APN Climate Adaptation Seminar

23 October 2012
Siem Reap, Cambodia

APN & Climate Adaptation
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1. Background Information on the APN
We define global change as the set of natural and human-induced changes in the Earth; in its physical, biological, and social systems that, when aggregated, are significant at a global scale.
Pacific Island Countries and Singapore are approved countries whose scientists are eligible to receive funding under APN awards.

Member Countries

- Australia
- Bangladesh
- Bhutan
- Cambodia
- China
- Fiji
- India
- Indonesia
- Japan
- Lao DPR
- Malaysia
- Mongolia
- Nepal
- New Zealand
- Pakistan
- Philippines
- Republic of Korea
- Russian Federation
- Sri Lanka
- Thailand
- USA
- Viet Nam
The APN is sponsored by the governments of:

- **Japan**
  - Ministry of the Environment
  - Hyogo Prefecture
- **United States of America**
  - National Science Foundation
  - US Global Change Research Program
- **Republic of Korea**
  - Ministry of Environment
- **New Zealand**
  - Ministry for the Environment
3rd Strategic Phase

Supporting regional cooperation in global change research on issues particularly relevant to the region.

Strengthening appropriate interactions among scientists and policy-makers, and providing scientific input to policy decision-making and scientific knowledge to the public.

Improving the scientific and technical capabilities of nations in the region, including the transfer of know-how and technology.

Cooperating with other global change networks and organisations.

APN GOALS
ARCP – Regional Research Programme
CAPaBLE – Capacity Building Programme

Under APN’s Science, APN provides support that falls into the following four broad categories:

- Climate Change and Climate Variability;
- Ecosystems, Biodiversity and Land Use;
- Changes in the Atmospheric, Terrestrial and Marine Domains;
- Resources Utilization and Pathways for Sustainable Development

Approximately 90 projects ongoing through our competitive calls for proposals
Climate Adaptation and APN’s Climate Synthesis

2. General Adaptation Activities and APN’s Climate Synthesis
Climate Adaptation Projects....where do I start?

- Assessing the vulnerability of communities and understanding policy implications of adaptation response to flood-related landslides in Asia
- Cities at risk: Developing adaptive capacity for climate change in Asia's coastal mega cities
- Communicating Economic Implications of climate change impacts & adaptation measures to policy-makers for informed decision-making
- Removing Barriers to Capacity Building in Least Developed Countries: Transferring Tools and Methodologies for Managing Vulnerability and Adaptation to Climate Change
- Climate Change in Southeast Asia and Assessment on Impacts, Vulnerability and Adaptation on Rice production & water resources
- Enhancing climate change adaptation capacity of local government units and scientists in the Philippines
- Increasing adaptive capacity of farmers to extreme climate events and climate variability through enhancement of policy-science-community networking
- Linking Climate Change Adaptation to Sustainable Development in Southeast Asia
- Climate Change Variability Implications on Biodiversity – Youth Scenario Simulation
Scientific Activities in Climate Change – **Vulnerability, Impacts & Adaptation** – became a focus for APN in 2004

**Capacity Development and Research in Climate Change under CAPaBLE Phase I**

A review in 2008 highlighted that the CAPaBLE Programme had:

- Trained over 300 scientists
- Raised awareness of over 4000 people
- Published over 50 peer-reviewed papers

“In Review” highlighted CAPaBLE as Policy relevant, conducting underpinning research, developing capacity, creating partnerships, raising awareness, promoting sustainable societies.
Climate Change Challenges that we took to SBSTA28 (2008)

- Climate change is the foremost concern particularly vulnerabilities, impacts and adaptation

- Lack of human & institutional capacity & limited financial resources are the main challenges in implementing climate research

- Mainstreaming climate research results into national policy

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The APN is an intergovernmental network fostering global change research and links between science and policy-making in the Asia-Pacific region.

www.apn-gcr.org
Climate Change Challenges that we took to SBSTA30 (2009)

Sectors Most at Risk
Agriculture, Water (floods, drought, security), Forests, Coastal zones, Mangroves, Maritime resources, etc

mainstreaming adaptation strategies most challenging

2009: APN’s Response
Scientific Capacity Building for Climate Impact and Vulnerability Assessments under the CAPaBLE Programme & the APN Climate Synthesis of Activities
Synthesis of climate-related research and capacity development over **10 years**

56 completed projects in an 78-page synthesis where “policy” is cited **143 times**...

Focus Chapters

- Food, Agriculture and Climate
- Seasonal Climate Prediction & Application
- Climate Variability, Trends and Extremes
- Regional Climate Change Modeling
- Vulnerability & Adaptation to Climate Change
- Climate Change Mitigation
- Climate Change Policy & Outreach

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**APN Climate Synthesis Report**

http://goo.gl/gVW8M

http://www.apn-gcr.org/uploads/reports/2011/Climate%20in%20Asia%20a...

Created: 2011 Oct 4
Recommendations:

- **Community-based climate adaptation**, as well as reducing vulnerability and building resilience, requires *much more attention*....

- **Climate change and disaster risk management** must be mainstreamed into national development strategies....

- Critical to climate adaptation research, practice, and policy are *downscaled climate data*....

- Encourage APN member countries to increase the *capacity to formulate national strategies on adaptation*....

- Develop programmes to enhance the *capacity of major players* in adaptation planning and implementation; local universities and academic institutions, communities and local governments....

- Develop *localized climate change impact tools*, especially IAMs...
Some other Conclusions on Climate Modeling:

- Critical to climate adaptation research, practice and policy are downscaled climate data.
- Developing Regional Climate Models (RCMs) in Asia helps provide more detailed information on monsoon circulation.
- High-resolution regional/local information from RCMs can be used in impact, vulnerability and adaptation studies.
- There is a need for RCMs and statistical downscaling methods to help localise GCM results.
- Especially problematic in the Asia-Pacific are small islands states, Southeast Asia and areas in South Asia with rough and steep terrain like the Himalayas.
Key Messages for Adaptation

- Adapt now!
- Enable adaptation
- Integrate adaptation with development
- Increase knowledge

- Strengthen institutions
- Protect natural resources
- Provide financial assistance
- Involve those at risk
- Use place-specific strategies
New Climate Adaptation Programme (IGM17 & SBSTA36)

- Regional scale Research
- Downscaled modeling technologies
- Information and knowledge sharing
- Disaster risk management (contributing to loss and damage)
- Systematic training and capacity building for scientists/practitioners
- Science-Policy dialogues in AP region
3. APN’s Adaptation Policy Brief
Climate Adaptation Messages

Climate Change Modelling in Mangrove Ecosystems

Mr. Kashif Majeed Salik (Pakistan)

“Robust and collective global to regional responses for climate change adaptation can be achieved through joint research and policy actions by sharing of technology, knowledge and experiences.”
Climate Adaptation Messages

Mainstreaming Climate Change Adaptation into Water & Agriculture Sectors

Professor Joy Pereira (Malaysia):
“Means to reach and address issues at the local level are still at nascent stages. There is also a need to strengthen the channels that connect various stakeholders to the local level.”

Dr. S.V.R.K. Prabhakar
Institute for Global Environmental Strategies (IGES)
Climate Adaptation Messages

- "Encourage horizontal and vertical institutional collaboration"
- "Promote two approaches in climate change adaptation: science-driven and society need-based approach (community-based)"
- "Great demand and potential to update knowledge dissemination and research through University higher education networks. Financing these efforts remain the main challenge."
- "Robust and collective global to regional responses for climate change adaptations can be achieved through joint research-policy-action by sharing of technology, knowledge and experiences."
4. APN Scoping Workshop for an Adaptation Framework
Climate Adaptation is mainstreamed into science and technology policy, but not into environment policy (even in developed countries).

In some developed countries, local governments established adaptation frameworks and plans, but it is not clear whether science-based climate risk assessments are implemented for public projects.
Suggestions for Future APN Strategic Programme to Enhance Climate Adaptation in the Asia-Pacific Region

As a result of the discussions at Scoping Workshop the APN hopes to establish a multi-year strategic programme focusing on climate adaptation from FY2013 (April 2013) pending resource availability.

The new programme aims to enhance science-based adaptation activities of APN developing countries and comprises the following components:

- regional research programme that has a capacity building element,
- capacity building programme (including projects at national and sub-national scales),
- activities jointly conducted with organizations and networks.
Based on needs, gaps and lessons for climate adaptation in the Asia-Pacific region APN activities will contribute to improving user knowledge in:

- Development of observational, model and downscaled datasets with high-resolution that can contribute to filling data gaps;
- Sharing of needs-oriented data
- Calibration and validation of regional climate models; and analysis of projections and assessment of uncertainties
- Development and utilization of impacts, vulnerability, risk and economic assessments;
- Improvement of communication skills of scientists and practitioners with stakeholders including local government, community, private sectors and civil society, for encouraging policy-makers to formulate and implement adaptation plans based on the latest scientific knowledge;
- Utilization of available information including climate data in applications for adaptation
Climate Adaptation Framework - Partnerships

It is recommended that the APN will enhance partnerships with local, national, regional and international organisations and networks under the new program, including:

- **ADB** - Climate Change Consortium – Climate Knowledge Platform for Asia
- **APAN** - Networking in Climate Adaptation & Proposal Development Training Workshops
- **ICAS** – Training, Research and Networking
- **MAIRS** – Research in Regional Climate Modeling
- **UNU (UN-CECAR)** - Training in regional climate modeling, VIA, tc
- **START** - Capacity building, training, Science-Policy Dialogues
- **UNFCCC** - Loss and Damage
- **WCRP** - Collaboration in general but more recently with the CORDEX-Asia on capacity development on downscaling

.........ad infinitum
It is recommended to further develop APN’s climate adaptation programme and expand its partnerships with organizations and networks through relevant platforms in accordance with the Programme of Work and Budget as well as the APN Strategic Plan and Framework Document.

OUR HOPE IS FOR APN to GROW AND STRENGTHEN its PARTNERSHIPS FOR CLIMATE CHANGE ADAPTATION