

APN

Asia-Pacific Network for Global Change Research

APN Newsletter
Vol.10, No.2
April 2004

Message from the APN Director

The 9th Inter-Governmental Meeting (IGM) / Scientific Planning Group Meeting (SPG) that convened in Canberra, Australia, from 22-24 March, 2004 concluded successfully. Without any doubt, it will be noted as a milestone meeting in APN history. In addition to the fact that it was the first APN IGM in the Southern Hemisphere*, the new three-day system of the IGM/SPG was a great success and will become a model for years to come. Moreover, we believe that strengthening interactions between scientists and policy-makers can be facilitated by having national Focal Points and Scientific Planning Group members together in joint sessions.

It should also be noted that the 9th IGM/SPG meeting kicked off discussions toward the future of APN and preparation of the Second Strategic Plan that should be agreed upon at the 10th IGM/SPG which will take place from 12-14 April, 2005 in Kobe, Japan. Mr. Randal Helten, the Consultant charged with conducting the evaluation of APN activities during the first phase (1995-2005) and with preparation of the Second APN Strategic Plan (2005-2010) will produce a document, giving a clear understanding of how far the APN has come, and a shared, clear vision for the future. This document will be drafted in consultation with a meeting, being planned for October, 2004, consisting of "blue ribbon" specialists and the APN Steering Committee. The draft document will then be circulated to APN members (past and present), member countries and other stakeholders for comments later this year.

With respect to the evaluation of APN, I would like to draw your attention to statistics that show that APN has supported around one hundred (100) projects over the past nine years, and the number of institutes and universities where Principle Investigators are based amounts to around sixty (60). This means that APN is in an ideal position to tell who is doing what kind of global change research, and where in the Asia-Pacific region this research is being conducted. (And thus a clear indication of progress APN has made over the years, as we did not have this knowledge base before APN was established.) We do, however, need to fully utilise the human network of APN members and project scientists as a tool to keep abreast of global change research developments.

Lastly, I am pleased to inform you that the APN Secretariat functions were successfully transferred from AIRIES to the Institute for Global Environmental Strategies (IGES) on 1 April, 2004, as agreed at the 9th IGM/SPG meeting. Moreover, the Secretariat believes this change is a timely one and we hope that member countries will make full use of these new financial, legal and administrative arrangements in order to make APN more robust as we move towards our second phase.

**The third SPG meeting was held in Canberra in 1998 and the 8th Steering Committee meeting convened in New Zealand in 2003.*

—Sombo T. Yamamura

NEWS FROM THE SECRETARIAT

9th Inter-Governmental Meeting (IGM) and Scientific Planning Group Meeting (SPG), Canberra, Australia. 22-24 March, 2004

The APN's 9th IGM/SPG convened in Canberra, Australia, and was admirably hosted by the Australian Greenhouse Office (AGO). Special thanks to APN

national Focal Point for Australia, Dr. Michael Stoddart, and SPG member for Australia, Dr. Graeme Pearman, as well as AGO support staff (in particular

cont'd on page 2, News from the Secretariat



Message from the Director	1
News & Announcements from the Secretariat	1
CAPaBLE Programme—One Year Anniversary	4
Guest Article: The media: a key tool in communicating science to the public.....	5
Supplement: APN Supported Projects 2004-2005	7
Regional News	11
APN Liaison Officers.....	14
People and Projects	15
Calendar	16
Insert: APN Call for Proposals 2004	

About the APN

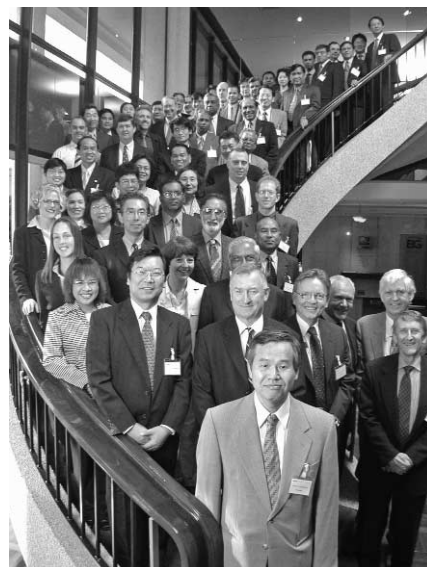
The Asia-Pacific Network for Global Change Research (APN) is an inter-governmental network whose mission is to foster global change research in the Asia-Pacific region, increase developing country participation in that research, and strengthen interactions between the science community and policy-makers. The APN cooperates closely with various scientific programmes and other networks to achieve these purposes.



Howard Bamsey and David Borthwick opening the 9th IGM/SPG in Canberra



Sombo Yamamura welcoming delegates to the 9th IGM/SPG



9th IGM/SPG participants

cont'd from page 1, News from the Secretariat

Melissa Tipping,) for organising and managing successful meetings in Australia. It was also fantastic to see the active participation of so many of our global change partners (DIVERSITAS, IAI, IGBP, IHDP and START) at the meetings in Canberra.

Mr. Howard Bamsey, Chief Executive Officer of the AGO, and Honoured Guest Mr. David Borthwick, Secretary of the Department of the Environment and Heritage, Australia, both made opening remarks at the IGM/SPG. Mr.

Borthwick emphasised the sobering impacts of global change and stressed that we are now dealing with extremely complex environmental issues. He also highlighted that policy needs to be underpinned by sound science. Indeed, Mr. Borthwick acknowledged that a key strength of APN is the recognition for linking science and policy and that Australia appreciates APN activities.

As Mr. Sombo Yamamura noted in his "Director's Message" on page one of this edition of the APN newsletter, the meetings in Canberra marked the first time that both the IGM and SPG met in joint sessions. Moreover, APN members and observers felt that this was indeed the way forward and provided a useful platform to facilitate the interaction of the science and policy-making communities. A major agenda item was preparations for the 10th anniversary (which will be marked by the 10th IGM/SPG in Kobe, 12-14 April, 2004,) and in particular the evaluation of the APN and preparation of the Second Strategic Plan which will be managed by consultant, Mr. Randal Helten. The Framework of the APN was also revised and approved by the IGM; whereby the changes reflect the transfer of Secretariat administrative functions. During the IGM/SPG special brainstorming sessions discussed APN capacity building and the future of APN. Another session focussed on membership development, where it was noted that Brunei and Singapore would be welcome additions to the APN. The APN Liaison Officers also presented their regional reports. During this session it was recommended that Liaison Officer roles be expanded to include working with APN national Focal Points and Scientific Planning Group members in identifying priority global change research topics. The IGM/SPG also stressed the importance of improving communications between the Secretariat, APN members and Liaison Officers. The meeting also discussed the CAPaBLE Programme where it was reported that two (2) comprehensive re-

search projects and eight (8) capacity building projects had been funded; more details of which can be found on page 4.

The IGM approved eighteen (18) projects for funding in 2004/2005 from an activities budget of approximately 760,000 US dollars—seven (7) continuing multi-year projects, ten (10) new projects and one (1) project to receive a seed grant. The projects selected cover a variety of important global change issues and activities throughout the Asia-Pacific region. The full list is included on pages 7-10 of this newsletter.

The 9th IGM/SPG Proceedings and the 2003/2004 projects, activities and regional reports will also be available in May on the APN website <www.apn.gr.jp>. A hard copy of the full proceedings and projects, activities and regional reports can be obtained from the Secretariat.

As Prof. Zong-ci Zhao, former SPG Co-Chair, has stepped down from her role as SPG member for China, the Secretariat would like to thank Prof. Zhao for the time and energy she has devoted to APN over the years. We wish Prof. Zhao the very best of future happiness, and look forward to her continued interest in APN activities. (Details of the new SPG member for China will be posted on the APN website in due course.)

Asia-Pacific Network for Global Change Research (APN)
Australian Greenhouse Office (AGO)

Free, one-day symposium on GLOBAL CHANGE RESEARCH

March 23, 2004, 10am to 5.30pm
Theatrette, Australian Greenhouse Office,
John Gorton Building,
King Edward Terrace, Canberra

Observations of the world's physical and biological environment have shown clearly that change to these earth systems is underway. In the first instance, issues such as ozone depletion, climate change, salinisation of soils and wetlands, etc. have grown out of observations and process studies of these systems. Similarly, attention to the biological systems has shown issues relating to the loss of biodiversity, deterioration of ecosystem function and feedbacks between the biology and the physical systems are matters of global and regional change. Somewhat more recently, the connection of these changes to the human dimensions of population growth and resource demands have been studied. All of this work, referred to as *global change science*, underpins our potential to provide *integrated and sustainable options for the future*.

This Symposium is a celebration of the achievements of the Australian global change research community, presenting a small set of examples of achievements and aspirations.

We invite colleagues from the global change research community and those with policy development responsibilities to join us in this celebration on the occasion of the joint annual meeting of the APN Governmental Management Group and its Scientific Steering Committee.

The program will include:

- **Australia's approach to climate change.** Howard Bamsey, AGO
- **Science of Australia's greenhouse accounting system.** Dr Gary Richards, AGO
- **Cape Grim: a 25-year record of the atmosphere.** Dr Graeme Pearman, CSIRO
- **Coral reefs and global change: emerging knowledge and management responses.** Dr Paul Marshall, Great Barrier Reef Marine Park Authority
- **Changing landscapes – emerging issues.** Dr Graham Harris, CSIRO
- **Climate modeling in Australia.** Dr Mike Manton, Bureau of Meteorology
- **Global change and the carbon cycle.** Dr Michael Raupach, IGBP Project Office
- **Adaptation, vulnerability and integrated risk assessment.** Dr Roger Jones, CSIRO

Participants and their institutions are encouraged to bring materials to the Symposium that promote and display their respective contributions to Australian Global Change research. If you are interested in providing such material, please contact Dr Graeme Pearman (grape.pearman@csiro.au) about how this might be best achieved.

1 The APN is an intergovernmental mechanism for building scientific research capacity through the Asia-Pacific region for the purpose of addressing the issues surrounding global change at both the global and regional scale. For more details on APN see www.apn.gr.jp.

APN/AGO Symposium on Global Change Research
March 23, 2004. Australian Greenhouse Office. Canberra, Australia

The Symposium was a celebration of the achievements of the Australian global change research community, presenting a small set of examples of achievements and aspirations. The symposium also marked the occasion of the 9th APN IGM/SPG Meeting in Canberra.

The Program included:

1. Mr. Howard Bamsey, AGO Australia's approach to climate change
2. Dr. Gary Richard, AGO Science of Australia's greenhouse accounting system
3. Dr. Graeme Pearman, CSIRO Cape Grim: a 25-year record of the atmosphere
4. Dr. Paul Marshall, Great Barrier Reef Marine Park Authority Coral reefs and global change: emerging knowledge and management responses
5. Dr. Graham Harris, CSIRO Changing landscapes—emerging issues
6. Dr. Mike Manton, Bureau of Meteorology Climate modelling in Australia
7. Dr. Michael Raupach, IGBP Project Office Global change and the carbon cycle
8. Dr. Roger Jones, CSIRO Adaptation, vulnerability and integrated risk assessment

More details of the Symposium are available on the APN website <<http://www.apn.gr.jp/activity/ago/gcrsympo.html>> with direct links to the AGO website:<<http://www.greenhouse.gov.au/>>

APN CALL FOR PROPOSALS 2004

A copy of the APN Call for Proposals 2004 is enclosed within this newsletter.

The deadline for the optional **pre-proposal** stage is **Friday, 18 June 2004, midnight Japanese time**. Concerning assistance APN can provide during this stage, please refer to the enclosed Call for Proposals 2004.

The deadline for **full proposals** is **Wednesday, 22 September 2004, midnight Japanese time**.

Proponents should use the **“APN Call for Proposals 2004—Guide for Proponents”** in making their application, as *changes* have been made to previous versions. The updated 2004 guide will also be available on the **APN website** <www.apn.gr.jp> from May.

CSIRO/GASLAB global flask sampling network

The world map shows sampling sites across the globe, including Shelland Islands, Siberia, Barrow, Estevan Pt., Chaska Peak, Fraserdale, Mauna Loa, Amazon, Charles Pt., Samoa, Cape Ferguson, Waga, Cape Schanck, Alcock, Cape Grim, Baring Head, Macquarie Island, Mawson, Davis, Casey, and South Pole. A legend indicates Active site (red circle), Occasional site (green circle), and Campaign site (blue circle).

Dr. Graeme Pearman giving a presentation on “Cape Grim: a 25-year record of the atmosphere” during the APN/AGO Symposium

The photograph shows Dr. Pearman in a suit, gesturing while speaking. The second photograph shows a storage room filled with numerous air sampling flasks on shelves, with a person visible in the background.

CONGRATULATIONS—BABY BOY!

Congratulations to former APN Programme Manager, James Robertson, and his wife Corin who gave birth to a baby boy—Alexander John Robertson. A little too young to apply for the APN internship position, but who knows what the future holds for the “wee” man Alex! And if he’s anything like his mother and father, he’s sure to be a high flyer!!!

APN INTERNSHIP—VACANCY ANNOUNCEMENT

As part of the APN's capacity building efforts, the APN is posting an Internship vacancy announcement for a highly motivated young professional, with an interest in global environmental issues, willing to work in an international environment at the APN

Secretariat in Kobe, Japan. The objectives and terms for the Internship are provided on the APN website: <http://www.apn.gr.jp/internship_announcement.html>

Note: deadline for applications is 31 May, 2004

APN NEWSLETTER—ELECTRONIC VERSION ONLY

As of July 2004, the APN Newsletter will only be available in electronic format posted on the APN website. If you wish to be included in the mailing list for the APN Newsletter electronic bulletin, please submit your email address to the APN Secretariat <info@apn.gr.jp> **APN**

CAPaBLE PROGRAMME—ONE YEAR ANNIVERSARY

One year has passed since the official launch of the APN's CAPaBLE Programme on 16th April 2003, following endorsement by the 8th Inter-Governmental Meeting (IGM) and agreement that CAPaBLE should become an integral part of APN's activities.

CAPaBLE is a Programme to build and enhance the scientific capacity and sustainable development of developing countries in the region. Moving into the second year of its first phase, all ten (10) activities are focussing on Climate Change. Some of the main highlights of the CAPaBLE Programmes first year are noted:

- Launched a "Call for Proposals" for Comprehensive Research Project (CRP) proposals, established criteria, guidelines and review process;
- Organized a Programme Development Workshop, May 2003. The Proceedings of which are available on the APN website <<http://www.apn.gr.jp/activity/capable/pdw.html>>;
- Selected two (2) thirty-month CRPs from twelve (12) proposals; and
- Selected eight (8) capacity building projects.

The CAPaBLE Standing Committee (CSC) is expected to be fully implemented by the end of May 2004, and will consider any new capacity building proposals for funding. The CSC will consist of three SPG members, two mentors to monitor the progress of the CRP projects, and a donor representative from the Ministry of the Environment, Japan. The smaller Capacity

Building Committee (CBC) will also consider Capacity Building projects. The CRPs will foster research on climate change issues that will be relevant to the Asia-Pacific region, be of a high standard, and be considered in literature that can be useful in the Intergovernmental Panel on Climate Change (IPCC) and other international processes. When the launch of the CAPaBLE Programme was approved at the 8th IGM, the Secretariat, together with the Steering Committee, was mandated to organise the Programme Development Workshop, select appropriate participants (with capacity building expertise) and discuss the implementation plan of the CAPaBLE programme in its first year. The Secretariat, together with the CSC, will make every effort to communicate all CAPaBLE activities to APN members and other interested parties, particularly in the selection of new capacity building activities and the progress of current activities.

CAPaBLE Activities

Comprehensive Research Projects

2003-CRP-Theme I: Enhancement of National Capacities in the Application of Simulation Models for the Assessment of Climate Change and its Impacts on Water Resources and Food and Agricultural Production

2003-CRP-Theme II: Integrated Assessment Model for Developing Countries and Analysis of Mitigation Options and Sustainable Development Opportunities

Capacity Building Activities

2003-CB-01: Building Capacity of Mekong River Countries to Assess Impacts from Climate Change—Case Study Approach on Assessment of Community Vulnerability and Adaptation to Impact of Climate Change on Water Resources and Food Production

2003-CB-02: Training Institute on Climate and Extreme Events in the Pacific

2003-CB-03: Capacity Building for Greenhouse Gas Inventory Development in Asia-Pacific Developing Countries

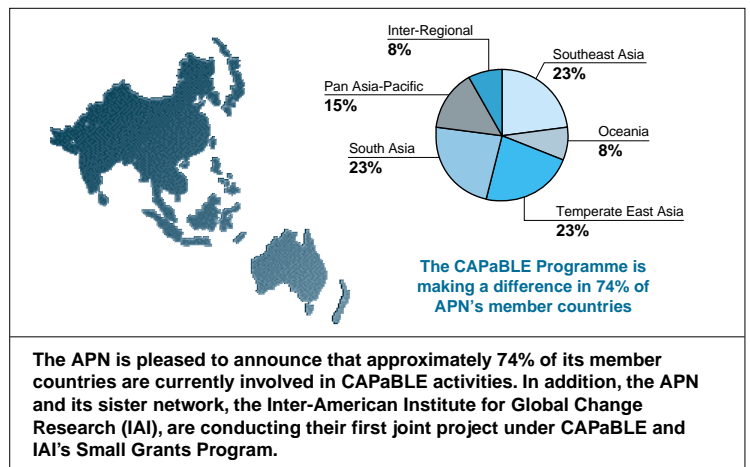
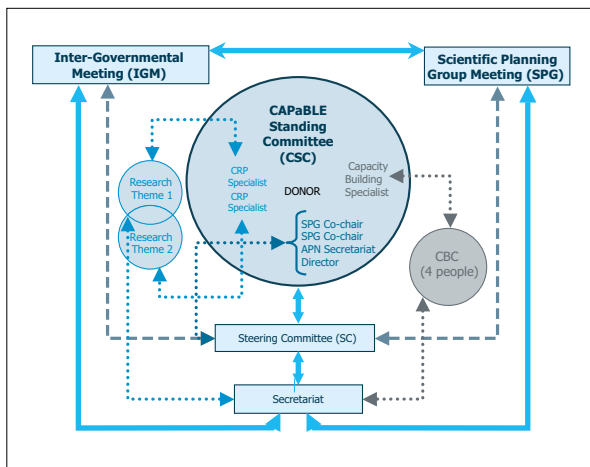
2003-CB-04: Creating Climate Knowledge Networks through Strategic, Global Linkages (with IAI)

2003-CB-05: Capacity Building Workshop on Climate Change Mitigation with Locally Owned Technology and Systems

2003-CB-06: UNFCCC Training Workshop for the National Climate Change Focal Points in the APN Region on the Guidelines on National Communications from Non-Annex I Parties

2003-CB-07: National Capacity Building Workshop on Global Change Research

2003-CB-08: WCRP-sponsored RCM workshop / CLIVAR Conference





Through CAPaBLE, APN is partnering with its sister Network, the Inter-American Institute for Global Change Research (IAI)

Featured Project

This proposal is partly in response to criticism claiming that indiscriminate use of climate information and climate forecasts has led to poorer risk management in some developing countries. Although this has happened in some cases, we argue that if proper systems analytical principles are followed such negative outcomes can be avoided and benefits would be obvious and lasting. Hence, two major workshops will be conducted to build capacity in the use of climate applications and provide linkages to related research and activi-

ties. Jointly with sister projects in South America, we will build capacity in the target region of South and Southeast Asia that will allow stakeholders to deal intelligently with intrinsically probabilistic information and help them to move beyond the provision of information towards knowledge-based approaches to climate risk management. The workshops will provide a number of practical examples from the developing world where climate knowledge has reduced vulnerability and led to improvements in systems management. Developed country

experience (in particular the Australian experience, where much of the approaches were originally developed) will be highlighted insofar as it applies to developing countries. Workshop 1 (WS1) is aimed at senior scientists and node leaders in order to inform everyone fully about current activities and achievements. WS2 aims to build basic capacity of young scientists.

More information on the aforementioned projects can be found on the APN website at: <<http://www.apn.gr.jp/activity/capable/capableprojects.htm>>

For additional information on the CAPaBLE Programme and its activities, please contact Dr. Linda Stevenson <l Stevenson@apn.gr.jp> at the APN Secretariat. **APN**

GUEST ARTICLE



THE MEDIA: A KEY TOOL IN COMMUNICATING SCIENCE TO THE PUBLIC

*Jan Sinclair**

In today's so-called "knowledge society", there is a generally recognized need for a more informed public. Information is important to democracy, because an informed public can make informed choices. Increasingly, there is an acknowledged need for better public understanding of science. However, a meta-analysis of scientific and governmental reports into the 1999 genetic engineering controversy in the United Kingdom reveals a surprising absence of a key player. All of these reports, from bodies including the House of Lords, the House of Commons, the Royal Society and the Parliamentary Office of Science and Technology, acknowledge that people get most of their information about science from the media. Paradoxically, none of these reports include the media in their conclusions or recommendations.

This exclusion of the media from strategies to improve public under-

standing of science suggests an important reason why public opinion surveys and a broad range of scientific and governmental reports reveal significant dissatisfaction with the present standards of science communication. It would seem self-evident that if a key player is left out of plans for improving the dialogue between science and public, the chances of actual improvements will reduce substantially.

The meta-analysis of UK reports into the GE debate shows that contemporary Western science tends to put the media into the same category as the ancient explorers' chart descriptions of the unknown: 'Here Be Dragons'. In all of the reports from official government and scientific institutions, the media's role in disseminating scientific information appears to be considered an unfortunate structural mistake. In all the reports' conclusions and recommendations, science communication is taken

to mean communication by scientists. If the news media are mentioned at all, it is as passive recipients of scientific information, or as errant and ignorant scribes who should accept greater direction from their scientific betters.

This attitude ignores the fact that the media, by definition, mediate any information which they transmit, in a dynamic process which inevitably involves change between scientific words, and media representations. Scientific complaints about inaccurate media versions of scientific information miss the point. Information is not communication: any information inevitably changes between production and reception. Nor is reception of information the same as retention of information.

Translation is critical to the dissemination of information. It is not possible for the same information issued from a

cont'd on page 6, Guest Article

**Note on author: Jan Sinclair is a long-time science journalist who is currently a PhD student with the University of Auckland's Department of Film, Television and Media Studies*

scientist's mouth or laptop to be received unaltered, except by someone who understood all the concepts on which the utterance was based, understood the shorthand technical words in which the information was phrased, and was giving the matter her/his full attention. Other listeners or viewers would bring their own translations to bear, depending on how much attention they were paying and how interesting the information was to them. Michael Worton, Vice-Provost and Fielden Professor of French Language and Literature at the University College of London explained to the British Association for the Advancement of Science's *Science Communications Conference* in May 2002 that: '... it is important to remember that any translation modifies the text that it is transferring into another discourse and that the receiver of the translation returns it to the translator again modified through the prism of his/her own discourses. The act of translation is an essentially dynamic one ...' (Worton, 2002)

The media translate technical information, acting on the principle that audiences will only pay attention to information if it is relevant to their own life experiences. As the Wellcome Trust report on public attitudes to human cloning (1998) notes, 'While stimulating and informing an inclusive debate involves the dissemination of scientific information, it also requires the identification of "hooks" which link in with people's everyday lives and concerns—so that their attention is attracted and information retained.' (Wellcome Trust, 1998: par 2.7)

For commercial and philosophical reasons, the aim of any medium is to attract the interest of as broad an audience as possible. Consequently, the media rephrase unfamiliar information to make it meaningful and therefore attractive to as many different publics as possible. Seeking open meanings, the media use affective words, sounds and images. Seeking to attract as wide as possible an audience, the media prefer polysemic texts, with many meanings coded into individual words and images, and combinations, to provide potential points of interest for as many

readers/viewers/listeners as possible. These approaches are completely opposite to the scientific aim of clear, unambiguous language, explaining why criticisms of inaccuracy arise so often when scientific stories appear in the news media, or when scientific images and themes are used in the wider entertainment media.

It is plain from the meta-analysis of UK scientific and governmental reports that science expects to speak, while the public listen and absorb. As the University of Cardiff's Professor Ian Hargreaves and his colleague Galit Ferguson observe, the world of science tends to assume that '... an easily irrational public is malleable to media hysteria: essentially, it assumes that the public is stupid, or at least less able to make valid judgements than expert scientists' (Hargreaves & Ferguson, 2000:5).

This attitude to the public fails to account for the many interactive processes which shape public discourse. A growing body of social science research (Condit, Parrott *et al* 2002, Doble 1994, Goshorn 1996, Hornig 1993, House of Lords Select Committee on Science and Technology 2000, Page and Shapiro 1992) shows that public discourse processes allow non-scientists to make sense of even highly technical material. People use their social networks to pool knowledge, making collective sense out of scientific information by discussing issues and considering the opinions of information sources that they trust. With the critical addition of adequate information, these public discourse processes create a collective wisdom which, research shows, has greater depth and substance than individual knowledge and opinions.

Virtually all of the scientific and governmental investigations into improving public understanding of science call for dialogue between science and public. Dialogue is, by definition, two-way; moreover, the media play a crucial role in communicating science to the public. Therefore, to improve dialogue, it would appear to be essential to include the media in any planning.

Bibliography

- Condit, C. M., Parrott, R., & Harris, T. M. (2002). Lay Understandings of the relationship between race and genetics: Development of a collectivized knowledge through shared discourse. *Public Understanding of Science*, 11(4), 373-387.
- Doble, J. (1994). Public opinion about issues characterized by technological complexity and scientific uncertainty. *Public Understanding of Science*, 4(2), 95-118.
- Goshorn, K. (1996). Social rationality, risk and the right to know: information leveraging with the Toxics Release Inventory. *Public Understanding of Science*, 5(4), 297-320.
- Hargreaves, I., & Ferguson, G. (2000). *Who's Misunderstanding Whom? Bridging the gulf of misunderstanding between the public, the media and science*, from <http://www.esrc.ac.uk/esrccontent/PublicationsList/whom/whofirst.html>
- Hornig, S. (1993). Reading risk: public response to print media accounts of technological risk. *Public Understanding of Science*, 2(2), 95-109.
- House of Lords Select Committee on Science and Technology. (2000). *Science and Technology: Third Report: Science and Society*, from <http://www.publications.parliament.uk/pa/ld199900/ldselect/ldsctech/38/3801.htm>
- Page, B. I., & Shapiro, R. Y. (1992). *The Rational Public: Fifty years of trends in Americans' policy preferences*. Chicago, London: The University of Chicago Press.
- Parliamentary Office of Science and Technology. (2000). *Science in the Media: Press coverage of GM food*, from <http://www.parliament.uk/post/pn138.pdf>
- The Royal Society (2000). *Scientists and the media: Guidelines for scientists working with the media and comments on a Press Code of Practice*, from <http://www.royalsoc.ac.uk/files/statfiles/document-105.pdf>
- Wellcome Trust (1998). *Public Perspectives on Human Cloning*. London: The Wellcome Trust. **APN**

APN Supported Projects 2004-2005

APN 2004-01-CMY *Applying Climate Information to Enhance the Resilience of Farming Systems Exposed to Climatic Risk in South and Southeast Asia*

COUNTRIES INVOLVED: Australia, India, Indonesia, Nepal, Pakistan, USA

PROJECT LEADER: H. Meinke, Australia

RESEARCH THEME: Climate change and variability, human dimensions of global change

SUMMARY: This project is now in its third year of APN funding and builds on previous work in India and Pakistan (APN 2000-17), which has established a network of research teams with capacity to apply agricultural systems modelling to explore and evaluate options for managing climatic risk. Building on that foundation, the new project aims to demonstrate and deliver benefits from climate forecast information for agricultural decision makers, and plot a course for large-scale, sustained operational support of seasonal climate prediction within the target countries (India, Indonesia and Pakistan). Activities link closely with partner projects such as the Advanced Training Institute on Climatic Variability and Food Security (ATI, funded by Packard Foundation) and AIACC activities in Argentina and Uruguay. The RES AGRICOLA network ensures that tools and methodologies developed in all these projects will be immediately available to the partner projects.

APN 2004-02-CMY *Water Resources in South Asia: An Assessment of Climate Change—Associated Vulnerabilities and Coping Mechanisms*

COUNTRIES INVOLVED: Bangladesh, India, Indonesia, Nepal, Pakistan, USA

PROJECT LEADER: A. Muhammed, Pakistan

RESEARCH THEME: Climate change and variability, human dimensions of global change

SUMMARY OF PROJECT: This project focuses on the assessment of the impacts of and vulnerability to global climate change on regionally shared water resources in Bangladesh, India, Nepal and Pakistan. In its final year of a three-year APN funded project, attention will be on providing information needed to reduce vulnerability of the region's water resources to climate and socio-economic change and development of national and regional strategies and will include: Preparation of regional maps of climate variability and change to identify areas at risk in terms of water availability and agriculture; an exposure meeting of technical experts and climate modellers will be organized at the Indian Institute of Tropical Meteorology (IITM), Pune, India; preparation of draft project reports; stakeholder meetings at the national level with participation of experts and policy-makers; preparation of the final report and its dissemination through a regional capacity building/outreach workshop; peer-reviewed articles will be published in a special issue of the Journal "Science and Culture"; and a synthesis report on the entire project will be prepared and published. In addition to synthesizing information on impacts, vulnerability and adaptation, the report will include key recommendations.

APN 2004-03-CMY *Inventory of Glaciers and Glacial Lakes and the Identification of Potential Glacial Lake Outburst Floods (GLOFs) Affected by Global Warming in the Mountains of India, Pakistan and China/Tibet Autonomous Region/Tibet Autonomous Region*

COUNTRIES INVOLVED: Japan, Mongolia, P.R. China, Republic of Korea

PROJECT LEADER: J.G. Campbell, Nepal

RESEARCH THEME: Changes in terrestrial ecosystems and biodiversity, climate change and variability, human dimensions of global change

SUMMARY OF PROJECT: The glaciers are nature's renewable storehouse of fresh water that benefit hundreds of millions of people in the Hindu Kush Himalaya (HKH) region. Glaciers of the region, however, are retreating with rapid accumulation of water forming lakes in the face of accelerated global warming. The sudden breaching of the unstable dam discharges huge amounts of water and debris from the lake known as Glacial Lake Outburst Floods (GLOFs). The GLOFs often have catastrophic effects. Several GLOF events have been documented in the HKH region causing loss of life and property. An inventory of glaciers and glacial lakes is an important undertaking to get accurate information and knowledge of GLOFs. While the potential GLOF hazards in the region is still unknown, this study will add a database to enhance the ability of researchers, policy-makers and water resource planners as well as to understand and mitigate GLOF-associated hazards.

APN 2004-04-CMY *Regional, Multi-scaled, Multi-temporal Land Use and Land Cover Data to Support Global Change Research, Land Use Management and Policy Making: A SEARRIN LUCC Project*

COUNTRIES INVOLVED: Cambodia, Indonesia, Lao P.D.R., Malaysia, Philippines, P.R. China, Sri Lanka, USA, Viet Nam

PROJECT LEADER: D. Skole, USA

RESEARCH THEME: Changes in terrestrial ecosystems and biodiversity

SUMMARY OF PROJECT: Now in its final year, this two-year project is developing a suite of accurate, scientific data products derived from earth observation satellite data at multiple scales for Southeast Asia. Accurate geospatial and multi-temporal land cover and land use data derived through empirical observations at fine and coarse resolutions are imperative, primary data sets for (1) developing more complete understanding of carbon sources and sinks and therefore climate change, (2) identifying impacts on ecosystem as well as species biodiversity at local, national and regional scales, and (3) understanding the complex nexus of human and biophysical impacts on and responses to land use and land cover change. It is the overall goal of this project to develop and provide access to accurate geospatial land use and land cover data, current conditions and forecasting trends of LUCC to the global change science community and to land use managers and policy makers in order to improve our scientific understanding of the processes that link land use and land cover change to the global change issues (impacts of biodiversity, climate change, urbanization, etc.) we currently face, and to allow for informed land use and policy decisions aimed at sustainable development.

APN 2004-05-CMY ***Building Local Capacity for Global Change Research: The Millennium Ecosystem Assessment Sub-Global Activities in the Asia-Pacific Region***

COUNTRIES INVOLVED: Australia, India, Indonesia, Malaysia, Pacific Island Countries, P.R. China, Viet Nam

PROJECT LEADER: W. Reid, Malaysia

RESEARCH THEME: Changes in coastal zones and inland waters, changes in terrestrial ecosystems and biodiversity, cross-cutting issues, human dimensions of global change

SUMMARY OF PROJECT: This two-year project is in its final year and is multiplying both the capacity-building benefits and the impact of the ongoing MA sub-global working group activities in the Asia-Pacific region. APN funds will assure the quality and prominence of the Asia-Pacific Sub-Global Assessments by increasing the participation of researchers in the region in the global MA activities. The APN grant will contribute to the long-term capacity of individuals and institutions in the region to produce credible, scientific information about the effects of ecosystem change on human well-being by supporting the involvement of more researchers (including junior scholars) from the Asia-Pacific region in MA training workshops and working group meetings.

APN 2003-06-CMY ***The Mega-Deltas of Asia: A Conceptual Model and its Application to Future Delta Vulnerability***

COUNTRIES INVOLVED: Australia, Bangladesh, Cambodia, India, Japan, Pakistan, P.R. China, Thailand, USA, Viet Nam

PROJECT LEADER: Z. Chen, P.R. China

RESEARCH THEME: Changes in coastal zones and inland waters, climate change and variability, human dimensions of global change

SUMMARY OF PROJECT: This two-year project which is now in its final year is focusing on the development of a conceptual model for the geological processes and response behaviour of Asian mega deltas, which are affected by strong monsoons, high river flow and sediment load, and frequent geo-hazard events. Existing databases will be integrated based on the input of many experienced Asian delta scientists, each of whom has been working with specific geological issues that include subsidence from groundwater withdrawal, sea-level rise impacts, and coastal erosion, saltwater intrusion and river channel dry-up from damming and water diversion. Databases will be further incorporated with ongoing field measurements to better understand the geological framework of the delta basins. Thus, the project is expected to allow for substantial improvements in hazard assessments and mitigation policies in the face of global change issues.

APN 2004-07-CMY ***Integrating Carbon Management into Development Strategies of Cities—Establishing a Network of Case Studies of Urbanization in the Asia-Pacific***

COUNTRIES INVOLVED: Australia, India, Indonesia, Japan, Malaysia, Philippines, P.R. China, Republic of Korea, Thailand, USA, Viet Nam

PROJECT LEADER: R. Lasco, Philippines

RESEARCH THEME: Changes in atmospheric composition, changes in terrestrial ecosystems and biodiversity, cross-cutting issue, human dimensions of global change

SUMMARY OF PROJECT: There is a growing realization among earth system scientists and policy-makers concerned with global change that the way urbanization unfolds has profound implications for future growth in energy use and emissions in Asia. This project aims to draw on past and current research efforts on emissions and urban management, and establish a new set of coordinated case studies that will address how carbon management can be integrated into development strategies for cities. Four case studies (Bangkok, Manila, Delhi, and Jambi, Indonesia) will be conducted under this which are expected to contribute directly to new initiatives on human settlements and regional patterns of development in the international global change science programmes, especially, the joint Global Carbon Project.

APN 2004-08-NSY ***SOLAS Science 2004: Travel Fund for Young Scientists***

COUNTRIES INVOLVED: All countries in the region are eligible

PROJECT LEADER: M. Uematsu, Japan

RESEARCH THEME: Changes in atmospheric composition, climate change & variability, changes in coastal zones and inland waters

SUMMARY OF PROJECT: The Surface-Lower Atmosphere Study (SOLAS) Science 2004 is the first international conference to present the initial results of the program. It will be held in Halifax, Nova Scotia, Canada from the 13 to 16 October 2004. As a core IGBP project addressing the interface between two components of the Earth system, SOLAS depends on research that is not only interdisciplinary, but also involves closely coordinated field studies in which the different research components are combined so as to produce comprehensive data sets. Achieving an understanding of processes that occur at the ocean-atmosphere interface requires an enhanced level of cooperation in planning and execution of research among many different disciplines in the environmental sciences. These challenges require educational and capacity building efforts to bring together young and established researchers for the mutual exchange of ideas and experience, from countries with developed and developing science bases. SOLAS Science 2004 will provide an important opportunity for building these multi/inter disciplinary linkages and broadening participation in SOLAS.

APN 2004-09-NSG ***Biodiversity Measures in Different Biomes: The Challenge for the Next Decade***

COUNTRIES INVOLVED: Cambodia, Lao P.D.R., New Zealand, Viet Nam

PROJECT LEADER: K. Muth, Cambodia

RESEARCH THEME: Changes in coastal zones and inland waters, changes in terrestrial ecosystems and biodiversity, human dimensions of global change

SUMMARY OF PROJECT: A challenging objective of the Convention on Biological Diversity is to reduce the present rate of biodiversity loss by 2010. Moreover, evaluation of the success of nation states in meeting this challenge requires using a suite of biodiversity measures and an understanding of the degree to which these various measures track each other across a range of biomes. The seed grant provided by APN will bring the collaborating scientists and other stakeholders together in a scoping workshop to discuss the most effective way of addressing this problem while involving both scientists and policy-makers. The outcomes of the scoping workshop will be a proposal for submission to APN in the Call for Proposals 2004.

APN 2004-10-NSY

Climate Interactions and Marine Ecosystems: Effects of Climate on the Structure and Function of Marine Food-Webs and Implications for Marine Fish Production in the North Pacific Ocean Marginal Seas

COUNTRIES INVOLVED: Japan, P.R. China, Republic of Korea, Russian Federation, USA

PROJECT LEADER: F.E. Werner, USA

RESEARCH THEME: Changes in coastal zones and inland waters, climate change and variability

SUMMARY OF PROJECT: Predicting and understanding effects of global climate change on ecosystems and fish production in oceanic systems is essential if we are to develop quantitative approaches to managing sustainable marine resources. We will address three hypotheses dealing with the environmentally induced variations in fish growth, regime shifts, and changes in energy cycling and structure of marine food-webs. We will use a combination of existing data sets, trophodynamic models and climate change scenarios to assess the changes in ecosystem structure and function of certain regions in the North Pacific. We will focus on herring as the target fish species and, geographically, we will focus on the North Pacific coastal and neighbouring oceanic regions. The collaborators include physical oceanographers, fisheries scientists and fisheries managers. Capacity building is an essential component of the project.

APN 2004-11-NMY

Institutional Capacity in Natural Disasters Risk Reduction: A Comparative Analysis of Institutions, National Policies, and Cooperative Responses to Floods in Asia

COUNTRIES INVOLVED: Japan, Russian Federation, Thailand, Viet Nam

PROJECT LEADER: E. Nikitina, Russian Federation

RESEARCH THEME: Human dimensions of global change

SUMMARY OF PROJECT: We will explore the challenging problem of *how to effectively shape human institutional responses* to the risk of natural disasters with a special focus on floods. Asia accounts for about 90% of the world population affected by natural disasters, with more than half as a result of floods. Although a variety of domestic and regional institutions, including legislation, administration, policies and strategies are in place here and risk reduction measures are undertaken the vulnerability of people to floods remains high both in developed and in developing countries; the poor are especially vulnerable. Countries selected for analysis represent developed, transition economies and developing countries (Japan, Russian Federation, Thailand and Viet Nam): for each of them counteracting floods is at the top of their national risk reduction agenda; institutional capacities and responses, however, vary considerably across them. We will compare major lessons learned and possibilities and constraints for cross-country transfer and adaptation of best practices in institutional capacity building in the region.

APN 2004-12-NMY

Role of Institutions in Global Environmental Change

COUNTRIES INVOLVED: India, Nepal, Sri Lanka

PROJECT LEADER: S. Sonak, India

RESEARCH THEME: Human dimensions of global change

SUMMARY OF PROJECT: The role of institutions in natural resource management is being increasingly recognised in the context of global environmental change. Institutions are defined as humanly devised constraints that structure human interaction (Berkes and Folke, 2000). They are the set of rules actually used by a set of individuals to organise repetitive activities that produce outcomes affecting those individuals and potentially affecting others (Ostrom, 1992). Policy research and analysis of institutions related to global environmental change, that is ongoing worldwide, normally focuses on international or national mechanisms and programmes in place. While it is accepted that these programmes contribute significantly to causing and confronting global environmental changes, the role of local institutions cannot be ignored. Therefore, it is necessary to study the role of institutions, operating at the local level, in global environmental change and build the capacity of local communities to adapt to these changes.

APN 2004-13-NMY

Synergy between Ecosystem Change and Biodiversity Studies in the Western Pacific and Asia: Establishing Case Studies for Carbon Management and Biodiversity Conservation

COUNTRIES INVOLVED: Indonesia, Japan, P.R. China, Philippines, Russia, Sri Lanka

PROJECT LEADER: K. Kitayama, Japan

RESEARCH THEME: Changes in terrestrial ecosystems and biodiversity

SUMMARY OF PROJECT: This project seeks the synergy between climate change studies and the conservation of biological diversity by linking the estimation of net biome productivity with biodiversity observations in rapidly changing terrestrial and aquatic ecosystems in Monsoon Asia. The Kyoto Protocol incorporates the vital role of forests and wetlands in its mechanisms to reduce greenhouse gases, favouring fast growing plantations. The Convention on Biological Diversity (CBD) emphasizes the conservation and sustainable use of forest and wetlands that harbour biological diversity. Guidelines need to be developed without sacrificing these mutually exclusive requirements. This project aims at increasing the awareness and at disseminating the synergy concept through the organisation of a workshop, the existing DIWPA network and establishing a pilot case-study site in Borneo.

APN 2004-14-NMY

Integrated Regional Studies of Global Change in Monsoon Asia: Phase I: APN/SCOPE/START Rapid Assessment Project of Global Change in Monsoon Asia

COUNTRIES INVOLVED: All countries in Asia

PROJECT LEADER: A. Snidvongs, Thailand

RESEARCH THEME: All themes

SUMMARY OF PROJECT: Monsoon Asia has been identified by the Earth System Science Partnership (DIVERSITAS, IGBP, IHDP and WCRP) as a priority region for integrated research studies. Changes to the regional climate, biogeochemical, and terrestrial and marine ecosystem functioning brought about by human driving forces such as increase in population, intensified land use, urbanization, industrialization, and economic development may have global as well as regional consequences. Similarly, effects of global change will have a significant impact on sustainable development at both regional and national levels. Together with the ESSP, START and its regional networks in

East Asia, South Asia and Southeast Asia will undertake integrated regional studies of global change in Monsoon Asia. The integrated regional studies will be preceded by a first phase of three sub-regional Rapid Assessment Projects for China/East Asia, South Asia and Southeast Asia that will systematically review current knowledge regarding regional aspects of global change in Monsoon Asia. A series of book volumes primarily authored by regional scientists will be produced within one year of each project workshop.

APN 2004-15-NSY ***Fourth International Human Dimensions Workshop—Globalisation and Food Systems: A Global Environmental Change Perspective***

COUNTRIES INVOLVED: All countries in the Asia-Pacific region are eligible

PROJECT LEADER: J. Xu, P.R. China

RESEARCH THEME: Human dimensions of global change

SUMMARY OF PROJECT: The APN funds for the Fourth International Human Dimensions Workshop, which is planned to take place from 26 September to 10 October in Costa Rica, will allow young scholars from developing countries in the region to be invited to explore the interactions between global environmental change, globalisation and food systems. The selection process aims to establish regional balance, therefore six participants and one mentor/teacher will be invited from Asian countries. Throughout the workshop, participants will be introduced to key issues related to global environmental change and globalisation with an emphasis on the linkages related to food systems. Topics will include land degradation, climate change, water issues, trade liberalisation, privatisation, biotechnology, and others. Ongoing IHDP research projects and case studies will be presented, and new research challenges will be identified.

APN 2004-16-NSY ***Groundwater Discharge as an Important Land-Sea Pathway in Southeast Asia***

COUNTRIES INVOLVED: Japan, Philippines, Russian Federation, Thailand, USA

PROJECT LEADER: M. Taniguchi, Japan

RESEARCH THEME: Changes in coastal zones and inland waters

SUMMARY OF PROJECT: We hypothesize that many water quality and associated problems influencing coastal environments around the world today are related to past and on-going contamination of terrestrial groundwater because this groundwater is now seeping out along many shorelines. Such inputs thus contribute to the increased occurrences of coastal hypoxia, nuisance algal blooms, and associated ecosystem consequences. We propose to initiate direct measurements of groundwater discharge in selected areas of the Philippines. These studies, which will engage scientists from nearby countries, will form a base for more extensive research in the region and will represent an important element of our capacity building activities. Another major training component of our project consists of a regional workshop (in Thailand) on management implications, measurement implications, measurement techniques, climatic effects, and the impact of the direct inflow of groundwater into the sea.

APN 2004-17-NSY ***Climate Prediction and Agriculture: An Assessment and Perspective***

COUNTRIES INVOLVED: P.R. China, Republic of Korea, Russian Federation

PROJECT LEADER: S. Gadgil, India

RESEARCH THEME: Climate change and variability, human dimensions of global change

SUMMARY OF PROJECT: The inter-disciplinary project, CLIMAG (Climate Prediction and Agriculture) draws upon research from the meteorological, agricultural, and social sciences to utilize the enhanced ability to predict climate variability on the scale of months to a year to improve management and decision-making in respect to crop production at local, regional and national scales. A workshop, being hosted by the WMO, Geneva, will bring together scientists and representatives of the broader community now involved in CLIMAG-related activities to review advances in science since the 1999 workshop that launched CLIMAG and experiences in application of seasonal forecasts, to plan collaborative research, and to consider the future of CLIMAG. Results of the conference, including a WMO publication, will be widely disseminated. Since climate variability strongly affects agriculture in the Asia-Pacific region, it is imperative that regional scientists be prominently involved in this workshop and the formulation of future collaborative activities in the region. The APN funding support provided will allow for the participation of developing countries from the APN region.

APN 2004-18-NMY ***Climate Variability and Human Activities in Relation to Northeast Asia and their Land-Ocean Interactions and their Implications for Coastal Zone Management***

COUNTRIES INVOLVED: P.R. China, Republic of Korea, Russian Federation

PROJECT LEADER: V. Kasyanov, Russian Federation

RESEARCH THEME: Changes in coastal zones and inland waters, climate change and variability, human dimensions of global change

SUMMARY OF PROJECT: This project will investigate and assess the effects of the natural climatic variability and socio-economic development on recent environmental changes, on the basis of datasets from selected major river basins in the northeastern Asia region. In particular, aspects related to river discharge, the transport and rate of materials and pollutants, organic matters, the bio transfer of persistent toxic substances, biological productivity, sedimentary records in rivers, estuaries and adjoining waters will be examined. For this purpose, a multi-disciplinary team will be established to deal with the scientific problems, and groups of young scientists from the region will be trained in leading labs of the countries involved. Collation of existing data and field work/laboratory analysis will be carried out. The findings will be published in a number of scientific papers and reports, and a monograph will be completed by the team to synthesise the results. Finally, management strategies and recommendations will be formulated, incorporating the scientific data derived from the study.

Note: **APN 2004-CB01-NSY** ***An Assessment of the Socio-economic Impacts of Floods under Climate Change Conditions in Large Coastal Cities in South and Southeast Asia*** will be funded under the CAPaBLE Programme.

For more information on past and present APN supported projects, please consult the APN website <www.apn.gr.jp> or contact, the APN Secretariat <info@apn.gr.jp>



OCEANIA

26-30 January, 2004. Report on the Inter-regional Preparatory Meeting for the Ten-year Review of the Barbados Programme of Action for the Sustainable Development of Small Island Developing States.

Nassau, Bahamas

Over 300 participants, including 13 ambassadors, 22 ministers, deputy ministers, and representatives of UN agencies, and inter-governmental and non-governmental organisations attended the meeting.

The weeklong meeting synthesised the regional position papers into an AOSIS *Strategy Paper* accommodating all aspects of the special issues discussed during panel discussions into the *Nassau Declaration* highlighting SIDS achievements and challenges in the implementation of BPOA. The outcomes of this meeting will be forwarded to the G-77/China for consideration in advance of the New York PrepCom in April.

The AOSIS Strategy paper is structured to highlight the importance of the issues discussed in the BPOA and the new issues such as trade globalisation and liberalisation, sustainable capacity development and education for sustainable development, sustainable consumption and production, national enabling environments, health (particularly HIV/AIDS,) knowledge management and information and communication technology, culture, access to financial resources and the most important issue of implementation.

While it is generally true that the SIDS are 'many countries with one voice', the other dynamics that surfaced during certain discussions revealed the differences of opinions of states such as Singapore and Niue, to those which are territories and the leanings of Cyprus

and Malta which are in the process of joining the European Union.

2-6 February, 2004. Pacific Islands Regional Ocean Forum (PIROF).

University of the South Pacific, Suva, Fiji

The PIROF meeting was jointly organised by the University of the South Pacific (USP), the Secretariat of the Pacific Community (SPC) and the South Pacific Applied Geoscience Commission (SOPAC), to examine options and initiatives for the implementation of the Pacific Islands Regional Ocean Policy (PIROP). PIROP was adopted by the Pacific Islands Forum in 2002. More than 200 people from 20 Pacific countries participated in PIROF, including senior government officials, diplomats, representatives from environmental departments, international bodies, regional and non-government organisations. The PIROF participants adopted the Pacific Islands Regional Ocean Policy and reaffirmed their commitment to sustainable ocean development, as expressed in the ocean and coast components of Agenda 21. They also reaffirmed their commitment to the Global Action Plan for Small Island Developing States, agreed to in Barbados in 1994, and to the Johannesburg Plan of Implementation.

PIROP is to be implemented through the development of a Framework for Integrated Strategic Action (ISA). The PIROF meeting agreed on a process through which ISA will be finalised. After the draft ISA is submitted and presented to the Council of Regional Organisations in the Pacific (CROP), it will be submitted to the United Nations; Forum Officials Committee; Forum Member Countries; non-forum territories, members and partners, and tabled at the BPOA+10 Review in Mauritius in August-September, 2004. By the end of 2004, CROP is expected to brief governing councils on the status of ISA.

February, 2004. New Pacific Sustainable Energy Partnership Initiative

The establishment of a new Pacific Islands Energy Policies and Strategic Action Planning Project was for-

malised with the signing of the project document in February in Suva, Fiji, between the South Pacific Applied Geoscience Commission (SOPAC) and the United Nations Development Programme (UNDP). The Project aims to improve capacity of Pacific Island Countries in developing practical national energy policies, and strategic action plans to implement policies. In each participating country, the Project intends to establish a framework of national energy policies, plans and practical mechanisms to sustain and manage national energy supply. The Project will start in June 2004.

March, 2004. The Expert Meeting on Project Design for Pacific Islands.

Okinawa, Japan

About 35 participants from international/regional organisations (UNESCO-IOC, UNDP, FAO, SPREP.), Universities (UNU, Univ. of Hawaii, Hokkaido Univ., U of Ryukyus, USP), NGOs (WWF, ISME, LEAD Japan), Ministry of Foreign Affairs (MOFA Japan), Okinawa Prefecture, Okinawa International Centre etc., attended the meeting. Dr Koshy was also in attendance.

The major objective of the Meeting was to discuss project design for Pacific Islands in the thematic areas of *environment, health and human resource development* as a follow-up measure to the third Pacific Islands Forum Meeting (PALM-3) held in Okinawa, May 2003.

The scene for the project design meeting was set by ten invited speakers whose topics included, coral reef, mangrove, IOC activities, waste management, fisheries, biodiversity, health and IT, K-12 (Kindergarten to Year 12) and HRD, LEAD (Internet learning) and JICA Training.

These project ideas were grouped into two broad thematic areas matching the Programmatic approach to sustainable development activities gaining prominence in the Pacific region. These areas are also in alignment with the Pacific submissions to WSSD Type II initiatives and the strategic priorities of the Pacific as the region prepares for BPOA+10 in Mauritius.

The thematic areas are:

- (i) Integrated Coastal Management (ICM) and
- (ii) Capacity Building

There are four projects under ICM:

- Mangrove protection and reforestation
- IOC-WESTPAC-RIS-PIC partnership
- Biodiversity conservation project
- Integrated waste management

There are four projects under Capacity Building:

- Pacific coral reef capacity building training workshops
- Integrated coastal management training course
- E-Learning modules and networking (LEADS, Tele-health, V&A Training, CHARM)
- Waste management training

11-12 March, 2004. Technical Aspects of Maritime Boundaries Delimitation Workshop. Suva, Fiji

The SOPAC led workshop familiarised member countries with country-specific data and information; the Pacific Islands Regional Maritime Boundaries Information System; and Marzone software. Participants from Fiji, Niue, Samoa and Tuvalu attended. A second workshop is planned for September 2004, for the remaining countries who are beneficiaries of the AusAID-funded Maritime Boundaries Delimitation Project.

15-17 March, 2004. Inter-linkages Regional meeting on Integrated Capacity Development in the Pacific on Multilateral Environmental Agreements. Nadi, Fiji

This meeting was coordinated by the South Pacific Regional Environmental programme (SPREP), the United Nations University (UNU) and the Ministry of the Environment, Japan.

The main goal of this meeting was to develop practical and applicable frameworks of cooperation and activities for possible consideration by Pacific Island Countries on MEA Management, particularly capacity building within the context of National Capacity Self Assessment (NCSA). In working groups and plenaries, the meeting discussed various aspects of MEA compliance, MEA inter-linkages, knowledge man-

agement for capacity building and the partnerships required for moving forward. (The aforementioned Okinawa projects were also discussed in the meeting.)

Dr. Koshy represented APN at this meeting.

18-19 March, 2004. Convention on Migratory Species (CMS) and Marine Mammal Conservation in the Pacific. Samoa

The second workshop on the Convention on Migratory Species (CMS) and Marine Mammal Conservation in the Pacific was held at the South Pacific Regional Environment Programme (SPREP) in Samoa. During the course of the meeting, the government of Samoa announced that it would join CMS, making it the first Pacific Island Country to join this global convention. Workshop participants spent two days learning about the Convention and agreed to work over the coming year on a draft arrangement for regional marine mammal conservation. Thirteen Pacific countries were represented at the workshop: American Samoa, Australia, Cook Islands, Fiji, French Polynesia, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga and Tuvalu. Non-government organisations attending were: the International Fund for Animal Welfare; Whale and Dolphin Conservation Society; World Wide Fund for Nature and the Vava'u Whale Watching Association. The workshop was sponsored by the CMS Secretariat, the Packard Foundation and the governments of Australia and New Zealand.

22 March, 2004. World Water Day

The United Nations declared 22 March World Water Day (WWD,) which was observed under the theme "Water and Disasters." South Pacific Applied Geoscience Commission (SOPAC) continued collaboration with the Fiji-based non-government organisation Live and Learn Environmental and Development Education, which started two years ago. An exhibition of water and environment paraphernalia from NGOs, government ministries and the private sector was displayed in Suva. Leading UN agencies for 2004 WWD observance were the International Strategy

for Disaster Reduction and the World Meteorological Organisation. WWD activities in the Pacific region have been supported by the UK Department of International Development.

29 March – 2 April, 2004.

Institutional Capacity Building on Renewable Energy Training in Pacific Island Developing States (PIDS). Pilot Training on Wind Energy Conversion Systems (WECS). University of the South Pacific, Suva, Fiji

The one-week workshop discussed renewable energy sources and the need for sustainable energy policies. Wind power was a particular focus of the workshop. Participants were introduced to wind resources, factors affecting wind speed, selection of potential sites for wind turbines, modelling techniques, wind generation and components of the wind turbine. They were introduced to physical, theoretical and technical aspects of Wind Energy Conversion Systems (WECS). As well as introduced to management and control of wind energy systems and taken through exercises to determine feasibility of the wind energy project, maintenance and safety, and financial and economic analyses. 26 participants from Cook Islands, Fiji, Samoa, Solomon Islands, Tonga and Vanuatu attended the workshop from different energy sectors of governments, non-government organisations and tertiary institutions. The workshop was facilitated by SOPAC and USP's Department of Physics. It was organised by USP's Department of Physics and funded by USP and UNESCAP. The workshop developed the skills of participants on how to progress with wind energy projects in their countries.

22-24 March, 2004. 9th APN Inter-Governmental Meeting and Scientific Planning Group Meeting. Canberra, Australia.

Dr. Koshy attended this meeting and presented the APN Liaison Officers regional report for Oceania and updated the meeting on the APN CAPaBLE capacity building project "climate and extreme events in the Pacific" which will be held in USP, Suva, 15-26 June, 2004.

Compiled from report by APN Liaison Officer Ms. Mosmi Bhim

SOUTH ASIA

19-20 January, 2004. Indo-US Workshop on Economic and Environmental Modeling. New Delhi, India

The Indian Institute of Management, Ahmedabad, India organized an "Indo-US Workshop on Economic and Environmental Modeling" where presentations and discussions centred on modeling techniques and economic assessment of environmental policies with particular attention to India and global environmental concerns. Different models, such as the Second Generation Model (SGM), Asia-Pacific Integrated Model (AIM), Market Allocation Model (MARKAL), Integrated Assessment Model (IAM), crop models, forestry sector model, etc. were discussed in details during the workshop.

2-4 February, 2004. ABC Science Team Meeting and South Asian Workshop on Air Pollutants, Aerosols and Regional Impacts. New Delhi, India

The meeting of Atmospheric Brown Cloud (ABC) Science Team and the "South Asian Workshop on Air Pollutants, Aerosols and Regional Impacts" were organized by The Energy and Resources Institute in New Delhi. During the South Asian Workshop, presentations were made by South Asian and other international experts on various aspects of atmospheric processes like emissions of different trace gases including particulate matter and black carbon, meteorology, chemistry and physics. The impacts of air pollutants on earth's radiation budget, agriculture and human health were also discussed during the workshop.

5 March, 2004. Discussion Meeting on Urban Air Quality Management with Respect to Suspended Particulate Matter. New Delhi, India

The Department of Science and Technology (DST) of India and the Japan International Cooperation Agency (JICA) organized a meeting to discuss the issue of urban air quality management with special focus on suspended particulate matter (SPM) in mega-cities like Delhi due to their adverse impacts on human health.

Compiled from report by APN Liaison Officer Dr. C. Sharma

SOUTHEAST ASIA

12-29 January, 2004 and 23 February – 1 March, 2004. APN CAPaBLE Training Courses on Assessment of Impacts of and Vulnerability to Climate Change in Water Resources and Food Production Sectors in Mekong River Countries. Choburi and Ubon Rachathani, Thailand

These two training courses were organized by Southeast Asia START Regional Center as part of the APN CAPaBLE 2003-CB01 Project with an aim to build capacity of human resources and institutions in Lao PDR and Thailand to assess the impact of and the vulnerability to climate change of water resources and food production sectors in their countries by using tools and approaches such as high resolution regional climate scenario, hydrological modelling, crop modelling and the stakeholder participatory method. Two regional research networks consisting of climate change scientists were established; one of which was on water resources, and the other on crop production. During the two courses members of each of these networks familiarized themselves with tools and datasets required for the assessment. A number of follow-up case studies had been formulated and small funding has been provided so that participants will have opportunities to practice techniques and tools learnt during the initial training courses. Some of these case studies include studies on the impact of climate change on water and rice production in Ubon Rachathani and Roi Et Provinces in Thailand and Savannakhet Province and Nam Ngum catchment in Lao P.D.R. The outcomes of these follow-up case studies will be presented and compiled in the synthesis workshop planned for July 2004.

13-20 January, 2004. Fifth International Conference on Asian Marine Geology, and First Annual Meeting of IGCP475 DeltaMAP and APN Mega-Deltas. Bangkok and Ayutthaya, Thailand

The first activity of two back-to-back

events was the scientific conference where over 140 oral presentations and over 100 posters covered a wide variety of disciplines in marine geology were presented during the 14 sessions held in Bangkok. Immediately after the Conference, a specialized event that focused on large river deltas in Asia was convened jointly by the International Geoscience Programme (IGCP) Project Number 475 "Deltas in the Monsoon Asia-Pacific Region (DeltaMAP)" under the direction of Drs. Steven Goodbred of State University of New York at Stony Brook, USA and Yoshiki Saito of the Geological Survey of Japan, and by APN 2003-12 Project "The Mega-Deltas of Asia: A Conceptual Model and its Application to Future Delta Vulnerability" led by Professor Zhongyuan Chen of East China Normal University. Over 80 scientists from 16 countries participated in this joint meeting. Two breakout sessions were also organized during the meeting. The first breakout discussion focused on thematic issues, including monsoons and climate change, hydrology and sedimentary processes, human impacts and consequences, and delta evolution. The second breakout discussion focused on several regional issues, including those in, East Asia, Oceania, South Asia and Southeast Asia. Some key points that emerged from the discussions included the common consensus that recent and present stresses on monsoon Asia's river deltas far outweighed the perceived threats of future climate change and sea-level rise. Yet in most of the popular and scientific literature, it is these future impacts that are highlighted. However, all participants felt that the current issues were more pressing and significant, and if not addressed in the coming decades, then any other concerns would be of little consequences owing to the potentially highly degraded state of the river deltas. Together, the project participants felt that a greater focus on (1) system data, both existing and new, (2) regional scientific collaboration, (3) model development, and (4) application of high-tech, but affordable, instrumentation in little known areas would be of great benefit for advancing our understanding of the regional and local studies of monsoon deltas. Furthermore, participants felt encouraged that it was important for

cont'd on page 14, Regional News

this and planned future conferences to achieve the goals set forth above by allowing both joint funding efforts to be developed, and for the continued exchange of knowledge and data.

11-13 February, 2004. Regional Scientific Conference on the South China Sea. Bangkok, Thailand

This scientific conference was part of the UNEP/GEF regional project: "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand". Six themes were addressed during the conference:

- Participatory management and decision-making
- Stakeholder participation
- Reconciling national, regional and global objectives
- Capacity building: local, national and regional
- Project achievement to date
- Regional coordination/collaboration/communication

Over 100 participants from all South China Sea countries and representatives of several UN and other organisations attended the conference where over forty (40) technical papers and case studies were presented.

23-25 March, 2004. Fifth APN Workshop on Indices and Indicators for Monitoring Trends in Climate Extremes. Melbourne, Australia

This 3-day workshop focused on the use of statistical and mimetically techniques to analyse long-term meteorological data and extreme climate events in the region. Approximately 34 participants and resource persons from 18

countries attended the workshop where each participant brought some of their countries data to be analysed and utilised under the guidance of resource persons. As a following-up to this workshop, 3 to 4 scientific papers are expected to be published in peer review literature.

Compiled from report by APN Liaison Officer Dr. Anond Snidvongs

TEMPERATE EAST ASIA

6-9 January, 2004. The 3rd Asian Aerosol Conference. Hong Kong, China

The Asian Aerosol Conference (AAC) is one of four international conferences in the world dedicated to the promotion and enhancement of aerosol research, and was organized under the auspices of the Asian Aerosol Research Assembly. Aerosol science is one of the important keys to understanding air pollution, environmental health, and industrial and pharmaceutical applications involving particles. Following the very successful 1st AAC held in Nagoya, Japan (1999) and the 2nd AAC in Pusan, Korea (2001), The Hong Kong University of Science and Technology (HKUST) sponsored and hosted the 3rd Asian Aerosol Conference in 2004. In the conference, tutorials (6 January 2004) and plenary lectures (7-9 January 2004) were given by world-renowned researchers in aerosol science and technology. In addition to the usual topics, the 3rd AAC had a special symposium on Particulate Matters in China. An exhibition of the latest aerosol instruments also took place.

March 22-26, 2004. The International Conference on High-Impact Weather and Climate: Understanding, Prediction, and Socio-Economic Consequences (ICHWC 2004). Seoul, Republic of Korea

ICHWC 2004 commemorated the centennial anniversary of modern meteorological observations by the Korea Meteorological Administration (KMA) and the 40th anniversary of the Korean Meteorological Society (KMS). The conference was organized by KMA, KMS, and World Meteorological Organization (WMO).

The conference consisted of three sub-conferences: weather, climate, and socio-economic impacts. In recent years, the world has been suffering from extreme changes in both weather and climate, which caused a serious impact on human lives, societies, and economies. The conference offered the opportunity to share knowledge, experience, and information on the diverse fields of high-impact weather and climate among the participating scientists. It also contributed to organizing international cooperative research on high-impact weather and climate in the future. **APN**

Publications:

The IGBP Series: *Global Change and the Earth System, A Planet Under Pressure*, W. Steffen, A. Sanderson, P. D. Tyson, J. Jager, P.A. Matson, B. Moore III, F. Oldfield, K. Richardson, H. J. Schellnhuber, B. L. Turner II, R. J. Wasson, Springer, ISBN 3-540-40800-2, 2004

Compiled from report by APN Liaison Officer Ms. Yang Ying

APN Liaison Officers

Southeast Asia

Dr. Anond Snidvongs

Southeast Asia START Global Change Regional Center
Room 508, 5th Floor, SWU Pathumwan Building Number 5
Chulalongkorn University
Henri Dunant Road, Bangkok Thailand 10330
Tel: +66-2-218-9464 to 7
Fax: +66-2-251-9416
Email: apnsea@start.or.th

SASCOM (South Asia)

Dr. C. Sharma

National Physical Laboratory
Dr. K. S. Krishnan Marg
New Delhi 110 012, India
Tel: +91-11-2574-2610-12 Ext. 2331
Fax: +91-11-585-2678
Email: csharma@csnpl.ren.nic.in

START-Oceania

Ms. Mosmi Bhim

c/o SPAS, University of the South Pacific
PO Box 1168, Suva, Fiji

Tel: +679-3212-446

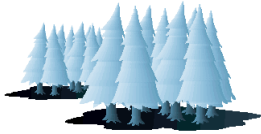
Fax: +679-3302-548

Email: startoceania@usp.ac.fj

TEACOM (Temperate East Asia)

Ms. Yang Ying

c/o Institute of Atmospheric Physics
Chinese Academy of Sciences
Qi Jia Huo Zi, De Sheng Men Wai Street
Beijing, 100029 China
Tel: +86-10-6204-1317
Fax: + 86-10-6204-5230
Email: sec@tea.ac.cn



PEOPLE AND PROJECTS

APN NATIONAL FOCAL POINTS (FP) AND SCIENTIFIC PLANNING GROUP MEMBERS (SPG)

AUSTRALIA

Dr. Michael Stoddart (FP) Australian Antarctic Division
Dr. Graeme Pearman (SPG) CSIRO

BANGLADESH

Mr. S. M. Kamruzzama (FP) Ministry of Environment and Forests

CAMBODIA

Mr. Sovannora Ieng (FP) Ministry of Environment
Mr. Chanrithy Chuon (SPG) Ministry of Environment

CHINA

Mr. Xuedu Lu (FP) Ministry of Science and Technology
Prof. Zong-ci Zhao (SPG) National Climate Center

FIJI

Mr. Cama Tuiloma (FP) Ministry of Local Government, Housing, Squatter Settlement and Environment
Mr. Epeli Nasome (SPG) Ministry of Local Government, Housing, Squatter Settlement and Environment

INDIA

Dr. Subodh Sharma (FP) Ministry of Environment and Forests
Dr. A.P. Mitra (SPG) National Physical Laboratory

INDONESIA

Ms. Liana Bratasida (FP) Ministry of Environment
Mr. Bambang Tejasukmana (SPG) National Institute of Aeronautics and Space

JAPAN

Mr. Kazuhiko Takemoto (FP) Ministry of the Environment
Prof. Nobuo Mimura (SPG) Center for Water Environment Studies, Ibaraki University

LAO. P. D. R.

Mr. Phonechaleun Nonthaxay (FP) Science, Technology and Environment Agency
Mr. Chanthanet Boualapha (SPG) Science, Technology and Environment Agency

MALAYSIA

Mr. Kok Kee Chow (FP) Malaysian Meteorological Service
Dr. Subramaniam Moten (SPG) Malaysian Meteorological Service

MONGOLIA

Mr. Dashzeveg Bayarbat (FP) Ministry of Nature and Environment
Dr. Jamsran Tsogtbaatar (SPG) Ministry of Nature and Environment

NEPAL

Dr. Madan L. Shrestha (SPG) Department of Hydrology and Meteorology

NEW ZEALAND

***Dr. Andrew Matthews (FP/SPG)** National Institute of Water and Atmospheric Research

PAKISTAN

Mr. Khalid Khan Toru (FP) Ministry of Environment
***Dr. Amir Muhammed (SPG)** National University of Computer and Emerging Sciences

PHILIPPINES

Mr. Samuel Peñafiel (FP) Department of Environment and Natural Resources
Mr. Celso Diaz (SPG) Ecosystems Research and Development Bureau

REPUBLIC OF KOREA

Mr. Houngeob Kim (FP) Ministry of Environment
Dr. Kwang-Woo Cho (SPG) Korea Environment Institute

RUSSIAN FEDERATION

Dr. Alexander Sterin (SPG) Russian Research Institute for Hydrometeorological Information—World Data Center

SRI LANKA

Mr. Thosapala Hewage (FP) Ministry of Forestry and Environment
Mr. N.A. Amaradasa (SPG) Department of Meteorology

THAILAND

Dr. Plodparsop Suraswadi (FP) Ministry of Natural Resources and Environment
Dr. Jariya Boonjawat (SPG) Chulalongkorn University

U.S.A.

Mr. Louis Brown (FP/SPG) U.S. Climate Change Science Program

VIET NAM

Mr. Xuan Bao Tam Nguyen (FP) Ministry of Natural Resources and Environment

SARCS

Prof. Chao Han Liu (SPG)

SASCOW

Dr. Amir Muhammed (SPG)

START

Prof. Roland Fuchs (SPG)

START OCEANIA

Dr. Kanayathu Koshy (SPG)

TEACOM

Prof. Congbin Fu (SPG)

* Indicates Co-Chair of SPG

PROJECTS FUNDED BY APN IN 2004/2005

The APN's 9th Inter-Governmental Meeting decided to fund 18 projects from an APN funded activities budget of approximately 760,000 US dollars contributed by the Ministry of the Environment (Japan), the US Climate Change Science Program (USCCSP), and Hyogo Prefectural Government. Projects may also be funded from other sources not noted here, including in-kind support from countries.

APN 2004-01-CMY: Applying Climate Information to Enhance the Resilience of Farming Systems Exposed to Climatic Risk in South and Southeast Asia

Project Leader: H. Meinke, Department of Primary Industries and Fisheries, Queensland Government, Australia
Email: holger.meinke@dpi.qld.gov.au

APN 2004-02-CMY: Water Resources in South Asia: An Assessment of Climate Change—Associated Vulnerabilities and Coping Mechanisms

Project Leader: A. Muhammed, National University for Computer and Emerging Sciences, Pakistan
Email: amir@nu.edu.pk

APN 2004-03-CMY: Inventory of Glaciers and Glacial Lakes and the Identification of Potential Glacial Lake Outburst Floods (GLOFs) Affected by Global Warming in the Mountains of India, Pakistan and China/Tibet Autonomous Region/Tibet Autonomous Region

Project Leader: J.G. Campbell, International Centre for Integrated Mountain Development, Nepal
Email: basanta@icimod.org.np

APN 2004-04-CMY: Regional, Multi-scaled, Multi-temporal Land Use and Land Cover Data to Support Global Change Research, Land Use Management and Policy Making: A SEARRIN LUCC Project

Project Leader: D. Skole, Michigan State University, USA
Email: skole@msu.edu

APN 2004-05-CMY: Building Local Capacity for Global Change Research: The Millennium Ecosystem Assessment Sub-Global Activities in the Asia-Pacific Region

Project Leader: W. Reid, Millennium Ecosystem Assessment, Malaysia
Email: reid@millenniumassessment.org

APN 2003-06-CMY: The Mega-Deltas of Asia: A Conceptual Model and its Application to Future Delta Vulnerability

Project Leader: Z. Chen, East China Normal University, P.R. China
Email: Z.Chen@sklec.ecnu.edu.cn

APN 2004-07-CMY: Integrating Carbon Management into Development Strategies of Cities—Establishing a Network of Case Studies of Urbanization in the Asia-Pacific

Project Leader: R. Lasco, University of the Philippines, Philippines
Email: rlasco@laguna.net

APN 2004-08-NSY: SOLAS Science 2004: Travel Fund for Young Scientists

Project Leader: M. Uematsu, University of Tokyo, Japan
Email: uematsu@ori.u-tokyo.ac.jp

APN 2004-09-NSG: Biodiversity Measures in Different Biomes: The Challenge for the Next Decade

Project Leader: K. Muth, Ministry of Environment, Cambodia
Email: moe@online.com.kh

APN 2004-10-NSY: Climate Interactions and Marine Ecosystems: Effects of Climate on the Structure and Function of Marine Food-Webs and Implications for Marine Fish Production in the North Pacific Ocean Marginal Seas

Project Leader: F.E. Werner, University of North Carolina, USA
Email: cisco@unc.edu

APN 2004-11-NMY: Institutional Capacity in Natural Disasters Risk Reduction: A Comparative Analysis of Institutions, National Policies, and Cooperative Responses to Floods in Asia

Project Leader: E. Nikitina, Russian Academy of Sciences, Russian Federation
Email: enikitina@mtu-net.ru

APN 2004-12-NMY: Role of Institutions in Global Environmental Change

Project Leader: S. Sonak, The Energy and Resources Institute, India
Email: ssonak@teri.res.in

APN 2004-13-NMY: Synergy between Ecosystem Change and Biodiversity Studies in the Western Pacific and Asia: Establishing Case Studies for Carbon Management and Biodiversity Conservation

Project Leader: K. Kitayama, Kyoto University, Japan
Email: kitayama@ecology.kyoto-u.ac.jp

APN 2004-14-NMY: Integrated Regional Studies of Global Change in Monsoon Asia: Phase I:

APN/SCOPE/START Rapid Assessment Project of Global Change in Monsoon Asia

Project Leader: A. Snidvongs, SEA START RC, Thailand
Email: anond@start.or.th

APN 2004-15-NSY: Fourth International Human Dimensions Workshop—Globalisation and Food Systems: A Global Environmental Change Perspective

Project Leader: J.Xu, Kunming Institute of Botany, P.R. China
Email: CBIK@public.km.yn.cn

APN 2004-16-NSY: Groundwater Discharge as an Important Land-Sea Pathway in Southeast Asia

Project Leader: M. Taniguchi, Research Institute for Humanity and Nature, Japan
Email: makoto@chikyu.ac.jp

APN 2004-17-NSY: Climate Prediction and Agriculture: An Assessment and Perspective

Project Leader: S. Gadgil, Indian Institute of Science, India
Email: sula@cas.iise.ernet.in

APN 2004-18-NMY: Climate Variability and Human Activities in Relation to Northeast Asia and their Land-Ocean Interactions and their Implications for Coastal Zone Management

Project Leader: V. Kasyanov, Russian Academy of Scientists, Russian Federation
Email: vlkasyanov@freemail.ru



CALENDAR OF GLOBAL CHANGE RESEARCH ACTIVITIES

Events in **bold** are APN or APN co-sponsored events.

2004

- 26-30 APR** APN/CAPaBLE Sponsored UNFCCC Workshop on the Preparation of National Communications from Parties not included in Annex I to the Convention. Manila, Philippines. Contact: Dr. Linda Stevenson <l Stevenson@apn.gr.jp> or the UNFCCC Secretariat <secretariat@unfccc.int>
- 1-31 MAY** Electronic Conference on Integrating Carbon Management into the Development Strategies of Cities. Contact: Web <http://www.sea-user.org/e_conference.php>
- 2-6 MAY** Fourth World Fisheries Congress. Reconciling Fisheries with Conservation: The Challenge of Managing Aquatic Ecosystems. Vancouver, Canada. Contact: Congress Secretariat <fish2004@advance-group.com> Web <www.worldfisheries2004.org>
- 3-21 MAY** Advanced Institute on Vulnerability to Global Environmental Change. Laxenburg, Austria. Contact: Sara Beresford <sberesford@agu.org>
- 3-6 MAY** 3rd Annual Conference on Carbon Sequestration. Virginia, USA. Contact: Web <http://www.carbonsq.com/call_abstracts_new.cfm>
- 10-14 MAY** Global H2O: Hilltops-2-Oceans Partnership Conference. Cairns, Australia. Contact: Web <http://www.hilltops2oceans.org>
- 17-26 MAY** Training Program on DSSAT Version 4, Assessing Crop Production, Nutrient Management, Climatic Risk and Environmental Sustainability with Simulation Models. Georgia, USA. Contact: Art Cain or Kay Crawley <conteduc@griffin.uga.edu>
- 21-22 MAY** 1st International Workshop on Human Dimensions of Climate and Environmental Change in Central Asia. Grand Rapids, Michigan, USA. Contact: Elena Lioubimtseva <lioubime@gvsu.edu> Web <http://www4.gvsu.edu/lioubime/CentralA_files/a_call_for_papers_and_participat.htm>
- 25-28 MAY** Urban Dimensions of Environmental Change: Science, Exposures, Policies and Technologies. Shanghai, China. Contact: Web

- <http://www.montclair.edu/globaled/shanghai/index.htm>
- 26-28 MAY** PAGES Open Science Meeting. Paleoclimate, Environmental Sustainability and our Future. Beijing, China. Contact: Web <http://www.pages2004.org/> Email <osm@pages.unibe.ch>
- MAY TBA** Urban Dimensions of Environmental Change: Science, Exposures, Policies and Technologies. Shanghai, China. Contact: Web <http://www.montclair.edu/globaled/shanghai/index.htm>
- 8-10 JUNE** **Capacity Building Workshop on Global Change Research. Islamabad, Pakistan.** Contact: Amir Muhammed <amir@nu.edu.pk> or Linda Stevenson <l Stevenson@apn.gr.jp>
- 15-28 JUNE** **Pacific Island Training Institute on Climate and Extreme Events.** University of the South Pacific, Suva, Fiji. Contact: Kanayathu Koshy <koshy_k@usp.ac.fj>
- 19-20 JUNE** 12th Environment Congress for Asia and the Pacific (ECO ASIA 2004). Tottori, Japan. Contact: <http://www.ecoasia.org/>
- 20-25 JUNE** Estuarine and Coastal Sciences Association (ECSA) and Estuarine Research Federation (ERF) International Conference (ECSA 37-ERF 2004 Conference). Ballina RSL, Australia. Contact: Karen Hanna <khanna@scu.edu.au> Web <http://www.scu.edu.au/schools/rsm/ecs37erf2004conference/contacts.html>
- 21-24 JUNE** 6th International Conference on Hydroinformatics. Singapore. Contact: Secretariat: <hic2004@inmeet.com.sg> Web <http://www.eng.nus.edu.sg/civil/conf/HIC2004>
- 21-25 JUNE** CLIVAR 2004: 1st International CLIVAR Science Conference. Baltimore, USA. Contact: <info@clivar2004.org> Web: <http://www.clivar2004.org/>
- 1-9 JULY** Second Regional Technical Conference on Tropical Cyclones, Storm Surges and Floods and International Conference on Storms. Brisbane, Australia. Contact: <http://www.stormsconf.org.au/>
- 5-8 JULY** The 2nd Asia Pacific Association of Hydrology and Water Resources (APHW) Conference. Singapore. Contact: Web <http://www.secondaphw.org/>
- 5-9 JULY** Training Workshop on Sea and Human Security. Hiroshima, Japan. Contact: <hiroshima@unitar.org> Web: <www.unitar.org/hiroshima>
- 5-9 JULY** First Asia-Oceania Geosciences Society Annual Meeting and Exhibition. Singapore. Contact: Cheng-Hoon Khoo <kch@meetmatt.net>
- 23-25 JULY** Strategic Scientific Workshop: Towards the Integrated Multidisciplinary Study of Northern Eurasia Climatic Hot Spots. Tomsk, Russian Federation. Contact: Web <http://scert.ru/en/conferences/enviromis2004/>
- 26-31 JULY** Training Course on Environment and Sustainable Development. Shanghai, China. Contact: Mr. Mahesh Pradhan <pradhan@un.org> Web: <www.rrcap.unep.org/tongji/>
- July TBA** **APN CAPaBLE Synthesis Workshop on Impacts of Climate Change on Water Resource and Food Production**

- 16-20 AUG** **Creating Climate Knowledge Networks through Strategic, Global Linkages: APN/IAI 1st joint workshop.** Fortaleza, Brazil. Contact: Holger Meinke <holger.meinke@dpi.qld.gov.au>
- 4-9 SEP** 8th International Global Atmospheric Chemistry Conference. Christchurch, New Zealand. Contact: Kim Gerard <kim@conference.co.nz> Web <http://www.igaconference2004.co.nz/>
- 5-9 SEP** Coastal Zone Asia Pacific Conference. Brisbane, Australia. Contact: Web <http://www.coastal.crc.org.au/czap04/index.html>
- 13-15 SEP** 13th International Symposium on Transport and Air Pollution (TAP). Colorado, USA. Contact: Web <http://www.acd.ucar.edu/TAP/TAP2004/>
- SEP TBA** 14th Asia-Pacific Climate Change Seminar. Sydney, Australia.
- 6-8 OCT** IGFA Annual Meeting. Reykjavik, Iceland. Contact: Flora Hajdu <igfa@formas.se> Web <http://www.igfagr.org/>
- 13-16 OCT** **SOLAS Open Science Conference.** Halifax, Canada. Contact: Daniela Turk <daniela.turk@dal.ca>
- 24 OCT-6 NOV** **IHDP-IAI 2004 Global Environmental Change Institute on Globalisation and Food Systems: Scientific Workshop and Science-Policy Forum.** Nicoya, Costa Rica. Contact: <i2004-geci@dir.iaii.int> Web <http://www.institutes.iaii.int/2004GECI.htm>
- OCT TBA** **2nd International CLIMAG Conference.** Geneva, Switzerland. Contact: Yna Calimon-Moore <ycalimon@agu.org>
- OCT TBA** **Creating Climate Knowledge Networks through Strategic, Global Linkages: APN/IAI 2nd joint workshop.** Toowoomba, Australia. Contact: Holger Meinke <holger.meinke@dpi.qld.gov.au>
- OCT TBA** AIACC Regional Workshop for Asia and the Pacific. Manila, Philippines. Contact: Sara Beresford <sberesford@agu.org>
- 17-25 NOV** IUCN World Conservation Congress. Bangkok, Thailand. Contact: Ursula Hiltbrunner <ursula.hiltbrunner@iucn.org> Web <http://www.iucn.org/about/wcc/>
- TBA** Third Worldwide Chinese International Conference on Oceanic and Atmospheric Sciences Beijing, China. Contact: Bin Wang <wab@lasg.iap.ac.cn>

2005

- 10-17 JAN** 2nd Annual Meeting of the IGCP-475 "Deltas in the Monsoon Asia-Pacific Region: DeltaMAP". Ho Chi Minh City, Viet Nam. Contact: Dr. Yoshiki Saito <yoshiki.saito@aist.go.jp>
- 18-22 JAN** World Conference on Disaster Reduction. Kobe, Japan. Contact: <isdr@un.org> Web <http://www.unisdr.org/>
- JAN TBA** **APN/WHO Joint Session on "Climate Calamities and Human Health".** Kobe, Japan. Contact: <info@apn.gr.jp>

APN APN Secretariat

5th Floor, IHD Centre Building, 1-5-1 Wakinhama Kaigan Dori, Chuo-ku, Kobe 651-0073, Japan
Tel: +81-78-230-8017 • Fax: +81-78-230-8018
Email info@apn.gr.jp • Website http://www.apn.gr.jp

Views expressed in this newsletter do not necessarily represent those of the APN Secretariat.

APN Newsletter Editor: Martin Rice

Design and Layout: Asahi Media International