

Lessons on science advisory systems: a perspective from Canada

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A science advisory system is a body/institute/structure that provides evidence-based science advice to government which can vary in nature. Generally, such advice is related to challenges that the country and its people have a stake in. The advice required is increasingly called in urgent response to emergencies, e.g., evidence-based advice in response to challenges associated with Covid-19 on various temporal and administrative scales. However, being “advice”, there is a possibility that some advice is accepted while advice is ignored.

Most countries have an institute to which the government can turn to when needing scientific advice. South Africa for example, has its’ own institute called the Academy of Science of South Africa (ASSAF). The ASSAF is responsible for “using science for the benefit of society”, by rooting policy decisions in scientific evidence when addressing challenges afflicting the people of the country. A case study was made, exploring the history of the science advisory systems of Canada. The case study highlighted some lessons learnt with regards to science advisory boards and science advice that other nations can learn from.

Between 1882 and 2015, Canada had 14 different institutional instruments responsible for providing evidence-based science advice to inform public policy development. From these various bodies, instruments and structures, numerous reports were produced, aimed at informing government decision making on a variety of science advice related topics. However, the frequent assembling and disassembling of science advisory bodies and positions within the federal government had compromised Canadas’ endeavours collectively. The lack of a consistently present science advisory body consequently affected how consistent contributions could be made towards science policy for the country’s benefit.

Canadas’ experiences and lessons from its science advisory body activities are plentiful. These lessons include that the science advice itself should be characterised by clearly delineating the policy question being explored. Considerations should be made on what makes the current science advisory board the best suited to address the respective policy question and whether creating a new board is necessary? Caution should be exercised in this regard as Canada fell foul by excessively changing the advisory body they used to provide science advice. Another consideration includes awareness of the science advices’ audience in terms of whether the advice will make a difference and how the audience can learn from the advice. The latter relates to developing skills and knowledge that persists beyond the office term of a government. A fifth lesson is to consider the legacy of science advice. What this relates to is whether the advice is only useful in the immediate context or whether foresight was employed in its’ preparation, for use in informing future needs. Advisory systems additionally, should include formal and informal inputs as many challenges faced by nations comprise complex questions that cross subject- specific boundaries. Lastly, all science advice should embody principles of democracy. Much of the science advice produced is funded from public resources and unfortunately is not widely distributed or shared with larger audiences does not take place.

Summary

- The lack of stability and support for science advisory boards by government disrupts their capacity to make lasting contributions in the advice they provide.
- Science advisory boards should always be mindful of their audience, the availability of the advice within a timely fashion, the advice relevancy, maintaining objectivity and sound communication with decision makers to maximise the science advice effectiveness.
- The lessons learnt by Canada can be employed by other nations to ensure the betterment of future science advisory boards practices.