SCIENCE AND POLICY RESEARCH

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UNFCCC Side Event "Asia-Pacific initiative toward sustainable and Environmentally-Sound Society", SBSTA 24, 13:00 - 15:00, 23 May 2006

What is the APN?

The Asia-Pacific Network for Global Change Research (APN) is a network of 21 member governments whose mission is to enable the investigation of change in the Earth's life support systems as it occurs in the Asia-Pacific region to:

- Identify, explain and predict changes in the context of both natural and anthropogenic forcing,
- Assess potential regional and global vulnerability of natural and human systems, and
- Contribute, from the science perspective, to the development of policy options for appropriate responses to global change that will also contribute to sustainable development.

Why research?

We need to be able to provide timely and meaningful climate forecasts to managers and planners in sectors of the economy that are impacted by climate variability and change and particularly to those susceptible to climate extremes (floods, droughts, water storage and planned infrastructure, high winds, delayed monsoon, etc.)

The research needs to be policy relevant but not policy prescriptive.

What is the issue?

- Satellite community in '70's probably over-sold its capability to predict changes in the earth's climate.
- Resulted in lack of investment in systematic and sustained observations at the surface.
- Substantial ongoing research and surface observation is needed to calibrate and verify algorithms and satellite products at regional and local scale.
- Many existing data are not accessible to researchers in Asia-Pacific, either within country or internationally.
- There is a need for data rescue and digitisation.

Awareness of need for climate change research

Issues for developing states

Particularly relevant for Developing States in the Asia-Pacific region:

- Scarcity of scientists, science infrastructure and science funding;
- Limited research experience of scientists;
- Lack of observational data (meteorological; oceanographic, and socio-economic etc.) and analytical tools;
- Lack of familiarity with relevant methods and models;
- Capacity to construct credible future climate scenarios;
- Difficulty of establishing and continuing collaborations from scientists from multiple disciplines as is needed for climate change research.

APN's Initiative in this context

Regional projections of future climate are vital tools for policymakers. However, it is important to understand how well these models simulate present climate and the differences between outputs from the various models. This is important for evaluating future climate projections at the regional and even local level.

Emphasis is being placed on scientist/policy-maker interaction and on training individuals in the Asia-Pacific region in scenario development based on model output. The issues tend to be common for sub-regions and hence a multi-national approach is possible particularly since the skill set is often very limited.

APN's Initiative

Helping scientists in the Asia-Pacific region prepare and submit scientific papers on climate related studies to peer-reviewed journals. This skill and experience is lacking in many states in the Asia-Pacific region and is even more difficult where English is not the person's first language.

This enables participation in the IPCC process.

Example of Regional Approach

Development of future regional climate scenarios for Asia-Pacific region. These provide input to:

- Regional ocean variability and change and implications for marine ecosystems and fisheries.
- Development of systems to assist agriculturalists in the region to adapt to climatic change and variation, (incl. climate risks and seasonal climate outlooks).
- Work on understanding the vulnerability of important Asia–Pacific systems and sectors to climate change and variability (e.g. wetlands, coastal ecosystems, landslides etc).
- Development of tools useful to policy-makers, such as Integrated Assessment Models.

Climate Hotspots

APN Special Workshop Bangkok March 2006:

identified several sensitive and fragile 'exposure' systems (hot spots) in the Asia-Pacific region for which conventional *in-situ* and remotely-sensed observational data, at appropriate spatial and temporal scales, together with the appropriately scaled models, are required for advancing the current understanding of climate variability and climate change.

Asia-Pacific Hotspots

The hot spots in this region include:

- Himalayan Glaciers – spatial, temporal distribution of snow cover
- High Elevation Areas of Tibetan Plateau
- Degradation and depletion of ground water aquifers
- Desertification trends in arid/semi-arid areas of West Asia
- Mongolian Tundra
- Hydrological cycle and changes in Asian monsoon system and linkage to El Niño – Southern Oscillation
- Potential changes in extreme weather events including tropical cyclones and typhoons.
- Trends in deterioration of coral reefs, mangroves, and sea grass in coastal waters of East, South, Southeast Asia, Australia and island countries
- Loss of biodiversity in fragile ecosystems of highlands, wetlands and islands
- Coastal zones – erosion, sea level rise etc.
- Forest fires and land degradation

APN & CLIMATE CHANGE

Common issue for all Developing States is the:

need for a commitment to continual and continuing capacity development and training.

This is particularly critical in areas where technical skills are developed as these skills, including computer literacy, are particularly 'marketable' in a Developing States as this often provides a stepping stone into the rapidly expanding telecommunications industry for example.

There is also the associated issue is that many policy makers change their position every 2 years.

APN CAPaBLE

PARTNERSHIPS for SUSTAINABLE DEVELOPMENT

Continual training

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