up with the launch of a new web portal for adaptation by Anders Granlund, director of the Swedish Environmental Secretariat for Asia (SENSA), and a synthesis of the day's findings. There was consensus that the Adaptation Forum 20102010 was one of the largest adaptation events ever held in the region, and that by bringing in many new participants, the event marked a watershed in new approaches to climate change adaptation.

#### SYNTHESIS AND REFLECTIONS



Saleemul Huq
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International
Institute for
Environment
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Development
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ICCCAD, Bangladesh

Summarising the first day of the Adaptation Forum 2010, Mr Huq identified six issues 1) vertical integration 2) horizontal integration 3) finance for adaptation 4) communicating science 5) vulnerability 6) markets and incentives for the private sector.

Beginning by addressing vertical integration, Mr. Huq stated that adaptation is sustainable development done well in a climate change context, and in practice we can build on experiences from disaster risk reduction and incorporate ideas into the mainstream. There should be a balance between top down (fundamental science) and bottom up (community ground projects) approaches and the voices of the poor and vulnerable must be integrated.

Coming to horizontal integration, Mr Huq noted that there was a need for better communication as well as advocates and actors to increase coordination around adaptation. He warned that different actors need to agree on their roles and act now. This may require using the available information, even if it isn't perfect. He further commented that the incentives for action are not yet established.

Coming to the third topic of finance, Mr. Huq said that there is a need in development and climate change communities to communicate both good and bad lessons learned from the decades of development work that has already taken place. This would make adaptation finance efforts more effective.

Addressing the particular challenges faced by the need to communicate scientific information to decision makers at all levels, Mr. Huq noted that science has a role to play in reducing uncertainty, but this should not be used as an excuse to procrastinate.

Moving on to vulnerability, Mr. Huq underscored the need to integrate the top-down and bottom-up approaches. A more efficient allocation of resources, he observed, would alleviate poverty and improve livelihoods at a global scale.

Finally, dwelling on the market element, Mr Huq asked, "Will the private sector pay?" Probably not yet, he concluded. While emphasizing the need for new approaches and incentives for the private sector, he declared that the private players must be told that business as usual is not an option any more.

## REGIONAL PARTNERSHIP & COOPERATION IN ASIA

## **Masataka Watanabe**Chairperson, Asia Pacific Adaptation Network, Keio University, Japan

Mr. Watanabe began his presentation by discussing the Global Environmental Network (GAN)

The vision of Asia Pacific Adaptation Network (APAN) is to build climate resilience of vulnerable human systems, ecosystems and economies through the mobilization of knowledge and technologies to support adaptation capacity building, policy-setting, planning and best practices. APAN is the first regional network under the Global Adaptation Network which was launched by the Prime Minister of Thailand at Bangkok in October 2009. APAN is facilitated by UNEP, Institute for Global Environment Strategies (IGES), AIT-UNEP RRC.AP, and ADB in partnership with other key actors in the region. Watanabe actively described the objectives of the APAN, and highlighted its activities in Central and North-Eastern Asia. In the end, Professor Watanabe called upon everybody to "unite to combat climate change".

### CLIMATE CHANGE ADAPTATION IN ASIA AND THE PACIFIC WEB PORTAL LAUNCH



## Anders Granlund Director, Swedish Environmental Secretariat for Asia (SENSA), Thailand

Dr. Granlund launched the Climate Change Adaptation in Asia & the Pacific web portal by giving a presentation on the need for greater knowledge sharing, and how the web portal hoped to address this issue.

Dr. Granlund commented that one of the major challenges facing the adaptation community is identifying examples of 'good adaptation practices' that can be scaled up and learned from. Finding and connecting with others who are working on similar projects or in the same area can be a major challenge undermining the effectiveness

of on-the-ground work and sometimes creating unnecessary duplication.

The web portal, Climate Change Adaptation in Asia and the Pacific, has been designed and developed in a bid to increase access to information, while promoting and improving the exchange of adaptation knowledge, experience and tools in the region.

The knowledge-based web portal will offer services such as climate change adaptation information and knowledge assimilation, generation, management, sharing and exchange.

It will endeavour to provide concise information about projects, information resources, and knowledge products on climate change adaptation in Asia and the Pacific region, to the climate adaptation community at various levels, from practitioners to decision makers, and from donors to the media.

Dr. Granlund stated that climate data, project information, videos, innovative research and descriptions of people and organizations doing adaptation will all be available through the system, which will provide high and low bandwidth options.

The portal is a collaborative effort amongst the Regional Climate Change Adaptation Knowledge Platform, Asia Pacific Adaptation Network, Southeast Asia Network of Climate Change Focal Points, we ADAPT and Adaptation Learning Mechanism. Other organizations partnering in the initiative include AIT-UNEP RRC.AP, SEI, UNEP, ADB, WB, IGES, UNDP and SENSA.



...while development agencies' intentions may be good, "how are we sure that we are not increasing vulnerability through our interventions?

Governor Joey Salceda



#### LINKING CLIMATE CHANGE AND THE MDGS: A HUMAN DEVELOPMENT PERSPECTIVE

Governments in the region "want less studies and more support," said Mr Nicholas Rosellini, UNDP Regional Bureau Director for Asia and the Pacific, listing onthe-ground action, and experience-based learning as examples of support building institutional capacity.

Mr. Rosellini, who was the keynote speaker on the occasion, stated that UNDP has had a large and increasing portfolio in the Asia-Pacific region. Examples of its work include its support to the Bhutanese Government in reducing the risk of Glacier Lake Outburst Floods by supporting it at a policy level with disaster-risk reduction approach and by developing capacity at a national and district levels about early warning systems. The four learnings that Mr. Rosellini shared with the audience were:

- Reduce the reports and number of studies and increase support to practical action, experience based learning and capacity building of country institutions;
- Institutions can be good entry points to mainstream adaptation into policy but beware of the many different barriers such as language, misunderstandings and institutional arrangements;
- Encourage an integrated approach at subnational and at the local level to align policy, to develop capacity and improve understanding, to assist finance arrangement and the flow of international funds to the people while aiming for the participation of all;
- Look at aid and development effectiveness from a country perspective and find out which mechanisms work the best for implementing and funding.



#### Plenary Debate: Why Adaptation Mainstreaming?

panel debate This discussed the practical application of climate adaptation. The panel included Governor Joey Salceda of the Albay Philippines' Province, local government with reputation for innovative thinking on climate issues. Governor pointed Salceda that although Typhoon Megi, which had just hit the Philippines, was the largest storm in the area for four years, good planning

mobilization of civil society and the media had helped to keep the casualties to the minimum. "And 72 percent of the donor response was local," the governor said.

Other speakers emphasised on the primal importance of working with governments – at both the local and national level – if climate change adaptation was to get off the ground. Calling for a more local approach in mainstreaming adaptation, a panel member showed images of a man who had lost his family home thrice in the last seven years due to changes in sea level. Citing the example of the agrimet weather stations situation in communities across India, he cautioned that though there is already action at the ground level with a proliferation of micro-finance, alternative sources of energy, watershed programs, et al, but the key issue is to scale up.

One of the panel members argued that work with the planning and finance department is limited to around 2 per cent. There is a need to explore new tools to better forecast risks from climate change.

Elaborating on mainstreaming, a panel member described its four different contexts: mainstreaming adaptation into development finance; mainstreaming adaptation into government planning and processing at all levels; mainstreaming adaptation across different sectors, and mainstreaming adaptation into projects to make them "climate-proof".

Another panel member pointed out that many local governments in the region may not yet be able to understand or implement adaptation planning and that it was important to take into account local priorities. He also focused on the issue of "maladaptation", noting that while development agencies' intentions may be

good, "how are we sure that we are not increasing vulnerability through our interventions?" He gave as an example the promotion of shrimp farming in South Asia, which had increased salinity and made freshwater scarce in coastal areas.

Other speakers stressed the need for participation, transparency and accountability in the planning process. A speaker also urged caution when mainstreaming climate change adaptation to ensure that it becomes a shared responsibility across sectors, rather than "no one's responsibility".

#### SUMMARY OF DISCUSSIONS

## Theme 7 Adaptation Policies, Legislation and Regulations

The provocateur started the session by asking: "what does adaptation mean? Does it have a legal basis?" The floor was informed that a quick survey of literature brought forth no legal definition Only the IPCC's third report gave some insight into it. This was followed by several other questions: What is the objective of adaptation? Is it to reduce vulnerabilities? Build resilience? Or should it be the survival of the fittest without questions? What should be the guiding principle of adaptation -Equity, generation of trust or polluter pays? In a developing country, should adaptation be a choice or a mandate?

The discussion moved to information gap among environment departments, donors and planners to name a few, the need to access resources both financial and human capital, and the need to understand the process of harmonizing donors. Speakers called for a good policy and legal mix as there was no single bullet for addressing adaptation. Others highlighted the need for indicators to measure the effectiveness of adaptation.

Prioritizing, capacity-building, clear dissemination of information, timeliness, and transparent management of funds despite the reliance on donors and consultants were other issues that were deliberated upon.

The audience also took an active participation in the discussions with a country representative grousing about the presence of too many donors and the need to look at their effectiveness. To this, another member replied that donors shouldn't be dictating a country's projects and priorities. Concerns were also raised about over-dependence on trust funds , a temporary mechanism. Governance in the Pacific countries was yet another issue that came up and was discussed threadbare.

Overall, the discussion questioned the terminology of adaptation and called for better communication.

## Theme 8 Climate Uncertainty: Is this an Impediment to Adaptation

The session dwelt on the element of uncertainty shrouding climate change: Is it climate model uncertainty or climate uncertainty? Do we know what path we are headed onto? How do we know if it is adaptation or maladaptation?

Although many uncertainties may dog climate change, the melting of Himalayan glaciers is a proof that climate change is occurring.

The session observed that uncertainty is not an impediment if we act now. The question is about the time-frame. Should we take steps for short-term or long-term benefits? How do we match a long-term vision (low energy, sustainable and resilient livelihoods) with short-term priorities (resource exploitation and high energy dependence for economic growth)?

But speakers agreed that the uncertainty over long-term climate change impacts on economic activity cannot be an excuse for the private sector not to take action. A mandatory reporting system can enable it to identify areas of risk and make an informed decision for consumers. What is needed is to apply in local contexts the information and knowledge that we currently have in the form of high-resolution climate models, et al.

The spatial and temporal uncertainty is the main challenge to climate change adaptation. However, it should not come in the way of taking action.

## Theme 9 Capacity Needs for Mainstreaming

The session sought to figure out the key elements for mainstreaming adaptation and the need to share successful grassroots experiences. The panel enumerated five challenges in mainstreaming adaptation to climate change. The first was of effective communication, a big challenge in linking or truncating the triangle between science, policy and the community. The question is how to articulate, and how to communicate with these three corners of the triangle and also relate climate change with the daily lives. The second challenge is to make science learn from communities. The scientific community is supposed to guide policy makers who need to respond to the demands from the ground. Can there be a better mechanism to learn from communities and inform policy makers? Can we learn to work with the local leadership? The third challenge is to encourage local planning within a local leadership. The fourth is to upscale, replicate and mainstream the available information and knowledge. The fifth challenge relates to enhancing regional cooperation.

The panel stressed on local actions and capacity building for mainstreaming adaptation in the local government since adaptation to climate change is highly local. The onus of implementing these initiatives effectively lies on the local institutions through which incentives for individuals and other actions are structured. Understanding how the local institutions function in relation to climate and related impacts is a core component in designing interventions that can positively influence the adaptive capacity and adaptation practices of poor populations. Following are some of the pre-requisites for mainstreaming: data; necessary institutional capacities in terms of personnel competencies, mechanisms and tools; political will; a clear-cut policy or game plan; communication plan; monitoring and evaluation plan.



The panel emphasised that climate was a development issue. So it is both climate and development. They cannot be looked as parallel frameworks. Caution is needed on what has to be mainstreamed and for what. Development in most parts of Asia has been top down, but for adaptation we have to make it bottoms up. In terms of capacity, there is a gap that needs to be filled, and this is the absorptive capacity, our ability to adapt, retain and use the information at the government and local level.

#### **FOCUS EVENTS**

The Adaptation Forum 2010 organised several focus events to encourage maximum dialogue, networking and experience-sharing among participants.

The nine focus events were an opportunity for participants to showcase activities beyond the proposed agenda and on a wider range of topics relevant to the Adaptation Forum's themes, goals and objectives.

The first set of focus events included a session on community-based adaptation, presented by CARE International, FAO, and IIED-UK. Another on business and climate change adaptation was presented by the CSR Asia Center, while the World Bank, the Rockefeller Foundation, ADB and JICA presented a third one on adaptation in major Asian cities.

The second set of focus events included a roundtable on local governance (UNDP, UNEP and UNCDF), presentations on knowledge management (UNFCCC,



CDKN, Adaptation Knowledge Platform, ICIMOD, ALM and APAN), and a session on "climate-proofing" coastal ecosystems (Mangroves for the Future and DEWGA – the Disaster and Environment Working Group Asia).

The third group of focus events dwelt on child-based adaptation (Plan International, Save the Children, UNICEF), the Asia-Pacific Adaptation Network (CAREC, ADB and the Mongolian Development Institute), and linkages between disaster risk reduction and climate change adaptation (Asian Disaster Preparedness Center, DEWGA).

It was as part of the focus events that Kyoto University shared its Climate and Disaster Resilience Initiative (CDRI) undertaken by it in major cities of Asia as an Urban Risk Reduction Tool. The CDRI has also developed a 5-Dimension Resilience Study which focuses on physical, social, economic, institutional and natural areas as the basis for assessing the resilience of cities to climate change and disaster risks.

In another event, Food and Agriculture Organization of the United Nations (FAO) presented a toolkit developed by FAO and University of Freiburg. The e-learning tool enables field technicians in agriculture and related sectors to enhance their awareness and capacity for adaptation planning in the fields.

It was in one of the focus events that the private sector also got a voice in the person of Richard Welford, president of CSR Asia, who stressed the need to harness the innovative capacity of the private sector, also the topic of a research project funded by SIDA and conducted by CSR Asia. He said like CSR, we have to make climate change adaptation strategic for private sector, and add value to it by linking it to brands, reputation, and trust in private sector.

In another event focusing on "City Adaptation to Climate Change" ADB, JICA and World Bank described how they had conducted several city-level studies to assess climate-related impacts on these cities by 2050, and then accordingly finalise adaptation tactics. The cities under the lens included Manila (researched by JICA), Ho Chi Minh City (ADB), Kolkata (WB) and Bangkok (WB). The studies found an increase in precipitation by 2%-10% across these cities, and a significant rise in flood waters. Bangkok, the study concluded, would see a 30% increase in the annual inundated area by 2050, while in Manila, the area flooded will increase by 42%.

The Roundtable on Local Governance and Climate Change underlined the need for national climate change strategies to be reflected in local government (LG) policies. In most countries, they are still two separate processes. Speakers said LG's role in climate change adaptation can be enhanced by 1) improving LG understanding of climate change impacts and strategies; 2) improving financing arrangements for climate change through LGs; 3) integrating adaptation into LG planning and delivery of goods and services.

Another focus event on knowledge management spotlighted the knowledge products available in 2010, and the various ways in which they were being used to enhance experience-sharing among people working in the arena of adaptation. The speakers also elaborated on the national initiatives and partnerships being undertaken in this field.

The role of mangrove plantation in adaptation also received its due with Mangroves for Future (MFF) deliberating on whether the countries were planting the right mangroves for future. MFF works with eight countries, including India, Indonesia, Maldives, Pakistan, Seychelles, Sri Lanka, Thailand and Viet Nam, to promote an integrated ocean-wide approach to coastal zone management. It aims to be policy-relevant, people-centred, partnership-based and investment-oriented.

## ADAPTATION FORUM 2010 SYNTHESIS



Louis Lebel
Unit for
Social and
Environmental
Research
(USER), Chiang
Mai University,
Thailand

Mr. Lebel began his synthesis by asking, "what is adaptation?" He answered this by saying that it is usually defined as an adjustment in ecological or social systems in response to observed or expected changes in climate and their impacts. Although reducing adverse impacts is emphasised it can also be about taking advantage of opportunities. Adaptation can be about building adaptive capacity or transforming that capacity into specific actions.

He further commented that this can be achieved best when we are specific about how we talk about adaptation. He indicated that it is important to determine what or who is adapting, what are they adapting to, and for what purpose.

He went on to define mainstreaming, which he called commonsense, because climate change is just one among many risks which need to be addressed. Therefore, it is often easiest to start with current policies and practices, he said. This should help save money by making more efficient use of scarce resources than alternatives which create new institutions and processes.

While the notion of mainstreaming adaptation development is common sense, it is not a panacea. Issues and institutional contexts matter a lot for implementation. We still have not done enough to link knowledge and action on adaptation. Adaptation is not just a technical problem, it is also a social and political process. How it is governed is crucial to its fairness and effectiveness.

Coming to knowledge, he called for a better way of thinking about the relationships between knowledge and action, between science and policy, between research and practice. More often than not, the knowledge needed for adaptation is co-produced, negotiated and tangled up. Knowledge systems for sustainable development and thus adaptation are not computer networks or masterpieces of plumbing. The connections and relationships between knowledge and action are much more varied and include places where people meet, share ideas, work together and learning occurs, and where power is exercised.

The journey from exploring to making decisions and taking action often must draw on many different kinds of knowledge, including that involved in day-to-day operations. Boundaries between science, or research, and non-science, are made, not given. Authority of research-based knowledge is not inherent, but must be granted, often by non-researchers.

There is growing evidence from studies of science policy and boundary organizations or spanning institutions that the relationships between different 'domains of practice' like science and policy or research and practice can be actively managed. Efforts to link knowledge and action for adaptation should heed these insights from science policy studies and innovation in business.

A key and exciting message from this meeting was that 'co-production of knowledge' is going to become more important. Practitioners and researchers are working more closely under new models of relationships. Individuals are crossing the lines or wearing two hats. This trend is key to heeding Young Woo Park's call for us to "act and make a difference together'.

Reducing adverse impacts...can also be about taking advantage of opportunities. Adaptation can be about building adaptive capacity or transforming that capacity into specific actions.

**Louis Lebel** 

#### **VOTE OF THANKS**

### Mainstreaming Adaptation: The Way Forward

#### **Anders Granlund**

## Director, Swedish Environmental Secretariat for Asia (SENSA), Thailand

Dr. Granlund commented that it had been an interesting journey up to this point, and that diversity was the strength of this group. Requesting the participants to provide inputs for the format of Adaptation Forum 2011. Dr. Granlund then invited three representatives of the youth to speak on their impressions of the forum.

Expressing their gratitude for the opportunity to attend such an informed and eclectic gathering of people working on mainstreaming climate change adaptation, the three youths said they were going home with tremendous knowledge with which they hoped to inspire their peers to join the Adaptation Forum 2011. Their take home message for everybody was simple: "act now or never" and "go big or go home!"

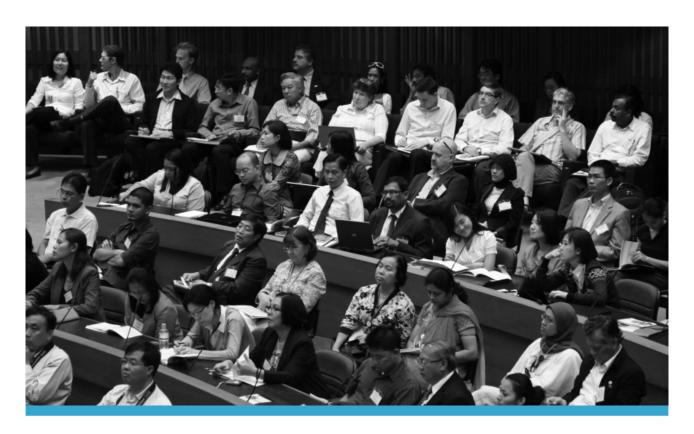
Dr. Granlund concluded by reiterating the close links of climate change adaptation with sustainable development. He asked for more focus on the Pacific and small island states in the future, and urged the participants to look outside the box to other sectors that work with NGOs and governments, such as the

defense. Defense systems work in an insecure and unpredictable world and potentially some of the same practices, techniques or tactics could be utilised for adaptation like the peace-keeping forces, he declared.

The forum, which comprised four plenary sessions, nine parallel sessions, nine focus events and two social events, was attended by 549 participants, including 111 resource persons, five representatives from Central Asia, 50 from South Asia, 251 from South East Asia, 45 from North East Asia and 16 from the Pacific,

Speaking on behalf of the Adaptation Forum 2010 secretariat, Mr. Mahesh Pradhan, Director (a.i) AIT-UNEP, acknowledged the contribution of all the partners, including Sida, APAN, Adaptation Knowledge Platform, UNEP, SEI, ADB, MOEJ, UNDP and IGES, in making the meet a resounding success. He extended special word of thanks to the Adaptation Forum 2010 Secretariat for their whole-hearted efforts.

The Adaptation Forum 2010 closed with a musical surprise from renowned Swedish composer and singer Meja Beckman, who struck the concluding note, literally, when she sang "it is not all about the money" in a special recording from Stockholm.





	Title	<b>Speakers &amp; Affiliation</b>	Venue
09.00 - 09.20	Opening Plenary		
	Welcome Address	Young-Woo Park, Regional Director and Representative for Asia and the Pacific, United Nations Environment Programme (UNEP)	Conference Room 1, Second Floor, UNCC
	Video Message	Achim Steiner, UNEP Executive Director	
	Welcome	Hideyuki Mori, President of Institute for Global Environmental Strategies (IGES) representing Government of Japan	
09.20 - 09.50	Ministerial Statements		
	Regional need of Climate Change Adaptation: Asia Perspective	H.E. Virachai Virameteekul, Minister of Science and Technology, Thailand	
	Global scenario of Climate Change Adaptation	H.E. Mr. Staffan Tillander, Climate Change Ambassador, Government of Sweden	
	Regional need of Climate Change Adaptation: Asia Perspective	H.E. Mr. Faumuina Tiatia Liuga, Minister of Natural Resources & Environment, Samoa	
09.50 - 10.10	Keynote Address		
	Knowledge, Capacity development and Finance, three pillars for successful adaptation	Ursula Schaefer-Preuss, Vice President, Knowledge Management and Sustainable Development, Asian Development Bank (ADB)	

Master of Ceremony: Mozaharul Alam, Regional Climate Change Coordinator, Regional Office for Asia and the Pacific, United Nations Environment Programme

#### Group Picture With VIPs

10.20 - 11.00 Tea Break Outside area of the Conference Room 1, Second Floor, UNCC

#### THEME 1: Vertical integration Multi-level Governance, Science and Policy

Challenges and opportunities of hierarchical governance and planning to integrate adaptation into development planning

- The role of global, regional, national, sub-national and local level governance in planning and its top-down linkages.
- Advantages and limitations

Role	Speakers & Affiliation	Venue
MODERATOR	A. Atiq Rahman, Bangladesh Center for Advanced Studies (BCAS)	Room H, First Floor
Provocateur	Peter King, Institute for Global Environment Strategies (IGES), Thailand	
Panel Member	Harjeet Singh, ActionAid International, India	
Panel Member	Hiroyuki Kusaka, Tsukuba University, Japan	
Panel Member	Batugedara V R Punyawardena, Natural Resources Management Centre, Sri Lanka	
Panel Member	Nilufa Islam, Water Resource Planning Organisation (WARPO), Ministry of Water Resources, Bangladesh	
Open Floor		

#### THEME 2: Horizontal Integration - Cross Sectoral Policy Planning and Implementation

Challenges and opportunities of sectoral policy, plan and implementation for cross-sectoral integration of adaptation from policy to implementation

- The role of natural resource base, ecosystems and livelihood as potential entry points for cross-sectoral planning and integration
- Scope, possibilities and challenge

MODERATOR	John Soussan, Stockholm Environment Institute, (SEI) Asia Center, Thailand	Conference Room
Provocateur	George Varughese, Development Alternatives (DA), India	4, First Floor
Panel Member	Andrew Noble, IWMI Southeast and Central Asia, Lao PDR	
Panel Member	Le Hoang Anh, Department of Science Technology and Environtment- MARD, Vietnam	
Panel Member	Yutaka Matsuzawa, Ministry of Environment, Japan	
Panel Member	Richard Friend, United Nations Development Programme (UNDP), Cambodia	
Panel Member	Pradeep Kurukulasuriya, United Nations Development Programme (UNDP)	
Open Floor		

#### THEME 3: Financing Adaptation & Aid Effectiveness

Innovation and enhance access to adaptation finance mechanism

- International and national governance of adaptation financing
- Role of business sector, non-government organization and community

MODERATOR	Gabor Vereczi, United Nations Development Programme (UNDP)	Conference Room
Provocateur	Saleemul Huq, International Institute for Environment and Development (IIED), UK and ICCCAD, Bangladesh	1, Second Floor
Panel Member	Bradford Philips, USAID (RDMA/REO), Thailand	
Panel Member	Tamara Levine, Organization for Economic Co-operation and Development (OECD), France	
Panel Member	Leena Wokeck, Corporate Social Responsibility, Asia Center at AIT, Thailand	
Panel Member	Thomas Beloe, UNDP Governance, APRC	
Panel Member	Robert Dobias, Asian Development Bank (ADB)	
Panel Member	Olivier Gilard, Agence Française de Développement (AFD)	
Open Floor		
Lunch	12.30-13.30	

#### THEME 4: Role of Science in Adaptive Development

Define/What is the role of science in developing coherent and supportive policy?

• Advantages and limitations

Role	<b>Speakers &amp; Affiliation</b>	Venue
MODERATOR	Said Irandoust, Asian Institute of Technology (AIT), Thailand	Room H, First Floor
Provocateur	Kazuya Yasuhara, Ibaraki University, Japan	
Panel Member	Nay Htun, Stony Brook University, United States of America	
Panel Member	Jean Palutikof, National Climate Change Adaptation Research Facility (NCCARF), Australia	
Panel Member	Sudip K. Rakshit, Asian Institute of Technology (AIT), Thailand	
Panel Member	Charles Rodgers, Regional and Sustainable Development Department, Asian Development Bank (ADB), Philippines	
O Fl		

#### Open Floor

#### THEME 5: Vulnerability-based Adaptation

How do we interpret vulnerability based adaptation, ecosystem based adaptation and trans-boundary issues?

• Scope, possibilities and challenges

MODERATOR	Nessim J Ahmad, Asian Development Bank, (ADB) Philippines	Conference Room 4, First Floor
Provocateur	Gernot Laganda, United Nations Development Programme (UNDP), Thailand	
Panel Member	Megumi Muto, Japan International Cooperation Agency (JICA)	
Panel Member	Julie Webb, Climate Change Advisor, CARE Australia	
Panel Member	Jan Bojö, Environment, and Rural Unit Sustainable Development Department, East Asia & Pacific Region, World Bank, USA	
Panel Member	Akio Takemoto, Integrated Research System for Sustainability Science, University of Tokyo, Japan	
Panel Member	Naderev M. Saño, Commissioner/ Undersecretary, Philippine Climate Change Commission, Philippines	
Panel Member	Jim Peters, Greater Mekong Subregion (GMS), Asian Development Bank	
Open Floor		

#### THEME 6: Market-based Mechanism to Adaptation

What are the market-based risk transfer mechanisms to sustainable adaptation?

• Insurance, re-insurance, micro-finance for adaptation actions and implementation

MODERATOR	Richard Welford, Corporate Social Responsibility Asia, Singapore	Conference Room
Provocateur	Mirey Atallah, United Nations Development Programme (UNDP)	1, Second Floor
Panel Member	Kolli N. Rao, Agriculture Insurance Company of India Limited	
Panel Member	Thomas Mahl, Munich Re, Singapore	
Panel Member	Rajesh Kalra, RMSI, India	
Panel Member	R. Ramani, Director, Indian Institute of Natural Resins and Gums (IINRG)	
Open Floor		

Master of Ceremony: Roopa Rakshit, UNEP RRC.AP & Serena Fortuna, UNEP ROAP Saleemul Huq, International Institute for Environment and Development (IIED), UK and ICCCAD, Bangladesh

Masataka Watanabe, Keio University, Japan: Regional Partnerships & Cooperation in Asia

Launch of the Asia Pacific Climate Change Adaptation Knowledge Portal: Anders Granlund, SENSA -Sweden's Environmental Secretariat for Asia

17.	.00 - 17.30	Launches and Initiatives	
17.0	00 - 17.15	MFF & UNEP Publication Launch: Climate Proof-A four step guide for coastal projects	
17.1	15 - 17.30	Project Atmospheric Brown Cloud (ABC:  * Introductory remarks from Surendra Shrestha, UNEP Resource Mobilization and Special Initiatives  * Remarks from Teruyuki Nakajima, Chair, ABC - Asia Science Team	
17.	.30 -19.30	Cocktail Reception & Networking	Ground Floor

Mega City Climate Change Adaptation Study Launch

- Welcome speech by Ursula Schaefer-Preuss, Vice President, Knowledge Management and Sustainable Development, Asian Development Bank (ADB)
- Welcome speech by Dr. Mettakun Tungasmita, Representative of the Governor, Bangkok Metropolitan Administration
- Presentation of synthesis report by Poonam Pillai, Senior Environmental Specialist, World Bank
- Q & A
- Cultural Programme



09.00 - 18.00	Buses leave Millennium Hilton at 07:45 for UNCC	
09.00 - 10.30	Opening Plenary	
	Master of Ceremony: Stuart Ward, SENSA	Conference Room 1, Second Floor
	Linking Climate Change and the MDGs: A Human Development Perspective Nicholas Rosellini, UNDP Regional Bureau Director for Asia and the Pacific	
09:15-10:30	Plenary Debate: Why Adaptation Mainstreaming?	
Role	Speakers & Affiliation	Venue
MODERATOR	Stuart Ward, SENSA – Sweden's Environmental Secretariat for Asia, Thailand	Conference Room
Provocateur	Governor Joey Salceda, Albay Province, Philippines	1, Second Floor
Panel Member	Joydeep Gupta, Internews, India	
Panel Member	Charles Ehrhart, Climate Change Coordinator for CARE International's Centre of Expertise on Poverty, Environment and Climate Change	
Panel Member	Darren Swanson, International Institute for Sustainable Development (IISD), Canada	
Panel Member	Ancha Srinivasan, Asian Development Bank (ADB), Philippines	
Panel Member	Royol Chitradon, Director, Hydro and Agro Informatics Institute (HAII), Thailand	
Open Floor		
10:30 - 11:00	Tea Break Outside the Conference	Room 1, Second Floor
09.00 - 18.00	Buses leave Millennium Hilton at 07:45 for UNCC	
0 7.00 10.00		
09.00 - 10.30	Opening Plenary	
		Conference Room 1, Second Floor
	Opening Plenary	
	Opening Plenary  Master of Ceremony: Stuart Ward, SENSA  Linking Climate Change and the MDGs: A Human Development Perspective	
09.00 - 10.30	Opening Plenary  Master of Ceremony: Stuart Ward, SENSA  Linking Climate Change and the MDGs: A Human Development Perspective Nicholas Rosellini, UNDP Regional Bureau Director for Asia and the Pacific	
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09.00 - 10.30 09:15-10:30 <b>Role</b>	Opening Plenary  Master of Ceremony: Stuart Ward, SENSA  Linking Climate Change and the MDGs: A Human Development Perspective Nicholas Rosellini, UNDP Regional Bureau Director for Asia and the Pacific  Plenary Debate: Why Adaptation Mainstreaming??  Speakers & Affiliation	1, Second Floor  Venue
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#### THEME 7: Adaptation Policies, Legislation and Regulations

What are the polices, legislation and regulations to facilitate climate change adaptation?

• Examine current status and need for the region in terms of existing supportive set of policies, regulations, incentives and their enforcement in adoption.

• Key requirements and gaps.

MODERATOR H.E. Dasho Paljor J Dorji, The National Environment Commission (NEC),

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Conference Room 4, First Floor

Bhutan

Provocateur Syeda Rizwana Hasan, BELA, Bangladesh

Panel Member Purushottam Ghimire, Ministry of Environment and National Project Director,

NAPA Project, Nepal

Panel Member Daisuke Sano, Institute of Global Environment Strategies (IGES), Japan

Panel Member Liana Bratasida, National Council on Climate Change, Indonesia

Open Floor

#### THEME 8: Climate Uncertainty - Is this an Impediment to Adaptation?

What does current variability and vulnerability to climate change adaptation mean?

 Harmonization of long-term vision of climate change with short-term priorities for vulnerability to current climate variability.

Key in embarking the mainstreaming process.

Role	Speakers & Affiliation	Venue
MODERATOR	Jean Palutikof, National Climate Change Adaptation Research Facility (NCCARF), Australia	Room H, First Floor
Provocateur	Gavin Kenny, Director, Earthwise Consulting Ltd., New Zealand	
Panel Member	Meen B. Poudyal Chhetri, Nepal Center for Disaster Management	
Panel Member	Ranjana Piyadasa, University of Colombo, Sri Lanka	
Panel Member	Xianfu Lu, UNFCCC Secretariat	
Panel Member	Shihiru Date, Asian Development Bank (ADB), Philippines	
Open Floor		

#### THEME 9: Capacity Needs for Mainstreaming

- Awareness raising and building scientific capacity precursor to adaptation
- Targeted information for policy makers, planners, civil society, research community
- Pilot activities on adaptation involving governments, private sectors and NGOs
- Mainstreaming building in lessons to policy and planning to make part of adaptation business as usual

MODERATOR	Srikantha Herath, United Nations University, (UNU) Japan	Conference Room
Provocateur	Ali Tauqeer Sheikh, Climate & Development Knowledge Network (CDKN), United Kingdom	1, Second Floor
Panel Member	Manuel Rangasa, Executive Director, Centre for Initiatives and Research on Climate Adaptation, Provincial Government of Albay, Provincial Capitol, Legaspi City, Philippines	
Panel Member	Peter Hazlewood, Director, Ecosystems and Development, World Resources Institute (WRI), USA	
Panel Member	Raman Letchumanan, Head of Environment and Disaster Management Unit of ASEAN, Indonesia	
Panel Member	Wilfredo Uy, Institute of Fisheries Research and Development, Mindanao State University-Naawan, Philippines	
Open Floor		
Lunch	12.30-13.30	Ground Floor

13.30 - 14.30	Focus Events 1				
Title	Lead	Venue			
Community-based Adaptation: Tools & Resources	CARE International, FAO, IIED-UK	Conference Room 4, First Floor			
Business, Sustainable Development & Climate Change Adaptation: A dialogue exploring opportunities for partnership	CSR Asia Center	Room H, First Floor			
City Adaptation to Climate Change	World Bank, ADB, JICA, Rockefeller Foundation	Theatre, Ground Floor			
14.30 - 15.30	Focus Events 2				
A Roundtable on Local Governance and Climate Change – Delivering on the Ground	UNDP, UNEP and UNCDF	Room H, First Floor			
Adaptation Knowledge Management	UNFCCC, CDKN, Adaptation Knowledge Platform, ICIMOD, ALM, APAN	Theatre, Ground Floor			
Climate Proofing Coastal Ecosystem-based Investments: learning with MFF	MFF, DEWGA (Disaster and Environment Working Group Asia)	Conference Room 4, First Floor			
15.30 -16.00	Tea Break				
16.00 - 17.00	Focus Events 3				
Child Focused Climate Change Adaptation Experiences in Asian & Pacific Countries	Plan International, Save the Children, UNICEF	Room H, First Floor			
Asia Pacific Adaptation Network	CAREC, Mongolian Development Institute, ADB	Theatre, Ground Floor			
Linkages Between Disaster Risk Reduction & Climate Change Adaptation	ADPC, DEWGA (Disaster and Environment working group Asia)	Conference Room 4, First Floor			
17.00 - 18.00	Closing Plenary				
Adaptation Forum 2010 Synthesis	Louis Lebel, Unit for Social and Environmental Research (USER), Chiang Mai University, Thailand				
Mainstreaming Adaptation: The Way Forward	Anders Granlund, SENSA – Sweden's Environmental Secretariat for Asia	Conference Room 1, Second Floor			
Vote of Thanks	Mahesh Pradhan, AIT-UNEP RRC.AP (Adaptation Knowledge Platform Secretariat)				



#### Honorary Guests, Moderators and Panel Members

- **H.E. Virachai Virameteekul,** Minister of Science and Technology, Thailand
- **H.E. Staffan Tillander**, Climate Change Ambassador, Government of Sweden, Sweden
- **H.E. Faumuina Tiatia Liuga**, Minister of Natural Resources and Environment, Samoa
- **H.E. Dasho Paljor J Dorji**, Deputy Minister, The National Environment Commission (NEC), Bhutan
- **Dr. Mettakun Tungasmita,** Representative of the Governor, Bangkok Metropolitan Administration (BMA), Thailand

#### **Key Speakers**

- **Anders Granlund**, Director, Swedish Environmental Secretariat for Asia (SENSA), Thailand
- **Hideyuki Mori**, President, Institute for Global Environmental Strategies (IGES), Japan
- **Louis Lebel,** Director, Unit for Social and Environmental Research (USER), Chiang Mai University, Thailand
- Mahesh Pradhan, Director, Asian Institute of Technology - United Nations Environment Programme Regional Resource Centre for Asia and the Pacific (AIT-UNEP RRCAP), Thailand
- **Masataka Watanabe**, Chairperson, Asia Pacific Adaptation Network, Keio University, Japan
- **Mozaharul Alam**, Regional Climate Change Coordinator, United Nations Environment Programme (UNEP) - Asia & the Pacific, Thailand
- **Nicholas Rosellini**, Deputy Regional Director, United Nations Development Programme (UNDP) - Asia & the Pacific, Thailand
- **Poonam Pillai**, Senior Environmental Specialist, South Asia Environment sustainable development Department (SASDI), World Bank
- **Saleemul Huq**, Senior Research Fellow, Climate Change Programme, International Institute for Environment and Development (IIED), UK and Director, ICCCAD, Bangladesh
- **Surendra Shrestha**, Director, Strategic Resource Mobilization and Special Initiatives, United Nations Environment Programme (UNEP), Kenya
- **Teruyuki Nakajima**, Director, Center for Climate System Research. The University of Tokyo, Japan
- **Ursula Schaefer-Preuss**, Vice President, Asian Development Bank (ADB), Philippines
- **Young-Woo Park**, Regional Director, United Nations Environment Programme (UNEP)- Asia & the Pacific, Thailand

#### **Moderators**

- **A. Atiq Rahman**, Executive Director, Bangladesh Centre for Advanced Studies (BCAS), Bangladesh
- **Gabor Vereczi**, Regional Technical Adviser for Climate Change Adaptation, United Nations Development Programme (UNDP), Samoa
- **Srikantha Herath**, Senior Academic Programme Officer, United Nations University, Japan

- **Jean Palutikof,** Director, National Climate Change Adaptation Research Facility (NCCARF), Australia
- **John Soussan**, Science Director, Stockholm Environment Institute (SEI) - Asia Centre, Thailand
- **Nessim J Ahmad**, Director of the Environment and Safeguards Division concurrently Practice Leader (Environment), Asian Development Bank (ADB), Philippines
- **Richard Welford**, Chairman, Corporate Social Responsibility Asia, Hong Kong
- **Said Irandoust**, President, Asian Institute of Technology (AIT), Thailand
- **Stuart Ward**, Information and Communication Officer, Swedish Environmental Secretariat for Asia (SENSA), Thailand

#### **Provocateurs**

- Ali Tauqeer Sheikh, Director of Asia Network, Climate & Development Knowledge Network (CDKN), Pakistan
- **Gavin Kenny**, Director, Earthwise Consulting Ltd., New Zealand
- **George Varughese**, President, Development Alternatives (DA), India
- **Gernot Laganda**, Regional Technical Advisor, United Nations Development Programme (UNDP), Thailand
- Joey Salceda, Governor, Albay Province, Philippines
- Kazuya Yasuhara, Professor, Ibaraki University, Japan
- Mirey Atallah, Regional Team Leader and Regional Technical Advisor, Environment Finance Group of United Nations Development Programme (UNDP), Slovakia Republic
- **Nay Htun**, Research Professor, Sustainability Studies Programme, Stony Brook University, USA
- **Peter King**, Senior Policy Advisor, Institute for Global Environment Strategies (IGES), Thailand
- **Syeda Rizwana Hasan**, Chief Executive, Bangladesh Environment Lawyers Association (BELA), Bangladesh

#### Panellist - Parallel Sessions

- **Akio Takemoto**, Project Researcher, Integrated Research System for Sustainability Science (IR3S), University of Tokyo, Japan
- **Ancha Srinivasan**, Senior Climate Change Specialist, Asian Development Bank (ADB), Philippines
- Andrew Noble, Regional Director, International Water Management Institute (IWMI), Southeast and Central Asia, Lao PDR
- **Batugedara Vidanage Ranjith Punyawardena,** Natural Resources Management Centre, Sri Lanka
- **Bradford Philips**, Climate Change Advisor, United States Agency for International Development (USAID), Thailand
- **Charles Ehrhart**, Climate Change Coordinator, CARE International, Thailand
- **Charles Rodgers**, Senior Environment Specialist (Climate Change Adaptation), Asian Development Bank (ADB), Philippines







**Daisuke Sano**, Senior Researcher, Institute of Global Environment Strategies (IGES), Japan

Darren Swanson, Director of Measurement & Assessment, International Institute for Sustainable Development (IISD), Canada

**Harjeet Singh**, Emergencies and Conflict Advisor, Action Aid International, India

**Hiroyuki Kusaka**, Professor, Tsukuba University, Japan

**Jan Bojö**, Sector Leader in Social, Environment, and Rural Unit Sustainable Development Department, World Bank, USA

**Jim Peters**, Greater Mekong Subregion (GMS), Asian Development Bank

**Joydeep Gupta**, Director, the Internews Earth Journalism Network Third Pole Project, India

**Julie Webb**, Climate Change Advisor, CARE International, Australia

**Kolli N. Rao**, Deputy General Manager, Agriculture Insurance Company of India Limited, India

**Le Hoang Anh**, Official, Standing office of Steering Committee of Climate Change, Vietnam

**Leena Wokeck,** Director, Corporate Social Responsibility (CSR) Asia Center at Asian Institute of Technology (AIT), Thailand

**Liana Bratasida**, Assistant Minister, National Council on Climate Change, Ministry of Environment, Indonesia

Manuel Rangasa, Executive Director, Centre for Initiatives and Research on Climate Adaptation (CIRCA), Albay Province, Philippines

**Meen B. Poudyal Chhetri**, General Secretary, Nepal Center for Disaster Management (NCDM), Nepal

**Megumi Muto**, Research Fellow, Japan International Cooperation Agency (JICA), Japan

**Nilufa Islam**, Director, Water Resources Planning Organization (WARPO), Ministry of Water Resources, Bangladesh

**Naderev M. Saño**, Commissioner/ Undersecretary, Climate Change Commission, Philippine

**Olivier Gilard,** Agence Française de Développement (AFD)

**Peter Hazlewood,** Director, Ecosystems and Development World Resources Institute, USA

**Pradeep Kurukulasuriya,** Global Senior Technical Advisor, Adaptation Programming, United Nations Development Programme (UNDP), USA **Purushottam Ghimire**, Joint Secretary and National Project Director, Ministry of Environment, Nepal

**R Ramani,** Director, Indian Institute of Natural Resins and Gums (IINRG), India

**Rajesh Kalra**, Managing Director, Risk Management Software Inc. (RMSI), India

**Raman Letchumanan**, Secretariat, the Association of Southeast Asian Nations (ASEAN), Indonesia

Ranjana Piyadasa, Senior Lecturer, University of Colombo, Sri Lanka

**Richard Friend**, Consultant, National Human Development Report of Cambodia, United Nations Development Programme (UNDP)- Asia & the Pacific, Thailand

Robert Dobias, Senior Advisor for Climate Change Program, Asian Development Bank (ADB), Philippines

**Royol Chitradon**, Director, Hydro and Agro Informatics Institute, Thailand

**Shihiru Date**, Senior Transport Specialist, Asian Development Bank (ADB), Philippines

**Sudip K. Rakshit**, Vice President for Research, Asian Institute of Technology, Thailand and Focal Point-Center of Excellence for Sustainable Development in the context of Climate Change, Thailand

**Tamara Levine**, Policy Analyst, Organization for Economic Co-operation and Development (OECD), France

**Thomas Beloe**, Aid Effectiveness Specialist, United Nations Development Programme (UNDP) - Asia & the Pacific, Thailand

**Thomas Mahl,** Innovative Solutions Manager, Munich Re, Singapore

**Uttam C. Sharma**, Municipal Scientist, Centre For Natural Resources Management, International Commission on Water Quality (IAHS), India

Wilfredo Hojilla Uy, Professor, Institute of Fisheries Research and Development, Mindanao State University, Philippines

**Xianfu Lu,** Secretariat, United Nations Framework Convention on Climate Change (UNFCCC), Germany

**Yutaka Matsuzawa**, Director, Office for Global Environment Research, Ministry of Environment, Japan



#### Panellist - Focus Events

Andrea Egan, Consultant for Knowledge Management and Pacific Liaison, Adaptation Learning Mechanism (ALM), United Nations Development Programme (UNDP)- Asia & the Pacific, Thailand

**Anshuman Saikia,** Deputy Regional Programme, Coordinator, International Union for Conservation of Nature (IUCN), Thailand

**Atiq Kainan Ahmed**, Regional Climate and Disaster Resilience Specialist, Plan International, Thailand

**Baltav Tsogoo**, Director, Mongolian Development Institute, Mongolia

**Batugedara Vidanage Ranjith Punyawardena**, Head, Natural Resources Management Centre, Sri Lanka

**Bruce Ravesloot**, Climate Change Focal Point, CARE International, Thailand

**David Jackson**, Head, United Nations Capital Development Fund (UNCDF) - Asia & the Pacific, Thailand

**Fern Uennatornwaranggoon**, Program Associate, Rockefeller Foundation, Thailand

**Henrik Larsen**, Policy Advisor, Decentralisation and Local Governance, United Nations Development Programme (UNDP) - Asia & and Pacific, Thailand

**Irina Goryunova**, Programme Manager, the Regional Environmental Centre for Central Asia (CAREC), Kazakhstan

**James Roop**, Environment Specialist, Asian Development Bank (ADB), Philippines

**Janaka de Silva**, Programme Manager, Mangrove for the Futures (MFF), Thailand

**Jonathan Shott**, Sustainable Development Forum (SDF), Thailand

**Kai Kim Chiang**, Expert Advisor, Corporate Social Responsibility(CSR) Asia Center at Asian Institute of Technology (AIT), Thailand

**Karma Jamtsho**, Programme Officer, Gross National Happiness Commission (GNHC), Bhutan

**Kotaro Kawamata**, Environment Specialist, Asian Development Bank (ADB), Philippines

**Kenya Konno**, Programme Officer, Food and Agriculture Organization of the United Nations (FAO), Thailand Mariya Genina, Information and Capacity Building Manager, the Regional Environmental Centre for Central Asia (CAREC), Kazakhstan

Nikolai Beresnev, Environmental Economics Associate, United Nations Development Programme (UNDP) - Asia & the Pacific, Thailand

Oliver Abrenilla, UNEP Seconded Consultant, Climate change adaptation and disaster risk reduction (CCA/DRR), Mangrove for the Futures (MFF), Thailand

**Pakamas Thinphanga**, Senior Researcher, Thailand Environment Institute (TEI), Thailand

**Rajib Shaw**, Associate Professor, Graduate School of Global Environmental Studies, Kyoto University, Japan

Roopa Rakshit, Knowledge Management Officer, Climate Change Knowledge Adaptation Platform (CCKAP), Asia Center at Asian Institute of Technology - United Nations Environment Programme Regional Resource Centre for Asia and the Pacific (AIT-UNEP RRCAP), Thailand

**Sabita Thapa**, Research Fellow & Manager, Stockholm Environment Institute (SEI), Thailand

**Serena Fortuna**, Climate Change Adaptation and Disaster Risk Reduction, United Nations Environment Programme (UNEP ROAP), Thailand

Satya Priya, Senior Technical Coordinator, Climate Change Knowledge Adaptation Platform (CCKAP), Asia Center at Asian Institute of Technology - United Nations Environment Programme Regional Resource Centre for Asia and the Pacific (AIT-UNEP RRCAP), Thailand

Sumit Pokhrel, Energy and Climate Change Coordinator. Greater Mekong Subregion (GMS) Core Environment Program, Environment Operations Center, Thailand

**Tek Jung Mahat,** Node Manager, Asia Pacific Mountain Network (APMN), the International Centre for Integrated Mountain Development (ICIMOD), Nepal

**Togtokh Chuluun**, Professor,Dryland Sustainability Institute, University of Mongolia, Mongolia

**Toshinao Okayama**, Senior Climate Change Expert , Institute for Global Environmental Strategies (IGES) Bangkok Project Office, Thailand The Adaptation Forum 2010 Market Place showcased dynamic and diverse range of organizations, products, services, information and knowledge on Climate Change Adaptation

The Adaptation Forum 2010 Market Place was established as a platform for those participants who were not given a formal speaking role to relay their message. It was designed as an area where Adaptation Forum 2010participants could network, review publications and view audiovideo displays.

It showcased a dynamic and diverse range of organizations, products, services, information and knowledge on climate change adaptation. Following are vignettes of the two dozen organizations that took part in the Market Place.

## Center of Excellence in the Context of Climate Change, Asian Institute of Technology (SDCC-AIT)

The Center of Excellence in the Context of Climate Change (SDCC) is a research center under the AIT platform. It serves as the knowledge umbrella for all climate change related research in AIT. SDCC is aiming to consolidate the Institute's research efforts and broaden its network and partnerships by providing a platform to discuss and launch shared initiatives. The display focused on two activities: Analysis of climate variability and predicting the snow cover area and snowmelt runoff using artificial neural network in the higher Himalayas, Nepal, and institutional adaptation strategies to climate risks in the Mekong river basin.

## Behavior Change – The Contributions of Science and Practice to Climate Change Adaptation Initiatives

Climate change is largely caused by human behavior and adaptation to climate change involves changing behavior. It also involves cognition. Over the past five or six decades, there have been enormous advances in understanding both the factors involved in behavior and cognition, and also in our understanding of how behavior can be (and is being) changed. To oversimplify, these advances have emerged from two sets of approaches, through scientific research and through evolving practice. Both have co-evolved, and have influenced each other to varying extents. Both can make important contributions to facilitating adaptation to climate change, and in some cases they are already doing so. The presentation outlined a sample of advances in these areas that are relevant to climate change adaptation to varying degrees.

#### IEDM, Kyoto University

IEDM aims at reducing the gap between knowledge and practice through proactive field-level, community-based project implementation in the field of climate change adaptation (CCA), urban risk reduction (URR) and environment and disaster education. The market place of IEDM CCA exhibited innovative project results of engaging local communities in the Asian regions, in both urban and rural vulnerable areas. IEDM also hosts the Asian University Network of Environment and Disaster Management (AUEDM), which has 21 universities from 18 countries and regions of Asia. The key aim of this network is higher education and research in environment and disaster management, and CCA is considered as a common thematic research area. The market place exhibited some of the achievements of the AUEDM with specific focus on CCA.



## The Mekong River Commission and Mekong Climate Change and Adaptation Initiative

The countries of the Lower Mekong Basin (LMB) are recognised as among the most vulnerable to climate change in the world. Their economies, ecosystem sustainability and social harmony are at risk. For this reason, the Mekong River Commission (MRC), an inter-government river basin organization established in 1995 by an agreement between the governments of Cambodia, Lao PDR, Thailand and Viet Nam, put up a displaying on the Mekong Climate Change and Adaptation Initiative (CCAI). CCAI is a regional collaborative effort of MRC member countries to support the process of adapting to the new challenges posed by climate change in the Lower Mekong Basin by building a systematic process of planning, implementation and learning.

## Managing Climate Risk and Opportunities in Southeast Asia and Pacific Region as the Challenge of Climate Change

CCROM-SEAP, a research centre located in Southeast Asia and Pacific region, undertakes research and activity with main focus on agriculture and food security, human health, water resource, livelihoods and hydrometeorological shocks. CCROM-SEAP has also collaborated with many national and international agencies in conducting research. Through the market place, CCROM-SEAP shared information about research activities on adaptation which it's already conducting and implementing.

#### Earthwise Consulting Limited Mainstreaming Adaptation - Lessons from Farmers in New Zealand and Asia

The booth shared the experiences of working with farmers on climate change adaptation and resilience, as well as contributing to various national and regional initiatives on climate change within New Zealand. The thrust was on a participatory approach aimed at identifying, documenting and supporting actions are already being taken by farmers. This work was undertaken in eastern parts of New Zealand, and it has led to a deeper understanding of resilience as a response to climate change. This experiment showed that there is a lot of knowledge and wisdom on the ground. In fact many of the solutions to significant challenges can be found with people who are already taking action.

## Sufficiency Economy Philosophy: Agri-Nature Foundation's Contribution to Mainstreaming Climate Change Adaptation

The Agri-Nature Foundation has established a network of 80 natural agriculture learning centres across Thailand to date. These learning centres have become a major force in instilling the Thai King's philosophy in local communities, businesses and industries. This work clearly shows that the sufficiency economy philosophy can be put into practice to help farmers and local communities withstand outer shocks, such as economic insecurity caused by modern trade and globalization. It is also becoming evident that the practice of self-sufficiency economy can help local people buffer against and recover from emerging crises such as climate change. It is a comprehensive approach that is building local environmental, social and economic resilience for the present and future.



#### Coastal Zone Management

Coastal Zone Management (CZM) Pvt Ltd (Australia) is providing high quality climate change adaptation services to international, national, regional and provincial clients. CZM prides itself on providing innovative and tailored services, based on the principles of sustainable development in coastal areas..

### Asian Cities Climate Change Resilience Network (ACCCRN) Indonesia

The ACCCRN booth showcased climate change vulnerability mapping conducted by it in two Indonesian cities of Semarang and Bandar Lampung. The network studied community-based vulnerability, governance and climate data before initiating projects to increase climate change adaptation capacity within the community besides drawing up a climate resilience strategy.

#### Ecosystem-based Integrated Coastal Resource Management through Multi-stakeholder Participation in Southern Thailand

The project has produced documentation on issues related to 1) 'Decentralization and Community-based Coastal Resource Management', 2) 'Climate change Adaptation and Community-based Coastal Resource Management', and 3) 'Disaster Mitigation and Preparedness in Coastal Ecosystems'. Currently, the project is in the process of making an initial assessment before planning for documentation production during the next project phase This project is led by Sustainable Development Foundation (SDF) in partnership with UNDP, Department of Marine and Coastal Resources, and SEA START.

#### Capacity to Know our Vulnerabilities Means Capacity to Adapt?: Strengthening the Philippine's Institutional Capacity to Adapt to Climate Change

The three-year joint programme is a collaboration among nine government entities and six UN institutions with the aim of achieving the following objectives: (1) Climate risk reduction mainstreamed into key national and selected local development plans and processes; (2) enhanced national and local capacity to develop, manage and administer plans, programmes and projects addressing climate change risks; and (3) coping mechanisms improved through pilot demonstration adaptation projects. The biggest challenge is to convince key decision makers about the implications of climate change on the everyday life of the most vulnerable sectors. It contends that development as usual may not be enough to reach developmental goals, particularly the MDGs. Its pilot demonstration sites have already showed positive results.

#### Climate Change Adaptation Center Integrating Development in Southwest Bangladesh

The booth showcased the vulnerability of the southwest coastal areas of Bangladesh, and highlighted integration of development initiatives, the working strategy of the adaptation center and its achievements.

## Climate Change in the Himalayas: Sharing Experiences

ICIMOD Marketplace showcased CCA-related publications, posters, and pictures of changing landscape, showing how climate change was affecting the ecosystem in the Himalayas.



### Climate Agriculture Impacts Forecast Adaptation (CAIFA)

The booth underlined the importance of sharing information relating to food production and adaptation to climate change in order to stave off food shortages.

### CARE International - Empowerment for Local Adaptation; Knowledge for Global Change

CARE is working with people around the world on innovative, community-based adaptation (CBA) approaches that address the changing climate. It advocates sufficient global funds for adaptation, and funding mechanisms which ensure that these funds reach those who need them the most. The company is developing tools and offering training to build the capacity of its partner organizations to understand the challenge of climate change and to plan appropriate responses with the help of the local community.

#### Multidisciplinary Problem Solving: Grappling with Complexity and Tackling the Big Issues, The University of Queensland - Australia

The school of Geography, Planning and Environmental Management (GPEM) believes that understanding should be based on solid scientific research that is multidisciplinary and actively integrates both the social and biophysical domain. This is seen as being core to long-term solutions for sustainability. The booth shared a range of cutting-edge research paradigms, and training activities. The School has strong links to industry and works extensively with all levels of government on a number of projects. It also operates in a consultancy capacity.

#### Agro-forestry - GERES Cambodia

This booth highlighted the benefits of agro-forestry systems and their intrinsic links to people and climate change adaptation. GERES is promoting agro-forestry by developing models suited to the local communities besides taking steps such as, matching trees with cash crops species, and promoting living fences, et al.

## International Association of Students in Agricultural and Related Sciences, Indonesia

IAAS, which is working to reduce global warming, exhibited compost products resulting from household waste and a project titled "Rainwater catchment system".

#### Asian Disaster Preparedness Center (ADPC)

### Transforming Forest Conflict: RECOFTC - The Center for People and Forests

Conflict over forests and land in Asia is widespread. Competition for land for investment, resource extraction, and conservation is becoming more common, and with it, community-outsider conflict is believed to have increased in both number and severity. Transforming conflict for the benefit of all stakeholders is an important mission in any environment. But if countries in this region are to successfully adapt to the challenges posed by climate change, the urgency of the task cannot be overstressed. RECOFTC - The Center for People and Forests - shed more light on how conflict begins; how it affects the actors involved; and how it can be successfully managed.

Photo credit: SEI/Lisa Schipper





## United Nations Development Program – Climate Change Adaptation

The booth showcased the UNDP's experience in implementing climate change adaptation projects to increase resilience to climate change. The UNDP approach to adaptation is ultimately about doing development differently – integrating climate change risk management into Millennium Development Goals. The booth provided information on community-based adaptation to climate change, advancing climate change adaptation in developing countries; gender and climate change. It also presented a toolkit for designing climate change adaptation initiatives.

#### Toward Safer Sri Lanka by Mainstreaming Disaster Risk Reduction and Climate Change Adaptation

It showcased efforts made by Ministry of Environment and Ministry of Disaster Management and other key stakeholders to adapt to the climate change impacts and the so-called climate extreme events. These include policies, adaptation best practices and knowledge products.

Website

http://www.asiapacificadapt.net/adaptationforum2010/



Secretariat

#### $Adaptation {\color{red}Knowledge} Platform$

AIT-UNEP Regional Resource Centre for Asia & the Pacific
Asian Institute of Technology, Outreach Building
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