

Gender Gap in STEM

Why in news?

Women's lack of access to technology and digital tools makes them less likely to be a part of the wider domains of Science, Technology, Engineering and Mathematics (STEM).

What is STEM?

- The acronym was introduced in 2001 by scientific administrators at the U.S. *National Science Foundation (NSF)*.
- The NSF has predicted that 80% of the jobs created in the next decade will require some form of math and science skills.
- STEM is a *curriculum based idea of educating students* in 4 specific disciplines, in an interdisciplinary and applied approach.
- India is one of the countries that produce the highest number of scientists and engineers.

Under Article 51A of the Constitution of India, it is the duty of every Indian citizen to develop scientific temper, humanism and the spirit of inquiry and reform.

Why does women's underrepresentation in STEM fields matter?

- Across the world, there has been a marked absence of women in the professional realm of STEM subjects, including the IT sector, environment and climate, medical sciences, etc.
- **Lucrative for workers** - A typical STEM worker earns two-thirds more than those employed in other fields, according to Pew Research Centre.
- **Pay gap** - Therefore, the underrepresentation of women in STEM impacts the overall gender pay gap as well.
- Women are typically overrepresented in lower-paying jobs and underrepresented in higher-paying jobs such as in STEM fields.

What is the gender gap in STEM?

- **Gender divide** - Globally, 18% of girls in higher-level education are pursuing STEM studies, compared with 35% of boys.
- Within the STEM fields, there lies a gender divide, with similar numbers of boys and girls pursuing natural sciences while far more boys looked to engineering, manufacturing and construction.
- **Low enrolment** - In India, the enrolment of girls in engineering programmes is

significantly lower when compared to their male counterparts.

- However, out of students enrolled in science courses at UG, PG, MPhil and PhD levels, women at 53% of enrolment outnumbered men.
- These gains, though, don't necessarily mean there will also be an increase in employment, because of multiple factors.

Why does the gap exist?

- **Societal attitude** - The general societal attitude on women's education does not encourage families to invest in it as much as they do for boys.
- **Bias in curriculum** - UNICEF points to gender bias in curricula.

What is the status of gender gap in STEM in various countries?

- **India** - In India, more than 50% of illustrations in math and science textbooks in primary show boys and only 6% show illustrations of girls.
- **The US** - 26% of tech start-ups have at least one female founder.
- **Europe** - Only 21% of tech founders are female.
- **The UK** - Over a quarter of girls say they have been put off a career in tech as it is too male-dominated and only 22% can name a famous female working in the field.

References

1. [The Indian Express | What is the gender gap in STEM?](#)
2. [The Times of India | STEM needs to reflect greater gender parity](#)

