3R International Scientific Conference on Material Cycles and Waste Management, 10-12 March 2014, Kyoto University, Japan

Role of APN for enhancing scientific capacity to promote regional-wide 3R activities in Asia-Pacific

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What is APN

- Inter-governmental network of 22 countries in the Asia-Pacific
- Funding Agency to foster global change research
 - Established 1996
 - Secretariat in Kobe, Japan since 1999
 - Financial contribution from four donor countries: Japan (MOEJ & Hyogo), USA, Republic of Korea, New Zealand
 - Financial Resources: US\$ 3.4
 Million (2013/14)



* Pacific Island Countries, Singapore, Myanmar and Maldives are approved countries whose scientists are eligible to receive funding under APN awards.









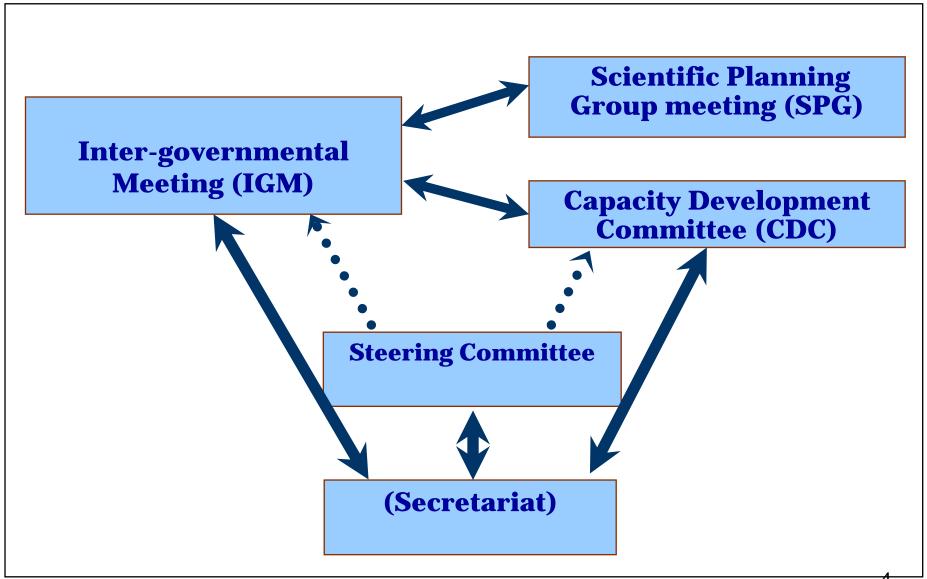






- Supporting regional cooperation in global change research on issues particularly relevant to the region
- Strengthening appropriate interactions among scientists and policy makers, and providing scientific input to policy decision-making and scientific knowledge to the public
- Improving the scientific and technical capabilities of nations in the region including the transfer of know-how and technology
- Cooperating with other global change networks and organisations

Structure of APN

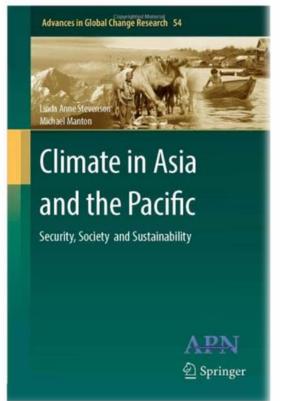


APN Climate Book released October 2013

Climate in Asia and the Pacific: Security, Society and Sustainability

Explains the **current status** of climate change and climate variability in the Asia-Pacific region; **future directions** in and overarching

issues....copies available



Follow-up of Synthesis Report (synthesizing 56 climate-related projects – 98 peer reviewed papers; over 50 training outputs such as toolkits and training packages)

<u>Chapters:</u> (1) Introduction; (2) Climate change & climate variability;

- (3) Urbanisation; (4) Security: food, water, energy;
- (5) Society: governance, remote communities, human health; (6) Sustainability: energy, ecosystems services (Low Carbon Development).



CORE ACTIVITIES

ARCP – Annual Regional Call for Research Proposals





Under APN's <u>Science Agenda</u>, APN provides support to research that falls into the following four broad categories:

> Climate Change and Climate Variability;

Ecosystems, Biodiversity and Land Use:

Changes in the Atmospheric, Terrestrial and Marine Domains

Resources Utilization and Pathways

Provisions on Parties' commitments related to research under UNFCCC



Project Eligibility, Duration and Funding:

- ■The <u>average grant awarded for 2011/12</u> (April 2011 March 2012) projects was approximately <u>US\$45,000</u>. While APN may consider multi-year projects (maximum of 3 years), only a limited number may be funded
- ■If a multi-year proposal is approved, continued funding for year one is not guaranteed and the project will be subject to rigorous review after year one

Proposal submission & Review STAGES

Advisory Service

The Advisory
Service is a
VOLUNTARY
component of the
ARCP and CAPaBLE
Calls for Proposals
to provide advice
on the
appropriateness of
the proposal
intended for
submission for APN
funding
consideration

Stage 1

A proponent submits a Summary Proposal

SPG-SC and CDC review and select Summary Proposals that will proceed to Stage 2

Stage 2

Successful proponents from Stage 1 submit their full proposals

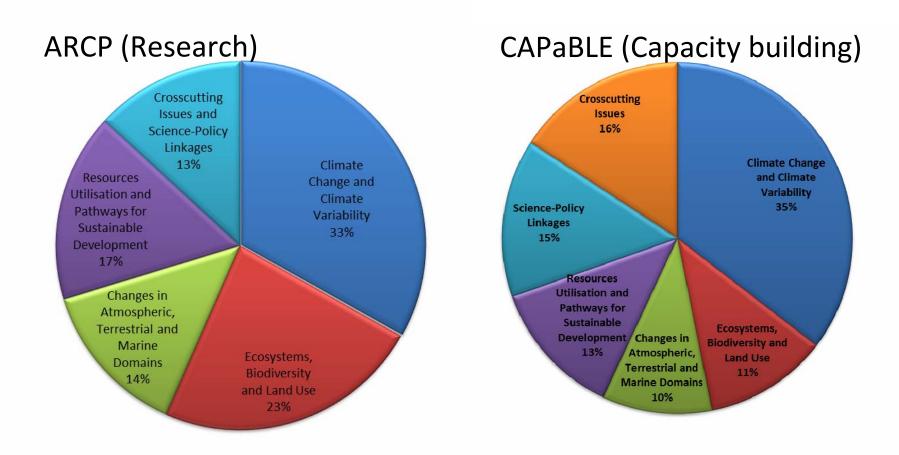
Step One: Review and ranking by APN Internal Reviewers and External Reviewers

Step Two: Re-scoring by internal reviewers based on proponents' responses

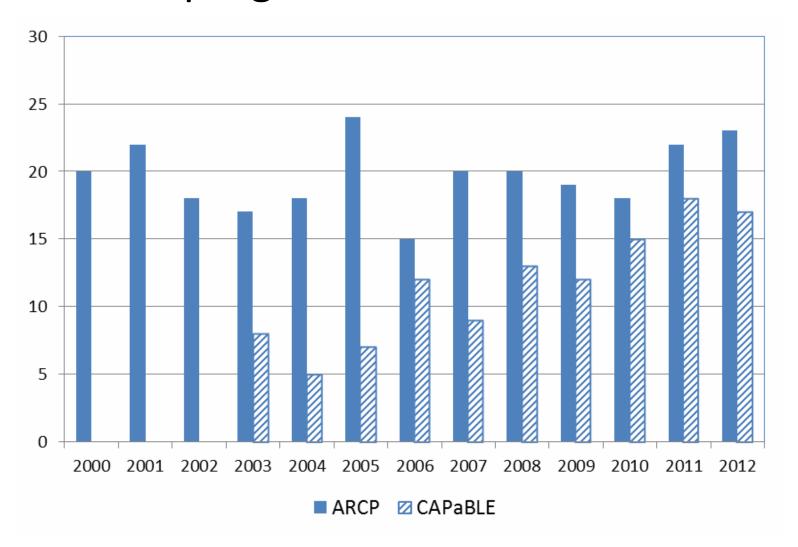
Stage 3

The SPG -SC makes recommendation s to the 16th SPG Meeting. The APN's 16th IGM approves which proposals to fund, following recommendation s from the 6th SPG Pre-Meeting.

Them distribution of APN funded activities 2008-2013 (Multiple responses)



Trend of number of funded projects under APN core programmes





WAY FORWARD

How can APN promote regional-wide 3R?

How to enhance regional 3R research under APN

Point1: Science agenda

- Multi-sectoral, comprehensive, cross-cutting, trans-disciplinary
 - Waste, water, energy, agriculture, land use, ecosystem, etc.
- Co-benefits
 - Reduce, Reuse and Recycle &
 - Climate change mitigation (Reduction and Storage of greenhouse gases)
 - Reduction of pollutants, energy saving, economic and social development
 - It's essential to promote global change research in various science agenda, and to share knowledge among different stakeholders

Low Carbon Initiatives Framework

Regional-base research activities

Capacity building activities

Networking/ Communication activities

APN Low Carbon Initiatives (LCI)

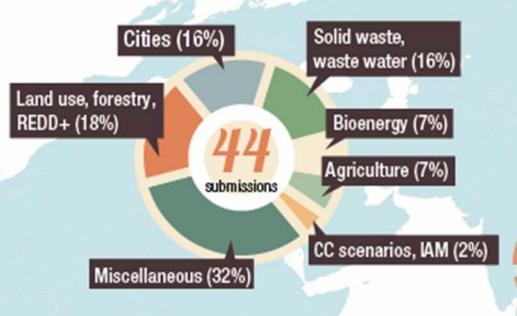


- Research to develop/deepen components of integrated assessment models
- Research on low-carbon development pathways and scenarios in a regional scale
- Cross-cutting research on low carbon development including studies on traditional knowledge in the region
 - Training workshops to develop capacity of scientists for formulating low carbon scenarios and pathways
 - Dialogues between researchers and national/local policy makers in developing member countries
 - Development of educational tool-kits on law carbon development (possible to shift to joint research activities)

APN Low Carbon Initiative

THEMATIC DISTRIBUTION

of LCI Submissions



PROJECT COLLABORATOR INVOLVEMENT

by sub-region

Temperate East Asia

South Asia 26%

Southeast Asia 444%

	Project Reference	Title
Capacity Building	LCI2012-01NSY(C)- Maeda	Capacity Building for Implementing a "Measurable, Verifiable and Reportable (MRV)" Model in a Mid-Sized Thai Municipality
	LCI2012-02NSY(C)- Guerrero	Strengthening Community Voices In REDD+ Policy
Regional Research	LCI2012-01NMY(R)- Lakshmi(Nagrath)	Identification of Policy and Institutional Gaps, Drivers and Strategies to Scale-up Low Carbon and Energy Efficient Technology Application in the Construction and Infrastructure Sectors in South Asia
	LCI2012-02NMY(R)- Dhakal	Understanding and Quantifying the Water-Energy- Carbon Nexus for Low Carbon Development in Asian Cities
	LCI2012-03NMY(R)- Lopez	Assessment of Carbon Sequestration through Vermitechnology in Organic Farming
	LCI2012-04NMY(R)- Macandog	Integrated Sustainability Assessment of Bio Energy Potentials in Asia: an Application of a Hybrid Approach on Trade-offs and Pathway
	LCI2012-05NMY(R)- Jupesta	Low Carbon Urban Infrastructure Investment: Cases of China, Indonesia, and Japan

APN Climate Adaptation Framework

- Developed at a scoping workshop in Kobe, Japan, 2012
- Activities of high priority
 - Development of high-resolution observational, model and downscaled datasets that can contribute to filling data gaps
 - Sharing of needs-oriented data
 - Calibration and validation of regional climate models; and analysis of projections and assessment of uncertainties
 - Development and utilisation of impact, vulnerability, risk and economic assessments
 - Improvement of communication skills of scientists and practitioners with stakeholders
 - Utilisation of available information including climate data in applications for adaptation
- Partnership Development
 - ADB, ICAS-Ibaraki University, Ministry of Interior of Thailand, UNU, WCRP, ICCCAD, APCSS, CCI-ANIJ



















New Activities: Adaptation, Disaster Risk Reduction, Loss and Damage

- Earmarked financial support from Ministry of the Environment, Japan (MOEJ), aiming at Contribution to NFCCC/COP19
- Enhancing the understanding of:
 - The risk of slow onset events, and approaches to address them;
 - Non-economic losses and damages;
 - Impacts on most vulnerable and the approaches
 - Identify and develop appropriate approaches to address slow onset events and extreme weather events, including through risk reduction, risk sharing and risk transfer tools;
 - Approaches to address impacts to be integrated into climate-resilient development processes;
 - How impacts of climate change are affecting patterns of mitigation, displacement and human mobility;
- Supporting data collection, enhancing coordination, strengthening regional collaboration, capacity-building, strengthening institutional arrangements





Launch of developing APN Biodiversity & Ecosystem Framework



 Inviting stakeholders to propose and engage in collaborative activities with the APN in key thematic areas under its framework for biodiversity and ecosystem services

➤ Identification of drivers and pressures for biodiversity change that influence ecosystem services

Assessment of the impacts of biodiversity loss and vulnerability to the shrinking of ecosystem service?

Prediction of changes in biodiversity and ecosystem services through model-based scenarios

Adaptation, response and mitigation of the depletion of biodiversity and ecosystem Services



Key messages from APN funded projects contributing to IPBES activities

(UNU-ISP and KEI, Asia-Pacific workshop on regional interpretation of the IPBES 2–4 September, 2013, Seoul, Republic of Korea)

Capacity building actions should:

- Facilitate common data storage and sharing of knowledge to track changes over time
- Address most commonly identified capacity building needs improved practitioner skills for ecosystem assessment and methods for integrating cross scale stakeholder knowledge and priorities

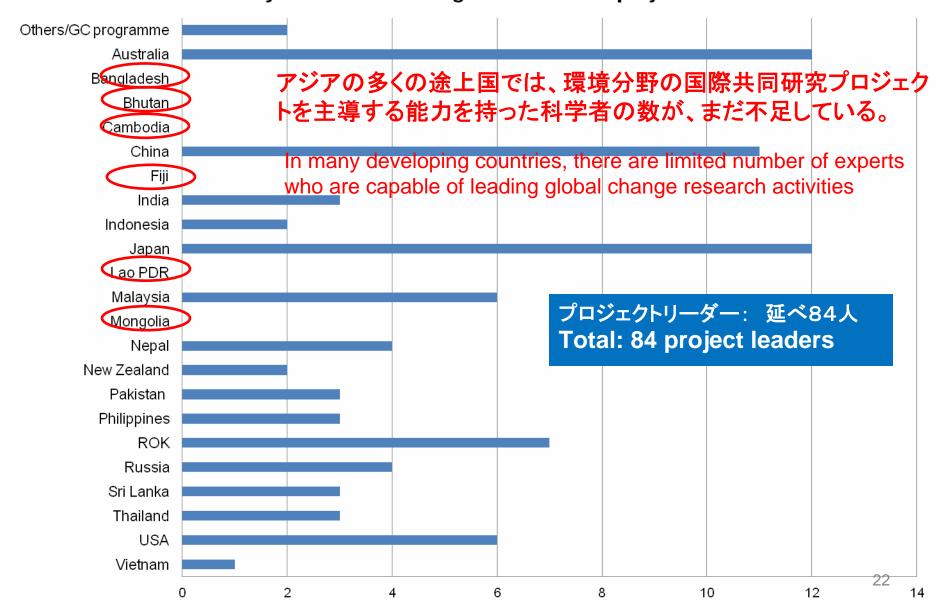
Knowledge generation actions should:

- Expand scope to cover gaps in Western Asia, Polynesia, and Eastern Asia subregions
- Address gaps in assessments on urban and dry land ecosystems
- •Create advanced knowledge systems across scales and institutional levels through the integration of social science, citizen, private sector, indigenous and local knowledge with contemporary science

How to enhance regional 3R research under APN Point2 Scientific capacity building

- 1) 研究資金を獲得するための能力 Scientific capacity for access to research funds
- ✓ 質の高い英文の研究プロポーザルを作成する能力 Capacity for writing good proposals
- 2) 国際共同研究を実践するための能力 Scientific capacity for conducting international joint research
- ✓ 他国の研究者と共同して、データの収集・分析を行い、論文を作成して、 その成果を政策立案などに活用する能力 Capacity for collecting an analyzing data, writing academic papers through international cooperation
- 3) 研究成果を政策立案に活用する能力 Capacity for communicating with policy-makers and stakeholders

2009-2012 APN提案公募型国際共同研究プログラム(ARCP) プロジェクトリーダーの国別分布(勤務地ベース) Country distribution of regional research project leaders



APNにおける人材育成 APN's scientific capacity building program

1) 提案公募型人材育成プログラム(CAPaBLE)

Scientific Capacity Building/Enhancement for Sustainable Development in Developing Countries (CAPaBLE) programme

- ✓ 持続可能な開発サミット(リオ+10, 南アフリカ・ヨハネスブルグ, 2002)を契機に2003年に日本の提案により立ち上げた科学者のための能力開発プログラム
- ✓ Launched in April 2003 as an initiative to realize parts 107 to 114 of the Johannesburg Plan of Implementation (JPOI) for the World Summit on Sustainable Development (WSSD)
- 2) プロポーザル作成のためのトレーニングワークショップ APN Proposal Development Training Workshops (PDTW)
- ✓東南アジア、南アジア、東アジアの各地域グループを対象に、グループ内の著名な科学者を講師に招き、ポスドク研究者及び博士課程の学生を対象に、研究プロポーザルの作成方法を指導(2012年度参加実績:17か国・45人以上)
- ✓PDTWs enable young scientists to develop competitive proposals to the APN and provide these young scientists with the networking opportunities for career development. In 2012, More than 45 young/early-career scientists from 17 countries received training in the SEA, SA, and TEA sub-regions.

How to enhance regional 3R research under APN

Point3: Partnership approach with international / regional / national organizations

Barrier for international / regional global change research

Financial mechanism

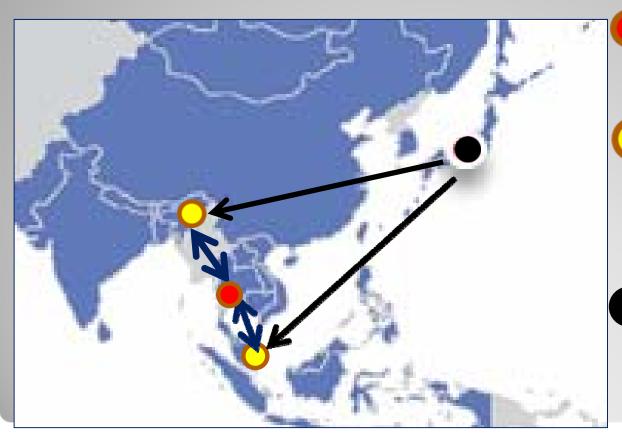
- Hard to finance collaborators outside the country...
- Hard to finance networking activities with other countries and international organizations...

Networking

- Hard to access data and information outside the country...
- Hard to connect experts outside the country...

Example: Possibility for partnership place between funding agencies





Government A

Supporting researchers in the country

Collaborators

Engaging in & supporting research and CB in partnering countries

APN

Supporting researchers in partnering countries

Key messages

- Promotion of research in various science agenda (i.e., low carbon, adaptation, biodiversity & ecosystem services) is a key for extending 3R initiative to the A-P wide.
- 2) Capacity building for scientists through proposal development and research implementation is necessary in A-P region.
 - 3)South-south and triangular cooperation under partnership between APN and international/regional/national organizations.

Opportunity for funding 3R activities

- Project type: Research and/or Capacity building and/or Networking?
- Thematic: Focusing on waste & material recycle or Covering whole natural resources
- 3) Scheme: Conventional programme and/or New programme and/or Matching fund ?
- 4) Synergies with international agenda: Hanoi Declaration, 3R Indicators, 3R white paper, UN-SDG, UNFCCC.....

APN will develop 3R framework to support 3R activities in the Asia-Pacific region within a year.

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Future We Want (Rio+20, 2013)

C. Capacity-building

277. We emphasize the <u>need for enhanced capacity-building</u> for sustainable development and, in this regard, we call for the <u>strengthening of technical and scientific cooperation</u>, including <u>North-South</u>, <u>South-South and triangular cooperation</u>. We reiterate the importance of human resource development, including training, the exchange of experiences and expertise, knowledge transfer and technical assistance for capacity-building, which involves strengthening institutional capacity, including planning, management and monitoring capacities.

3R Hanoi Declaraion

Goal19: Enhance national and local knowledge base and research network on the 3Rs and resource efficiency, through facilitating effective and dynamic linkages among all stakeholders, including governments, municipalities, the private sector, and scientific communities.

Goal27: Promote data collection, compilation and sharing, public announcement and application of statistics on wastes and the 3Rs, to understand the state of waste management and resource efficiency.

For more information...



APN Website:

News, announcements and global change community updates

http://www.apn-gcr.org/



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Thank you!