# UNESCO

# TOPIC B

*The question of mobilizing scientific knowledge to promote sustainability*

## Introduction[1]:

An important function of the High-Level Political Forum on Sustainable Development (HLPF) is strengthening the science-policy interface. Science, technology and innovation (STI) are continuously progressing, though projecting both positive and negative effects. While it provides great benefits, it could cause risks to the 2030 Agenda for Sustainable Development, impacting economic, environmental, and societal factors. This debate calls into question how to mobilize scientific knowledge to avoid the risks to the 2030 Agenda, and instead promote sustainability.

## Definitions of Key Terms:

**Scientific Knowledge:**

The knowledge that is gathered through scientific methods (organized, systemic).

**Sustainability:**

To fulfill human needs through a means that can be carried out (sustained) for future generations to fulfill needs.

**Mobilizing:**

To organize something in order to stimulate action / use for a specific purpose or goal.

**2030 Agenda for Sustainable Development:**

The 2030 Agenda for Sustainable Development is the U.N's goals to sustainably improve under many sectors for example ending poverty and hunger and achieving gender equality.

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[1] "Mobilizing science, technology and innovation and strengthening the science-policy-society interface." *Sustainable Development Goals*, United Nations, 9 July 2021, sustainabledevelopment.un.org/index.php?page=view&type=20000&nr=7188&menu=2993.

## Background Information[2]:

As discussed, while increasing the implementation of STIs provides opportunities to achieve the 2030 Agenda, they also bring with them certain problems. For example, they could cause social and economic division of classes caused by access difficulty. In order to make this work, digital inclusion needs to spread to marginalized communities. Recently (July 9th, 2021), a virtual session was held to discuss the challenges and benefits of mobilizing scientific knowledge. Within the past year, the COVID-19 pandemic has proven the benefit of developing international technology cooperation, as well as constructing a more effective science-policy-society.

## Major Countries and Groups Involved in the Issue:

**Israel**

In 2012, Israel had the highest density of researchers in the world; 8 337 researchers per million inhabitants ("Facts and figures: Human resources"). This makes it valuable to the question of scientific knowledge. By providing such a density, Israel can play a part in mobilizing scientific knowledge.

**United States of America**

The United States of America (USA) is another important country, and hosted about 49.1% of international doctoral students in science or engineering fields in 2012 ("Facts and figures: Mobility in higher education"). International students help scientific knowledge spread, thus be mobilized.

**United Kingdom**

The United Kingdom (UK) is a host for international students, though with significantly less students than the USA; around 9.2% of international doctoral students in science or engineering fields are hosted in the UK, as one of only 10 countries that host a total of 89%.

The other 8 countries include **France** (7.4%), **Australia** (4.6%), **Canada** (3.9%), **Germany** (3.5%), **Switzerland** (3.1%), **Japan** (2.9%), **Malaysia** (2.9%) and **Sweden** (2.0%),
("Facts and figures: Mobility in higher education").

## UN Treaties / Historical Events:

**Economic and Social Council (ECOSOC) on the importance of Science, technology and innovation (STI) and culture for sustainable development and the MDGs in 2013**

In 2013, the Economic and Social Council (ECOSOC) had the chance to analyze the role of science, technology and innovation, and the potential of culture – and related national and international policies – in

[2] "Mobilizing science, technology and innovation and strengthening the science-policy-society interface." *Sustainable Development Goals*, United Nations, 9 July 2021, sustainabledevelopment.un.org/index.php?page=view&type=20000&nr=7188&menu=2993.

promoting sustainable development and achieving the Millennium Development Goals (MDGs). Indeed, science, technology and innovation can play a critical role in each and every MDG, including by:

- fostering access to knowledge;
- increasing productivity, industrialization, economic growth and the creation of decent jobs;
- promoting health and access to essential drugs;
- achieving food security through sustainable, equitable agricultural systems and by raising production and incomes, especially of smallholder farms;
- promoting renewable energy technologies in order to respond to the dual challenge of reducing energy poverty while mitigating climate change.

**Economic and Social Council (ECOSOC) on 23 July 2019**

It ensured that Member States analyse how science, technology and innovation, including information and communications technologies, serve as enablers not only for sof the 2030 Agenda for Sustainable

Development, by providing foresight about critical trends in science, technology and innovation in key sectors of the economy, the environment and society, and drawing attention to new and emerging technologies.

## Main Issues:

**Social exclusion:** one of the issues related to mobilizing scientific knowledge for sustainability is the increase of social exclusion especially in least developed countries due to low incomes, unemployment, lack of education and limited access to services.

**Digital divide:** The cost of Internet access and services remains high in developing countries, particularly for broadband access and therefore prevents the spreading of sustainable development.

**Lack of infrastructures:** especially least developed countries encountered difficulties in implementing STI initiatives due to lack of adequate infrastructure

## Relevant UN Resolutions:

**A/70/474/Add.3 - Culture and sustainable development: Report of the Second Committee**[3]

It invites the organizations of the United Nations system, in particular the United Nations Educational, Scientific and Cultural Organization, to continue to provide support, to facilitate financing and to assist Member States, upon their request, in developing their national capacities to optimize the contribution of culture to sustainable development, including through information-sharing, the exchange of best practices, data collection, research and study and the use of appropriate evaluation indicators, as well as to implement applicable international cultural conventions, taking into account the relevant resolutions of the General Assembly.

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[3] A/70/474/Add.3 - Culture and sustainable development: Report of the Second Committee
https://sdgs.un.org/documents/a70474add3-culture-and-sustainable-developme-21477

**Resolution 2019/25: Science, technology and innovation for susta[4]inable development**

It encouraged all the Member States to join forces for the following reasons:

- To encourage and support the science, technology and innovation efforts leading to the development of infrastructure and policies that support the global expansion of information and communications technology infrastructure, products and services, including broadband Internet access, to all people, particularly women, girls and youth, and persons with special needs and from remote and rural communities, catalysing multi-stakeholder efforts to bring 1.5 billion new Internet users online by 2030 and endeavouring to improve the affordability of such products and services;
- To undertake systematic research, including gender-sensitive aspects, for foresight exercises, on new trends in science, technology and innovation, and information and communications technologies and their impact on development, particularly in the context of the 2030 Agenda for Sustainable Development;

## Possible Solutions:

When it comes to the question of mobilizing scientific knowledge to promote sustainability, there are many courses of action that can be taken. Some examples and ideas that we suggest include,

- **Able-membered countries to support Least Developed Countries (LCDS).** Scientific knowledge tends to be concentrated in a low number of countries. Developing support systems for the mobilization of scientific knowledge is crucial to build a foundation for reliable information, and STI development to take place across the globe.
- **Investment in infrastructure, human resources, and education.** By doing so, able countries will undoubtedly allow for further development. Through a reasonable amount of investment, countries can ensure that the advancements made in the STI region can be done in a manner that can be sustained.
- **Developing policies that guide mobilization of scientific knowledge.** It is always important to generate a plan or provide direction when it comes to mobilizing resources, such as scientific knowledge, to ensure that members are held to a certain standard. This becomes especially useful to conduct the development in sustainable ways.

[4] Resolution 2019/25: Science, technology and innovation for sustainable development
https://unctad.org/system/files/official-document/ecosoc_res_2019d25_en.pdf

## Works Cited:

"Facts and Figures: Human Resources." *UNESCO*, en.unesco.org/node/252277.

"Facts and figures: Mobility in higher education." *UNESCO*, en.unesco.org/node/252278

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Resolution 2019/25: Science, technology and innovation for sustainable development

A/70/474/Add.3 - Culture and sustainable development: Report of the Second Committee

Issues Paper on Science, Technology and Innovation (STI) for sustainable development