Science Communication

Why in news?

Science communication in India faces new challenges and possibilities in the present context.

What is Science Communication?

- Science communication is to ***communicate and to acquaint the common masses with scientific knowledge*** aiming to inculcate scientific temper among its common level.
- It is an umbrella term that also includes the exchange of scientific knowledge, institutional outreach, and public engagement with science.
- It involves all forms of communication around science, scientific work, its outcome, discussions on its ethical, societal, or political impacts.
- It also involves direct conversations with scientists as well as diverse audiences.



How the contemporary science engagement is diverse?

- **Space mission**- It involves a well-defined and largely one-way relay of scientific information, and has the advantage of an inherent visual appeal, aspirational intent, and national sentiment.
  - Chandrayaan-3, India's third lunar mission is an exemplar of the public communication of advanced science.
  - The lander's soft-landing was telecasted on several channels, making it one of the largest demonstrations of a live scientific experiment in India.
- **COVID-19** - The communication of scientific and healthcare-related information became significant which reflected the interdisciplinary effort in containing the pandemic.
  - It intended to promote public compliance with good 'pandemic habits' like physical distancing, masking, and vaccination.
  - Homemade masks manual promoted the use of low-cost and reusable masks during the pandemic.
- The pandemic exposed the challenging situation for science communication in India, with gaps in data reporting, vaccine hesitancy, and infection forecasting
- .**Contrasting communication**- The different aspects and outcomes of science communication in a space mission and a pandemic revealed the diverse nature and needs of contemporary science engagement.

Steps taken by India to promote Science Communication

• **Publications and Information Directorate (PID)** - An organisation under Council of Science and Industrial Research (CSIR) established in 1951 for publishing and disseminating scientific information in India.
• **National science magazines**- The PID published magazines to popularize science among masses.
  - **Vigyan Pragati**- In Hindi launched in 1952.
  - **Science Reporter**- In English launched in 1964.
  - **Science Ki Duniya**- In Urdu launched in 1975.
• **Birla Industrial and Technological Museum**- 1st science museum in India, established in Kolkata in 1959 to showcase India's scientific heritage and promote science education among the masses.
• **Article 51 A(h)-** It was a part of the ***42nd amendment to the Constitution in 1976,*** which added a new section on the fundamental duties of the citizens of India.
• The article states that it is the duty of every citizen to develop a scientific temper, humanism and the spirit of inquiry and reform.
• **National Council for Science and Technology Communication (NCSTC)-** It is a scientific programme established in 1982 during 6th five year plan.
• **Vigyan Prasar**- It is an autonomous organisation under the Department of Science and Technology, set up in 1989 to popularise science at large which was closed in 2023.
• **CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR)-** It is a new institute that was established in 2021 by merging two existing institutes of CSIR.
• **National science funding agencies-** Department of Science and Technology (DST), Department of Biotechnology (DBT), Indian Council of Medical Research (ICMR), and Indian Council of Agricultural Research (ICAR) are responsible for communicating the outcomes and impacts of the funded research projects to the public and the media.

What lies ahead?

- **Formal education**- There is a need to expand science communication degree programmes to train and equip science communicators with the skills and knowledge to address the diverse needs and contexts of science communication in India.
- **Inclusive science communication**- There is a need to integrate science communication into scientific process which will develop strategies to communicate science effectively at various levels.
- **Assessment strategies**- India should encourage and assess the practice of science communication among scientists, such as incentives, public engagement, outreach programmes, and translation of research papers.
- **Interdisciplinary approach**- India needs a comprehensive and coordinated plan to communicate scientific solutions to national challenges, such as antimicrobial resistance, air pollution, and energy diversification.
- **Multifaceted approach**- Science communication strategy should involve experts from various fields and sectors, and address the needs and perspectives of different disciplines and groups.

Reference

[The Hindu- Science Communication in India]



SHANKAR
IAS PARLIAMENT
Information is Empowering