



ELEVATING THE ROLE OF SCIENCE

The final report by the UN Scientific Advisory Board calls for a stronger place for science in international decision-making.

Science is a public good and deserves to be valued more highly and used effectively by decision-makers at all levels, but it requires more resources to become a true game-changer, says the final report of the UN Scientific Advisory Board.

To address global challenges, all nations must invest more in science, technology and innovation (STI), argues *The Future of Scientific Advice to the United Nations, A Summary Report to the Secretary-General of the United Nations from the Scientific Advisory Board*. The report was presented to Secretary-General Ban Ki-moon by Irina Bokova, director-general of UNESCO, on 18 September.

The summary report makes pointed recommendations on some of the most pressing global issues of our time. They include:

- Science should receive a more elevated role in policymakers' processes for making decisions.
- As the volumes of available data become greater, there must be intense work to ensure the quality of data, as well accessibility to it by women and the poor.
- To alleviate inequalities, policymakers and scientists must take an inclusive approach, reserving seats at the table for both men and women, as well as the rich and the poor so they can share their knowledge.

- Science should not be categorized as its own interest or a tool, but as an integral part of solving challenges faced by the entire world community.

The Scientific Advisory Board seeks to inform the UN's work by providing advice on science, technology and innovation for sustainable development, and brings together 26 eminent scientists from all regions of the world. The board produces policy briefs and other documents on subjects such as the data revolution, the role of the sciences in meeting sustainable development goals and the Delphi Study, which identifies major scientific concerns for the future of the planet.

In developing the report, the board met five times, most recently in Trieste, Italy, on 24-25 May, when they were hosted by the Italian government and four international scientific institutions based in Trieste: the Abdus Salam International Centre for Theoretical Physics (ICTP); the InterAcademy Partnership (IAP); and the International Centre for Genetic Engineering and Biotechnology (ICGEB) and TWAS. UNESCO serves as the secretariat of the Board.

"STI can be a game-changer in dealing with nearly all the most pressing global challenges," said the Board, arguing that STI also has a key role in accomplishing the 2030 Sustainable Development Goals approved last year by the United Nations. As an example, the report notes that scientists and engineers improved the efficiency of solar panels and wind turbines faster than had been expected, raising the hope of reducing dependency on fossil fuels.

Yet only 12 countries – Austria, Denmark, Finland, Germany, Israel, Japan, Republic of Korea, Qatar, Singapore, Sweden, Switzerland and United States of America – dedicate more than 2.5% of their Gross Domestic Product (GDP) to research and development (R&D).

This is far from enough considering what is at stake, say the authors. They call on all countries, including the poorest, to invest at least 1% of their GDP on research, and urge the most advanced countries to spend at least



The Future of SCIENTIFIC ADVICE TO THE UNITED NATIONS

A Summary Report to the Secretary-General
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3% of GDP on R&D. This effort must also focus on reinforcing science education, notably in developing countries, and on improving girls' access to science courses.

Bokova, in a message published in the report, says: "It is a powerful resource for the Secretary-General and the UN System as a whole, so as to reinforce its role as an interlocutor of world leaders and as a central actor in defining solutions to global problems and the way these manifest themselves at multiple levels, from global to local."

The members of the Scientific Advisory Board contend that science should carry more weight with the decisions of political leaders. They note that almost 25 years passed between the scientific community's first warnings about climate change and the adoption, in December 2015, of the Paris Agreement on that urgent issue.

"Decisions are often taken in response to short-term economic and political interests, rather than the long-term interests of people and the planet," they note.

Though the United Nations cannot provide solutions to all the world's great challenges

▲ The UN Scientific Advisory Board's summary report makes recommendations on some of the most pressing global issues of our time.

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*Read the Board's report to UN Secretary-General Ban Ki-moon:
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alone, it is best placed to set international objectives for doing so.

"Science is critical to discovering the detailed nature of multifaceted challenges, and to formulating the policies that will respond to them most powerfully," the board reported. "Science is also fundamental to measuring outcomes, establishing causality and encouraging the deployment of the most effective possible strategies. In a word,

“Decisions are often taken in response to short-term economic and political interests, rather than the long-term interests of people and the planet.”

UN Scientific Advisory Board

implementation of those strategies is crucial, and the implementers must work hand-in-hand with the scientists.”

The report adds: "The world surely has a right to expect and even demand that the United Nations deliver what no other institution can: setting global priorities, promoting and coordinating research and action to address the most challenging problems, enabling the effective worldwide use of all data – in effect, building policies with bricks."

Big data exchanges around the world offer an illustration of the role the United Nations could play to favour fair access. The report notes that the United Nations and its agencies can facilitate the gathering of all types of data while overseeing both quality and access. It also calls for international collaborative projects in this area.

"Above all, this should be a revolution for equity in access and use of data," urges the report. "But when it comes to equity, good intentions are only a start. To actually achieve a reduction in the data divide, the commitment will have to be unwavering, the efforts relentless." ■