

# International Day of Women and Girls in Science

### Why in News

The International Day of Women and Girls in Science is celebrated on 11<sup>th</sup> February every year to promote full and equal access to and participation in science for women and girls.

- The <u>UN General Assembly</u> designated the Day in 2015.
- It is implemented by the <u>United Nations Educational, Scientific and Cultural Organization</u> (<u>UNESCO</u>) and <u>UN-Women</u>, in collaboration with institutions and civil society partners.

#### **World-wide Scenario**

- Women in STEM:
  - UNESCO data from 2014-16 shows that only around 30% of female students select STEM (Science, Technology, Engineering and Mathematics)-related fields in higher education.
  - Female enrolment is particularly low in information technology (3%), natural science, mathematics and statistics (5%) and engineering and allied streams (8%).
- Research as a Profession:
  - According to a 2018 fact sheet prepared by UNESCO on women in science, only 28.8% of researchers are women.
    - UNESCO defines researchers as "professionals engaged in the conception or creation of new knowledge".
- Share in Nobel Prizes:
  - Between 1901 and 2019, 334 Nobel Prizes have been awarded to 616 Laureates in Physics, Chemistry and Medicine, of which just 20 have been won by women.
- Share in Abel Prizes:
  - In 2019, the American mathematician Karen Uhlenbeck became the first woman to win the Abel Prize, following 16 male mathematicians.
  - The Abel Prize is a Norwegian prize awarded annually by the King of Norway to one or more outstanding mathematicians.
- Share in Fields Medals:
  - The Fields Medal so far has also been awarded to only one woman mathematician, the late Maryam Mirzakhani of Iran, as opposed to 59 men since 1936.
  - The Fields Medal is awarded every four years by the International Congress of Mathematicians to recognize outstanding mathematical achievement for existing work and for the promise of future achievement.

#### **National Scenario**

Women in STEM:

- The female enrolment in science streams rose from 2010-11 to 2015-16.
- According to the <u>NITI Aayog</u> report in 2015-16, 9.3% of female students in Undergraduate (UG) courses were enrolled in engineering, compared to 15.6% across genders. Conversely, 4.3% of female students were enrolled in medical science, compared to 3.3% across genders.
- Research as a Profession:
  - Only 13.9% of women are work as a researcher in India. At master's and doctoral levels, female enrolment remained lower than overall enrolment.
- Presence at Technical Professions:
  - The NITI Aayog report has also found that in over 620 institutes and universities, including IITs, NITs, ISRO, and DRDO, the presence of women was 20.0% among Scientific and Administrative Staff, 28.7% among Post-Doctoral Fellows, and 33.5% among PhD scholars.

The Vision

## **Way Forward**

- Interventions geared to popularising subjects such as Engineering or the Physical sciences or Chemistry among female students at the school level in both urban and rural areas might be helpful in changing mind-set.
- Gender equality in science and technical fields is necessary to achieve <u>Sustainable</u>
  <u>Development Goal (SDG)</u> 5 worldwide.
  - SDG 5 aims for gender equality worldwide.

**Source: IE** 

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