INGSA WORKSHOP REPORT: SOUTH EAST ASIA GOVERNMENT SCIENCE ADVICE WORKSHOP JOHOR BAHRU, MALAYSIA 11 AND 12 JUNE 2017

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International Network for Government Science Advice

INGSA South East Asia Government Science Advice workshop

Workshop Report

DoubleTree Johor Bahru, Malaysia
11 and 12 June 2017

Organised In Conjunction With:

THE ROYAL SOCIETY

Office of the Science Advisor
Prime Minister's Office
Malaysia

Supported By:

IDRC | CRDI
International Development Research Centre
Centre de recherches pour le développement international
Canada

INTERNATIONAL COUNCIL FOR SCIENCE

MiGHT
Malaysian Industry-Government Group for High Technology

Summary

This report reviews the delivery and outcomes of the INGSA South East Asia Government Science Advice workshop which took place on **11-12 June 2017 in Johor Bahru, Malaysia**. It concludes with some lessons for future INGSA workshops and related activities.

The report has been written by Alessandro Allegra, who was one of the workshop's facilitators.

In line with INGSA's goal of strengthening capacity for science advice, particularly in developing countries, this was its **first capacity building workshop in the region**. The workshop brought together **almost 50 scientists and policymakers, representing 13 countries from across the region**. Organised in close partnership with the Office of the Science Advisor to the Prime Minister of Malaysia and Royal Society, the workshop took place immediately prior to the Commonwealth Science Conference organised by the Royal Society in Singapore.

Additional partners and funders of the workshop were: International Council for Science (ICSU), International Development Research Centre (IDRC), Malaysia Industry-Government Group for High Technology (MIGHT). We would like to express our gratitude to all of these organisations for their support.

DAY 1

Introductory presentation and panel discussion

On the first day, the workshop kicked off with welcoming remarks from Sir Peter Gluckman, Chair of INGSA and Chief Science Advisor to the Prime Minister of New Zealand; Professor Zakri Abdul Hamid, Science Adviser to the Prime Minister of Malaysia; and Alessandro Allegra, early career science policy researcher and rapporteur of the workshop.

The first part of the workshop consisted of a discussion of the principles and structures of science advice, introduced by a presentation from Sir Peter. In his presentation, Sir Peter introduced the topic of the workshop by reminding participants how, although not always realised, every challenge governments face have a scientific dimension. Acknowledging that science alone doesn't make policy, Sir Peter offered some reflections on how to build effective and trustworthy science advice mechanisms.

First, he recognised that the nature of science, policy, and their relationship, has changing over the past decades, reflecting wider changes in society. While in the past science and policy were considered as strictly separated, it is now clear that they form part of the complex system of interactions that govern modern societies.

Our understanding of science has shifted from deterministic to probabilistic, and acknowledging the limits of science means accepting that facts alone cannot determine action. Science advice is therefore best understood not merely as a matter of 'telling truth to power', nor as a vehicle for advocacy, but rather as an exercise brokering complex knowledge to make better policies. This requires trust of the government, the public, and the scientific community itself. Based on these premises, he offered some advice from his own experience on how to best engage with policymakers.

Following the welcoming remarks and Sir Peter's introductory presentation, he and Professor Hamid were joined by Professor Satoru Ohtake from the Japanese Science and Technology Agency for a panel discussion moderated by Alessandro Allegra. Professor Ohtake briefly outlined some of the characteristics of the interface between science and policy and science and society more broadly, as well as the complexity of science advisory ecosystems. Prompted by questions from the participants, the panel elaborated on a number of themes that recurred throughout the workshop, such as the relationship between local, national, and international science advice systems, and the social and ethical responsibility of scientists in conducting their research and advising on policy matters.

Participants had an opportunity to introduce themselves, revealing the variety of cultural and disciplinary backgrounds represented at the workshop.

First scenario: Tangeria

Following the introductory presentations and discussion in the first part of the morning, the workshop moved to a more interactive format, with a number of fictional case studies designed to stimulate discussion and reflection among all participants on specific issue concerning science advice. Divided into groups, with an eye to ensure sufficient cultural and disciplinary diversity, participants had the opportunity to consider and discuss each of the case studies among themselves before reporting back to the rest of the floor and discussing collectively the emerging issues.

The first scenario proposed was centred on the regulation of new gene editing techniques for agriculture uses in the country of Tangeria. Reflecting on the case from the point of view of government scientific advisors, participants were encouraged to consider not the specific position that the government of Tangeria should take on the issue, but rather what considerations should be taken into account when advising the government on such matters.

After discussion within and among the groups, a number of questions for considerations emerged: Who has the authority and legitimacy to define the framing of the issues discussed, and the questions being asked? Given the social and economic implications of any decision on this topic, are natural scientists best placed to deal with all of the emerging issues, or should science advice be defined broadly to include multiple perspectives?

Can a satisfactory and univocal definition of GMO be provided, and if so by whom? Can purely scientific considerations be separated from the rest? How can all stakeholders best be engaged? How can the difference between risk, hazard, and precaution be communicated to publics and policymakers? What are the limits of the role science can play in informing public dialogues and determining policy decisions? These and other questions provided a stimulus for further reflections and discussions among participants during the dinner and throughout the rest of the workshop.

Second scenario: Panderia

The second scenario proposed centred on the management of a possible outbreak of an infectious disease, exploring among other themes the role of information management in emergency response situations.

Emerging considerations included: The importance of managing information, public perception, and emotional response, and the challenges ensuing from the presence of multiple communication channels; the consideration of social and psychological factors alongside traditional epidemiological approaches; the role of diplomatic efforts in managing transnational medical emergencies; the importance of prompt action and clear communication of the actions taken, their rationale, and the associated uncertainties; the importance of monitoring, preparedness, joined-up approach, and learning from previous cases.

Reflecting on the case, Sir Peter remarked the importance not just of the content, but of the structure of the response to an emergency situation. Continuous monitoring of the evolving situation by experts for example, is vital to ensure timely and adaptive emergency response, as it is the involvement of a range of people with varied relevant competences.

Closing speech

Closing the day, Professor Zakri Abdul Hamid offered some reflections on the international dimension of science advice. Through a recollection of his personal journey into science diplomacy and his involvement in UN policy on climate change, biodiversity and ecosystem services, and more recently in the Scientific Advisory Board to the UN Secretary General, Professor Hamid reflected on the challenges and opportunities presented by international science advice. In stressing the international nature of science, he remarked that science has no borders, but only frontiers.

A key point he shared is that, as knowledge required to respond to global change is unevenly distributed, with the countries needing it the most often being those with the least economic and epistemic resources, capacity building and knowledge sharing are of paramount importance. Better coordination is needed between national

and international science advice systems, and improving the former is vital to strengthen the latter. National actors still play an important role in international policy, and most scientific advice relevant to such matters comes through from the national level. For this reason, it is especially important to focus on science advice to foreign ministries, and on networks among those providing this functions.

As a concluding thought, Sir Peter remarked the importance of bottom up networks at the regional and international level to build capacity and strengthen preparedness. To this end, he expressed his hope that such a network for South Asia could be a legacy of this workshop, and invited attendees to put themselves forward to coordinate such initiative.

DAY 2

Presentations

The second day opened with presentation by Professor Tateo Arimoto, from the Japanese Graduate Institute for Policy Studies, and Professor Rongping Mu from the Chinese Academy of Sciences.

Professor Arimoto discussed the principles of scientific advice in emergency situations. Drawing on the example of the Eastern Japan earthquake and the Fukushima nuclear accident, and on the ensuing reflections at the Japanese and international level, Professor Arimoto remarked the importance of preparedness and monitoring, and of learning from previous cases. He suggested that emergency management should have three phases: think globally (in preparing for emergencies) / act locally and think locally (in responding) / act globally (in learning from the experience).

He stressed that this learning can be extended beyond national borders, and indeed that collaboration can be vitally important to effective emergency response, pointing to the role of the UK in dealing with the Fukushima disaster, and to recent and current work by the OECD on the role and responsibilities of scientists in providing advice during emergencies.

Following Professor Arimoto, Professor Mu presented the system of scientific advice in China, from the specific perspective of technology foresight and horizon scanning. After outlining the structure and history of the Chinese Academy of Science and its role in informing policy, Professor Mu described a number of specific initiatives undertaken in China to develop capacity in technology foresight, and how this helped shaping specific policy decisions.

Third scenario: Carboneria

The last scenario considered during the workshop revolved around land use, with two novel applications competing for the use same land, each with a set of promises and uncertainties. The scenario was complicated by the presence of multiple stakeholders with different and sometimes competing interests, and a number of uncertainties existing around the envisioned technological development.

After spending some time identifying the stakeholders involved and the issues at stake, participants reflected collectively on the role that science can play in addressing these, and its limits.

What clearly emerged was the importance of the role of scientific advisor in providing rigorous and systematic analysis of the situation, outlining the options available to the different stakeholders and the rationale for choice and intervention. Brokerage of options, rather than advocacy for specific solutions, emerged as the most effective way to deal with complex and multifaceted policy issues. Questions that scientific advisors should ask in such situations include: What are the scientific questions underlying the options available and the rational for choice? What is known and what is not about each option? What are the caveats and limitations of such knowledge, and their implications? What are the knowledge gaps, and who can fill them?

Conclusions

Concluding the workshop, Sir Peter encouraged all participants to continue reflection on the issues raised, and to use the case studies as a tool for reflection and training in their own institutions. To sum up, the key message emerging from the workshop is that while the science policy interaction is complicated, there are some basic principles. These include the importance of brokerage over advocacy, of clarity of communication, of maintaining the trust of different stakeholders, and of honesty and humility in recognising the limits of science and science advice. Ultimately, advisors should never take the job away from policy makers.

The most significant outcome was the establishment of **a regional chapter of INGSA**, to continue the work initiated during the workshop, foster a growing network of practitioners, and build a truly international network. Some of the tasks envisioned for the regional chapter include considering what sort of thematic workshops might be of specific interest to practitioners in the region, and linking up with existing regional organisations and with other INGSA chapters around the world.

A number of participants have offered to volunteer to steer the work of the chapter, which will be based in Kuala Lumpur and supported by the ICSU regional office.

Professor Hamid offered his support to develop the local chapter and to expand its reach.

To find out more about upcoming INGSA workshops and events, join the network.

Sign up at: http://www.ingsa.org/join/

Additional Information:

- Photos
- Programme of Events (See Appendix 1)

Photos


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ROYAL SOCIETY
SOUTH EAST ASIA

APPENDIX 1 – Workshop Programme

South East Asia Government Science Advice Workshop

DoubleTree Johor Bahru Malaysia
12, Jalan Ngee Heng, Bandar Johor Bahru,
80000 Johor Bahru

Sunday 11th June 9am to 5pm
Monday 12th June 9am to 3pm

Supported by:

Day One: Sunday 11th June

08:45 – 09:00	**Coffee and Registration**
09:00 – 09:15	**Welcoming Remarks** *Peter Gluckman, Chair of INGSA / Chief Science Advisor to Prime Minister of New Zealand* *Zakri Abdul Hamid,* *Science Advisor to the Prime Minister of Malaysia* *Julie Maxton, Executive Director of the Royal Society*
09:15 – 10:00	**Principles & Structures of Science Advice** *Peter Gluckman, Chair of INGSA / Chief Science Advisor to Prime Minister of New Zealand*
10:00 – 10:40	**Panel Discussion on the Structures of Science Advice** Moderator: *Alessandro Allegra, Science policy consultant and researcher, University College London* Panel members: *Satoru Ohtake, Principal Fellow at the Japan Science and Technology Agency (JST), Peter Gluckman, Zakri Abdul Hamid and Julie Maxton*
10:40 – 11:00	**MORNING BREAK**
11:00 – 12:45	**Case Study One: Tangeria - Gene-editing and climate response** *Led by Peter Gluckman* • plenary discussion • table discussion
12:45 – 13:45	**LUNCH**
13:45 – 15:30	**Case Study Two: Panderia - When pandemic leads to panic** *Led by Julie Maxton* • plenary discussion • table discussion
15:30 – 16:00	**AFTERNOON BREAK**
16:00 – 16:45	**International Science Advice** *Zakri Abdul Hamid*
16:45 – 17:00	**Conclusions of day one** *Peter Gluckman*
19:00 – 21:00	**Official Dinner**

Day Two: Monday 12th June

09:00 – 09:10	**Welcome back** Recap of day one and looking ahead to day two *Peter Gluckman*
09:10 – 09:45	**Science Advice in Emergencies** *Tateo Arimoto, Director the Innovation, Science and Technology Policy Program, National Graduate Institute for Policy Studies (GRIPS)*
09:45 – 10:20	**Foresight and Horizon Scanning** *Rongping Mu, Director-General of the Center for Innovation and Development, Chinese Academy of Sciences*
10:20 – 10:30	Group photo session
10:30 – 10:45	**MORNING BREAK**
10:45 – 12:00	**Case Study Three: Carboneria - Competing technology-based economic proposals with multiple stakeholders** *Led by Peter Gluckman* • plenary discussion • table discussion
12:00 – 13:00	**LUNCH**
13:00 – 14:00	**Case Study Three: Carboneria Continued** *Led by Peter Gluckman* • role playing
14:00 – 14:45	**Summary, Lessons & What Next** *Peter Gluckman*
14:45 – 15:00	**Closing Remarks** *Zakri Abdul Hamid*
15:00	**WORKSHOP ENDS**