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

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