International Day of Women and Girls in Science

Why in News

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

- The **UN General Assembly** designated the Day in **2015.**
- It is **implemented** by the **United Nations Educational, Scientific and Cultural Organization (UNESCO)** and **UN-Women,** 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 **NITI Aayog** 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.

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 **Sustainable Development Goal (SDG) 5** worldwide.
    - SDG 5 aims for gender equality worldwide.

Source: IE