

Natural Sciences Sector — Priority Gender Equality



Women and girls in science, in figures

Empowering women to innovate and lead

From COVID-19 to climate change, we need all of our brightest scientific minds to solve today's existential challenges. Yet, only one in three scientists is a woman, according to the *UNESCO Science Report (2021)*. Women remain underrepresented in the fields of information technology, physics, mathematics and engineering.

The lack of equal opportunities in the workplace is driving women out of research and tech. In academia, women are awarded less research funding than men and are less likely to be promoted and, in the tech industry, they are less present in company leadership and in technical roles. Start-ups led by women attract much less venture funding than men.

In 2007, UNESCO decided to adopt gender equality as one of its two global priorities, along with Africa. By fostering the design and implementation of gender-transformative policies and projects, UNESCO is empowering women and girls to lead and innovate. By giving visibility to exceptional female scientists through the L'Oréal-UNESCO For Women in Science programme, UNESCO is using positive role models to convince more girls and young women to embrace a scientific career or become an engineer.

- 75%** of children who are likely never to go to primary school are girls
- 44%** of PhD graduates worldwide are women
- 33%** of researchers are women
- 28%** of tertiary graduates in engineering are women
- 22%** of professionals in artificial intelligence are women
- 6%** of professional software developers are women
- 3,900** exceptional women in 110 countries have been recognized through the L'Oréal-UNESCO For Women in Science programme since 1998



Examples of UNESCO's impact on the ground

Women for bees

This state-of-the-art female beekeeping entrepreneurship programme was launched by UNESCO and Guerlain, a French company, in 2021. Beekeeping can generate income in rural areas for disadvantaged populations who don't own crops or farms. Some 57 women have been trained so far in 10 biosphere reserves in Bulgaria, Cambodia, France, Russia, Rwanda and Slovenia. The programme empowers women by helping them to develop a skilled and sustainable business. The programme focuses on local and native bees, their welfare and maintenance, as well as on raising awareness of the importance of bees for biodiversity conservation and sustainable use.

Tracing indigenous women's ancestral navigation skills

UNESCO's Local and Indigenous Knowledge programme is helping countries and partners to understand the importance of indigenous women and girls as knowledge-holders who also play a key role in knowledge production, transmission and decision-making. In 2020, the programme commissioned a study on *Women's Ancestral Voyaging Knowledge in Asia-Pacific* which was published in 2021. It traces navigation by Pacific women from mythological times to the present day and how this knowledge can empower today's inhabitants of the Pacific to serve their contemporary and future needs.

Rewarding excellence in research

The L'Oréal-UNESCO For Women in Science Programme was launched in 1998 to recognize outstanding achievements by eminent women scientists and encourage young women researchers throughout their scientific careers. As of 2022, 122 laureates from more than 40 countries have been honoured, including four who subsequently won a Nobel Prize. Today, the programme counts 52 national and regional Young Talents programmes for female researchers in more than 110 countries. In all, more than 3,900 women scientists have been recognized over the last 24 years.

Women and water

Since 2014, UNESCO's World Water Assessment Programme has developed its own gender-responsive indicators and a methodology for collecting these sex-disaggregated water data. These indicators can be found in the *Toolkit on Sex-disaggregated Water Data*, a unique guide that sets a global standard for gender-transformative water monitoring and assessment. The second edition of the Toolkit, published in 2019, contains a set of new indicators aligned with the Sustainable Development Goals (Tool 1), an updated methodology (Tool 2), guidelines (Tool 3) and revised questionnaires (Tool 4).

Women and glaciers

Since 2019, UNESCO's Almaty Office has been supporting a project called Adventure of Science: Women and Glaciers in Central Asia, by teaming up with the Swiss Agency for Development and Cooperation, several Swiss universities and the Central Asian Institute for Applied Geosciences in Kyrgyzstan. Every year, this initiative brings together 15 young bachelor and master students from four Central Asian countries for a week-long field expedition to Golubin Glacier in Kyrgyzstan, where they are trained by women scientists in climate observations and deepen their scientific knowledge of glaciers and mountains. The project culminates with an advocacy event to encourage the young women to choose a career in glaciology, climate science or geosciences.



Expedition to Golubin Glacier, Ala-Archa Park, Kyrgyzstan

Getting one million girls into science, technology, engineering and mathematics (STEM)



On 13 March 2017, the UNESCO Engineering Initiative launched the #1MillionGirlsInSTEM campaign at the 61st edition of the United Nations Commission on the Status of Women, together with *WomEng* (Women in Engineering), a non-profit. The campaign's objective is to mobilize 1 million young women through STEM education and outreach initiatives in at least 10 different regions over 10 years. These initiatives include the 'Think Pink Hard Hat'

challenge, a series of workshops conducted globally for young women between 13 and 17 years of age, to encourage more young women to consider careers in engineering. Currently over 20,000 young women from the following countries have benefitted from the programme: Australia, Botswana, Brazil, Canada, Colombia, Eswatini, Ethiopia, France, Indonesia, Kenya, Malawi, Mauritius, Mexico, Namibia, Nigeria, South Africa, Tanzania, UK, USA and Zimbabwe.