

# Gender and STEM Education in Mongolia

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According to the World Economic Forum, only 30 percent of the world's researchers are women. Less than a third of female students choose STEM higher education, and women working in STEM fields publish less and are often paid less [1]. Women are primarily underrepresented in the IT branch of the STEM disciplines, e.g., less than 1 percent of the Silicon Valley applicant pool for technical jobs in artificial intelligence and data science are women [2].

In the case of gender and STEM education in Mongolia, the situation is similar: a lower number of female students in STEM and higher numbers in the fields of health, education, and welfare. Modern Mongolian education is divided into two time periods, the Socialist period up to 1990, and the period thereafter. In the first period, the leading educational achievements were the planned economic society, high literacy rates, and gender equality in education and work fields. STEM education was highly supported by organizing many STEM events and competitions and by building science palaces and centers. Due to the planned economy principle, the number of students in each discipline was precisely defined and implemented. But Mongolia's development was highly dependent upon the Soviet Union.

Since 1990, a market economy, and a democratic and free society has been forming, and the educational system has been changing along with it. The positive results are an open society with freedom of choice, and an orientation towards global education. However, many low-quality private (for-profit) universities have sprung up, and gender equality has not been sustained in the education sector, particularly in higher education. The importance of STEM fields has declined, and young people are increasingly choosing careers in law, business, social sciences, and the humanities.

For more than a decade, STEM education has received increasing attention from the Mongolian government. Positive measures are being implemented, such as providing scholarships to students in these fields, and a growing number of funded projects and programs.

However, although the legal and policy framework related to gender equality is well established on paper, these policies have not been effectively implemented. According to the UNESCO report, STEM education for girls and women in the Asia Pacific has not improved, and the situation worsened due to the Covid-19 pandemic [4]. There is a shortage of engineering and technology workers in Mongolia, so men are more likely than women to have the jobs and career advancement. Statistics also show that women are more affected by the Covid-19 pandemic. Gender barriers in STEM, gender stereotypes, women underrepresentation, gender sensitivity, and working environment should be considered and discussed.

[1] <https://www.weforum.org/agenda/2020/02/stem-gender-inequality-researchers-bias/>

[2] UNESCO, 2020. Global Education Monitoring Report - Gender Report: A New Generation: 25 Years of Effort for Gender Equality in Education. Paris: UNESCO

[3] Ariunzaya, A., Munkhmandakh, M., Women and the future of work in Mongolia, 2019

[4] STEM Education for Women and Girls - Breaking Barriers and Exploring Gender Inequality in Asia, UNESCO Bangkok Office, 2020