

Hints of the corporatisation of science research in India

During the inaugural address of the 107th Science Congress in Bengaluru in January 2020, Prime Minister Narendra Modi reflected on the government's take on how science should be conducted in India. It was conveyed to young researchers in his usual aphoristic manner of speaking: "innovate, patent, produce, prosper". By expressing it in a maxim, the Prime Minister was hinting at the birthing of a new policy on knowledge production under his leadership.

Over several years, the current ruling regime has been directing laboratories and other research centres to earn their revenue from external sources by marketing their expertise and investing the surplus to develop technologies for national missions. This policy position can be traced to the 'Dehradun Declaration' prepared by the directors of the Council of Scientific and Industrial Research labs in 2015, where it was decided to market patents as a means to self-finance research. In other words, this was a call for the corporatisation of science research – a process of converting any state-owned entity into a market commodity and being able to follow the business model to support itself, rather than relying on public support. Science institutes are now encouraged to develop research centres registered as Section 8 companies, wherein private companies or shareholders can invest money.

The ANRF and research

This line of thinking can be seen in the formulation of the Anusandhan National Research Foundation (ANRF). Established under the ANRF Act of 2023, this new mechanism is designed to fund research in the country and to improve linkages between research and development, academia and industry. The Finance Minister echoed the same in her July 23, 2024 Budget speech: "We will operationalise the ANRF for basic research and prototype development." The "prototype development" is a significant part of the innovation cycle to assess the marketability of a product – yet another hint of the government's overriding interest in funding the research that will cater to the market.



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In establishing the Anusandhan National Research Foundation and the way its funding proportion is designed, there are clear signals of the government's plan

Another giveaway is the way funding proportion is designed. The ANRF will receive ₹50,000 crore over five years, 72% of which is expected to be from the private sector. Judging from the way the resources are currently scheduled for the ANRF, it is clear that the government intends to reduce its role in funding the research and expects private entrepreneurship to pitch in a big way.

Even in the United States, where research and development has significantly outstripped government funding over the last decade, it is clustered mostly in IT and pharmaceuticals. The knowledge thus generated through research is considered a commodity to be marketed. The entrenchment of market-oriented perspectives comes from two sources, as discussed by Prabir Purkayastha in his book, *Knowledge as Commons*. What makes science different from the Renaissance period and after that is that science and technology are now more closely integrated than ever, and scientific advances can now end up as marketable products more rapidly. This transformation has also led to intellectual property rights allowing universities to sell the patents to private corporations, even if the research is publicly funded. The adoption of neoliberal economic policies across the globe has also accelerated the greater involvement of the private sector in funding science.

Signals despite the stated objective

The understated objective of the ANRF is to fund research in natural sciences, but in reality, there are sufficient hints that the government is planning to place the university research system subservient to what Ellen Meiksins Wood calls "the dictates of the capitalist market". The curiosity-driven research in natural sciences involves understanding and predicting natural phenomena based on empirical evidence and experimentation. The private sector cannot be expected to finance curiosity-driven science because it will not invest money unless the research finds some immediate application that maximises its profits. Interestingly, the same stringency in government funding is not shown while supporting the branches of the 'Indian Knowledge Systems', which are not part of

evidence-based science. Science is driven by the zeal to understand the world through scientific tools. This can be encouraged only by increasing the share of public funding. The research proposals in basic science need to be assessed based on the proposers' ability to acquire knowledge about a problem defined by conducting observations, experimentation and analyses. The application part of the result may not be apparent at all. A generally accepted working definition of basic scientific research reads: "the pursuit of knowledge to understand a natural process irrespective of the potential applications that might arise from such knowledge".

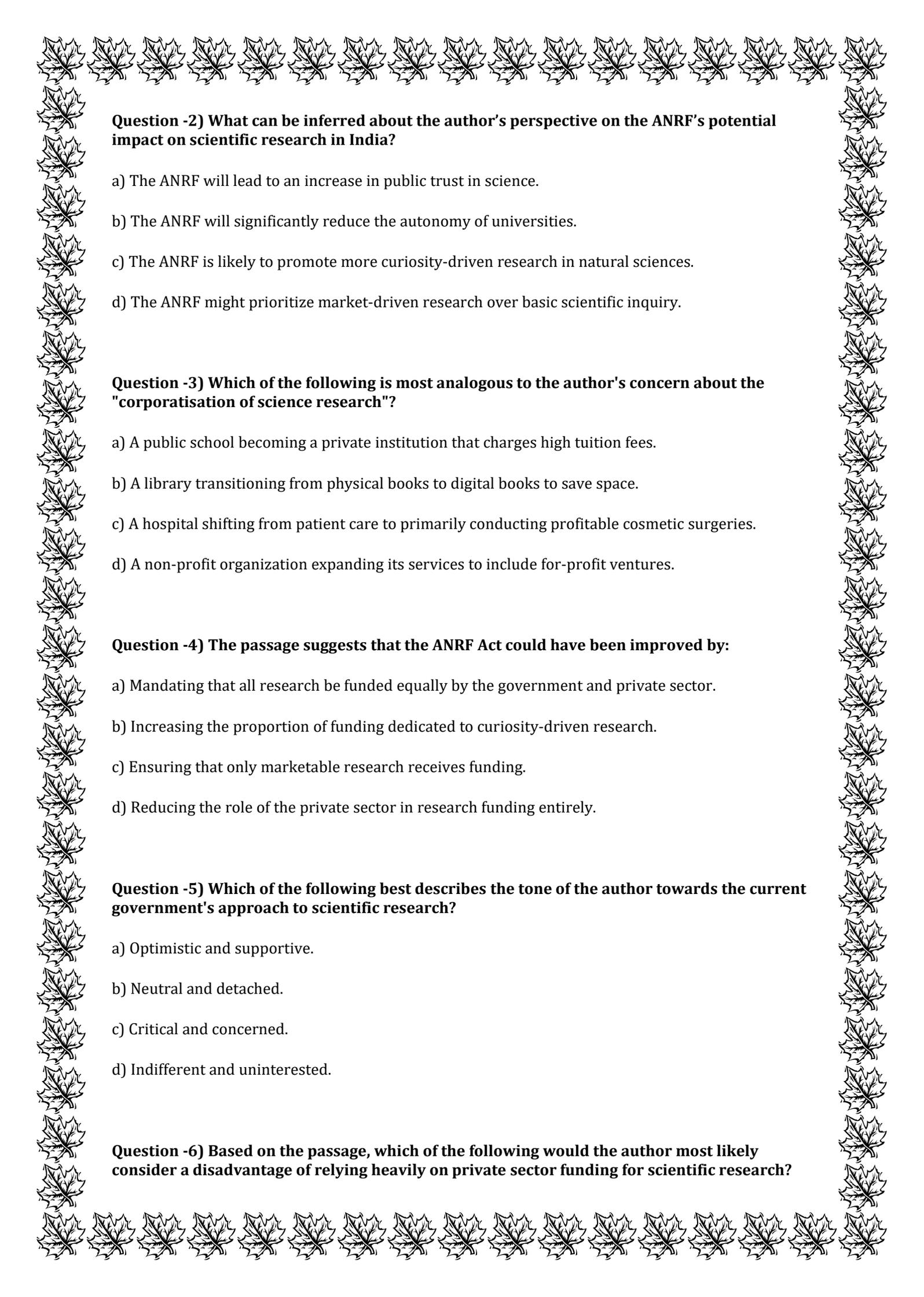
Country comparison

Although India is ranked among the top 10 by gross domestic product (GDP), the ratio of public funding for science research in India has been 0.6% to 0.7% of GDP for the last decade. A country such as South Korea, only a third the size of India and its population, spends about 2% to 3% of its GDP. While the private sector is encouraged to fund, the government must increase its basic science and non-profit research allocation. If that does not happen, the country will eventually witness the decline of curiosity-driven science in our universities, which could also undermine public trust in science when it gets dominantly mediated by private interests. Equally important is to nurture an ambience of free enquiry and maintain the financial and administrative autonomy of the institutes. This should have been amplified in the ANRF Act itself. As Niraja Gopal Jayal writes in the India Forum, although the heavy hand of the educational bureaucracy has always been hovering over public universities, constraining their autonomy, in recent times "the state intervention has become more manifestly political in a partisan way, and openly ideological within an ecosystem that attaches no value to academic freedom". It all boils down to a grand vision, but it does not evolve in a repressive society.

The views expressed are personal

Question -1) The author of the passage would most likely agree with which of the following statements regarding the role of the private sector in scientific research?

- The private sector should fully fund all scientific research, as it leads to quicker market applications.
- The private sector's involvement in funding research should be limited, as it may undermine curiosity-driven science.
- The private sector is better suited than the government to fund curiosity-driven research.
- Private sector involvement in research has no impact on the quality of scientific outputs.



Question -2) What can be inferred about the author's perspective on the ANRF's potential impact on scientific research in India?

- a) The ANRF will lead to an increase in public trust in science.
- b) The ANRF will significantly reduce the autonomy of universities.
- c) The ANRF is likely to promote more curiosity-driven research in natural sciences.
- d) The ANRF might prioritize market-driven research over basic scientific inquiry.

Question -3) Which of the following is most analogous to the author's concern about the "corporatisation of science research"?

- a) A public school becoming a private institution that charges high tuition fees.
- b) A library transitioning from physical books to digital books to save space.
- c) A hospital shifting from patient care to primarily conducting profitable cosmetic surgeries.
- d) A non-profit organization expanding its services to include for-profit ventures.

Question -4) The passage suggests that the ANRF Act could have been improved by:

- a) Mandating that all research be funded equally by the government and private sector.
- b) Increasing the proportion of funding dedicated to curiosity-driven research.
- c) Ensuring that only marketable research receives funding.
- d) Reducing the role of the private sector in research funding entirely.

Question -5) Which of the following best describes the tone of the author towards the current government's approach to scientific research?

- a) Optimistic and supportive.
- b) Neutral and detached.
- c) Critical and concerned.
- d) Indifferent and uninterested.

Question -6) Based on the passage, which of the following would the author most likely consider a disadvantage of relying heavily on private sector funding for scientific research?

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- a) It leads to a surplus of patents that have no real-world application.
 - b) It results in the neglect of research areas that do not promise immediate financial returns.
 - c) It increases the public trust in science.
 - d) It encourages more innovation and competition in scientific research.

Thank you for attempting!!!

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