



OFFICE OF THE PRIME MINISTER'S CHIEF SCIENCE ADVISOR

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REMARKS TO THE MULTI-STAKEHOLDER FORUM ON SCIENCE, TECHNOLOGY AND INNOVATION FOR THE SUSTAINABLE DEVELOPMENT GOALS

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Policy-making is fundamentally about making choices between options that involve different trade-offs affecting different stakeholders in different ways. Hopefully we all can accept as a given, that more effective policies may be made and implemented if they are informed by scientifically-derived evidence. This latter statement should not be contentious; and it should be true both globally and nationally, regardless of the policy context and even though the policy processes and considerations at global and national levels differ.

And yet we know that it will be seen as idealistic. The question is “Why?” particularly as science uniquely can provide a common language for evaluating evidence, which should make the values-based policy considerations and negotiations that much smoother.... in theory.

I chair the International Network of Government Science Advice³, INGSA, and have been the Chief Science Advisor to the Prime Minister of New Zealand⁴ for the past 8 years. INGSA is a global network of those working at, or interested in, the interface of science and policy communities within their science advisory ecosystems. It operates as an autonomous component of the International Council of Science, ICSU, and in partnership with UNESCO. It focuses on understanding the science-policy interface and capacity building of scientists, policy makers and institutions with a view to developing more effective brokerage between the cultures of science and policy at national and global levels. It also is involved in developing general principles for science.

To date, INGSA has engaged with individuals and institutions from over 70 countries of all stages of economic development in Europe, Africa, Latin America, the Middle East, Asia and the Pacific. Importantly, the network comprises a mix of advice practitioners, scholars and policy makers from all continents, and has engaged some of the most experienced and innovative thinkers in this space. It is doing so in the context of noting that an increasing number and diversity of countries are establishing more formal science advisory mechanisms within their own domestic ecosystems, and INGSA is playing a significant role in assisting these developments.

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² These comments are presented as a personal perspective and do not represent the position of the New Zealand Government

³ www.ingsa.org

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But in contrast to such initiatives by, and within, a number of UN member states, the UN itself and the international system as a whole is lagging in providing the necessary and effective leadership for ensuring coherent science advice both internationally and nationally. To be sure, the UNSG's 2013 experiment of a Science Advisory Board had potential, but did not appear to have the mandate to do so. Because, unless whatever science advisory systems exist at the international level are coherently and appropriately linked to national science advisory systems, progress on key SDGs will be impaired.

The reason is simple – the policies and practices needed to advance the SDGs are ultimately national decisions about national implementation. Indeed so too are most policy and programme decisions made through international bodies because member states must agree to whatever is proposed. If a coherent approach is to emerge, which is precisely what is needed to address many challenges encapsulated in the SDGs, the UN science advisory system needs to forge a much stronger link to national advisory ecosystems which, in turn, have the capacity to interact with key domestic decision makers. That is why the recommendation last year of the 10 member advisory group to support the Technology Facilitation Mechanism (TFM) regarding the need to focus on developing national scientific advisory systems is critical. But equally critical is the further development of the UN's own scientific advisory mechanism, which must be active in its leadership and coordination role.

In each of the SDGs, science and technology are critical – indeed that is why we are here. The role of science is partly to collate and use current knowledge better, and partly it is to identify critical knowledge and technology gaps (and addressing issues of social acceptance). But where is the necessary gap analysis to build off the important but preliminary work done some two years ago by ICSU? This is a critical area for coherent effort rather than something to be left to the somewhat capricious efforts of foundations, philanthropists and donor nations, forward thinking though they may be. Is this not a role for the UN to ensure via its own mechanisms? Elements may exist through, for example, the Global Sustainable Development Report but a coherent and holistic approach needed is lacking.

Further the science inputs that are needed to advance the SDGs are multidimensional. Each goal needs inputs that involve both the integration of the natural and social sciences; but the UN system is rather more siloed and often has the tendency to go straight to the development community. We need agreed research roadmaps for each SDG and these need global coordination. Is this a role for the UN system to organise or to delegate to an organisation like the currently merging ICSU-International Social Science Council?

The picture is further complicated when it comes to the production of the needed science itself. How can innovative knowledge production structures coordinate and deliver the necessary research and evidence? Should we be thinking about novel models such as the Global Research Alliance on Agricultural Greenhouse Gases⁵ that New Zealand fostered after the 2009 Copenhagen climate

⁵ www.globalresearchalliance.org

change meeting, which allow for coordinated research across jurisdictions without creating complexity, and with low overhead costs?

But underpinning all of these issues there must be a shared global perspective and approach. Unfortunately, the last UN Secretary General's Scientific Advisory Board was not mandated to deliver this. What is now needed is a Board with a clear mandate to undertake or ensure an ecosystem analysis of global science advisory mechanisms – there is duplication, there are gaps, expertise is not always there, there is little coordination and there is no real linkage between global and national discourse and action on scientific advice.

For their part, the national systems need single points of contact irrespective of country size to interact with the international system. Indeed INGSA and UNESCO just last month held a workshop with 15 Pacific Island countries and the ministerial declaration⁶ from that identified the critical need for single science ecosystem focal points in every country, irrespective of its state of development. The UN could take a leadership role in working with organisations like ICSU and INGSA to address these issues. The key is to create effective brokerage systems between national and international policy communities and between the multiple disciplines of science and technology. Member states, in turn, must create effective and informed science advisory mechanisms of their own. Only then can science, research and evidence be maximally harnessed to progress the SDGs. This is a coordination and leadership challenge that should inform how the new Secretary General and the Heads of the UN agencies might exploit scientific input in dealing with our shared global challenges.

⁶ www.unesco.org/new/en/apia/about-this-office/singleview/news/apia_ministerial_communique_to_guide_st_i_in_the_pacific/