NATIONAL SCIENCE DAY-2026

THEME: 'Women in Science: Catalysing Viksit Bharat

Date : 28.02.2026 Time : 12.00 pm

Organized by: Kokrajhar Planetarium & Aryabhatta Science Centre

Prepared by:
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Outline of the Presentation

1. Viksit Bharat
2. Historical Pioneers
3. Current Landscape: Women in Indian Science
4. Challenges faced to empower Women in Science
5. Future pathways
6. Conclusion

"Viksit Bharat"

- **"Viksit Bharat" translates to "Developed India." It's a vision for India's future, where the nation achieves significant advancements in various fields, including science, technology, economy, education, and infrastructure. The goal is to create a prosperous, inclusive, and progressive society that offers opportunities for all its citizens.**

- **"Viksit Bharat 2047" is an initiative aimed at realizing Indias aspiration of becoming a developed nation by its centennial year of independence**

Viksit Bharat

- "GYAN" framework of Budget 2024, represents the four pillars of growth: Garib (Poor), Yuva (Youth), Annadata (Farmers), and Nari (Women).
- Among these, the empowerment of women, particularly in the realm of Science, Technology, Engineering, and Mathematics (STEM), is not merely a matter of social justice but a strategic economic imperative.

“Historical Pioneers”

1. **Dr. Janaki Ammal, a pioneering botanist (1897–1984): who contributed to cytogenetics and plant breeding, laying foundations for agricultural resilience.**

2. **Dr. Asima Chatterjee(1917–2006): , the first woman to receive a Doctorate of Science from an Indian university, laid the groundwork in an era when scientific spaces were overwhelmingly male dominate**

“Historical Pioneers”

Asima Chatterjee(1917–2006)

Dr. Janaki Ammal

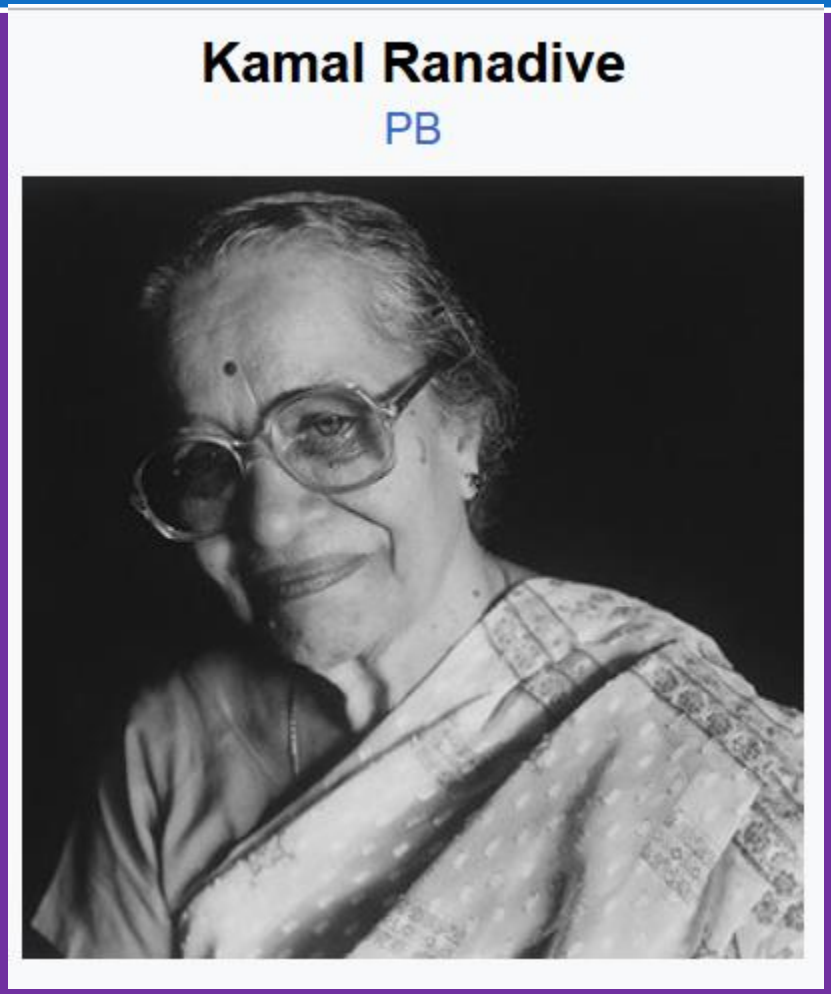
“Historical leaders”

Tessy Thomas :She joined the Defence Research and Development Organisation in 1985. In 2009, she became the project director of the Agni-IV ballistic missile. She has been called India's "Missile Woman""

Kalpana Chawla (March 17, 1962 – February 1, 2003) was an Indian-American astronaut and aerospace engineer who was the first woman of Indian origin to fly

“Historical leaders”

Institutional Leadership: For the first time in its 80-year history, the Council of Scientific and Industrial Research (CSIR) is led by a woman, Dr. N. Kalaiselvi, signaling a structural shift in how science is governed in India.



Biologist who made groundbreaking contributions in cancer research and founded the Indian Women Scientists’ Association

“Current Landscape: Women in Indian Science

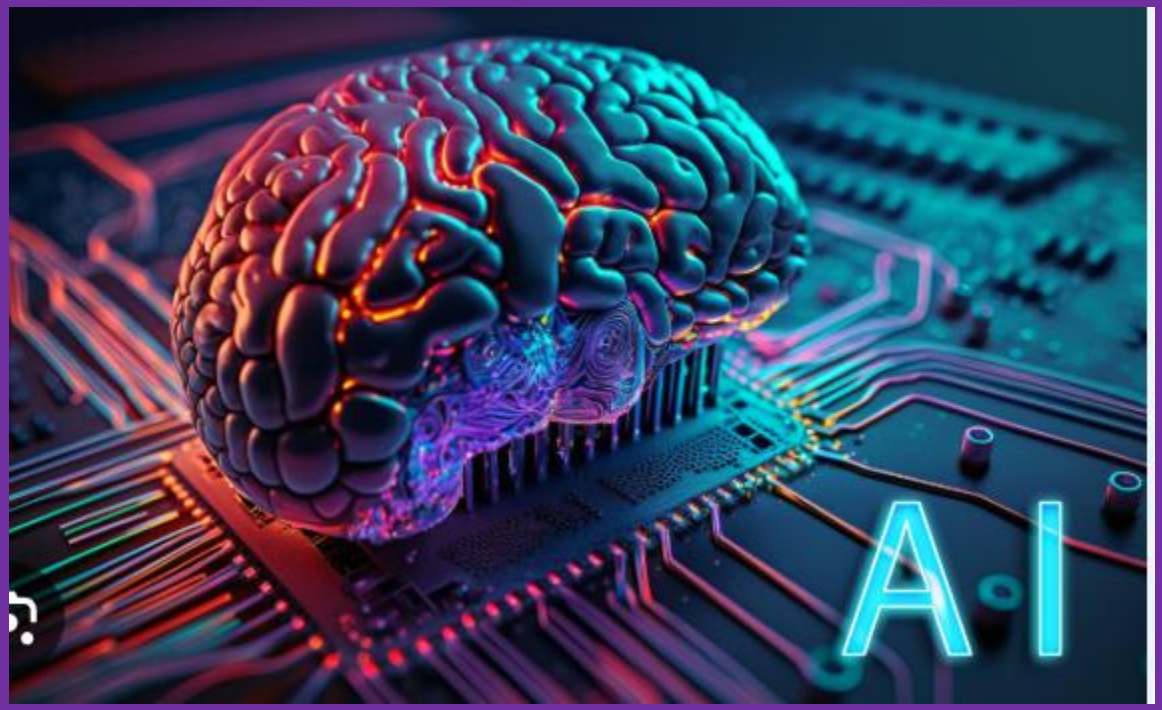
- Women constitute nearly 43% of STEM graduates in India, one of the highest proportions globally.
- However, their representation in research and leadership positions remains lower, with less than 20% of faculty positions in premier institutes occupied by women.
- Fields such as biotechnology, medicine, and environmental sciences see higher female participation, while physics, engineering, and computer science remain male-dominated.
- This uneven distribution highlights both progress and persisting barriers

"Current Landscape: Potential Impacts of Women in Indian Science

- Women scientists contribute to grassroots innovation, particularly in rural healthcare, sanitation, agriculture, and clean energy.
- They serve as role models, encouraging girls to pursue STEM education.
- Their presence improves gender-sensitive research outcomes, especially in public health and social sciences
- Research suggests that bridging the gender gap in the workforce could potentially increase India's GDP by 30%. By integrating more women into high-value STEM roles, India transitions from a labour-intensive economy to a knowledge-driven one

“Current Landscape: Potential Impacts of Women in Indian Science

- **Women often bring unique approaches to problem-solving, particularly in areas like cybersecurity, and Artificial Intelligence (AI). Ensuring that AI algorithms are developed by diverse teams is crucial to preventing gender bias in the digital tools**



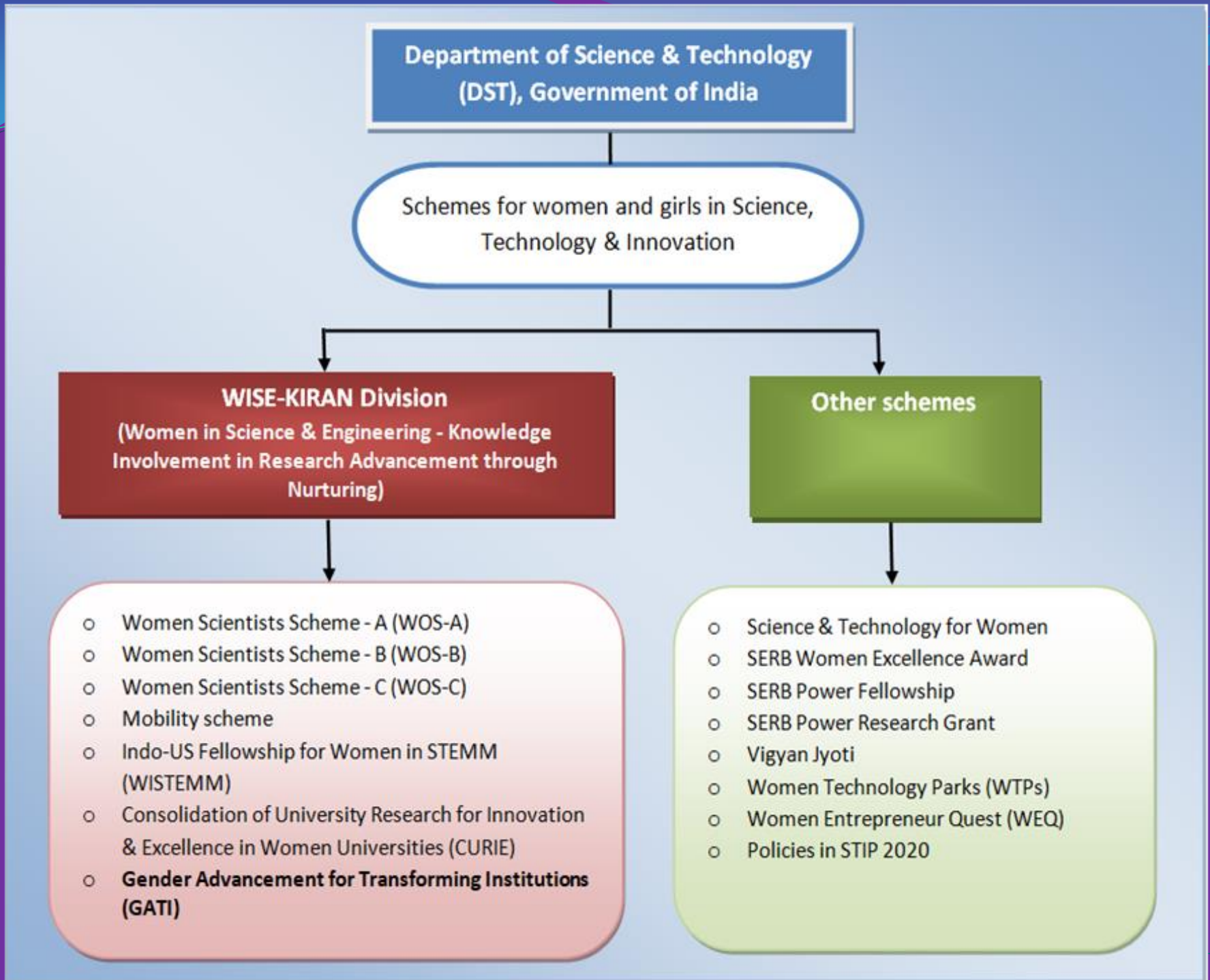
“Challenges Faced by Women in Science

- **Gender Bias:** Persistent stereotypes questioning women’s competence in technical fields.
- **Work-Life Balance:** Societal expectations often burden women with disproportionate domestic responsibilities.
- **Institutional Barriers:** Limited mentorship, fewer leadership opportunities, and inadequate representation in decision-making bodies.
- **Funding Gaps:** Women-led projects often receive less visibility and support.

“Government Initiatives: Creating an Enabling Ecosystem”

To ensure that the potential of women is fully realized, the Government of India has implemented a lifecycle approach to support female scientists

Scheme	Objective
Vigyan Jyoti	Encourages schoolgirls to pursue STEM through camps and mentorship.
WISE-KIRAN	Provides grants and fellowships for women to pursue research at various career stages.
CURIE	Develops state-of-the-art R&D infrastructure in women-only universities.
GATI	A framework to assess and improve gender equality within scientific institutions.
WOS (Women Scientist Scheme)	Specifically addresses career breaks, helping women re-enter the workforce.


Department of Science & Technology (DST), Government of India
Schemes for women and girls in Science, Technology & Innovation
WISE-KIRAN Division
(Women in Science & Engineering - Knowledge Involvement in Research Advancement through Nurturing)
Other schemes
Women Scientists Scheme - A (WOS-A)
Women Scientists Scheme - B (WOS-B)
Women Scientists Scheme - C (WOS-C)
Mobility scheme
Indo-US Fellowship for Women in STEMM (WISTEMM)
Consolidation of University Research for Innovation & Excellence in Women Universities (CURIE)
Gender Advancement for Transforming Institutions (GATI)
Science & Technology for Women
SERB Women Excellence Award
SERB Power Fellowship
SERB Power Research Grant
Vigyan Jyoti
Women Technology Parks (WTPs)
Women Entrepreneur Quest (WEQ)
Policies in STIP 2020

VIGYAN JYOTI

Empowering Girls In STEM

The Vigyan Jyoti Scheme :It primarily encourages meritorious girl students to pursue higher education and careers in areas where women are traditionally underrepresented.

Target Group: Meritorious girl students from Class 9 to 12.

Implementation Partners: The scheme is implemented through Jawahar Navodaya Vidyalayas (JNVs), which serve as "Vigyan Jyoti Knowledge Centres" for girls in their vicinity, including those from government schools.

Scholarship: Selected students receive a scholarship of ₹2,000 per month to cover additional expenses during the program.

Exposure Visits: Trips to IITs, NITs, national laboratories (CSIR, DST), and industries.

Mentorship: Interactions with role models (eminent women scientists and entrepreneurs) to inspire career choices.

Academic Support: Special classes, science camps, and counseling for both students and parents to address societal hurdles

विज्ञान एवं प्रौद्योगिकी विभाग
DEPARTMENT OF
SCIENCE & TECHNOLOGY

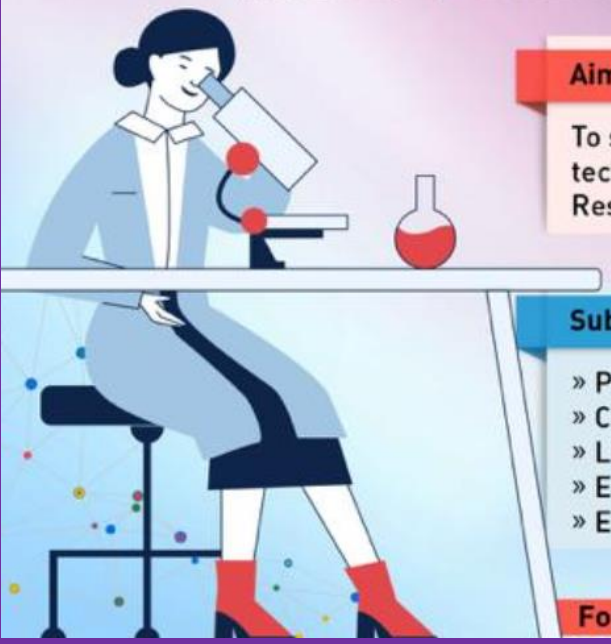
G20 भारत 2023 INDIA

26th JANUARY | HAPPY REPUBLIC DAY

आज़ादी का अमृत महोत्सव

Women in Science & Engineering-KIRAN (WISE-KIRAN)

WISE-Post Doctoral Fellowship (WISE-PDF)



Aim

To support women scientists and technologists for Post-Doctoral Research in Basic & Applied Sciences

Eligibility

Women of 27-60 years of age having Ph.D or equivalent degree without any regular employment

Subject Area

» Physical & Mathematical Sciences
» Chemical Sciences
» Life Sciences
» Earth & Atmospheric Sciences
» Engineering & Technology

Financial Support

» Fellowship: Rs. 55,000/- per month
» HRA: As per norms
» Research Grant: Rs. 2 Lakh per year
» Equipment : Up to Rs. 3 Lakh
» Overhead: Rs. 1 Lakh per year

CALL FOR PROPOSALS

For further details, visit: www.online-wosa.gov.in or www.dst.gov.in

CURIE -WOMEN PG COLLEGES

CALL FOR PROPOSALS

Last Date: 15th Feb 2024.

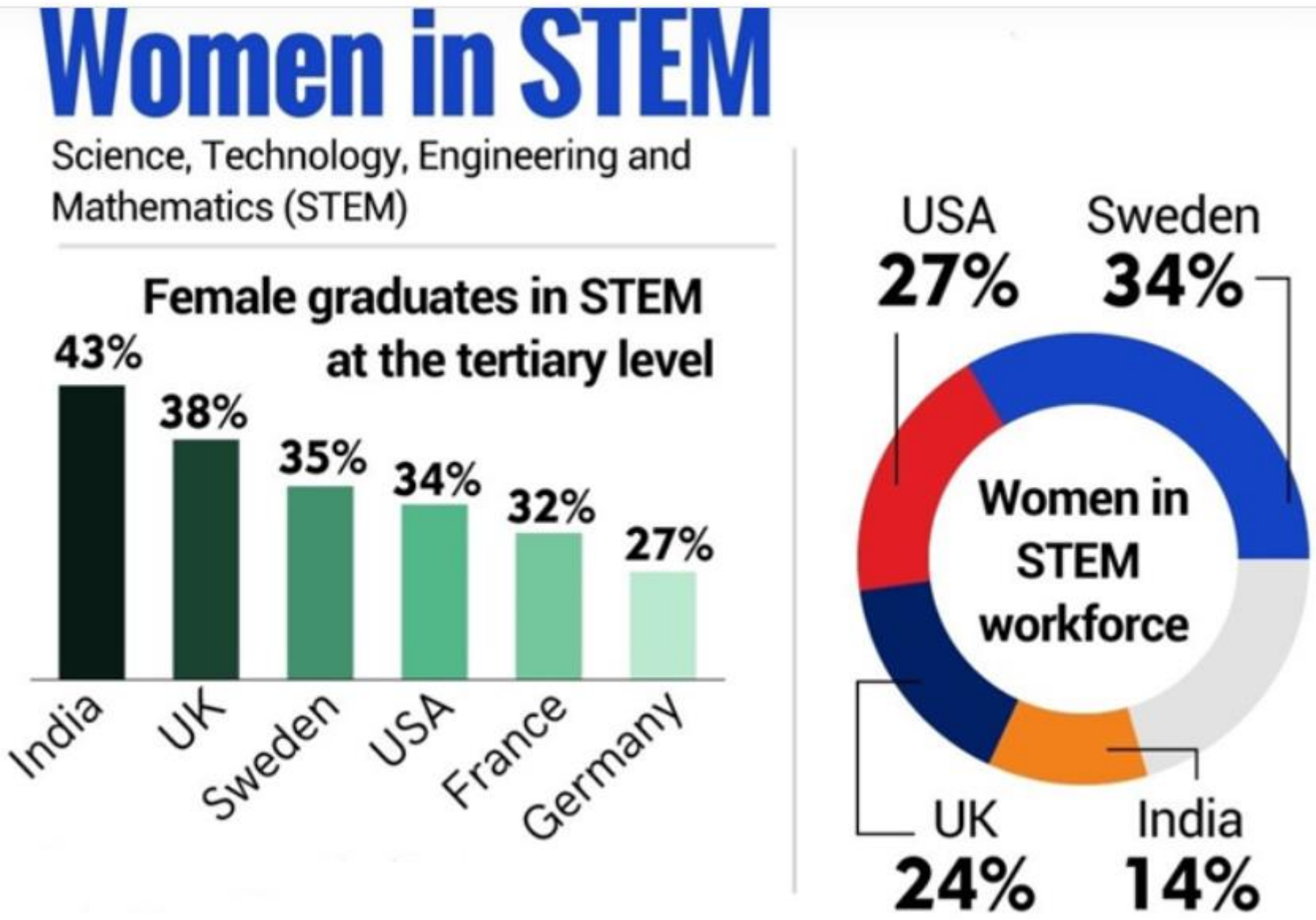
Link :
https://onlinedst.gov.in/Projectproposalformat.aspx?Id=2225

Contact Person : Dr. Vineeta Kumari, Scientist, Department of Science and Technology

“Global Comparisons and Lessons"

- Countries like the US and UK have strong women-in-STEM networks, mentorship programs, and diversity mandates.
- India’s high proportion of women STEM graduates is a unique advantage, but retention and leadership remain challenges.
- Learning from global best practices can accelerate India’s journey toward Viksit Bharat.

“Global Comparisons and Lessons"



Future pathwys

- 1. Institutional childcare and flexible work policies
- 2. Equal funding opportunities
- 3. Strong mentorship networks
- 4. Encouraging girls' STEM education at school level
- 5. Visibility and Recognition: Highlighting women's contributions in media, awards, and textbooks to inspire future generations.
- 6. Grassroots Engagement: Encouraging rural women to participate in science through community labs and digital platforms

“To ponder"

The vision of Viksit Bharat is built upon five pillars: economic growth, technological advancement, social inclusion, environmental sustainability, and global leadership. Women in science directly contribute to all these pillars:

- **Economic Growth** – Through innovation, patents, and entrepreneurship
- **Technological Advancement** – Through research in frontier areas
- **Social Inclusion** – By bridging gender gaps
- **Sustainability** – Through climate and environmental research
- **Global Leadership** – By representing India in international collaborations

“Conclusion"

Women in science are not merely participants but catalysts of India’s transformation into Viksit Bharat. Their contributions span healthcare, agriculture, environment, and space, directly shaping the nation’s developmental trajectory.

By dismantling barriers and fostering inclusivity, India can harness the full potential of its women scientists. A developed India will be one where scientific progress is not just gender-neutral but gender-empowered—where women’s voices, ideas, and innovations illuminate the path to a brighter future.

"As for the future, your task is not to foresee it, but to enable it."- Antoine de Saint Exupery

Thanks!!