



**Asia-Pacific Network for Global Change Research (APN)** merupakan rangkaian ahli kerajaan-kerajaan di Asia-Pasifik dengan visi untuk membolehkan negara-negara di rantau ini menyuarakan isu-isu berkaitan perubahan global melalui strategi-strategi dan pengukuran tindakbalas berasaskan sains, hubungan efektif antara polisi dan sains, serta pembangunan kapasiti saintifik.

## Aktiviti-Aktiviti Utama sepanjang 2009/2010

- Panggilan Tahunan Serantau bagi Program Cadangan Penyelidikan (ARCP): menaja/menguruskan **19 projek**
- Program Pembangunan Kapasiti Saintifik/Pengukuhan bagi Pembangunan Lestari di Negara-Negara Membangun (CAPaBLE): menaja/menguruskan **14 projek**
- Panggilan Khas bagi Cadangan-Cadangan Aktiviti Terfokus: Pembangunan Kapasiti Saintifik bagi Kesan Iklim dan Penilaian Ancaman (SCBCIA); menerima **82 cadangan dan menguruskan 7 projek**
- Panggilan Cadangan Tahunan dan Proses Pertimbangan APN bagi Tahun 2009 di bawah Program ARCP & CAPaBLE
- Dua-tahun Aktiviti Sintesis - **Iklim di Asia dan Pasifik: gabungan kerja bagi 50 projek iklim APN**
- Mengendali dan menjalankan penilaian 2-peringkat bagi fasa strategik kedua APN (sains/polisi dan institusi) serta memformulasi Pelan Startegik Ketiga (3SP)
  - Projek-projek tajaan APN secara keseluruhannya telah **berjaya memenuhi 5 matlamat utama Fasa Strategik Kedua APN** (projek-projek cemelang dipilih)
  - APN terus berusaha unruk menambahbaik dan mengembangkan interaksinya dengan penggubal polisi dan pembuat keputusan, demi **membantu menyediakan asas saintifik yang kukuh bagi membuat keputusan dan menggubal polisi** berkaitan perubahan global di rantau ini.
- **Bhutan** telah diiktiraf sebagai ahli baru APN di Mesyuarat ke-15 *Inter-Governmental (IGM)/Scientific Planning Group (SPG)* dan ini **menjadikan jumlah bilangan negara ahli APN kepada 22**
- Satu **laman web baru APN** telah dilancarkan mulai April 2010 selaras dengan kemasukan APN ke fasa strategik ketiga
- Telah memperkenalkan **Resources Development Strategy** yang telah diiktiraf di Mesyuarat ke -15 *Inter-Governmental (IGM) / Scientific Planning Group (SPG)*
- Dua orang **Programme Fellows** telah menyertai Sekretariat APN (semasa musim luruh) sebagai sebahagian daripada program pembangunan kapasiti APN
- Telah menyumbang kepada proses-polisi dan badab-badan seperti *United Nations Framework Convention on Climate Change (UNFCCC)*, *Subsidiary Body for Implementation (SBI)*, *Subsidiary body for Scientific Technological Advice (SBSTA)* dan *the Intergovernmental Panel on Climate Change (IPCC)* melalui **penyelidikan dan aktiviti pembangunan kapasiti, terutamanya di negara-negara membangun**
- Mengutarakan keperluan-keperluan yang telah dikenalpasti oleh *United Nations Commission for Sustainable Development (UNCSD)* dalam memastikan semua aktiviti dan output **mengutamakan isu-isu berkaitan pembangunan mapan** serantau
- Berkomunikasi dan **bekerjasama erat dengan organisasi-organisasi utama di komuniti perubahan global** (global change community) untuk mencapai sasaran bersama, memaksimumkan sumber-sumber yang sedia ada serta memberikan keputusan dan hasil penemuan yang terbaik



Ministry of Environment  
**Environment**  
Resource and Planning



## Penerbitan-Penerbitan Utama bagi Tahun 2009/2010

APN mengeluarkan penerbitan untuk mehebahkan output daripada projek-projek tajaannya serta menyebarkan hasil-hasil penyelidikan kepada komuniti sains dan bukan-sains.

- **Proceedings** of the following:
  - APN International Seminar on Biodiversity and Human Dimensions: Promoting Harmonious Coexistence
  - APN International Symposium on Challenge 25 Beyond Borders?: Promoting a Low Carbon Society
  - 14<sup>th</sup> IGM/SPG Meeting
  - 2009 Proposal Development Training Workshop
- CAPaBLE Phase One 'In Review' **Brochure**
- **4 Posters** highlighting APN activities
- APN 2009 General **Brochure in nine (9) languages**: Bahasa Malaysia, Chinese, English, Japanese, Khmer, Laotian, Sinhala, Thai, Urdu
- CAPaBLE **Policy Brief**, Vol. 1 Issue 1
- APN **Annual Report** 2008-2009
- APN **Project Bulletin**, Volume 5
- Quarterly issues of the APN **Newsletter** (soft/electronic copy)

## Aktiviti-Aktiviti utama yang dianjurkan/dijalankan serta tajaan bersama sepanjang 2009/2010

- APN International Symposium on Challenge 25 Beyond Borders?: Promoting a Low Carbon Society, *Kobe, Japan, January 2010*
- Scoping Workshop for Climate Synthesis, *Kobe, Japan, November 2009*
- APN/Hyogo Low Carbon Society Scoping Workshop, *Kobe, Japan, October 2009*
- Side-event and exhibit at the Association of Southeast Asian Nations (ASEAN) Conference on Biodiversity, *Singapore, October 2009*
- 13<sup>th</sup> Steering Committee (SC) Meeting, Augmented SC Meeting (ASCM) and Writing Workshop (drafted the Evaluation Report of the second strategic phase and formulated the 3SP with the stakeholders and scientific experts), *Kobe, Japan, August 2009*
- 2<sup>nd</sup> Southeast Asia Sub-Regional Cooperation (SRC) Meeting, *Bangkok, Thailand, August 2009*
- 1<sup>st</sup> South Asia SRC Meeting, *Colombo, Sri Lanka, July 2009*
- Cool Earth Partnership Japan International Cooperation Agency (JICA) Training, *Osaka, Japan, July 2009*
- Proposal Development Training Workshop (PDTW) at the 17<sup>th</sup> Session of the UNCSO Partnerships Fair, *New York, May 2009*
- 9<sup>th</sup> Global Earth Observation System of Systems (GEOSS) Capacity Building Committee Meeting, *Athens, Greece, April 2009*
- Exhibit at the Greenhouse 2009: Climate Change and Resources, *Perth, Australia, March 2009*

APN berterusan menyertai pelbagai agensi antarabangsa anjuran komuniti perubahan global.

# Projek-Projek yang diluluskan untuk diteruskan dan projek-projek baru dalam tahun 2010/2011

CAPaBLE

**CBA2010-01CMY-Sang-arun:** Promoting Sustainable Use of Waste Biomass in Cambodia, Lao PDR and Thailand: Combining Food Security, Bio-energy and Climate Protection Benefits; **Project Leader:** Dr. Janya SANG-ARUN, [sang-arun@iges.or.jp](mailto:sang-arun@iges.or.jp)

**CBA2010-02CMY-Togtohn:** Dryland Development Paradigm (DDP) Application for the Most Vulnerable to Climate and Land Use Change of Pastoral Systems in the Southern Khangai Mountains of Mongolia (DDPPaS); **Project Leader:** Dr. Chuluun TOGTOHYN, [chuluun@nrel.colostate.edu](mailto:chuluun@nrel.colostate.edu)

**CBA2010-03NSY-Indrawan:** Developing the Capacity for Teaching Biodiversity and Conservation in the Asia-Pacific Region; **Project Leader:** Dr. Mochamad INDRAWAN, [jamblang@cbn.net.id](mailto:jamblang@cbn.net.id)

**CBA2010-04NSY-Dhakal:** Carbon Governance in Asia: Bridging Scales and Disciplines **Project Leader:** Dr. Shobhakar DHAKAL, [shobhakar.dhakal@nies.go.jp](mailto:shobhakar.dhakal@nies.go.jp)

**CBA2010-05NSY-Lorrey:** Improving Pacific Island Meteorological Data Rescue and Data Visualisation Capabilities through Involvement in Emerging Climate Research Programmes; **Project Leader:** Dr. Andrew LORREY, [a.lorrey@niwa.co.nz](mailto:a.lorrey@niwa.co.nz)

**CBA2010-06NSY-Kench:** Improving Understanding of Local-Scale Vulnerability in Atoll Island Countries: Developing Capacity to Improve In-Country Approaches and Research; **Project Leader:** Assoc. Prof. Paul KENCH, [p.kench@auckland.ac.nz](mailto:p.kench@auckland.ac.nz)

**CBA2010-07NSY-Stone:** Web-based 'Discussion-support' Agricultural-Climate Information for Regional India; **Project Leader:** Prof. Roger STONE, [stone@usq.edu.au](mailto:stone@usq.edu.au)

**CBA2010-08NSY-Salinger:** Addressing the Livelihood Crisis for Farmers: Weather and Climate Services for Sustainable Agriculture – Development of Tools; **Project Leader:** Dr. Jim SALINGER, [j.salinger@auckland.ac.nz](mailto:j.salinger@auckland.ac.nz)

**CBA2010-09NSY-Rupakheti:** Scientific Capacity Development of the Trainers and Policy Makers for Climate Change Adaptation Planning in Asia and the Pacific; **Project Leader:** Dr. Maheswar RUPAKHETI, [Maheswar.Rupakheti@rcap.unep.org](mailto:Maheswar.Rupakheti@rcap.unep.org)

**CBA2010-10NSY-Chen:** Promoting a Data Sharing Environment within the Earth Observation System of Systems: The Asia-Pacific Perspective; **Project Leader:** Dr. Robert S. CHEN, [bchen@ciesin.columbia.edu](mailto:bchen@ciesin.columbia.edu)

**CBA2010-11NSY-De Guzman:** Capacity Building for Research and Monitoring of Marine Protected Areas: An Adaptive Mechanism for Climate Change in the Asia-Pacific Region; **Project Leader:** Dr. Asuncion DE GUZMAN, [sony\\_deguzman@yahoo.com](mailto:sony_deguzman@yahoo.com)

**CBA2010-12NSY-Pradhananga:** Graduate Conference on Climate Change and People; **Project Leader:** Mr. Dhiraj PRADHANANGA, [dhirajmet@hotmail.com](mailto:dhirajmet@hotmail.com); [smallearth@wlink.com.np](mailto:smallearth@wlink.com.np)

**CBA2010-13NMY-Kawai:** Capacity Building of Biodiversity Research in the Coastal Zones of the Asia Pacific Region: Phycology Taxonomy Analysis Training Using Genetic Marker; **Project Leader:** Prof. Hiroshi KAWAI, [kawai@kobe-u.ac.jp](mailto:kawai@kobe-u.ac.jp); [furukawa@emecs.or.jp](mailto:furukawa@emecs.or.jp)

**CBA2010-14NMY-Kaihotsu:** Drought Monitoring System Development by Integrating In-situ Data, Satellite Data and Numerical Model Output; **Project Leader:** Prof. Ichiro KAIHOTSU, [kaihotu@hiroshima-u.ac.jp](mailto:kaihotu@hiroshima-u.ac.jp)

**CBA2010-15NSY-South:** Global Change and Coral Reef Management Capacity in the Pacific: Engaging Scientists and Policy Makers in Fiji, Samoa, Tuvalu and Tonga; **Project Leader:** Prof. G. Robin SOUTH, [robin.south@orda.com.au](mailto:robin.south@orda.com.au); [south\\_g@usp.ac.fj](mailto:south_g@usp.ac.fj)

**CRP2010-01CMY-Weber:** Vulnerability Mapping as a Policy Tool in Developing Countries; **Project Leader:** Dr. Eberhard WEBER, [weber\\_e@usp.ac.fj](mailto:weber_e@usp.ac.fj)

**CRP2010-02CMY-Pereira:** Strengthening Capacity for Policy Research on Mainstreaming Adaptation to Climate Change in Agriculture and Water Sectors; **Project Leader:** Dr. Joy Jacqueline PEREIRA, [joy@ukm.my](mailto:joy@ukm.my)

## SCBCIA

*Through additional support from the Ministry of the Environment, Japan, APN has awarded 7 grants to developing nations in the region.*

**CIA2009-01-SNIDVONGS:** Climate Change Vulnerability Assessment and Urban Development Planning for Asian Coastal Cities; **Project Leader:** Dr. Anond SNIDVONGS, [anond@start.or.th](mailto:anond@start.or.th)

**CIA2009-02-PULHIN:** Capacity Development on Integration of Science and Local Knowledge for Climate Change Impacts and Vulnerability Assessments; **Project Leader:** Dr. Juan PULHIN, [jmpulhin@uplb.edu.ph](mailto:jmpulhin@uplb.edu.ph)

**CIA2009-03-LUN:** Climate Change in Eastern Himalayas: Advancing Community-Based Scientific Capacity to Support Climate Change Adaptation; **Project Leader:** Dr. Yin LUN, [lun.yin@gmail.com](mailto:lun.yin@gmail.com)

**CIA2009-04-GAOL:** Increasing Capacity of Local Scientists for Climate Change Impact and Vulnerability Assessments in Indonesia Archipelagos: Training in In-Situ/Satellite Sea Level Measurements; **Project Leader:** Dr. Jonson Lumban GAOL, [jonsont@yahoo.com](mailto:jonsont@yahoo.com)

**CIA2009-05-JITPRAPHAI:** Building Research Capacity on Assessing Community Livelihood Vulnerability to Climate Change Impacts in Central Viet Nam and the Mekong River Delta; **Project Leader:** Dr. Somrudee JITPRAPHAI, [somdeem@yahoo.com](mailto:somdeem@yahoo.com)

**CIA2009-06-DUC:** Capacity Development for Adaptation to Climate Change in the Rural Coastal Zone of Viet Nam; **Project Leader:** Dr. Do Minh DUC, [ducdm@vnu.edu.vn](mailto:ducdm@vnu.edu.vn)

**CIA2009-07-LOTIA:** Capacity Development of the Scientific Community for Assessing the Health Impacts of Climate Change; **Project Leader:** Ms. Hina LOTIA, [hlotia@lead.org.pk](mailto:hlotia@lead.org.pk)

## Projek-Projek yang diluluskan untuk diteruskan dan projek-projek baru tajaan bagi tahun 2010/2011



**ARCP2010-01CMY-Sthiannopkao:** Collaborative Research on Sustainable Urban Water Quality Management in Southeast Asian Countries: Analysis of Current Status (comparative study) and Development of a Strategic Plan for Sustainable Development; **Project Leader:** Dr. Suthipong STHIANNOPKAO, [suthi@gist.ac.kr](mailto:suthi@gist.ac.kr); [suthisuthi@hotmail.com](mailto:suthisuthi@hotmail.com)

**ARCP2010-02CMY-Phua:** Integrated Prediction of Dipterocarp Species Distribution in Borneo for Supporting Sustainable Use and Conservation Policy Adaptation; **Project Leader:** Dr. Mui How PHUA, [pnh@ums.edu.my](mailto:pnh@ums.edu.my)

**ARCP2010-03CMY-Marambe:** Vulnerability of Home Garden Systems to Climate Change and its Impacts on Food Security in South Asia; **Project Leader:** Prof. Buddhi MARAMBE, [bmarambe@pdn.ac.lk](mailto:bmarambe@pdn.ac.lk)

**ARCP2010-04CMY-Wang:** Building Asian Climate Change Scenarios by Multi-Regional Climate Models Ensemble; **Project Leader:** Dr. Shuyu WANG, [wsy@tea.ac.cn](mailto:wsy@tea.ac.cn)

**ARCP2010-05CMY-Luck:** The Effects of Climate Change on Pests and Diseases of Major Food Crops in the Asia Pacific Region; **Project Leader:** Dr. Joanne Elizabeth LUCK, [jo.luck@dpi.vic.gov.au](mailto:jo.luck@dpi.vic.gov.au)

**ARCP2010-06CMY-Schaefer:** Quantifying the Role of Dead Wood in Carbon Sequestration; **Project Leader:** Dr. Douglas SCHAEFER, [xiedaoan@xtbg.ac.cn](mailto:xiedaoan@xtbg.ac.cn)

**ARCP2010-07CMY-Bai:** Asian Coastal Ecosystems: An Integrated Database and Information Management System (DIMS) for Assessing Impact of Climate Change and its Appraisal; **Project Leader:** Dr. V. Ramani BAI, [Ramani-Bai.V@nottingham.edu.my](mailto:Ramani-Bai.V@nottingham.edu.my)

**ARCP2010-08NSY-Freeman:** Impact of Climate Change on Food Security and Biosecurity of Crop Production Systems in Small Pacific Nations; **Project Leader:** Dr. Angela FREEMAN, [angela.freeman@dpi.vic.gov.au](mailto:angela.freeman@dpi.vic.gov.au)

**ARCP2010-09NSY-Patwardhan:** Enhancing Adaptation to Climate Change by Integrating Climate Risk into Long-Term Development Plans and Disaster Management; **Project Leader:** Prof. Anand PATWARDHAN, [anand@iitb.ac.in](mailto:anand@iitb.ac.in)

**ARCP2010-10NMY-Koike:** River Management System Development in Asia Based on Data Integration and Analysis System (DIAS) under the GEOSS; **Project Leader:** Prof. Toshio KOIKE, [tkoike@hydra.t.u-tokyo.ac.jp](mailto:tkoike@hydra.t.u-tokyo.ac.jp)

**ARCP2010-11NMY-Asanuma:** Intercomparison of Landsurface Process Modelling at Asian Drylands; **Project Leader:** Dr. Jun ASANUMA, [asanuma@suiri.tsukuba.ac.jp](mailto:asanuma@suiri.tsukuba.ac.jp)

**ARCP2010-12NMY-Uprety:** Community Based Forestry and Livelihoods in the Context of Climate Change Adaptation; **Project Leader:** Dr. Dharam Raj UPRETY, [forestaction@wlink.com.np](mailto:forestaction@wlink.com.np); [dharam.uprety@gmail.com](mailto:dharam.uprety@gmail.com)

**ARCP2010-13NMY-Bae:** Climate Change Impact Assessment on the Asia-Pacific Water Resources under AWCI/GEOSS; **Project Leader:** Prof. Deg-Hyo BAE, Sejong University, [dhbae@sejong.ac.kr](mailto:dhbae@sejong.ac.kr)

**ARCP2010-14NMY-Li:** Analysis on Urban Land-Use Changes and its Impacts on Food Security in Different Asian Cities of Four Developing Countries using Modified Cellular Automata (CA); **Project Leader:** Prof. Jianlong LI, [jlli2008@nju.edu.cn](mailto:jlli2008@nju.edu.cn); [jianlongli@sina.com.cn](mailto:jianlongli@sina.com.cn)

**ARCP2010-15NMY-Han:** The Impact of Spatial Parameters on Greenhouse Gas Emissions: A Comparative Study between Cities in China and India; **Project Leader:** Dr. Sun Sheng HAN, [sshan@unimelb.edu.au](mailto:sshan@unimelb.edu.au)

**ARCP2010-16NMY-Huda:** Food Security and Climate Change in the Asia-Pacific Region: Evaluating Mismatch between Crop Development and Water Availability; **Project Leader:** Prof. Samsul HUDA, [s.huda@uws.edu.au](mailto:s.huda@uws.edu.au)

**ARCP2010-17NMY-Towprayoon:** Strategic Rice Cultivation for Sustainable Low Carbon Society Development in Southeast Asia; **Project Leader:** Dr. Sirintornthep TOWPRAYOON, [sirin@jgsee.kmutt.ac.th](mailto:sirin@jgsee.kmutt.ac.th)

**ARCP2010-18NMY-Lutaenko:** Coastal Marine Biodiversity of Viet Nam: Regional and Local Challenges and Coastal Zone Management for Sustainable Development; **Project Leader:** Dr. Konstantin LUTAENKO, [lutaenko@mail.primorje.ru](mailto:lutaenko@mail.primorje.ru); [lutaenko@mail.ru](mailto:lutaenko@mail.ru)

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