



## EXECUTIVE SUMMARY

The provision of appropriate science advice to governments is of national, regional, and global importance. However, many countries, especially in the developing world, lack effective framework to provide science advice to governments, which was laid bare during the COVID-19 pandemic. Hence, there is an urgent need to describe and analyse the structures and processes providing science advice to governments with a view to strengthening science advice.

Science advice requires synthesizing and brokering valid, relevant, and reliable scientific evidence in respect of different policies. The National Academy of Sciences of Sri Lanka conducted a study on the status and processes of institutionalizing Science Advice to Governments in the Australasian region.

The aims of the study were to

- a) propose and facilitate the development and strengthening of systematic science advice in member countries and its institutionalization
- b) Improve awareness among partners on a range of laws and regulations that exist legitimizing institutions and the processes used for government science advice
- c) develop capacities of participating academies in providing science advice
- d) enable academies to play a role and be part of the science advice process

The methodology included a series of webinars with representatives from partner agencies (viz. Australian Academy of Science, Bangladesh Academy of Sciences, KG University of Medical Sciences, Asian Chapter of the International Network of Government Science Advice, Korean Academy of Science and Technology, Academy of Sciences Malaysia, Nepal Academy of Science and Technology, National Academy of Science and Technology Philippines, Science Society of Thailand and Turkish Academy of Sciences) to refine the methodology and administer a structured questionnaire to gather data for the *Situation Analysis* with respect to science advice in partner countries. As part of the project, *Case Studies* were developed by the partner agencies focusing on past scenarios in their countries on new policies introduced or policy changes made, and in turn reinforced the findings made through the situation analysis of each country's data. The workshop also agreed on the structure of developing a framework for the *Roadmaps* for science advice, a process, which is ongoing.

The questionnaire responses were categorized under several headings identified as the ‘Colombo Framework’: Selection of advisors, organizational structures to provide advice, the process followed to collate and synthesize advice (framing the questions etc), the process of communication, and evaluation of the process and impact of advice.

The results showed a diversity of responses indicating a range of structures and processes:

- The structures and types of advisors included, chief science advisor or advisors, a science advisory office or agency, science advisory boards, science advisory councils and ad-hoc arrangements during emergencies or crises, such as task forces.
- Selection of advisors varied from appointments by an executive authority to nominations by science organizations or selection processes based on academic credentials.
- The initial framing of questions requiring science advice were by policymakers, parliament committee or the President and advisory council.
- Collation and synthesizing evidence: The methods used included systematic reviews, meta-analyses, through surveys, consultative meetings, expert opinion, foresight tools and workshops and/meetings of the experts where the evidence was reviewed.
- The process of communicating science advice included reports issued by the science advisors, or advice directed to the Presidential Office, to Cabinet office, or submitted through Secretary of the Ministry of Science and Technology to the Head of State, or reports to the relevant minister and presidential secretariat.
- The impact of science advice on policy was rarely evaluated.
- Case Studies for individual countries supplemented the situation analysis for that country.
- A SWOT analyses was compiled based on each country responses to reflect the totality of responses and for guidance in drafting a framework for Roadmaps for each country.

As part of the project a three-day workshop was held in Colombo, Sri Lanka on 'Institutionalizing Science Advice to Governments' 6-8 July 2023 (See complete report in Chapter 3). There was wide physical and web-based participation from many science-related agencies including the Inter-academy Partnership (IAP), Association of Academies and Societies of Sciences in Asia (AASSA) and the Asian Chapter of the International Network of Science Advice to Governments (INGSA) and other distinguished local and international invitees.

The keynote speech and plenary talks added much value to the event and were delivered by subject experts. The data from the situation analysis of science advice was presented highlighting the strengths, weaknesses, opportunities, and threats (SWOT analysis) within their systems.

A descriptive '*Colombo Declaration*' was released calling on governments to partner with scientists and demonstrate stronger commitment in strengthening action to institutionalize science advice to governments (See Chapter 4).

The concluding session described future actions of developing Roadmaps and Case Studies by each partner country. The contextualized roadmaps will be developed through an iterative process and 'work in progress' submitted by most partner agencies were included in the report (see Annex 7).

The key outcomes of the Project were the following:

1. Documentation of Science Advice Systems in countries with situation analysis, reinforced with case studies and SWOT analyses and a framework for contextualized roadmaps that could form the foundation for further activities with support from the IAP and AASSA.
2. Developed and disseminated the 'Colombo Declaration' calling on governments to institutionalize science advice <https://nassl.org/the-colombo-declaration-institutionalising-science-advice-to-governments-6-8-july-2023/>
3. Availability of validated questionnaire and framework ('Colombo framework') to replicate similar studies elsewhere.
4. Development of a process for promotion of institutionalization of science advice to governments that could be replicated in other countries or regions.
5. Promoted awareness among public, public administrators and policymakers and younger generation of scientists to be part of this transformative process, particularly to ensure continuity of efforts.
6. Contextualized Roadmaps design process has been initiated that is meant to trigger further discussions.