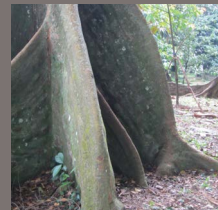
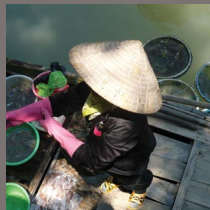


# Annual Report

## 2011–2012



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ASIA-PACIFIC NETWORK FOR  
GLOBAL CHANGE RESEARCH

## **APN Annual Report 2011-2012**

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## MESSAGE FROM THE DIRECTOR

It is my pleasure to present to you the APN Annual Report 2011-2012.

Fostering collaboration has been central to APN's work towards achieving its strategic goals of supporting research, capacity development and science-policy interactions in the Asia-Pacific region. This year we supported and managed 40 research and capacity-building projects under the core programmes of ARCP and CAPaBLE. Additionally, six focused activities, which are funded through a special call for proposals launched in 2010, entered their second year of implementation with exciting progress being made.

In October 2011, we published a report entitled *Climate in Asia and the Pacific: A Synthesis of APN Activities*, which summarized the work of over fifty projects funded by APN that have a climate-related element. It is our hope that the report will contribute to the development of policy options to respond to climate vulnerability and impacts, especially in the Asia-Pacific region. The synthesis report forms a solid basis for follow-up work on an academic book detail-

ing the latest developments in the climate research domain in Asia-Pacific, which will be published in 2013.

With tremendous support from members in Viet Nam and Bhutan, we successfully held the fourth sub-regional cooperation meeting for Southeast Asia in July 2011, and the third meeting for South Asia in January 2012. The two groups may have different priorities in terms of global change challenges and research needs, but a commonality is the strong sense of ownership and the active input from our country members that have driven the development of new initiatives to address shared concerns.

This year we organized three Proposal Development Training Workshops in China, Viet Nam and Bhutan respectively, as part of our larger efforts to facilitate young and early-career scientists in enhancing their scientific capacity and establishing professional networks fundamental for their future work.

Just as collaboration is important to our project leaders, so is partnership to APN as

a regional network. In 2011-2012, we continued to build and strengthen partnership with key actors in the global change community, which includes joint implementation of projects that are important to the region, co-designing strategic activities in areas of common interest, and knowledge sharing and networking in major international meetings.

Together with the Hyogo Prefectural Government and other international partners including DIVERSITAS, IHDP and the United Nations University, we organized and supported three international events to share new knowledge on reforestation, environment management of enclosed coastal seas, and studies on the socio-ecological management of satoyama landscapes.

Taking this opportunity, I thanked all national Focal Points, Scientific Planning Group members and invited experts who have been actively supporting APN by sharing their expertise and providing input for the scientific and institutional development of APN.

I would also like to thank the governments of Japan, United States, Republic of Korea, New Zealand, and all other member countries for their support in cash and in kind that made possible what we have achieved so far.

My sincere gratitude also goes to all project leaders and collaborators engaged in the projects implemented in 2011-2012. Last but not least, we are deeply grateful to our partners in the global change research community for their wonderful cooperation and support, and we look forward to further strengthening collaborations with you in the future.



*Akio Takemoto*

Akio Takemoto, PhD  
Director,  
APN Secretariat

## HIGHLIGHTS OF 2011-2012

### PROJECT MANAGEMENT

In fiscal year 2011, APN supported and managed 22 regional research projects under the Annual Regional Call for Research Proposals (ARCP) programme and 18 capacity-building projects under the Scientific Capacity Building/Enhancement for Sustainable Development in Developing Countries (CAPaBLE) programme. In addition, it continues to manage six multi-year projects funded through the 2010 Special Calls for Focused Activities that looked into two aspects of APN's science agenda: 1) Ecosystems, Biodiversity and Land Use, with focus on forestry and REDD+; and 2) Resource Utilization and Pathways for Sustainable Development.

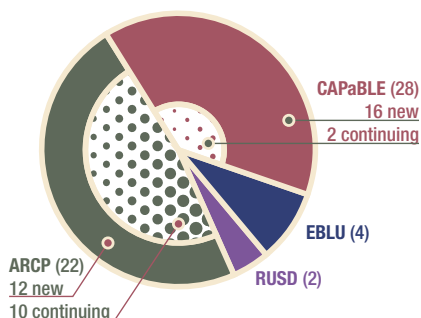
A list of these projects is included in *Section 2, "2011-2012 Projects"* on page 13.

### CALLS FOR PROPOSALS

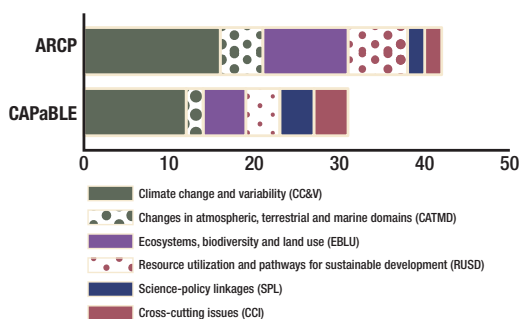
The 2011 Annual Calls for Proposals under the ARCP and CAPaBLE programmes were launched on 26 May 2011. A total of 95 summary proposals were received, 30 of which, after further development, went through two stages of rigorous screening and review by APN's Scientific Planning Group (SPG) and Capacity Development Committee (CDC) and were approved for funding at the 17th IGM in March 2012.

To facilitate interested proponents, especially those young and aspiring scientists who are seeking collaboration in the region, the APN Secretariat coordinated a round of voluntary advisory service before the summary proposal submission stage, involving APN country members and experts to provide ad-

2011-2012 PROJECTS BY PROGRAMME



2011-2012 PROJECTS BY THEMATIC AREA



vice and assistance, including on the appropriate scope of the envisaged activity, potential collaborators, among others.

### SYNTHESIS OF APN CLIMATE ACTIVITIES

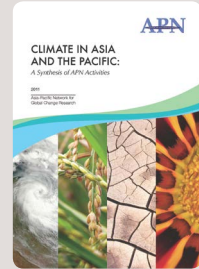
The release of the synthesis report *Climate in Asia and the Pacific: A Synthesis of APN Activities* in October 2011 marks a major milestone of APN's synthesis activity on climate-related projects.

The report summarized over fifty scientific research and capacity-building projects funded by APN that have a climate-related element. Contributing authors of the report are leaders in their field and many of them are authors for the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC AR5).

The report aims to contribute to the development of policy options for appropriate responses to climate vulnerability and impacts, including adaptation and mitigation, which in turn will contribute to sustainable development.

Since its official launch, the report has been brought to the WCRP Open Science Conference in Denver, USA; the COP17/CMP7 of UNFCCC in Durban, South Africa; the Planet Under Pressure conference in London, United Kingdom, and many other major global change events around the world for dissemination among the global change community. The electronic version of this report has recorded over 10,000 downloads as of the date of reporting.

*The report is a precursor to an academic book entitled "Climate in Asia and the Pacific: Security, Society and Sustainability" to be published by Springer in 2013 as another key outcome of APN's climate synthesis activity.*



56

climate-related projects

13

years of projects  
synthesized

98

peer-reviewed papers,  
special editions, books  
and monographs

70

training manuals, user  
guides, resource kits  
and lectures



# LINKING SCIENCE AND POLICY



Courtesy of IISD/Earth Negotiations Bulletin

One of the underpinning goals of APN is to strengthen appropriate interactions among scientists and policy makers, and provide scientific input to decision-making for better-informed policy options. Policy relevance has always been an important criterion for APN in evaluating proposals for funding. In addition, APN has taken active part in international events that promote linkages and interaction among the science and policy-making communities.

## UNFCCC COP/CMP AND RELATED WORKSHOPS

APN contributed to multiple science and policy talks hosted by the UNFCCC, taking the opportunities to share knowledge and best practices from a regional perspective, and to engage in a dialogue on issues related to global change research, capacity development and science-policy interfacing mechanisms within the Asia-Pacific region.

*SBSTA research dialogue.* At the 34th session of the Subsidiary Body for Scientific and Technological Advice (SBSTA 34), Bonn, Germany, June 2011, APN shared its latest work on synthesizing its past and ongoing climate

activities, highlighted lessons learned and key recommendations. APN also introduced the outcomes of its recent gap analysis workshop for biodiversity and ecosystem services, particularly those gaps and potential research themes that have strong links with impacts of climate change.



Courtesy of IISD/Earth Negotiations Bulletin

*Loss and damage workshop.* APN contributed to the UNFCCC workshop to identify challenges and gaps in the implementation of risk management approaches to the adverse effects of climate change, Lima, Peru, October 2011, which brought together experts from governments, international and regional organizations, and key institutions working on disaster risk management. With solid experience and understanding of adaptation issues at the regional level, APN is well-positioned to improve disaster risk re-



duction through research and capacity development in the Asia-pacific region.

*COP17/CMP7 conference.* The 17th session of the Conference of the Parties/7th Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP7/ CMP7) was held in Durban, South Africa from 28 November to 9 December 2011. This annual round of climate change negotiations drew together over 12,000 participants from governments, UN bodies and agencies, inter-governmental organizations, civil society organizations and the media. In collaboration with Australian National University Climate Change Institute (ANU CCI), APN organized a booth to launch its recently published climate synthesis report.

### PLANET UNDER PRESSURE CONFERENCE, LONDON, UNITED KINGDOM



In the lead-up to Rio+20, the United Nations Conference on Sustainable Development, almost 8,000 leading environmental change specialists from around the world from different sectors and various disciplines across the spectrum of natural and social sciences,

met at the Planet Under Pressure conference in London to look at global environmental challenges and suggest innovative solutions.

APN hosted an exhibition at the conference, featuring the latest work undertaken by APN-funded projects. In addition, it provided financial support that made possible the participation of over 25 aspiring young and early career scientists to the conference.

### SCIENCE-POLICY DIALOGUE ON CHALLENGES OF GLOBAL CHANGE

In cooperation with START International and with tremendous support from APN Southeast Asia Sub-Regional Committee (SEA-SRCom), APN started preparations for a science-policy dialogue on challenges of global change, to be held in 2012.

The forum was expected to bring together leading scientists from the Asia-Pacific region to review advances in global change research and interact with regional policy and practitioner communities. The forum would also explore how knowledge about risks and vulnerability can best be communicated to multiple audiences, including the public and the media, and be integrated into the decision-making process. Contributions from policy makers and practitioners would provide a basis for identifying priority research areas for supporting informed decision-making, capacity-building and outreach activities.

## SUB-REGIONAL COOPERATION

Through the sub-regional approach, APN is able to enhance the flow of information within groups of members that share common challenges and opportunities in global change research, and to strengthen their collaboration with key partners at the sub-regional level.

Sub-Regional Committees meet during intersessional period of the IGM/SPG Meetings to discuss issues of sub-regional importance, identify research priorities for the sub-region, and to explore collaborative opportunities to address such priorities.

### 3<sup>RD</sup> SOUTH ASIA SUB-REGIONAL COOPERATION MEETING (SA-SRC)

The meeting was hosted by the National Environment Commission, Royal Government of Bhutan, in Paro, Bhutan from 16–19 January 2012. Participants exchange information on major scientific trends, issues and emerging gaps in each country, especially those related to science-policy interaction and sustainable development. This was followed by a discussion session that aimed to categorize and prioritize these gaps identified. As an outcome of the meeting, a set of potential activities were summarized for future development.

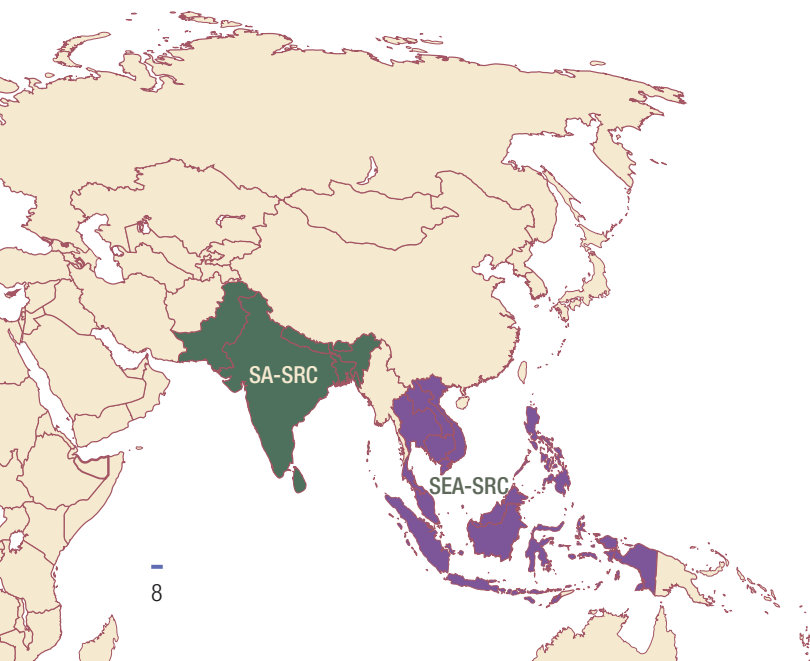
### 4<sup>TH</sup> SOUTHEAST ASIA SUB-REGIONAL COOPERATION MEETING (SEA-SRC)

The meeting was hosted by the Institute of Natural Products Chemistry, Viet Nam Academy of Science and Technology in Hanoi, Viet Nam from 25–29 July 2011. Discussions centred on further developing the plans for: (1) The first science-policy dialogue with focus on South-east Asian countries; (2) A summer school programme on urbanization and climate change adaptation.

### SOUTHEAST ASIA CLIMATE DOWNSCALING TRAINING WORKSHOP

Recognizing the need for further region-wide efforts in developing regional climate models and statistical downscaling methods to help localize global climate model results and to quantify the uncertainties associated with these results, the Southeast Asia SRCom organized a downscaling training workshop back-to-back with the 4th SEA-SRC Meeting.

From the basics of global and regional climate models and their application to country-level experience in downscaling experiments and strategies for creating scenarios in the region, experts shared a wealth of knowledge and experience, and catalyzed opportunities for international collaboration within Southeast Asia.



## PROPOSAL DEVELOPMENT TRAINING WORKSHOPS

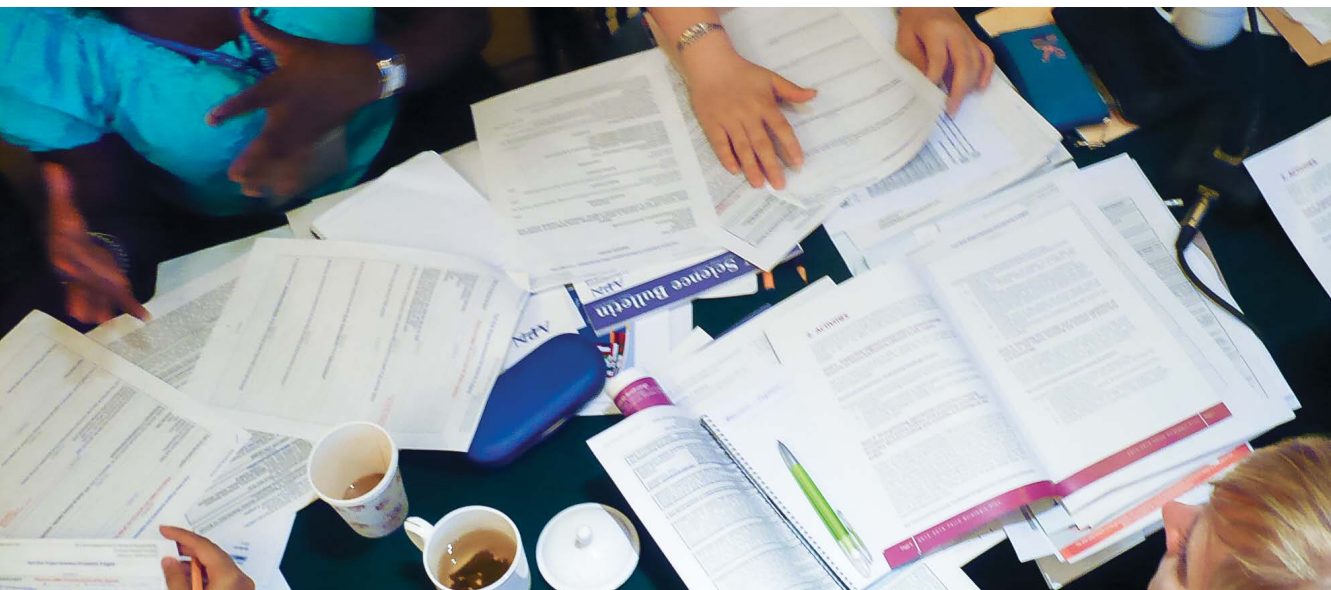
Improving the scientific and technical capabilities of countries in the Asia-Pacific region is among the four goals of APN. Young and early-career scientists, in particular, are APN's focus when working towards attainment of this strategic goal. Since 2008, APN has been regularly conducting Proposal Development Training Workshops in countries within the Asia-Pacific region. Objectives of the workshops are to:

- ❖ Raise awareness of APN among young/early career scientists;
- ❖ Increase their capacity to submit competitive proposals to APN;
- ❖ Facilitate the exchange of knowledge and experience among APN members.

In fiscal year 2011, APN organized three Proposal Development Training Workshops, two back-to-back with Sub-Regional Cooperation Meetings, and one in Yantai, China as part of the 2011 Young LOICZ Forum, which brought together coastal zone scientists and coastal managers from across the world.



Through these training workshops and in fiscal year 2011 alone, APN has created the enabling environment for learning and networking for 55 young and early-career scientists from 22 countries.



## COLLABORATION WITH HYOGO PREFECTURAL GOVERNMENT

Hyogo Prefecture, where the APN Secretariat is located, is home to many international research projects and programmes whose work covers a wide range of areas, including disaster management and prevention, enclosed coastal seas, public health, and global environmental change, among others.

Every year, APN works closely with the Hyogo Prefectural Government and major partners in Hyogo Prefecture to support international collaborative research and public awareness raising activities, contributing to knowledge sharing and information dissemination among the research and policy communities as well as the general public.

### **SYMPOSIUM AND TRAINING WORKSHOP: REFORESTATION IN MONGOLIA**

Ulaanbaatar, Mongolia, 12-14 September 2011

A joint effort by Hyogo Environmental Advancement Association (HEAA) and Mongolian Forest Forum (MOFF) and APN, the symposium-cum-workshop aimed to share knowledge on the impacts and vulnerability of forests and grassland in Mongolia with regard to climate change, forestry, biodiversity, and ecosystem services.

The event attracted over 100 participants from research institutes in Mongolia, Japan and Russia, as well as university students in Mongolia. Invited speakers specialize in various fields such as environmental law, forestry, as well as ecosystem assessment and management.

### **NINTH INTERNATIONAL MEETING ON THE ENVIRONMENTAL MANAGEMENT OF ENCLOSED COASTAL SEAS (EMECS 9)**

Baltimore, Maryland, USA, 28-31 August 2011

The International EMECS Center promotes international exchange on environmental management of enclosed coastal seas across the world. The organization is based in Kobe, Japan, which is situated along the coast of Seto Inland Sea, the largest enclosed coastal sea in Japan.

The purpose of EMECS 9 was to improve our ability to manage enclosed or semi-enclosed coastal seas in all their ecological, economic, and cultural dimensions. The conference worked to cross barriers of discipline and culture by bringing together experts and stakeholders from different backgrounds to share information, insights, and lessons learned. APN provided conference and financial support and hosted an interactive side event with the International EMECS Center.





Courtesy of UF/IFAS Office of Conferences and Institutes

**INTERNATIONAL WORKSHOP:  
BUILDING RESILIENCE WITH  
COMMON CAPITAL**

Tokyo, Japan, 23-25 January 2012

Satoyama is a Japanese term for a mosaic of different ecosystem types—secondary forests, farm lands, irrigation ponds, and grasslands—along with human settlements, which has been managed to produce bundles of ecosystem services for human well-being. It is a classical illustration of symbiotic interactions between ecosystems and humans.

As a joint initiative by APN, DIVERSITAS, IHDP, UNU-ISP and the Hyogo Prefectural Government, three workshops were planned to bring together a core group of experts from Japan and the international scientific community, to draw on case studies in Japan and other countries in the Asia-Pacific region that have satoyama-type landscapes.

*The objectives of the workshops are to identify new governance systems to manage the “new commons”, to regulate ecosystem services and to enhance socioecological resilience against climate and ecosystem changes in an efficient and equitable manner across a range of stakeholders.*

The first workshop, held in UNU-ISP in Tokyo, Japan in January 2012, brought together a multinational and multidisciplinary team of more than 20 scientists and policy makers to share knowledge and design key outputs and outcomes of the project, which would be implemented by the two future workshops to be held in 2012-2013.



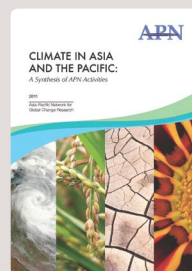
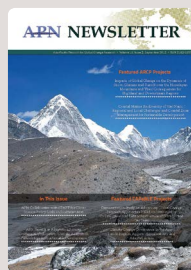
## COMMUNICATIONS AND OUTREACH

*Revamped website.* The APN website was redesigned and launched in July 2011 to improve the experience of locating and accessing information. The new website features better organization and presentation of content, a new calendar of events, a separate section for announcements from the global change community, and RSS subscription feature for all updates.

*New email list.* A new email list feature was integrated into the new website, allowing users to sign up for APN news alerts more easily. This also enables APN to maintain a database of researchers and disseminate targeted information to a specific group of audience—according to their country and research interest, for example.

*Metadata portal.* “APN E-Lib” was set up to store information on all completed and ongoing projects, including metadata such as funding level, project leader and collaborator information and research keywords, as well as all project outputs and links to published journal articles. The E-Lib has become an important tool for researchers to review past efforts and to find potential collaborators for their research.

*Project outputs and publications are available in the APN E-Lib at:*  
[www.apn-gcr.org/resources](http://www.apn-gcr.org/resources)



## 2011-2012 PROJECTS

ANNUAL REGIONAL CALL FOR  
RESEARCH PROPOSALS (ARCP)

<b>ARCP2011-01CMY-Wang</b>	Building Asian climate change scenarios by multi-regional climate models ensemble	Shuyu Wang, Chinese Academy of Sciences, CHINA	CC&V
<b>ARCP2011-02CMY-Koike</b>	River management system development in Asia based on data integration and analysis system (DIAS) under the GEOSS	Toshio Koike, The University of Tokyo, JAPAN	CC&V, RUSD, SPL
<b>ARCP2011-03CMY-Asanuma</b>	Intercomparison of land surface process modelling at Asian drylands	Jun Asanuma, University of Tsukuba, JAPAN	EBLU, CATMD
<b>ARCP2011-04CMY-Paudel</b>	Community-based forestry and livelihoods in the context of climate change adaptation	Naya Sharma Paudel, ForestAction, NEPAL	CC&V, RUSD
<b>ARCP2011-05CMY-Bae</b>	Climate change impact assessment on the Asia-Pacific water resources under AWCI/ GEOSS	Deg-Hyo Bae, Sejong University, REPUBLIC OF KOREA	CC&V, RUSD
<b>ARCP2011-06CMY-Li</b>	Analysis on urban land-use changes and its impacts on food security in different Asian cities of four developing countries using modified CA model	Jianlong Li, Nanjing University, CHINA	EBLU
<b>ARCP2011-07CMY-Han</b>	The impact of spatial parameters on greenhouse gas emission: a comparative study between cities in China and India	Sun Sheng Han, The University of Melbourne, AUSTRALIA	RUSD, EBLU
<b>ARCP2011-08CMY-Huda</b>	Food security and climate change in the Asia-Pacific region: evaluating the mismatch between crop development and water availability	Samsul Huda, University of Western Sydney, AUSTRALIA	CC&V, RUSD
<b>ARCP2011-09CMY-Towprayoon</b>	Strategic rice cultivation for sustainable low carbon society development in Southeast Asia	Sirintornthep Towprayoon, King Mongkut's University of Technology, THAILAND	CC&V, RUSD
<b>ARCP2011-10CMY-Lutaenko</b>	Coastal marine biodiversity of Viet Nam: regional and local challenges and coastal zone management for sustainable development	Konstantin Lutaenko, Institute of Marine Biology, RUSSIAN FEDERATION	EBLU
<b>ARCP2011-11NMY-Patra/Canadell</b>	Greenhouse gas budgets of South and Southeast Asia	Prabir K. Patra, Research Institute for Global Change (JAMSTEC), JAPAN, and Josep Canadell, Global Carbon Project (GCP), AUSTRALIA	CC&V, CATMD



<b>ARCP2011-12NMY-Fortes</b>	Seagrass-mangrove ecosystems: bio shields against biodiversity loss and impacts of local and global change along Indo-Pacific coasts	Miguel Fortes, University of the Philippines, PHILIPPINES	CC&V, EBLU
<b>ARCP2011-13NMY-Herath</b>	Developing ecosystem-based adaptation strategies for enhancing resilience of rice terrace farming systems against climate change	Anura Srikantha Herath, United Nation University, JAPAN	CC&V, EBLU
<b>ARCP2011-14NMY-Salik</b>	Impact of climate change on mangroves ecosystem in South Asia	Kashif Majeed Salik, Global Change Impact Studies Centre (GCISC), PAKISTAN	CC&V, EBLU
<b>ARCP2011-15NMY-Zhen</b>	Holistic assessment of land-use change and impacts on ecosystem services of wetlands	Lin Zhen, Chinese Academy of Sciences, CHINA	EBLU
<b>ARCP2011-16NMY-IGBP</b>	An international geosphere-biosphere programme synthesis theme on: global environment change and sustainable development: needs of least developed countries	João M. F. DE Morais, International Geosphere-Biosphere Programme (IGBP)	CCI, SPL
<b>ARCP2011-17NMY-Mathukumalli</b>	Tracing nitrogen and carbon biogeochemical processes in the inter-tidal mangrove ecosystem (Sundarban) of India and Bangladesh: implications of the global environmental change	Bala Krishna Prasad Mathukumalli, University of Maryland, UNITED STATES	CC&V, EBLU
<b>ARCP2011-18NMY-Jung</b>	Impacts of global warming on coastal and marine ecosystems in the Northwest Pacific	Sukgeun Jung, National Fisheries Research and Development Institute, REPUBLIC OF KOREA	CC&V, EBLU, CATMD, RUSD
<b>ARCP2011-19NSY-Koottatep</b>	Affordable sanitation as an adaptive strategy to emerging waterborne diseases due to climate change	Thammarat Koottatep, Asian Institute of Technology, THAILAND	CC&V, CCI
<b>ARCP2011-20NSY-McEvoy</b>	Assessment of climate change risks and adaptation options for secondary cities in southwestern Bangladesh and central Viet Nam	Darryn McEvoy, Royal Melbourne Institute of Technology University, AUSTRALIA	CC&V
<b>ARCP2011-21NSY-Manurung</b>	Reconstruction of sea level change in southeast Asia (RESELECSEA) waters using combined coastal sea level data and satellite altimetry data	Parluhutan Manurung, National Coordinating for Survey and Mapping Agency, INDONESIA	CC&V, CATMD
<b>ARCP2011-22NSG-Liu</b>	The impact of global warming on ocean-atmosphere feedback strength at tropical Indian Ocean	Lin Liu, First Institute of Oceanography, CHINA	CC&V, CATMD

- ❖ **CC&V:** climate change and climate variability
- ❖ **EBLU:** ecosystems, biodiversity and land use
- ❖ **CATMD:** changes in atmospheric, terrestrial and marine domains
- ❖ **RUSD:** resource utilization for sustainable development
- ❖ **SPL:** science-policy linkages
- ❖ **CCI:** cross-cutting issues

## SCIENTIFIC CAPACITY BUILDING/ENHANCEMENT FOR SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES (CAPaBLE)

<b>CBA2011-01CMY-Kawai</b>	Capacity-building of biodiversity research in the coastal zones of the Asia-Pacific region: phycology taxonomy analysis training using genetic marker	Hiroshi Kawai, Kobe University, JAPAN	EBLU
<b>CBA2011-02CMY-Kaihotsu</b>	Drought monitoring system development by integrating in situ data, satellite data and numerical model output	Ichiro Kaihotsu, Hiroshima University, JAPAN	CC&V, RUSD
<b>CBA2011-03NSY-WCRP</b>	WCRP Open Science Conference: climate research in service to society	Guoxiong Wu, Chinese Academy of Science, CHINA	CC&V
<b>CBA2011-04NSY-IHDP</b>	IHDP training workshops on Asian development pathways in the context of transitions towards a green economy	Anantha Kumar Duraiappah, International Human Dimensions Programme (IHDP)	CCI, SPL
<b>CBA2011-05NSY-Schang</b>	National dialogues on adapting biodiversity management to climate change	Scott Schang, Environmental Law Institute, UNITED STATES	CC&V, EBLU, SPL
<b>CBA2011-06NSY-LOICZ</b>	Young LOICZ Forum 2011: capacity-building in the Asia-Pacific region	Cheng Tang, Chinese Academy of Sciences, CHINA	CATMD, CCI
<b>CBA2011-07NMY-Abawi</b>	Building scientific capacity in seasonal climate forecasting (SCF) for improved risk management decisions in a changing climate	Yahya Abawi, Bureau of Meteorology, AUSTRALIA	CC&V
<b>CBA2011-08NSY-Baker</b>	Towards engagement in the United Nations regular process for global assessment of the marine environment: strengthening capacity of developing countries in the seas of East Asia	Elaine Baker, UNEP GRID-Arendal/The University of Sydney, AUSTRALIA	CCI, SPL
<b>CBA2011-09NSY-Aligaen</b>	Climate change integrated education model: building adaptive capacity for the next generation	Julito C. Aligaen, Regional Centre for Education in Science and Mathematics, MALAYSIA	CC&V, CCI
<b>CBA2011-10NSY-Ngari</b>	International workshop on climate and oceanic fisheries	Arona Ngari, Cook Islands Meteorological Service, COOK ISLANDS	CC&V, CATMD, RUSD
<b>CBA2011-11NSY-Tienhaara</b>	Climate change governance in the Asia-Pacific region: agency, accountability and adaptativeness	Kyla Tienhaara, Australian National University, AUSTRALIA	CC&V
<b>CBA2011-13NSY-Tolentino</b>	Institutionalizing agroforestry as a climate change adaptation strategy through local capacity and policy development in Southeast Asia	Lutgarda Tolentino, Philippine Agroforestry Education and Research Network, PHILIPPINES	EBLU
<b>CBA2011-14NSY-Ng</b>	Water safety from source to tap—strategies and implementations	How Yong Ng, National University of Singapore, SINGAPORE	CC&V

<b>CBA2011-15NSY-Wagan</b>	Capability enhancement of the local experts from state universities and colleges in assessing climate change vulnerability and adaptive capacity of crop-based farming systems in various agroecological settings	Amparo M. Wagan, University of the Philippines Los Baños, PHILIPPINES	CC&V, RUSD
<b>CBA2011-16NSY-Li</b>	Demonstration study on advancing global change research approaches based on inter-agency collaboration and data infrastructure of GENESI and GeoBrain	Guoqing Li, The Centre for Earth Observation and Digital Earth, CHINA	EBLU, RUSD
<b>CBA2011-17NSG-Devy</b>	Building partnerships for developing a south Asian canopy science research programme	M. Soubadra Devy, Ashoka Trust for Research in Ecology and the Environment, INDIA	CC&V, EBLU
<b>CBA2011-18NSY-Peñalba</b>	Awareness raising and capacity building on alternative water management for communal irrigator's association in the Philippines	Linda Peñalba, University of the Philippines Los Baños, PHILIPPINES	CC&V, SPL
<b>CRP2011-01CMY-Pereira</b>	Strengthening capacity for policy research on mainstreaming adaptation to climate change in agriculture and water sectors	Joy Jacqueline Pereira, Universiti Kebangsaan Malaysia (UKM), MALAYSIA	CC&V

**FOCUSED ACTIVITIES: ECOSYSTEMS, BIODIVERSITY AND LAND USE (EBLU)**

<b>EBLU2011-01CMY(R)-Takeuchi</b>	Critical analysis of effectiveness of REDD+ for forest communities and shifting cultivation based on lessons learned from conservation efforts in Laos and Thailand	Kazuhiko Takeuchi, United Nations University, JAPAN
<b>EBLU2011-02CMY(C)-Skole</b>	Developing an MRV system for REDD+: scaling up from project level to a national level REDD+ MRV systems for Laos and Viet Nam	David L. Skole, Michigan State University, UNITED STATES
<b>EBLU2011-03CMY(C)-Sekiya</b>	Capacity building of ALOS satellite data to support mapping and monitoring deforestation and degradation in Indonesia	Tomotaka Sekiya, Remote Sensing Technology Center of Japan (RESTEC), JAPAN
<b>EBLU2011-04CMY(R)-Scheyvens</b>	Participatory approaches to forest carbon accounting to mitigate climate change, conserve biodiversity, and promote sustainable development	Henry Scheyvens, Institute for Global Environmental Strategies (IGES), JAPAN

**FOCUSED ACTIVITIES: RESOURCE UTILIZATION AND PATHWAYS FOR SUSTAINABLE DEVELOPMENT (RUSD)**

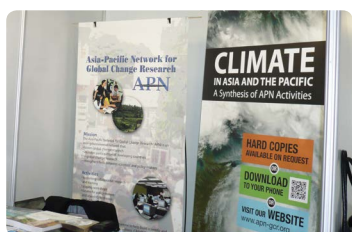
<b>RUSD2011-01CMY(C)-Sun</b>	Assessment and promotion of Japanese strategies and techniques for biomass use in countryside of China — concentrating on agricultural straw residue	Hongwen Sun, Nankai University, CHINA
<b>RUSD2011-02CMY(R)-Surjan</b>	Advancing locally based green practices to realize establishment of sound material cycle society in Asian cities	Akhilesh Surjan, United Nations University, JAPAN

# LIST OF MAJOR EVENTS

Below is a list of events from April 2011 to March 2012 that are solely or jointly organized by APN, or in which it has taken active part.

<b>April 2011</b>	
Greenhouse 2011	Cairns, Australia
APN 16th IGM/SPG Meetings	Colombo, Sri Lanka
Rio+20 Regional Workshop for Asia and the Pacific	Kuala Lumpur, Malaysia
<b>June 2011</b>	
Workshop on Research and Systematic Observations to Discuss Policy-Science Interactions	Bonn, Germany
34th Session of the Subsidiary Body for Scientific and Technological Advice (SBSTA)	Bonn, Germany
UNESCO Science Meeting on IPBES	Paris, France
<b>July 2011</b>	
International Forum for Sustainable Asia and the Pacific (ISAP) 2011	Yokohama, Japan
APN 4th Southeast Asia Sub-Regional Cooperation Meeting, Downscaling Workshop and Proposal Development Training Workshop	Hanoi, Viet Nam
<b>August 2011</b>	
EMECS 9	Baltimore, United States
<b>September 2011</b>	
LOICZ Young Scientist Forum and APN Proposal Development Training Workshop	Yantai, China
HEAA Symposium and Training Workshop on Forest Restoration	Ulaanbaatar, Mongolia
International Symposium on Costs and Benefits of REDD+: What, Whose, How and When?	Kuala Lumpur, Malaysia






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**October 2011**

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APN 19th Steering Committee Meeting Phnom Penh, Cambodia

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UNFCCC Workshop: Gaps and Challenges in Risk Management Approaches in the Face of Climate Impacts Lima, Peru

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APN Follow-up Meeting on Climate Synthesis Kobe, Japan

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WCRP Open Science Conference Denver, United States

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2nd Climate Change Adaptation Forum Bangkok Thailand

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**November 2011**

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Sustainable Urban Water Quality Management in Southeast Asia: Implementation of Research Development Tools Bangkok, Thailand

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17th UNFCCC COP/MOP7 and Related Meetings and Side Events Durban, South Africa

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**January 2012**

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APN 3rd South Asia Sub-Regional Cooperation Meeting and Proposal Development Training Workshop Paro, Bhutan

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First workshop on Building Resilience with Common Capital Tokyo, Japan

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**February 2012**

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Global Carbon Project (GCP) Workshop Tokyo, Japan

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**March 2012**

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APN 17th IGM/SPG Meetings Jakarta, Indonesia

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Beyond Carbon: Ensuring Justice and Equity of REDD+ Across Levels of Governance Oxford, United Kingdom

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Planet Under Pressure Conference London, United Kingdom

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## PUBLICATIONS

### SELECTED PROJECT OUTPUTS

- Dgebuaдзе, P. Y., Fedosov, A. E., & Kantor, Y. I. (2012). Host specificity of parasitic gastropods of the genus *Annulobalcis* Habe, 1965 (Mollusca, Gastropoda, Eulimidae) from crinoids in Vietnam, with descriptions of four new species. *Zoosystema*, 34(1), 139-155. doi:10.5252/z2012n1a6
- Ding, Y., Li, Q., Zhang, Z., & Zhai, P. (2005). Monitoring and predicting ENSO events and sea temperature structure of the warm pool in the western Pacific Ocean. *Global Environmental Research*, 9(1), 57-68. Retrieved from <http://sciencelinks.jp/j-east/article/200518/000020051805A0683556.php>
- Duc, D. M., Nhuan, M. T., & Ngoi, C. V. (2012). An analysis of coastal erosion in the tropical rapid accretion delta of the Red River, Vietnam. *Journal of Asian Earth Sciences*, 43(1), 98-109. doi:10.1016/j.jseaes.2011.08.014
- Fuchs, R., Conran, M., & Louis, E. (2011). Climate change and Asia's coastal urban cities: Can they meet the challenge? *Environment and Urbanization Asia*, 2(1), 13-28. Retrieved from <http://eua.sagepub.com/content/2/1/13.abstract>
- Gan, X., Zhu, M., Li, J., Yang, Q., & Huang, J. (2009). Effects of sensor spatial resolutions and classification themes on urban landscape analysis: a case study in Shanghai, China. *Canadian Journal of Remote Sensing*, 35(4), 357-368. doi:10.5589/m09-031
- Lebel, L., Manuta, J., & Garden, P. (2011). Institutional traps and vulnerability to changes in climate and flood regimes in Thailand. *Regional Environmental Change*, 11, 45-58. doi:10.1007/s10113-010-0118-4
- Li, J. (2012). *Remote sensing monitoring of grassland degradation*. Beijing: Science Press.
- Pavlyuk, O. N., & Trebukhova, Y. A. (2011). Intertidal meiofauna of Jeju Island, Korea. *Ocean Science Journal*, 46, 1-11. doi:10.1007/s12601-011-0001-3

- Peñalba, L. M., Elazegui, D. D., Pulhin, J. M., & Cruz, R. V. (2012). Social and institutional dimensions of climate change adaptation. *International Journal of Climate Change Strategies and Management*, 4(3), 308-322. doi:10.1108/17568691211248748
- Pham, T. M., Sthiannopkao, S., The Ba, D., & Kim, K. (2011). Development of water quality indexes to identify pollutants in Vietnam's surface water. *Journal of Environmental Engineering*, 137(4), 273-283. doi:10.1061/(ASCE)EE.1943-7870.0000314
- Samek, J., Skole, D., Klinhom, U., Butthep, C., Navanugraha, C., Uttarak, P., & Laosuwan, T. (2011). Inpang carbon bank in northeast Thailand: A community effort in carbon trading from agroforestry projects. In B. M. Kumar, & P. K. Nair (Eds.), *Carbon Sequestration Potential of Agroforestry Systems* (Vol. 8, pp. 263-280). Springer Netherlands. doi:10.1007/978-94-007-1630-8\_15
- Sang-Arun, J., Chau, K. H., Uch, R., & Sam, P. (2012). *A guide for technology selection and implementation of urban organic waste utilisation projects in Cambodia*. Hayama: Institute for Global Environmental Strategies. Retrieved from <http://enviroscope.iges.or.jp/modules/envirolib/view.php?docid=3541>
- Shackley, S., Carter, S., Knowles, T., Middelinck, E., Haefele, S., & Haszeldine, S. (2012). Sustainable gasification-biochar systems? A case-study of rice-husk gasification in Cambodia, Part II: Field trial results, carbon abatement, economic assessment and conclusions. *Energy Policy*, 41(0), 618-623. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0301421511009001>
- Shackley, S., Carter, S., Knowles, T., Middelinck, E., Haefele, S., Sohi, S., . . . Haszeldine, S. (2012). Sustainable gasification-biochar systems? A case-study of rice-husk gasification in Cambodia, Part I: Context, chemical properties, environmental and health and safety issues. *Energy Policy*, 42(0), 49-58. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0301421511009037>
- Tsuyuki, S., Goh, M., Teo, S., Kamlun, K., & Phua, M. (2011). Monitoring deforestation in Sarawak, Malaysia using multitempral Landsat data. *Kanto Shinrin Kenkyu*, 87-90.
- Wang, M., Li, Y., Ye, W., Bornman, J., & Yan, X. (2011). Effects of climate change on maize production, and potential adaptation measures: a case study in Jilin Province, China. *Clim Res*, 46(3), 223-242. Retrieved from <http://www.int-res.com/abstracts/cr/v46/n3/p223-242/>
- Yang, F., Li, J., Gan, X., Qian, Y., Wu, X., & Yang, Q. (2010). Assessing nutritional status of *Festuca arundinacea* by monitoring photosynthetic pigments from hyperspectral data. *Computers and Electronics in Agriculture*, 70(1), 52-59. Retrieved from <http://www.sciencedirect.com/science/article/pii/S016816990900177X>
- Yang, Q., Li, J., Gan, X., Zhang, J., Yang, F., & Qian, Y. (2012). Comparison of landscape patterns between metropolises and small-sized cities: a gradient analysis with changing grain size in Shanghai and Zhangjiagang, China. *International Journal of Remote Sensing*, 33(5), 1446-1464. doi:10.1080/01431161.2011.574161



## APN REPORTS AND PROCEEDINGS

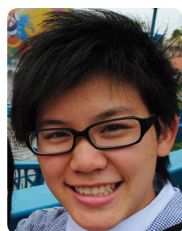
- Manton, M., Heath, L., Salinger, J., & Stevenson, L.A. (2011). *Climate in Asia and the Pacific: A synthesis of APN activities*. Kobe: Asia-Pacific Network for Global Change Research. Retrieved from <http://www.apn-gcr.org/resources/items/show/1745>
- Shrestha, M.L., Sri Adiningsih, E., Stevenson, L.A. (2012). *APN science bulletin: issue 2*. Kobe: Asia-Pacific Network for Global Change Research. Retrieved from: <http://www.apn-gcr.org/resources/items/show/1849>
- Asia-Pacific Network for Global Change Research. (2011). Proceedings of the 16th IGM/SPG Meeting. In L. Stevenson (Ed.). (p. 180). Kobe: Asia-Pacific Network for Global Change Research. Retrieved from <http://www.apn-gcr.org/resources/items/show/1848>
- Asia-Pacific Network for Global Change Research. (2011). APN-LOICZ proposal development training workshop: proceedings. In X. Deng (Ed.). (p. 81). Kobe: Asia-Pacific Network for Global Change Research. Retrieved from <http://www.apn-gcr.org/uploads/proceedings/ptdw/2011/APN.PDTW.2011.Yantai.Proceedings.pdf>
- Asia-Pacific Network for Global Change Research. (2011). APN focused activity: scientific capacity building for climate impact and vulnerability assessments (SCBCIA). Retrieved from <http://www.apn-gcr.org/resources/items/show/1831>
- Asia-Pacific Network for Global Change Research. (2011). APN focused activity: ecosystems, biodiversity & land use (EBLU). Retrieved from <http://www.apn-gcr.org/resources/items/show/1826>
- Asia-Pacific Network for Global Change Research. (2011). APN focused activity: Coast to coast — A roundup of APN activities on marine and coastal research priorities. Retrieved from <http://www.apn-gcr.org/resources/items/show/1819>



## VOICES FROM YOUNG SCIENTISTS

Following are a number of selected feedbacks from young scientists involved in major APN capacity-building activities during the reporting period.

*APN fully recognizes the importance of engaging young and early career scientists especially from developing countries in the region. Each year, APN supports hundreds of aspiring young researchers from the Asia-Pacific through various programmes and projects that aim to transfer scientific knowledge, share practical skills and build professional networks, all of which are crucial for their career development.*



“I find the training contents very useful to me. Through the workshop I became familiar with the working principles of new DNA sequencing methods and tools, and undoubtedly I will be able to get better results when using the same techniques in the future. Equally importantly, the programme helped build up a network among researchers for information exchange. Trainees meet and get on well with each other throughout the training program. So it should be possible for us to share taxonomical information in the near future.”

**Tsz Yan NG, The Chinese University of Hong Kong, China**

*(Tsz Yan is among the 12 trainees from Cambodia, China, Indonesia, Malaysia, Thailand and Viet Nam that participated in this 10-day workshop under APN project CBA2011-01CMY-Kawai held in Kobe, Japan. The workshop provided practical training on investigation techniques for molecular phylogenetic analyses.)*



“For me as a PhD student, the conference was the first real chance to present my research to a truly international scientific community. During the conference I found good ideas, learned new knowledge and generated even more enthusiasm for my research. My sincere appreciation goes to APN and WCRP who made possible my participation at the conference.”

**Natalia D. Tilinina, P.P. Shirshov Institute of Oceanology, Moscow, Russian Federation**

*Natalia presented two posters at the WCRP Open Science Conference in Denver, United States in October 2011 and one of them won the best poster presentation award. Like that of 23 other young scientists from the Asia-Pacific region, Natalia's participation was fully sponsored by APN through CAPaBLE project CBA2011-03NSY-WCRP.*

“It is very timely and important to conduct a training programme on the application of water safety plans, as Sri Lanka does not have enough practical experiences on applying such concepts. Understandings on hazard identification in distribution system and at household level are important and provide a solid basis to evaluate the consumer impacts of a water safety plan from a sociological perspective.”



***N. I. Wickramasinghe, Senior Sociologist, National Water Supply and Drainage Board, Sri Lanka***

*Wicky provided substantial input as a social scientist to the trainings delivered through this project on the development of water safety plans (CBA2011-14NSY-Ng). A key objective of this project was to facilitate the transfer of knowledge related to ensuring the delivery of safe water through sustainable means.*

“I would like to thank APN for the funding support and for giving me the opportunity to be one of the participants to the LOICZ-YLF conference-workshop. Thanks also to the support staff who cheerfully and patiently assisted us in our daily adventures in Yantai, China. To my fellow participants, thank you for the friendship and for brilliant ideas you have shared during discussions. I am grateful to our mentors who were very knowledgeable and to each one of them who effectively delivered relevant information on their respective expertise. It was a great learning experience for me to join a global network of young and seasoned scientists.



***Shiela Villamor, Kagoshima University, Japan***

*Shiela participated in the Young LOICZ Forum 2011 held in Yantai, China, which was an intensive week for coastal scientists and managers from around the world. The forum started with a Proposal Development Training Workshop organized by APN, which was followed by cross-disciplinary lectures and practical exercise that helped develop skills and establish networks that are vital for their future careers. APN provided supported the participation of young scientists to this event through project CBA2011-06NSY-LOICZ.*

After this conference-workshop I am looking forward to take the opportunities to initiate collaboration between APN and with my home institution, the University of the Philippines Visayas, which serves as center of excellence for fisheries and ocean sciences in the country.”

## THE MITRA AWARD FOR GLOBAL CHANGE RESEARCH

The Mitra Award for Global Change Research was established in 2010 in memory of Dr. Ashesh Proshad Mitra, APN SPG Member for India from 1996 to 2007. Dr. Mitra was a doyen in atmospheric research in India, and was recipient of the Padma Bhushan award by the Indian government in recognition of his distinguished service to the nation in the field of scientific research.

Dr. Mitra's diligent and impeccable work for the APN was instrumental in the formulation of a strong and effective scientific agenda that has successfully led to the international recognition that APN is held today in global change research.

The award recognizes outstanding young scientists conducting global change research in Asia-Pacific region. It is presented in conjunction with the annual APN IGM/SPG

Meetings, where a poster session is organized and the winner is selected by SPG members, nFPs and other esteemed members of the science and policy communities.



### WINNERS OF THE MITRA AWARD

- ❖ **Evi Gusmayanti** (2012), Centre for Wetlands People and Biodiversity, Universitas Tanjungpura, Indonesia: Natural Properties of Carbon Stock in Customary Peat Forest at Danau Sentarum National Park, West Kalimantan, Indonesia
- ❖ **W.G.D. Lakmini** (2011), Faculty of Agriculture, University of Ruhuna, Sri Lanka: Plant mediator to tackle climate change
- ❖ **Woo-Seop Lee** (2010), Department of Atmospheric Sciences, Kongju National University, Republic of Korea: The relationships between absorbing aerosols and snow cover/snow water equivalent over the Himalayas and the western Tibetan Plateau during boreal spring

## PEOPLE IN APN

*The Inter-Governmental Meeting (IGM) is the main decision-making body of APN. It consists of national Focal Points (nFPs) appointed by Member Country governments. The IGM approves APN's programmes of work and annual budget based on recommendations from the Scientific Planning Group (SPG). The Steering Committee (SC) acts on behalf of the IGM and provides guidance to the Secretariat on scientific, policy and institutional matters. The lists below are current at the time of publication.*





**NFP AND SPG MEMBERS**

<b>COUNTRY</b>	<b>nFP</b>	<b>SPG Member</b>
<b>AUSTRALIA</b>	<i>(Identifying nominees is in progress)</i>	
<b>BANGLADESH</b>	<i>Faiz AHMED</i> Ministry of Environment and Forests	<i>Md. Giashuddin MIAH</i> Bangabandhu Sheikh Mujibur Rahman Agricultural University
<b>BHUTAN</b>	<i>Peldon TSHERING</i> National Environment Commission	
<b>CAMBODIA</b>	<i>Sundara SEM</i> Ministry of Environment	<i>Veasna KUM</i> Zaman University
<b>CHINA</b>	<i>Chengyong SUN</i> Ministry of Science and Technology	<i>Wenjie DONG</i> Beijing Normal University
<b>FIJI</b>	<i>(Identifying nominees is in progress)</i>	
<b>INDIA</b>	<i>Subodh SHARMA</i> Ministry of Environment and Forests	<i>B.N. GOSWAMI</i> Indian Institute of Tropical Meteorology
<b>INDONESIA</b>	<i>Hendra SETIAWAN</i> Ministry of Environment	<i>Erna Sri ADININGSIH</i> National Institute of Aeronautics and Space
<b>JAPAN</b>	<i>Hiroshi TSUJIHARA</i> Ministry of the Environment	<i>Kensuke FUKUSHI</i> The University of Tokyo
<b>LAO PEOPLE'S DEMOCRATIC REPUBLIC</b>	<i>Sangkhane THIANGTHAMMAVONG</i> Ministry of Natural Resources and Environment	<i>Bounyaseng SENGKHAMMY</i> Ministry of Natural Resources and Environment
<b>MALAYSIA</b>	<i>Che Gayah ISMAIL</i> Ministry of Science, Technology and Innovation	<i>Subramaniam MOTEN</i> Malaysian Meteorological Department
<b>MONGOLIA</b>	<i>Bayarbat DASHZEVEG</i> Ministry of Nature, Environment and Tourism	<i>Tsogtbaatar JAMSRAN</i> Mongolian Academy of Sciences

<b>COUNTRY</b>	<b>nFP</b>	<b>SPG Member</b>
<b>NEPAL</b>	<i>Gokarna Mani DUWADEE</i> Ministry of Science, Technology and Environment	<i>Madan Lall SHRESTHA</i> Academy of Science and Technology
<b>NEW ZEALAND</b>	<i>(Identifying nominees is in progress)</i>	<i>Andy REISINGER</i> New Zealand Agricultural Greenhouse Gas Research Centre
<b>PAKISTAN</b>	<i>Syed Mujtaba HUSSAIN</i> Ministry of Environment	<i>Amir MUHAMMED</i> National University of Computer and Emerging Sciences
<b>PHILIPPINES</b>	<i>Eriberto C. ARGETE</i> Department of Environment and Natural Resources	<i>Marcial C. AMARO Jr.</i> Department of Environment and Natural Resources
<b>REPUBLIC OF KOREA</b>	<i>Kyeong Yun JEONG</i> Ministry of Environment	<i>Soojeong MYEONG</i> Korea Environment Institute
<b>RUSSIAN FEDERATION</b>	<i>Andrey V. ADRIANOV</i> Russian Academy of Sciences	<i>Alexander STERIN</i> Russian Research Institute for Hydrometeorological Information – World Data Center
<b>SRI LANKA</b>	<i>B. M. U. D. BASNAYAKE</i> Ministry of Environment	<i>S. H. KARIYAWASAM</i> Department of Meteorology
<b>THAILAND</b>	<i>Chote TRACHU</i> Ministry of Natural Resources and Environment	<i>Jariya BOONJAWAT</i> Chulalongkorn University
<b>UNITED STATES OF AMERICA</b>	<i>Maria UHLE</i> National Science Foundation	<i>Luis M. TUPAS</i> United States Department of Agriculture
<b>VIET NAM</b>	<i>Xuan Bao Tam NGUYEN</i> Ministry of Natural Resources and Environment	<i>Kim Chi NGO</i> Vietnam Academy of Science and Technology



**STEERING COMMITTEE**

<b>Elected Members</b>	<i>Peldon TSHERING</i>	nFP for Bhutan
	<i>Chengyong SUN</i>	nFP for China
	<i>Hendra SETIAWAN</i>	nFP for Indonesia
	<i>Gorkana Mani DUWADEE</i>	nFP for Nepal
	<i>B. M. U. D. BASNAYAKE</i>	nFP for Sri Lanka
<b>Host of the 19th IGM/SPG Meeting</b>	<i>Sundara SEM</i>	nFP for Cambodia
<b>Ex Officio Members</b>	<i>Alexander STERIN</i>	SPG Member for Russian Federation
	<i>Luis M. TUPAS</i>	SPG Member for United States of America
	<i>Hiroshi TSUJIHARA</i>	nFP for Japan
	<i>Kyeong Yun JEONG</i>	nFP for Republic of Korea
	<i>Maria UHLE</i>	nFP for United States of America
<b>Co-opted Members</b>	<i>Louis BROWN</i>	International Cooperation in Global Change Research, United States
	<i>Roland J. FUCHS</i>	East West Center, United States
	<i>Andrew MATTHEWS</i>	National Commission for UNESCO, New Zealand
	<i>Kazuhiko TAKEMOTO</i>	United Nations University, Japan

**SPG SUB-COMMITTEE**

<i>Alexander STERIN</i>	SPG Member for Russian Federation
<i>Luis M. TUPAS</i>	SPG Member for United States of America
<i>Kensuke FUKUSHI</i>	SPG Member for Japan
<i>Jariya BOONJAWAT</i>	SPG Member for Thailand
<i>Amir MUHAMMED</i>	SPG Member for Pakistan

## CAPACITY DEVELOPMENT COMMITTEE

<i>Alexander STERIN</i>	SPG Member for Russian Federation
<i>Luis M. TUPAS</i>	SPG Member for United States of America
<i>Andrew MATTHEWS</i>	National Commission for UNESCO, New Zealand
<i>Roland J. FUCHS</i>	East West Center, United States
<i>Srikantha HERATH</i>	United Nations University, Japan
<i>Harini NAGENDRA</i>	Ashoka Trust for Research in Ecology and the Environment, India
<i>Hiroshi TSUJIHARA</i>	nFP for Japan

## INVITED EXPERTS TO THE SPG

<i>AILIKUN</i>	International Program Office of Monsoon Asia Integrated Regional Study (MAIRS)
<i>Congbin FU</i>	Temperate East Asia Regional Committee for START (TEACOM)
<i>Lance Clive HEATH</i>	Australian National University Climate Change Institute
<i>Kanayathu Chacko KOSHY</i>	Centre for Global Sustainability Studies, Universiti Sains Malaysia
<i>Chao Han LIU</i>	Southeast Asia Regional Committee for START (SARCS)

## SECRETARIAT

<i>Akio TAKEMOTO</i>	Director
<i>Yukihiro IMANARI</i>	Head, Division of Development and Institutional Affairs
<i>Linda Anne STEVENSON</i>	Head, Division of Communication and Scientific Affairs
<i>Masayuki ISHIZU</i>	Head, Division of Administrative Affairs
<i>Xiaojun DENG</i>	Programme Officer for Communications and Development
<i>Taniya KOSWATTA</i>	Coordinator
<i>Erdenesaikhan NYAMJAV</i>	Programme Officer for Scientific and Institutional Affairs
<i>Chieko KODAMA</i>	Administrative Officer
<i>Christmas DEGUZMAN</i>	Programme Fellow for Scientific and Institutional Affairs
<i>Natsuki NIIMI</i>	Support Staff (part-time)
<i>Yayoi NAGAOKA</i>	Support Staff (part-time)

## FINANCIAL RESOURCES

Statement of income and expenditures fiscal year 2011 (1 April 2011 to 31 March 2012)

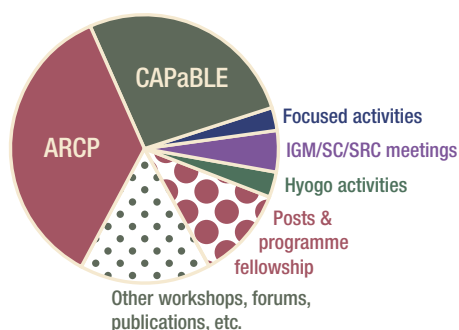
### RESOURCES AVAILABLE (US\$)

Operative assets from the previous fiscal year		231,000
Donor contributions		
Japan	Ministry of the Environment	
	Hyogo Prefectural Government	
United States	National Science Foundation	3,391,000
	United States Global Change Research Program	
New Zealand	Ministry for the Environment	
Republic of Korea	Ministry of Environment	
<i>Total resources available</i>		<b>3,622,000</b>

### USE OF RESOURCES (US\$)

Category	Executed & Committed
Scientific, policy and institutional activities	3,404,500
Administrative/operative costs	122,000
Reimbursement for services	72,000
<i>Total use of resources</i>	<b>3,598,500</b>

### BREAKDOWN IN THE USE OF RESOURCES



### IN-KIND CONTRIBUTION AND MATCHING FUNDS

APN expresses special gratitude to its 22 member country governments, and the Hyogo Prefectural Government that hosts APN Secretariat in Kobe, Japan, for their in-kind contributions including staff time, equipment, supplies and other forms of support.

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Secretariat on strategic issues, and promoting APN at various levels within and outside of the Asia-Pacific region.

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## ACRONYMS

<b>ANU CCI</b>	Australian National University Climate Change Institute	<b>JAMSTEC</b>	Japan Agency for Marine-Earth Science and Technology
<b>APAN</b>	Asia Pacific Adaptation Network	<b>LCS-RNET</b>	International Research Network for Low-Carbon Societies
<b>APN</b>	Asia-Pacific Network for Global Change Research	<b>LOICZ</b>	Land-Ocean Interactions in the Coastal Zone
<b>ARCP</b>	Annual Regional Call for Research Proposals	<b>MOFF</b>	Mongolian Forest Forum
<b>AWCI</b>	Asian Water Cycle Initiative	<b>nFP</b>	National Focal Point
<b>CAPaBLE</b>	Scientific Capacity Building/Enhancement for Sustainable Development in Developing Countries	<b>PDTW</b>	Proposal Development Training Workshop
<b>CDC</b>	Capacity Development Committee	<b>REDD</b>	Reducing emissions from deforestation and forest degradation
<b>DIAS</b>	Data Integration and Analysis System	<b>Rio+20</b>	United Nations Conference on Sustainable Development
<b>EBLU</b>	Ecosystems, Biodiversity and Land Use	<b>RESTEC</b>	Remote Sensing Technology Center of Japan
<b>EMECS</b>	Environmental Management of Enclosed Coastal Seas	<b>RUSD</b>	Resource Utilization and Pathways for Sustainable Development
<b>ENSO</b>	El Niño–Southern Oscillation	<b>SCBCIA</b>	Scientific Capacity Building for Climate Impact and Vulnerability Assessments
<b>GCISC</b>	Global Change Impact Studies Centre	<b>SBSTA</b>	Subsidiary Body for Scientific and Technological Advice
<b>GCP</b>	Global Carbon Project	<b>SC</b>	Steering Committee
<b>GEO</b>	Group on Earth Observations	<b>SPG</b>	Scientific Planning Group
<b>HEAA</b>	Hyogo Environmental Advancement Association	<b>SPREP</b>	Secretariat of the Pacific Regional Environment Programme
<b>IHDP</b>	International Human Dimensions Programme on Global Environmental Change	<b>SRC</b>	Sub-Regional Cooperation
<b>IPBES</b>	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services	<b>SRCOM</b>	Sub-Regional Committee
<b>IPCC</b>	Intergovernmental Panel on Climate Change	<b>START</b>	SysTEM for Analysis Research and Training
<b>ICSU</b>	International Council for Science	<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>IGBP</b>	International Geosphere-Biosphere Programme	<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>IGES</b>	Institute for Global Environmental Strategies	<b>UNU-ISP</b>	United Nations University Institute for Sustainability and Peace
<b>ISAP</b>	International Forum for Sustainable Asia and the Pacific	<b>WCRP</b>	World Climate Research Programme





The Asia-Pacific Network for Global Change Research (APN) is a network of 22 member country governments that promotes global change research in the region, increases developing country involvement in that research, and strengthens interactions between the science community and policy makers.



Ministry for the  
**Environment**  
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United States  
Global Change  
Research Program