Setting the Direction for Adaptive Development: The Urgent Need to Achieve a Sustainable Asia-Pacific

1 Context/Rationale

Adaptive development (AD) is a newly emerging field that attempts to link the concepts of sustainable development, climate change adaptation and risk governance into one paradigm. It is a field that could be used for achieving a sustainable Asia-Pacific in the context of the emerging needs and challenges in the region. AD is a critical endeavour for the future well-being of people in the region and throughout the world. The presentations at this session discussed the overall theme of AD, its relevance in policy making, as well as field-based approaches to research and learning for AD. Discussion also focused on how the academic community can develop new and progressive research approaches that can contribute to the generation of pragmatic knowledge.

2 Objectives

The aims of the session were to identify further means for mobilising academic and research communities to generate pragmatic knowledge production for addressing the emerging issues linked to AD, and increase the understanding of AD among the general population (participants).

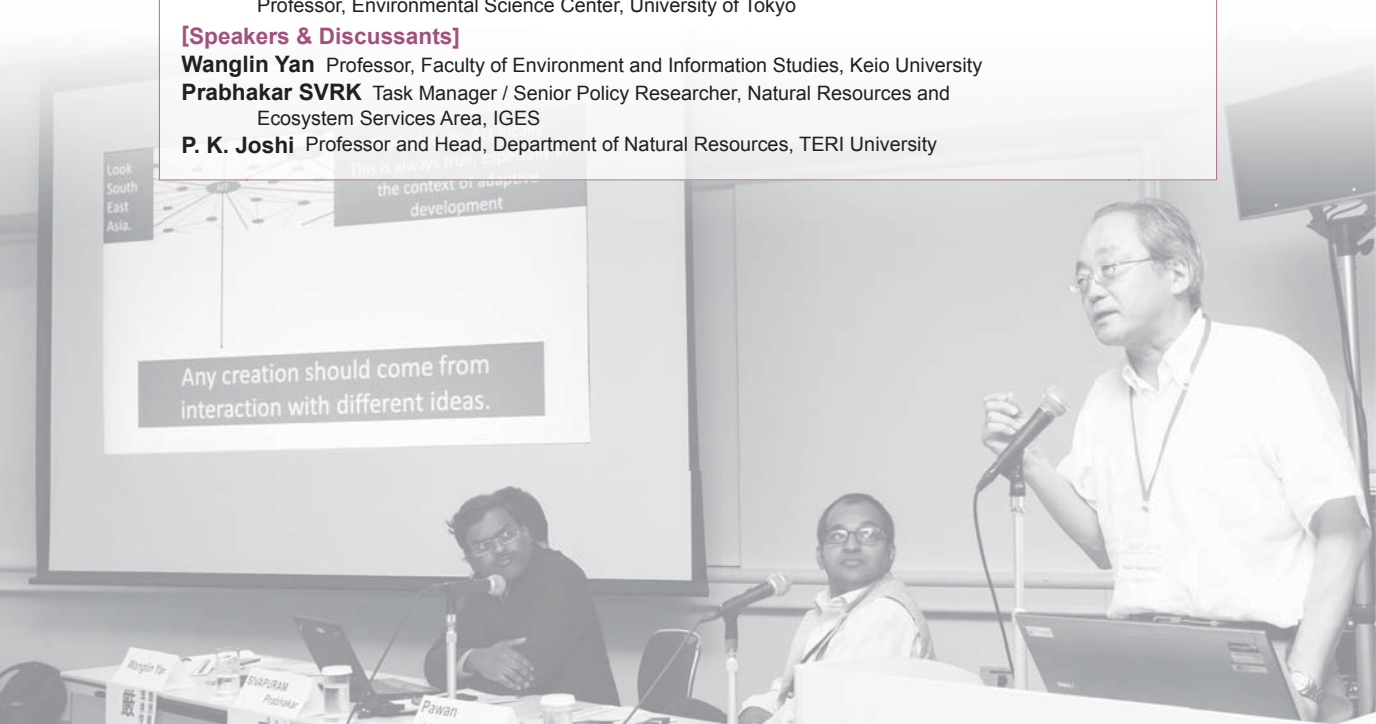
3 List of Speakers

[Moderator]
Toshiyuki Iwado Principal Fellow, IGES

[Opening Remarks]
Jiro Kokuryo Vice-President / Professor of Faculty of Policy Management, Keio University

[Keynote Speaker & Discussant]
Kazuo Yamamoto Vice President for Resource Development at the Asian Institute of Technology (AIT) / Professor, Environmental Science Center, University of Tokyo

[Speakers & Discussants]
Wanglin Yan Professor, Faculty of Environment and Information Studies, Keio University
Prabhakar SVRK Task Manager / Senior Policy Researcher, Natural Resources and Ecosystem Services Area, IGES
P. K. Joshi Professor and Head, Department of Natural Resources, TERI University



4 Key Messages

- **Currently there is little understanding of AD. Ways to further understand AD include encouraging interaction between science and policy, and the use of "nodal" networking between academic and research institutions to deepen knowledge.**
- **There is currently a wide gap between research and practice regarding AD and the use of Project Based Learning (PBL) will help bridge scientific knowledge and actual practice on the ground.**
- **Adaptive policies (related to Natural Resource Management and Disaster Risk Management) do not necessarily mean effective policies. Policy effectiveness is dependent on several factors.**
- **Use of a pragmatic approach to achieving a knowledge revolution – a fundamental change in adding value by creating, assessing and using knowledge – would require process, source, technology and innovation.**

5 Summary of Presentation

Kazuo Yamamoto gave a keynote speech underscoring the importance of networking, adding that this can take time. He praised IGES' networking ability and provided examples of its regional partner groups such as APAN (Asia Pacific Adaptation Network). IGES is also currently networking with prominent institutions like TERI, AIT and Keio University. Networking alone is not enough, however, it is also vital to deepen knowledge accompanied by a breakthrough in technology at each networking node. Collaboration in knowledge generation for AD should be underpinned by the slogan "Think globally, Act locally" and the inclusion of universities in practicing this mantra is essential. Furthermore, any knowledge creation should emanate from the interaction of different ideas. He made reference to AIT (and also TERI) as an academic institution that is committed to creating transformative knowledge through its vision and mission statement. He remarked further that AIT is attempting to actualise that through knowledge creation for sustainable development, and is using present and past students whose home countries span the globe. In conclusion, he gave an explanation of the Alliance of Global Sustainability (with specific reference to Asian Circles (AGS-Asia)), comprised of ongoing university collaborations that aim to create relevant regional and global knowledge.

Wanglin Yang presented a case study of how transdisciplinarity in the context of several examples of students' work on Project Based Learning (PBL) from different disciplines can be connected and incorporated into the university curriculum. He first explained mitigation, adaptation and user demand from the point of view climate change. He then gave a short introduction of AD, defining the term as development that must be adaptive to the environment. AD should also adjust the way of development to global change (mitigation) and local conditions (adaptation), and it should also support ongoing improvement through user-driven design and modification in the target environment for local use (demand driven). Additionally, AD provides a pathway to the realisation of the goals of the 'Future Earth' Initiative. He mentioned that capacity building (CB) is an important aspect of AD and explained that CB work at Keio University is built on PBL. The programme uses several disciplines and their interconnections based on an adopted concept that is aimed at "fostering global entrepreneurs and innovators with the capacities of: 1) creativity with design thinking; 2) leadership of project practice, and 3) networking capability". Furthermore, it connects the different research projects in the university with a view toward incorporating them into the university curriculum. Students engage in their own projects that lead them to internship/

field work; through experience their perspective on learning and its contribution to society is altered. This was illustrated by several different types of student projects from different countries across Asia. Finally, he stated that a wide gap currently exists between AD research and practice, and stated that PBL could be one approach to bridging scientific knowledge and practice.

Prabakhar SVRK initially gave a brief overview of climate change adaptation (CCA) with regard to the three conundrums of CCA, and went on to explain Japan's contribution to adaptation technology, policies and institutions. Focusing on whether adaptive policies are necessarily effective policies in the Japanese context, he tried to differentiate between policy dynamics and adaptive policies and gave reasons for emphasising adaptive policies in his presentation. He showed the steps taken to identify adaptive policies and their responses through research. These are identification of issues which have a long history and have evolved over time, listing policies introduced to address these issues over the years, and finally, identifying how these policies changed over time in response to the changing stimuli. Therefore, a policy that has undergone modifications with changing stimuli can be considered adaptive. He used two Japanese examples - one showing a policy relating to disaster risk reduction (DRR) where things happen on a shorter scale basing it on the issue of responses to typhoons, and another showing a policy on natural resource management (NRM) where things happen on a longer scale basing it on declining numbers of farmers and agricultural land to address the questions of: a) how soon policies were introduced; b) how frequently the policy had undergone change, and c) how effective the policy was in achieving the policy objective. Although the number of amendments to DRR policies was similar to the NRM policies, differences in DRM and NRM experiences were observed. These included clarity about the stimuli to which the agent responds and also how clearly the institutional roles are defined, as well as differences in time scales for issues to become clearer for agent response, and the complexity in converting responses to outcomes. The study did not find all adaptive policies to be effective policies. Effective policies were largely seen to be dependent on several factors such as understanding of causality of factors, consensus among stakeholders, and actual driving forces behind the formulation of the policy. Additionally, there is often a lack of consensus within government and institutions responsible for the policy formulation and implementation, and also there is little understanding of the complex feedback connections between policies. Lastly, a move from reactive governance towards predictive governance was proposed.

P.K. Joshi began by posing the question of whether knowledge is composed of a correct representation of what works in practice. He provided four different ways in which knowledge is generated: in the classroom during interaction; in the laboratories; in the field, and in the practical/real world. He stressed that proper generation of knowledge should reflect all four aspects. An important component for knowledge generation is capacity building in the form of thinking skills, consisting of enquiry information processing, reasoning, evaluation and creativity. Another important factor is keen observation using the acronym VISUAL referring to vision, imagination, simplicity, understanding, association and learning. Self-traits or habits comprising proactivity, goal setting, personal management, win-win thinking, clear communication, synergy and self-renewal are also important. Also playing a significant role in knowledge generation is the process of making decisions based on thinking through steps beginning from developing of a conceptual background, data collection and observation to taking action on the set goals drawn from the conclusions. What is seen as even more important is pragmatism which both recognises knowledge as a social and discursive activity, while orientating research towards the generation of useful knowledge. He then stressed the need for a knowledge revolution – a fundamental change from adding value by producing things to adding value by creating, accessing and using knowledge. Elements to take into consideration regarding a knowledge revolution include: increased qualification of knowledge and development of new

technologies; closer links with science-base; increased rate of innovation and shorter product life cycles; increased investments and emphasis on intangibles such as education and R&D; greater value additions in branding, marketing, distribution, as well as information management. He added that 1) non-linear, case-specific process, 2) underlining the key role of the client's need and supplier's idea, 3) improved technology and its proper use, particularly enhancing technical culture through exchange of information/ data sets, and 4) nurturing of innovation and networking are important requisites for the knowledge revolution. He stated further that it is vital to develop pragmatic innovation agenda from good programmes to coherent innovation and enterprise upgrading systems through networking, and mentioned other essentials for the knowledge revolution such as instituting new industrial policy as a process of discovery and a shared vision as innovation-based economy. The roles of government, research and academic institutions cannot be overemphasised.

6 Summary of Discussion

Responding to a question on why competition was labelled as a weed in the presentation, the presenter referred to unhealthy competition that pulls down prior development instead of building on it.

On whether the presenter (and his institution TERI) was making use of such concepts as levels from concrete to abstract and whether he could elaborate on how the education process works on the letter of abstraction at TERI, the presenter explained thatTERI uses environmental studies as its preferred course name to reflect its interdisciplinary and transdisciplinary nature rather than environmental science. Details were also given on the content and process of teaching/learning.

Responding to the question on how the effectiveness of the PBL of students is evaluated, the presenter answered that although currently there is no standard for evaluation, the conventional assessment used by researchers is summative based on paper writing, presentation and later publication. However, an alternative and a more pragmatic and 'effective' approach based on formative assessment of the student's continual activity/project on social issues in the community is currently being used.

In response to a questions on what the purpose and implication is of the AD session as regards voices in the Asia Pacific context and also with respect to North–South tense dialogues that occurred in the Rio plus 20 Conference and secondly who are the stakeholders, the presenter answered that solutions to AD problems should be collaborative across scales, and despite the 'regionalisation' of the problems, localisation of the issues and their solutions at the individual level is also important.

Responding to the question about how efficient an adaptive policy can be since it changes with time and location, the presenter answered that the definition of efficiency is dependent on a number of factors. His central argument was sometimes pursuing "adaptiveness" for the sake of developing an adaptive policy can lead to addressing the symptom rather than the cause of a problem. It is thus critical to understand and address the cause of a problem when developing an adaptive policy.

The Chair closed the session stating that it had been fruitful and informative, and had deepened the understanding of the participants. The Chair concluded that AD will involve several sectors, institutions, experts and ideas and will need networking and use of interdisciplinary and trans-disciplinary approaches to solve practical problems. He also stated that there should be more interaction between science and policy due to the presence of uncertainty and that there still remains a great deal more to explore in AD. He encouraged the presenters to continue to work hard to bring more understanding to the issue.