



SCIENCE, TECHNOLOGY AND INNOVATION POLICY REVIEWS

FACTORING IN SCIENCE, TECHNOLOGY AND INNOVATION FOR SUSTAINABLE DEVELOPMENT



GLOBAL CONTEXT

Building national capacities in science, technology and innovation at the firm, farm, industry and national levels is essential for local industries in developing countries to compete in today's increasingly integrated and knowledge-based world economy. The capacity to adopt and use technologies, and to innovate, is critical to diversify economies into new areas with higher value added, raise productivity, generate well-paid jobs, reduce poverty and address environmental challenges. It has become increasingly clear that the attainment of all the social, economic and environmental objectives of the Sustainable Development Goals will require the effective application of technology and the development of strong national innovation capacity.

UNCTAD developed the science, technology and innovation policy reviews to assist developing countries in assessing science, technology and innovation systems and building innovation capacity at the firm, farm, industry and national levels. The reviews are an analytical and policy-learning process for a country's science, technology and innovation stakeholders to reach a clearer understanding of the key strengths and weaknesses of their innovation systems and identify strategic priorities for their development. The result of this process is documented in the science, technology and innovation policy review document and considered at the Commission on Science and Technology for Development.

The starting point for the reviews is that it is essential to harness science, technology and innovation for sustainable development. Achieving this requires mainstreaming science, technology and innovation policy in national development strategies and plans and promoting coherence among key development policy areas related to technology and innovation. The reviews seek to achieve both of these goals in order to support a country's broader national sustainable development agenda and the Sustainable Development Goals. The reviews make a systematic effort to involve a broad range of stakeholders to build national consensus.



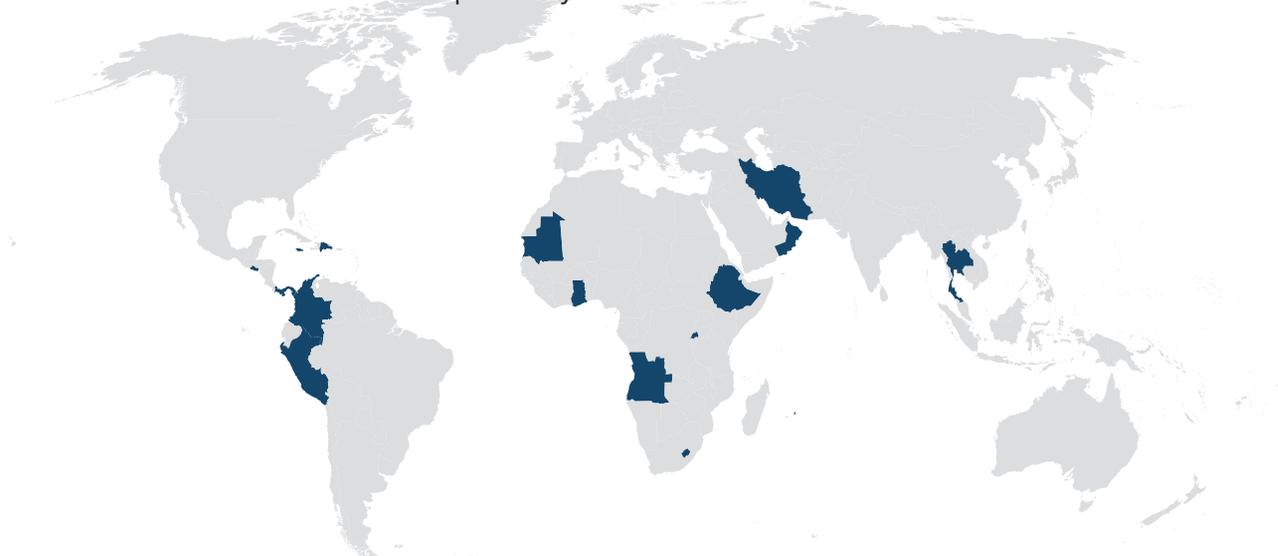
HOW CAN SCIENCE, TECHNOLOGY AND INNOVATION BE FACTORED IN?

The science, technology and innovation policy reviews are undertaken at the request of Governments. The reviews include an assessment of the governance of science, technology and innovation; science, technology and innovation policies, rules and regulations; infrastructure; and firm, industry and national-level innovation capabilities. They usually include a mapping of innovation systems, along with in-depth studies of specific sectors or issues related to science, technology and innovation that are particularly important for development in the country concerned. They include policy recommendations for fostering technology upgrading, strengthening innovation capacity and enhancing the systems or ecosystems that support innovation. A modular capacity-building programme is available and can be delivered in conjunction with the diagnostic phase of the science, technology and innovation policy review. Capacity-building activities can also be delivered as part of follow-up implementation, or as a self-standing activity upon request.

The methodological approach is based on a new framework introduced in the 2019 UNCTAD publication, *A Framework for Science, Technology and Innovation Policy Reviews: Harnessing Innovation for Sustainable Development*. The framework aims to align science, technology and innovation policies with the policy agenda of sustainable development, the 2030 Agenda for Sustainable Development and the Sustainable Development Goals. In this regard, the framework highlights the importance of addressing the gaps in science, technology and innovation capacities between men and women, as well as the need to fully include the gender dimension in the analysis of policies and practices relating to science, technology and innovation.



Science, technology and innovation policy reviews completed by end-November 2019



✓ RESULTS AND IMPACTS AT A GLANCE

- Following the **Science, Technology and Innovation Policy Review of Peru** in 2010, the national budget dedicated to science, technology and innovation increased by 20 times in one year.
- The **Science, Technology and Innovation Policy Review of Oman** in 2014 led to the establishment of two consultative bodies in the country. One such body at a strategic level consists of five ministers and several senior advisers. The other, at an operational level, includes the executive directors of over 20 stakeholder institutions focused on science, technology and innovation. It also led to the design of the 2017 national innovation strategy of Oman.
- The **Science, Technology and Innovation Policy Review of Thailand** was completed in 2015. The diagnosis and recommendations of the report have been fed into public policy design processes, including proposals on science, technology and innovation policy reform. At the twenty-second annual session of the Commission for Science and Technology for Development, the country reported several institutional changes carried out on the basis of the review. The recommendations helped create awareness at the highest political level of the importance of science, technology and innovation. Currently, science, technology and innovation plays a central role in their national economic and social development plan. Also, the review led to the implementation of institutional reforms in the country, such as the creation of a new ministry of science, technology and innovation and higher education.
- The **Science, Technology and Innovation Policy Review of Panama** was carried out in 2019. Its findings and recommendations are being used by the Government as one of the main sources of strategic guidance in the preparation of the National Science, Technology and Innovation Plan 2020–2024. The review also contributed to raising the importance of investing in science, technology and innovation in the country. At the presentation of the review at the Interministerial Committee on Science and Technology in July 2019, the new administration announced its intention to invest 1 per cent of the country's GDP in science, technology and innovation activities by 2022.



PROGRAMME FACTS AND FIGURES

Scope: all regions

Start date: 1998–2005 (first series); 2008 (current series)

Reviews per year: 1–2

Reviews to date: 16

Upcoming reviews: Uganda (2019–2020), Dominican Republic and Zambia (2020–2021)

Website: unctad.org/STIPreviews

Sustainable Development Goals addressed:

Directly: 9

Indirectly: 8, 12, 17



DONORS/FUNDING SOURCE (2014–2019)

Germany, United Nations Development Account, United Nations Development Programme