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# Women in Science Making a Mark

**WHILE** almost half the world's population is made up of women and girls, less than 30% of the researchers in science are women, according to figures put out by the UNESCO. This figure drops significantly to 16.6% for India – the percentage of women researchers engaged in R&D activities, according to the *Research and Development Statistics, 2019-20* of the Department of Science & Technology (DST). Besides, a 2009 Inter Press Service news agency report reveals only 3.2% of the 744 Indian National Science Academy Fellowships were awarded to women; out of 841 Indian Academy of Sciences Fellowships, only 4.6% went to women, and out of 395 National Academy of Agricultural Sciences Fellowships, only 4% went to women.

The visibility of women in science has often suffered due to reasons like discrimination, skewed representation in selection committees for awards and appointments, and the specific challenges women face in terms of break in service due to marriage and child care. In recent years, there has been a realisation that keeping a major proportion of a potent workforce away from the mainstream could be detrimental to the S&T framework in the country. Changes are gradually being seen. Policies are being framed to enhance women participation in STEM. DST in its draft Science, Technology and Innovation Policy (STIP 2020) has focused on increasing the participation of women in science by introducing a system of grading institutes based on the number of women faculty and scientists in higher positions. A number of other steps have also been outlined.

And so, for the March 2022 issue of *Science Reporter*, on the occasion of International Women's Day (8 March), we have focused on the journey in science of a cross-section of eminent women scientists & researchers of the country. We are indeed grateful that several scientists responded to our invitation to share their experiences & challenges and coming out with a wish-list of policy and systemic changes that could motivate more girls to take up science as a fulfilling career.

So, for instance, Dr Chandrima Shaha, the first woman president of INSA, calls on schools to proactively encourage girl students to take up science. But at the same time, she laments the lack of strong female role models and women leaders in science to inspire and motivate girls. To remove gender biases, she says it is necessary to work with educators, policymakers, media and the public to remodel the perceptions. At the institutional level too she calls on organisations to offer women-friendly facilities for childcare and for authorities to give points to institutions that offer these services.

Meanwhile, Dr Rohini Godbole from IISc, on the basis of a survey she conducted, says that while family responsibilities are often a reason why women leave the scientific workforce after a PhD, the unwelcoming, cold atmosphere in the Institutes/Industry and unhelpful attitudes on part of scientists towards the young women is also a demotivator.

Echoing similar sentiments, Dr Gaiti Hasan from NCBS says, since experimental research often requires long work hours, young women looking to go into scientific research should be certain of family support. And Dr Karishma Kaushik says since women in science spend substantial years in the prime of their careers in 'child bear, child care, and child rear', prestigious awards with strict age cut-offs do a disservice to women. This sensitivity could be improved to some extent by mandatory representation of women in all high-level committees, says Dr Shailja Gupta, earlier Adviser in the Office of the Principal Scientific Adviser.

Simple measures like a crèche or child-care facilities in the Institutional premises could go a long way in creating a woman-friendly environment, felt many of our contributors. But, as Dr Rupamanjari Ghosh, former VC, Shiv Nadar University says, some policy-level interventions while having the right intentions, may not be serving the purpose. For example, a survey in 2020 found that small firms in India admitted to hiring fewer women because of maternity leave costs.

There are other interesting experiences and purposeful suggestions by our eminent contributing scientists. We do hope readers find this special issue worthwhile.

Hasan Jawaid Khan

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