Fixing India's R&D inadequacies

Why in news?

The story of Kodak is a cautionary tale that illustrates the dangers of neglecting innovation, for it can lead to the downfall of even the mightiest of companies.

What is the issue?

- Innovation and technical progress are prerequisites for economic growth.
- For an economy to grow, there is a constant need to innovate.
- In India, the government undertakes 60% of expenditure on Research and development (R&D), unlike other nations where private enterprise takes the lead.
- Despite efforts to boost R&D, the country's spending on R&D has remained stagnant at around **0.7% of GDP.**
- **The India Innovation Index 2021** has found that the overall spending on R&D by India has been relatively low across the country.

The world average of expenditure on R&D is around 1.8%.

What is the role of private players in R&D?

- **Investment** - The private sector in India hesitates to invest in research and development that is crucial in fostering progress and innovation.
- **Issue with patent system** - Historically, India's patent system had a reputation for being weak and unreliable when it comes to safeguarding commercial innovations.
- **Imitation by local competitors** - The obstacle for firms is the risk of imitation by local competitors, which further disincentives investment in R&D.
- **Challenges for researchers** - Researchers face challenges in the implementation of certain rules like having a zero-balance account for every single research project.
- Researchers have also reported difficulties accessing the grants already awarded to them.
- **US & China –** Private firms invest more heavily in R&D than the government in the US and China.
- India needs to develop its higher education institutions to attract top talent and drive innovation.

The Prime Minister's Science, Technology, and Innovation Advisory Council's startling finding is that less than 1% of higher education institutions actively participate in high-quality research.

How about the government machinery in this regard?

- **Procurement of instruments** - Researchers face issue with procuring laboratory equipment as the present system is bound with red tapism.
- **Capacity issue** - According to a recent EAC-PM paper, the patents filed in India in 2020 is just 4% of the number filed in China and 9.5% of the number filed in the US.
- The reason is that the Indian Patent Office had only 860 patent examiners and controllers as of March 2022.
- Recognising the problem of understaffing, the government has taken measures to mitigate the situation by creating over 500 additional positions within the patent office.

What is the way forward?

- Innovation in India is similiar to a resource allocation problem.
- The government must consider the specific needs and nuances of the R&D ecosystem before implementing regulations and guidelines.
- Unlocking the mystery of why the private sector in India hesitates to invest in research and development is crucial in fostering progress and innovation.
- The public expenditure on R&D activities, especially in Higher Education Institutions (HEIs), should be increased to at least 1%.

References

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