

Regional action on climate adaptation and mitigation: APN synthesis, community- based approaches, and future direction

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About APN

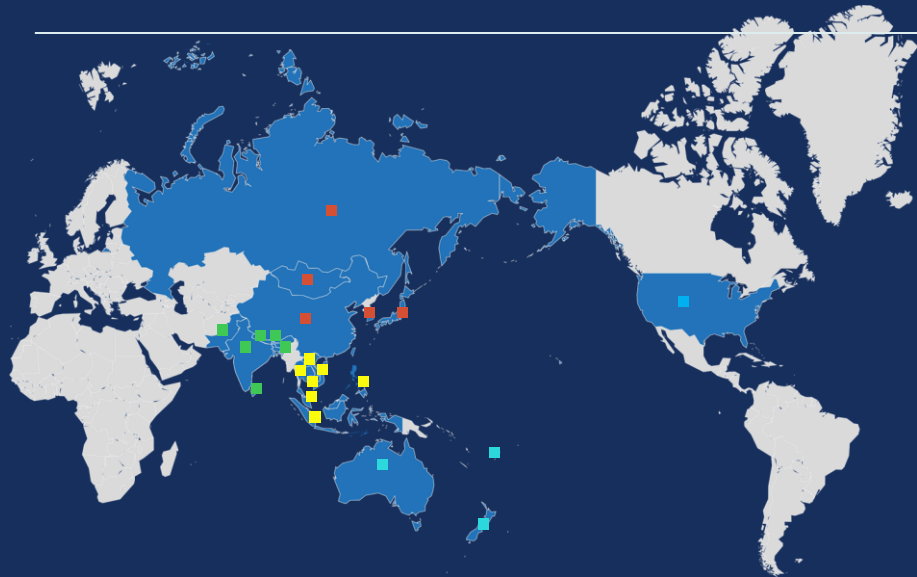
ESTABLISHED • 1996

MEMBER COUNTRIES • 22 countries in Asia-Pacific Region
• Additional “approved countries”

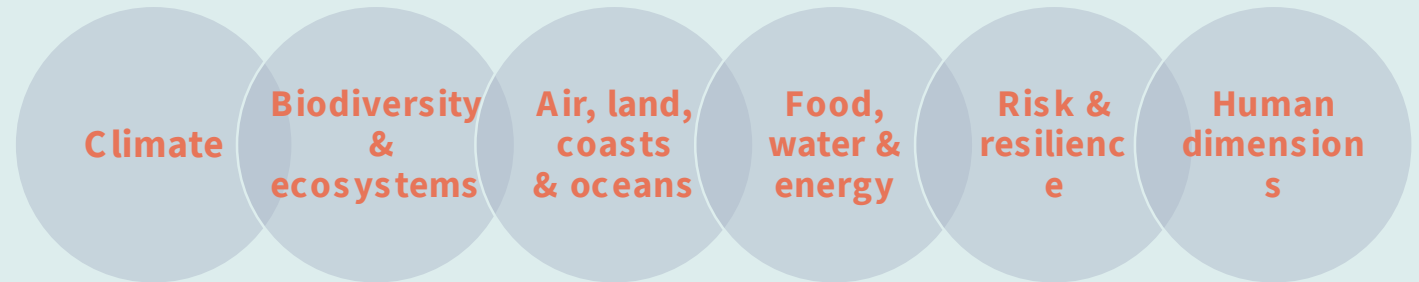
SECRETARIAT • Kobe, Hyogo Prefecture, Japan

DONORS

- Ministry of the Environment, Japan
- Hyogo Prefectural Government, Japan
- Ministry of Environment, Republic of Korea
- Ministry for the Environment, New Zealand



Focus areas



Strategic goals

1

REGIONAL RESEARCH

Support regional cooperation in global change research on issues particularly relevant to the Asia-Pacific region.

2

CAPACITY DEVELOPMENT

Enhance capabilities to participate in global change and sustainability research and support science-based decision-making.

3

SCIENCE-POLICY LINKAGES

Strengthen interactions among scientists and policymakers; provide scientific input to policy decision-making, and scientific knowledge to the public

4

COMMUNITY ENGAGEMENT

Cooperating with other global change and sustainability networks and organizations.

APN results in its 4th Strategic Phase (2015-2020)

- Over US\$7M for **119 projects** completed
- Over **70%** of projects engaged early-career scientists
- Over **1,600** scientists directly engaged
- Over **11,600** people directly engaged
- Over **650** distinct outputs
- Over **97,000** unique views on project metadata pages on the APN website



Member country priority topics



Special Issue in Elsevier Environmental Research: Climate Change Impacts, Vulnerability and Adaptation - Asian Perspective

Knowledge base in the region covering new climate information, policy gaps, and lessons learned are crucial and should be widely disseminated particularly to practitioners and policymakers. In this regard, a Special Issue “[Climate Change Impacts, Vulnerability and Adaptation: Asian Perspective](#)” that highlights findings of 15 APN projects was recently published with Dr Sangam Shrestha (AIT), Dr Linda Anne Stevenson (APN), Dr Rajib Shaw (Keio University) and Dr Juan Pulhin (UPLB) as editors. The results of which are expected to add value to the scientific literature.

APN Knowledge Synthesis

2013-2018

As part of the special issue, a knowledge synthesis of climate change efforts in Asia suggests there are 115 distinct and relevant projects in Southeast Asia, South Asia and Temperate East Asia, with many asserting issues around climate adaptation and mitigation, ecosystems and biodiversity, water-food-energy nexus, sustainable waste management, and climate education.

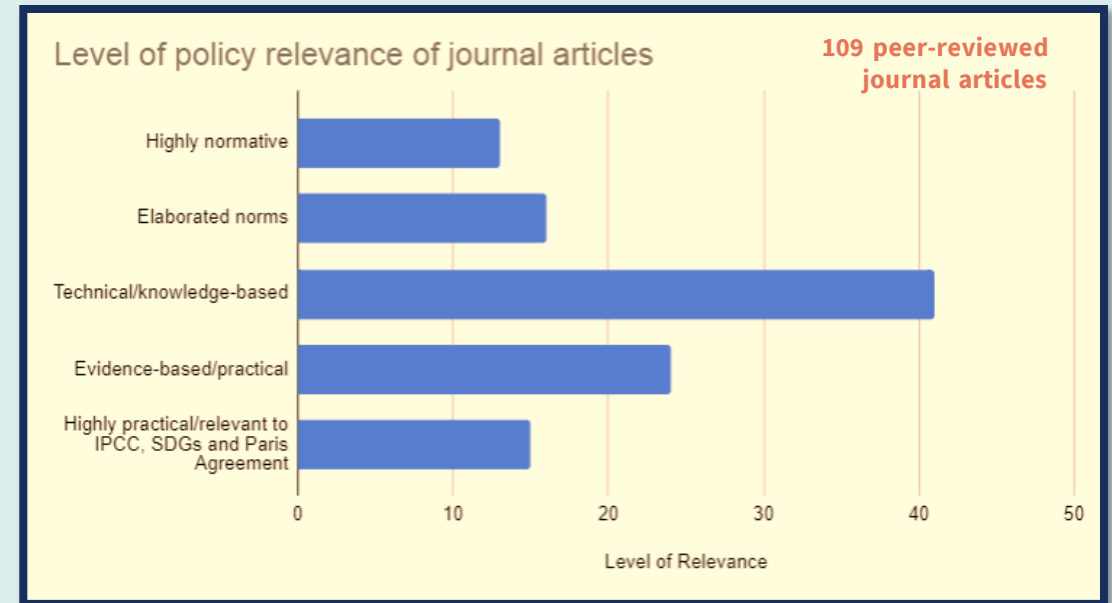


APN Knowledge Synthesis Highlights

Policy relevance of climate change research publications

From 163 knowledge products:

- 109 peer-reviewed journal articles were produced with different levels of IPCC relevance
 - 20.2% (16) are *Elaborated Norms*
 - 36.7% (41) are *Technical/Knowledge-based*
 - 22.9% (24) are *Evidence-based/Practical*
- IPCC themes with highest frequency: Ecosystems (27.52%); Water (15.59%); and Impacts, Adaptation and Vulnerability (15.59%)
- Increasing the relevance of APN projects with international climate change programme (i.e. IPCC) involves producing more products that are evidence-based and include highly practical solutions. These type of products are framework-oriented and thus, can easily inform policies.
- APN is suggested continue to produce publications of different formats to diversify the pathway not only in supporting policy creation, as well as to cater to various audiences and to utilize outputs of projects and activities.



Community-based approaches

Three case studies in

- India and Bhutan
- Philippines
- Cambodia



First large-scale, place-based action research in South Asia for climate smart crop residue waste management practices in rural India and Bhutan

- In partnership with South Asian Forum for Environment (SAFE)



Reusing crop residue for enhanced soil function and emissions reduction towards climate adaptive agricultural waste management in India and Bhutan

Many climate smart solutions for agro-waste management are too costly for marginal farmers or require technological innovation. The results of this place-based research project offers a practical solution to agro-waste management at local scales.

Adaptation-Mitigation Synergies:

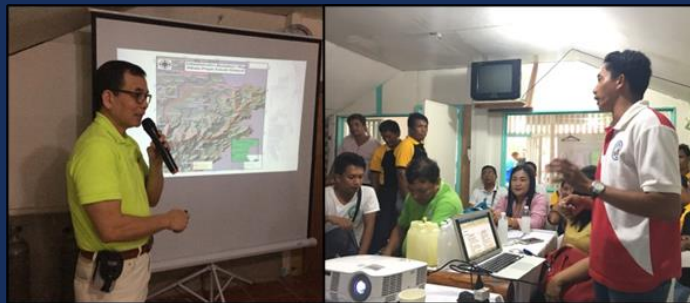
- Substituting agro-biomass burning by removing/re-applying waste (raw agro-waste or biochar) is a climate adaptive strategy for agricultural waste management that has mitigation benefits.
- The study projected a potential reduction of ~26000 t CO₂ and ~120 t PM_{2.5} in the two study sites.
- Potential for further research in different agro-geographical zones to understand the effect of different crop residue (waste) applications in agricultural landscape systems with adaptation-mitigation capacity.

Co-Benefits:

- 2700 farmers were trained in India and Bhutan and are implementing the new agro-waste management practice that offer practical solutions to use agricultural waste to enhance crop productivity.
- Substituting biomass burning with this alternative crop waste management practice can help improve soil quality, increase crop yield, reduce emissions, improve air quality and reduce health risks.

Institutional resilience as cornerstone to effective climate-adaptive action in Aurora, Philippines

- University of Philippines Los Bãnos (UPLB)
- Local Government Units, Aurora



Enhancing Climate Risk Resilience through Human Security Development and Capacity Building in the Province of Aurora, Philippines

Building institutional resilience of local governments by engaging key actors to formulate local climate change and disaster risk action plans was the study's key focus.



Key results

- The process of preparing the Local Climate Change Action Plans (LCCAP) is a major challenge for Local Government Units (LGUs) in Aurora, Philippines
- Engaging the LGUs in the activities reflects a shared learning process through knowledge generation and discussion.
- Institutional capacity assessment revealed a strong correlation between expertise and position in all conditions.
- A key to institutional capacity building is competency development among LGUs as frontline agencies in climate adaptation.
- LGUs need improvement in terms of staffing and human resource; access to financial support from other sources; and knowledge management systems.

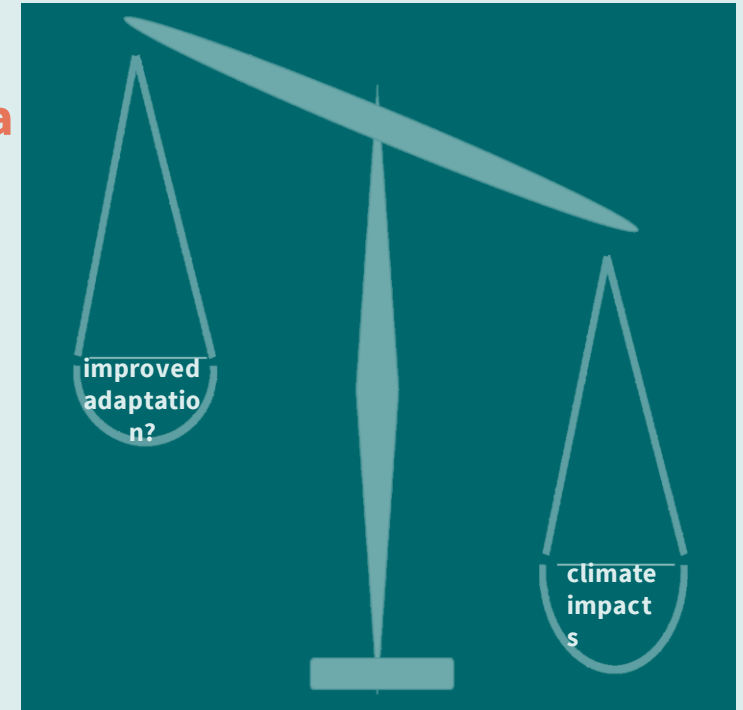
Simple assessment tools empower communities to build resilience

- University of the Sunshine Coast
- University of Battambang



Optimizing climate change adaptation through enhanced community resilience in Cambodia

Few resilience assessment frameworks are simple enough for communities to build resilience and have ownership in their adaptation efforts. This study showed that simple assessment tools can identify changes in resilience, and that sustained resilience building requires community development.



- Community resilience is the assets a community has to adapt to change and the processes it can use to mobilise them
- Community resilience assessment helps to identify options that support both climate change adaptation and development outcomes
- We need a better way to understand resilience so we can tip the scales and reduce the effects of climate change on globally poorer (less-developed) communities

Jacobson, C. and Nguon, C. 2016. Community resilience assessment and climate change adaptation planning: A Cambodian Guidebook. University of the Sunshine Coast and University of Battambang, Maroochydore, Australia. ISBN 10: 1-925476-04-9, ISBN-13: 978-1-925476-04-0

Jacobson, C. (2020). Community climate resilience in Cambodia. *Environmental Research*, 186, 109512. doi:10.1016/j.envres.2020.109512

2020 Call for Proposals

- Funding from July 2021
- Focus on 5 key priority themes
- <https://www.apn-gcr.org/news/2020-call-for-proposals-under-the-crrp-and-capable-programmes/>



2020

Calls for Proposals



Covid-19 Pandemic

Global change and sustainability in the COVID-19 era: Pursuit of transformation to more resilient societies

- Integrated approaches to promote decarbonized societies, regional circular and ecological sphere (R-CES), and formulation of decentralized societies to create long-term economic and societal benefits.
- Build back better: promote greener economies, improve air quality and waste management, and define more sustainable pathways for society and nature.
- Impacts on local livelihoods and human security: increasing resilience and adaptation while ensuring harmony between society and nature.

Publications Library:

Reports, proceedings, policy briefs, guides, tool kits and other outputs from APN funded projects

www.apn-gcr.org/publications-library/

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<http://www.apn-gcr.org/eml/lists/?p=subscribe&id=4>

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