



National Research Foundation

For Prelims: National Research Foundation, [NEP](#), [SERB](#), [Sign Language AstroLab](#), [CSIR-NPL](#).

For Mains: National Research Foundation.

Why in News?

Recently, the Ministry of Science and Technology, Government of India, has approved the introduction of the **National Research Foundation (NRF) Bill, 2023** in Parliament.

What are the Features of the NRF Bill 2023?

- **Establishment of NRF:**
 - The bill, after approval in the Parliament, will establish NRF, an apex body to provide high-level strategic direction of scientific research in India as per recommendations of the [National Education Policy \(NEP\)](#), at a total estimated cost of Rs. 50,000 crores during five years (2023-28).
- **Subsumption of SERB:**
 - The bill will repeal the [Science and Engineering Research Board \(SERB\)](#) established by an **act of Parliament in 2008** and subsume it into NRF which has an expanded mandate and covers activities over and above the activities of SERB.
- **Administration and Governance:**
 - The Department of Science and Technology (DST) will be the administrative Department of NRF which will be governed by a **Governing Board consisting of eminent researchers and professionals** across disciplines.
 - The Prime Minister will be the **ex-officio President of the Board** and the Union Minister of Science & Technology & Union Minister of Education will be the **ex-officio Vice-Presidents**.
 - NRF's functioning will be governed by an **Executive Council chaired by the Principal Scientific Adviser** to the Government of India.

What is the National Research Foundation?

- **Objective:**
 - To ensure that scientific research was conducted and funded equitably and greater participation from the private sector was forthcoming.
 - It will focus on creating a **policy framework and putting in place regulatory processes** that can encourage collaboration and increased spending by the industry on R&D.
 - The NRF aims to involve **colleges and universities in scientific research**, as currently, less than 1% of the nearly 40,000 higher learning institutions in India **are engaged in research**.
 - The NRF plans to build research capacities in universities by encouraging active researchers to **take up NRF professorships, regardless of age**, and collaborate with

existing faculty.

▪ **Significance:**

◦ **Promoting Research other than Natural Science:**

- The NRF will fund and promote research not only in natural sciences but also in **humanities, social sciences, and art.**
- This integration is crucial for **fostering creativity, critical thinking,** and communication skills.
- Currently, research in these areas has **limited funding sources.** Establishing directorates for social sciences, Indian languages and knowledge systems, arts, and humanities is **among the NRF's goals.**

◦ **National Priorities:**

- It seeks to identify priority areas where science and technology interventions can **contribute to national objectives such as clean energy, climate change, sustainable infrastructure,** improved transportation, and accessible and affordable healthcare.

◦ **Enhanced Funding:**

- It seeks to increase **funding for scientific research** in India, both from government and private sources.
 - Currently, India's spending on research and development is below **0.7 % of its GDP,** when even countries like Egypt or Brazil spend more.
 - US, China, Israel, Japan, and South Korea spend anywhere between **2 to 5% of their respective GDPs on scientific research.**
- Insufficient funding has directly affected the quality and quantity of research output in India. The initial allocation of Rs 50,000 crore over five years for the NRF does not represent a substantial increase but is **expected to grow as the NRF gains recognition** and demonstrates progress.

What are the Initiatives to Foster R&D and Innovation in India?

- [Sign Language AstroLab](#)
- [Council of Scientific and Industrial Research \(CSIR\)- National Physical Laboratory](#)
- [One Week - One Lab](#)
- [Science and Heritage Research Initiative](#)
- [Institute of Advanced Study in Science and Technology \(IASST\)](#)
- [National Initiative for Developing and Harnessing Innovations](#)
- [Mission on Advanced and High-Impact Research](#)

Way Forward

- The establishment of the NRF in India holds immense potential to revolutionize the scientific research landscape. By broadening research participation, including social sciences, focusing on national priorities, and increasing funding, the NRF can **address critical challenges, enhance research output,** and foster innovation.
- With the NRF's effective implementation, India's scientific research ecosystem is **poised for significant improvement,** leading to transformative outcomes for the nation.

Source: PIB