ASIA-PACIFIC NETWORK FOR
GLOBAL CHANGE RESEARCH

POLICY BRIEF

SCIENCE-POLICY DIALOGUE SOUTH ASIA

GLOBAL ENVIRONMENTAL CHANGE: REDUCING RISK & INCREASING RESILIENCE

BACKGROUND

FROM 2010, SOUTH ASIA HAS SHOWN remarkable economic growth and reduced poverty in the region. However, environmental impacts, such as extreme events, have caused significant problems in the region. In order to address this, APN held its second in a series of three sub-regional Science-Policy Dialogues (SPD) in South Asia (Bhutan) providing an opportunity for scientists and policy makers to share their knowledge and experience. The dialogue also provided a platform for regional experts and policy makers to share best practices. The first SPD focused on Southeast Asia in 2012 and the third will focus on Temperate East Asia. A synthesis of all three dialogues will be conducted in 2016.

Under the theme "Climate Change: Reducing Risk and Increasing Resilience", the Science-Policy Dialogue was designed around five activities that incorporated sessions on knowledge-sharing and knowledge management, carousel/café kiosks, roundtable and panel sessions, and participatory games. Three main themes on urban areas: climate impacts and risk reduction, food and water security in the rural context, and low carbon society and sustainable pathways were discussed in the context of rural and urban sectors with a cross cutting theme on sustainability.

The SPD brief provides information on the findings and recommendations of APN's South Asia Science - Policy Dialogue on Global Climate Change: Reducing Risk and Increasing Resilience, which was held in Thimphu, Bhutan from 19–21 January 2015. The dialogue was organised by APN and the National Environment Commission of Bhutan with financial support from APN, the Climate Development Knowledge Network (CDKN) and the Low Carbon Asia Research Network (LoCARNet). The three-day dialogue was attended by 50 scientists and policy makers from Bhutan, Bangladesh, India, Japan, Nepal, Pakistan and Sri Lanka.

EXECUTIVE SUMMARY

The dialogue drew attention to the fact that while countries in South Asia have policies to address climate change issues, the region lacks policy implementation. On the policy side, South Asia has well established policy frameworks and responsible actors to address climate impacts and risk reduction. However, coordination and communication between actors in policy communities are lacking. To understand the effectiveness of policies, there is a need to review both policies and implementation strategies.

Communication gaps exist between scientists and policy makers, and intermediate agents, such as media, need to take an active role to overcome the gaps. Conducting regular dialogues at the national level was suggested as an action that may benefit both scientists and policy makers to reduce these gaps in communication. This may help transfer scientific outcomes to immediate and future policy planning processes and action.

Climate change issues are closely connected with climate and non-climate factors. Therefore, future research studies and action must consider climate change issues with development issues, gender balance, and poverty. Furthermore, to avoid cases of maladaptation, which occurs mostly due to lack of community involvement, work needs to be done at the ground level with communities.

In order to make an impact in the policy community, research funding agencies may need to consider as much as 30% of financial allocation for research dissemination activities to ensure that scientific findings reach relevant end users. Although South Asia has research activities on global change science, more policy analysis research, country specific studies, and nexus studies are needed for better understanding.

Even though South Asia has short-term capacity development activities, long-term capacity development is needed for disaster risk reduction and to build resilience. Capacity development of scientists and policy makers on communication is also a key area to reduce communication gaps and increase knowledge sharing. Capacity development of policy makers to understand new scientific knowledge is needed. South Asia needs more cooperation among countries to achieve sustainable development while addressing climate issues. Especially, policy makers must consider regional issues together with national issues when formulating national policies.

The process of learning from best practices and ongoing experiments has to be scaled up through wider dissemination. Action or behaviour that causes climate change such as human consumption patterns needs to be changed in a way where we can reduce impacts.

TAKE HOME MESSAGES

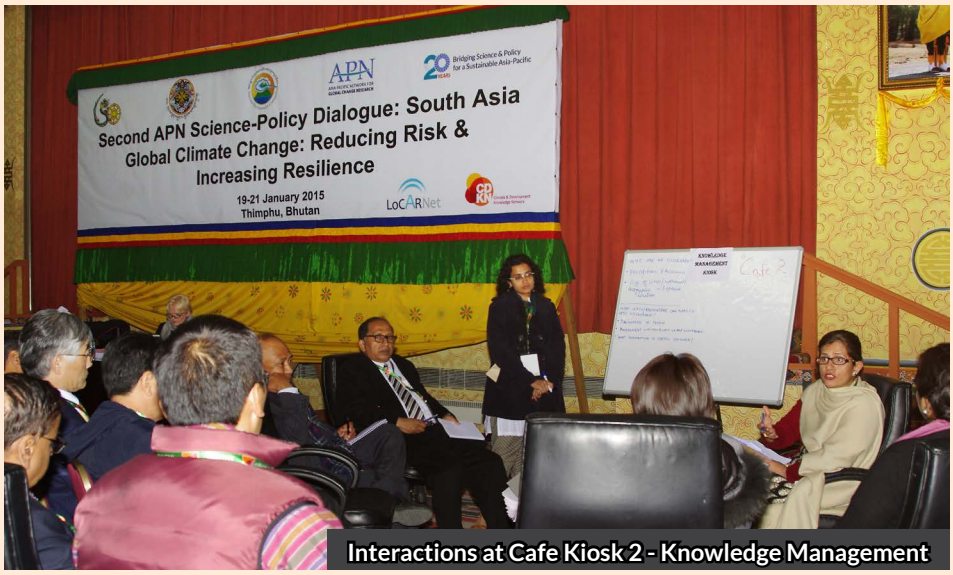
Science-Policy Engagement

To strengthen the process of transferring science into action, collaboration between scientists, policy makers and practitioners is very important. Particularly, **knowledge creation, processing and dissemination should be connected and considered as one process rather than independent activities.**

Innovative research and capacity building activities are needed to strengthen science and policy collaboration. Especially, national and regional dimensions need to be considered in some situations such as migration where national policies closely connect with regional situations. Therefore, **regional science collaboration and advocacy play a vital role in understanding connections between national-level and regional-level policies.**

> "we need evidence-based science that can interlink with policies and also experts who can effectively incorporate scientific outcomes into policies."

In the context of food and water security, the market has become globalised and has been moving from self-reliance to demand-driven systems. At the same time, climate change has led to emerging mitigation strategies causing a shift back to self-reliance. For this reason, **new mechanisms where national-level interests can lead to regional cooperation in order to avoid conflict between countries, are desirable.**



Interactions at Cafe Kiosk 2 - Knowledge Management

In the field of low carbon society and sustainable development, researchers need to identify short-term and long-term actions when delivering scientific outcomes to policy makers.

There are gaps in transferring scientific findings into policy planning. Scientists need to present their findings in a format that policy makers can understand. **Science based on sufficient evidence and action-oriented research are needed to attract policy makers.**

Climate change research needs to be considered together with development issues, gender balance, and poverty.

Science-Policy Communications

To motivate scientists to policy-related studies, a mechanism is needed to **monitor and evaluate research activities that have been effective at the ground level in developing policy and reward such incentives.**

The best approach to transfer scientific findings to policy planning is to hold face-to-face discussions among scientists and policy makers and identify each party's needs. Practitioners also need to be considered as key agents in science and policy engagement.

"For effective application of scientific results to policy planning, there should be a communication mechanism to translate findings into formats that policy makers can easily understand."

There are communication gaps between scientists and policy makers, and **intermediate agents need to take an active role to narrow the gaps.** Knowledge gaps and communication gaps are interrelated. Approaches to combine the two should be considered when addressing gaps.

There are many forums, dialogues and workshops in South Asia that enhance communications between science and policy. To make effective use of the outcomes of those events, **participants should take responsibility to disseminate the information as widely as possible.**

There is less interest from policy communities in science-policy dialogues compared with scientists. **For science-policy dialogues to be more attractive, involvement of a champion or well a respected person in the country is recommended.**

Four key points require consideration during the communication process:

1. **Enable** Informed decisions.
Collect information and advice from science and inform various levels up to policy makers for decision making.

2. **Write** for people to understand and to act.
First we need to educate the audience to receive knowledge of scientific findings. On the other hand, scientific information that is policy relevant must be written in simple language.

3. **Capture** knowledge from practice.
Knowledge has been distributed everywhere but we need to capture and connect each other's for effective usage.

4. **Innovate**—double the impact in half the time at quarter the cost.
Need to emphasise the importance of innovation over commercial benefit, which provides solutions for climate change and its impacts.

Dr. K. S. Murali reporting summaries of Cafe Kiosk 2 - Knowledge Management

Knowledge Management

When considering all aspects of climate change, **vulnerability and impacts on livelihoods need to be highlighted.**

The **food and water nexus is very important when considering climate impacts**. In South Asia, water availability is a limiting factor for human life and affects many areas such as human migration. A holistic approach to reduce the impact of climate change in the food and water sectors needs to be considered and **research needs to be integrated across the climate, water and food nexus.**

Low carbon growth is crucial for survival of the earth system. While South Asia is aiming for rapid development, policy makers should **consider low carbon growth as a pathway to sustainable development.**

Access to research information needs to be increased. Conversations/ dialogues among science, policy and communities need to take place regularly. With this, **more investment is needed to achieve more effective science-policy-community dialogue.**

Climate change cannot be considered as a national or a sub-national issue. Impacts are applicable at global and regional levels, and **more opportunities for cooperation and collaboration at the regional level are needed.** Further, more national-level dialogues between stakeholders and communities are needed, the outcomes of which should feed into regional-level dialogues.

Role of Media & Media Engagement

Involving media in Science-Policy dialogues will help scientists and policy makers better sunderstand how key science or policy issues can attract the public. Although media engagement is an important factor to enhance communication between scientists and policy makers, media should be careful to ensure proper interpretation of the facts in their media-related articles and reports. To attract media to scientific or policy studies, modified approaches are needed by scientists and policy makers who should relate their findings with real situations that can provide some kind of sensational value to the outcome. **Media needs to report what is perceived by the public as "newsworthy".**

"The dialogue gave the message that public engagement through media is an important factor in communication. It is hoped that this will help to reverse negative views and enhance media engagement."

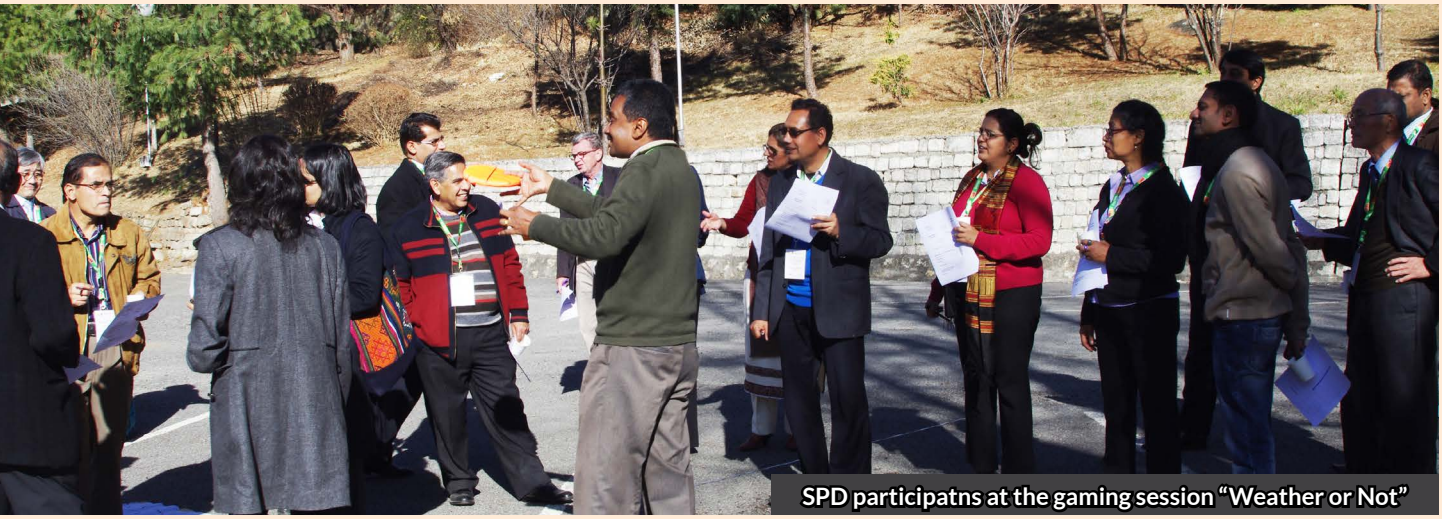
Even with limited resources, science can reach end users in two ways:

- Scientists should work closely with intermediary agents such as media; and
- Associate the impact of scientific findings with human issues where policy makers and communities can readily relate to and understand the information being articulated.

RECOMMENDATIONS: RESEARCH AND CAPACITY DEVELOPMENT NEEDS

Research Needs

- Country- and regional-level policy analysis research.
- Research studies to understand how national-level subsidies affect the region.
- Regional research studies to understand how national-level policies impact at the regional level.
- Accurate scientific analysis to identify factors that lead to communication gaps among scientists and policy makers.
- Research to identify the best communication strategies and/or innovative communication products to enhance communication and narrow gaps between science and policy.
- More nexus-oriented research to understand the relationship among and between water and food security, low carbon initiatives and health.
- Research on low carbon future and risk-resilient lands.
- Identifying policy-relevant research by exploring multi-level governance frameworks in South Asia.
- More research on integrated adaptation methods that combine climate and non-climate factors.
- Data on groundwater research studies are comparatively low compared to surface water research studies. Especially, information on quality and quantity of groundwater data is needed.
- Research on collecting and analysing data and indicators on resource use and consumption.
- Country-specific studies on low carbon development to determine action and technology needed to achieve low carbon society, including the sectors responsible.
- More scientific studies on analysis of how economic regulations affect levels of resource use and consumption.



SPD participatns at the gaming session "Weather or Not"

Capacity Development Needs

- Capacity building of policy makers to understand new scientific knowledge and its usage for better policy planning.
- While scientists and policy makers understand the importance of communication, they do not have a proper understanding of communication tools and their usage to reach end users. Therefore, there is a need for training to improve the understanding of communication.
- Media workshops to train journalists and increase media attention to scientific activities.
- Long-term capacity development projects are crucial to maintain effective mechanisms for increased resilience and disaster risk reduction.
- There are different categories of policy makers. When scientists feed knowledge to policy makers, they need to understand this diversity.
- In the process of science to action, there are different levels of communities (politicians, investors, general public, etc.) and each community has its own standard of credibility and validation of data.
- It is difficult to capture knowledge from practice. From the outset, knowledge management from practice should be based on valid information or data that comes directly from practice.
- Most investment in capacity development is short-term. Donors are reluctant to invest in long-term capacity development, which is crucial to maintain effective mechanisms to address disaster risk reduction and build resilience.

RECOMMENDATIONS: NATIONAL, REGIONAL & INTERNATIONAL

National

Sub-national and national-level science-policy dialogues are needed to **gather ideas and experiences from sub-national level officers that are working at the ground level** to address mitigation and adaptation.

Most countries in South Asia have authorised ministries or institutions to take action on climate change. However, one ministry or institution cannot answer all problems related to climate change and there is a **need for better communication among and between ministries and other relevant stakeholders.** Currently, there is still a silo-approach to the work undertaken at ministerial levels and more cross-ministerial decision-making is needed.

Countries in South Asia have policies that are related to climate change and adaptation, however **policy implementation processes are slow and more attention should be placed on implementation processes.**

Maladaptation can occur due to lack of community involvement and to avoid this, **work at the ground level must be considered together with communities** so that best adaptation practices can be implemented.

Interactions at Cafe Kiosk 1 - Science Policy

Regional

Some countries in South Asia lack advanced scientific research and knowledge to integrate scientific findings into national level policy planning. Thus, **regional dialogues provide opportunities to gain knowledge from other countries, scientific studies.**

Regional cooperation is essential to effectively address climate issues. In particular, policy makers should **consider regional issues together with national issues when formulating national policies.**

"APN or other regional organisations should take leadership and identify and document the scientific communicators in the South Asia region."

There is a need to **strengthen regional cooperation and collaboration in data collection**, sharing and use for effective response to disaster risk reduction & climate change adaptation.

International

International research funding agencies may need to consider as much as 30% financial allocation for research dissemination activities in order to ensure proper transfer of scientific findings to end users.

At a global scale, we must continue to emphasise the uncertainty of climate change and its consequences.

Plenary Session

Dr. Anshu Sharma reporting summaries of Cafe Kiosk 3 - Communications

RECOMMENDATIONS FOR FUTURE DIALOGUES

- Dialogues should involve all levels of policy makers from local to sub-national, national, regional and international levels.
- Final policy implementation depends on political decisions. Involvement of politicians is, therefore, crucial in science-policy dialogues.
- More engagement of social scientists and young, early-career scientists' involvement.
- Field visits to show best adaptation practices may provide stronger influence to participants.
- Regional networks and organisations that have similar interest should be involved.
- Community or local people are important agents at the implementation stage. Future dialogues could consider engaging them.
- Sessions that discuss outcomes of policy analyses to find interrelationships between policy thematic areas are desirable.

"Scientists and event organisers may consider having a real site visit when they want to sell their findings. If a country has an irrigation problem, for example, and it affects the community, we (the media) can create stories which cover the scientific facts and the real impacts."

Speakers and Kiosk Coordinators at the South Asia Science-Policy Dialogue on Global Climate Change: Reducing Risk and Increasing Resilience

Mr. Hiroshi Tsujihara
Director, APN Secretariat,
East Building, 4F, 1-5-2 Wakinohama Kaigan Dori, Chuo-ku,
Kobe 651-0073, JAPAN
E-mail: htsujihara@apn-gcr.org

Dr. Linda Anne Stevenson
Head, Communication & Scientific Affairs Division, APN Secretariat,
East Building, 4F, 1-5-2 Wakinohama Kaigan Dori, Chuo-ku,
Kobe 651-0073, JAPAN
E-mail: lastevenson@apn-gcr.org

Dr. Rajendra K. Pachauri
Director General, The Energy and Resources Institute (TERI)
6C, Darbari Seth Block, India Habitat Centre Complex, Lodhi Road, New Delhi, INDIA
E-mail: pachauri@teri.res.in

Dr. Anand Patwardhan
School of Public Policy,
University of Maryland
2101 Van Munching Hall College Park,
MD 20742 USA
E-mail: apat@umd.edu

Mr. Ali Tauqeer Sheikh
Chief Executive Officer, LEAD Pakistan,
Climate & Development Knowledge Network,
LEAD House, F-7 Markaz, Islamabad,
PAKISTAN
E-mail: atsheikh@lead.org.pk

Mr. Naseer Kashani
Director General, Environmental Protection Agency Balochistan,
Office of the DG EPA, Samungli Road, Quetta,
Balochistan, PAKISTAN
E-mail: kashani_2k@yahoo.com

Dr. Syed Javed Hasan Rizvi
Regional Director for South Asia, World Agroforestry Centre (ICRAF),
CGIAR Block, NASC Complex, Dev Prakash Shastri Marg, Pusa Campus,
New Delhi - 110012 INDIA
E-mail: j.rizvi@cgiar.org

Prof.Toshio Koike
Professor,
Department of Civil Engineering,
The University of Tokyo,
7-3-1, Hongo, Bunkyo-ku, Tokyo, JAPAN
E-mail: tkoike@hydra.t.u-tokyo.ac.jp

Mr. Tenzin Drugyel
Ministry of Agriculture and Forests
Royal Government of Bhutan, BHUTAN

Prof. Shuzo Nishioka
Secretary General, LCS-RNet / LoCARNet
Senior Research Advisor, IGES
2108-11 Kamiyamaguchi, Hayama, Kanagawa, JAPAN
E-mail: nishioka@iges.or.jp

Ms. Janet-Amani Salem
Project Officer, United Nations Environment Programme
UN Building, Rajdamnern Nok Avenue,
Bangkok 10200, THAILAND
E-mail: janet.salem@unep.org

Dr. Ugyen Tshewang
Secretary, National Environment Commission
Royal Government of Bhutan
P.O. Box 466
Thimphu, BHUTAN
Email: secretary@nec.gov.bt

Dr. Joyashree Roy
Professor of Economics
ICSSR National Fellow,
Jadavpur University,
188, Raja, S.C. Mallik Road, Jadavpur,
Kolkata: 7000 32, INDIA
E-mail: joyashreeju@gmail.com

Dr. Anshu Sharma
Director,
SEEDS Technical Services,
Disaster Management Technical Services,
INDIA
E-mail: anshu@seedsindia.org

Dr. Hina Lotia
Director Programmes, Programme Development Department, LEAD Pakistan,
LEAD House, F 7 Markaz,
Islamabad, PAKISTAN
E-mail: hlotia@lead.org.pk

APN
ASIA-PACIFIC NETWORK FOR GLOBAL CHANGE RESEARCH

20 YEARS
Bridging Science & Policy for a Sustainable Asia-Pacific

South Asia Science-Policy Dialogue on Global Climate Change: Reducing Risk and Increasing Resilience—A Policy Brief

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

Managing Editor: Linda Anne Stevenson
Report: Linda Anne Stevenson, Taniya Koswatta
Design and layout: Xiaojun Deng, Huong Long Dinh

CDKN Climate & Development Knowledge Network
LoCARNet