



KAMARAJ IAS ACADEMY
Only IAS Academy by Grandson of "Perunthalaivar Kamarajar"

Science & Engineering Indicators 2022 report

Published On: 19-12-2022

Why is in news? India jumps from 7th to 3rd global ranking in scientific publications

Union Minister DrJitendra Singh says, India has jumped from 7th to 3rd global ranking in scientific publications. Lauds the consistent efforts of India's scientific fraternity and gives all credit to an enabling milieu and freedom of working provided by Prime Minister Narendra Modi.

As per the **National Science Foundation (NSF)**'s **Science & Engineering Indicators 2022 report** of the United States, India's position globally in scientific publications, has improved from 7th position in 2010 to 3rd position in 2020.

The **National Science Foundation** is an **independent agency of the United States government** that supports fundamental research and education in all the non-medical fields of science and engineering.

India now ranks 3rd in terms of **number of PhDs** in science and engineering. The **number of patents** granted to Indian scientists at **India Patent Office (IPO)** during the last three years has also increased from 2511 in 2018-19 to 4003 in 2019-20 and 5629 in 2020-21.

As per the Global Innovation Index (GII) 2022 brought out by World Intellectual Property Organization (WIPO), India's GII ranking has also improved significantly from 81st in 2014 to 40th position in 2022.

The government has taken **several steps to boost the science and technology sector**: successive increase in allocations for Scientific Departments, incentivizing investment by private sector to increase their share in GERD, improving the ease of doing business in the Science, Technology and Innovation (STI) activities; introducing flexible tools for public procurement; creating avenues for collaborative STI funding through portfolio-based funding mechanisms such as Public-Private-Partnerships and other innovative hybrid funding mechanisms.

The Government has allowed corporate sector to make R&D investments under the provision of **Corporate Social Responsibility (CSR)**.

Corporates can invest in technology business incubators or contribute in research efforts carried out by institutions and national research laboratories as a part of their CSR.

There are specific investment incentives offered such as Location-based tax incentives that enables 100% deductions of profits generated from establishing and doing business in northeastern states of India.

Some of the "key takeaways" from the report:

Global research and development (R&D) performance is **concentrated in a few countries**, with the United States performing the most (27% of global R&D in 2019), followed by China (22%), Japan (7%), Germany (6%), and South Korea (4%).

The global concentration of **R&D performance continues to shift** from the United States and Europe to countries in East-Southeast Asia and South Asia.

Kamaraj IAS Academy

Plot A P.127, AF block, 6 th street, 11th Main Rd, Shanthi Colony, Anna Nagar, Chennai, Tamil Nadu 600040

Phone: **044 4353 9988 / 98403 94477 / Whatsapp : 09710729833**

Many **middle-income countries**, such as China and India, are increasing science and engineering (S&E) publication, patenting activities, and knowledge- and technology-intensive (KTI) output, which has distributed science and technology (S&T) capabilities throughout the globe.