

1. An innovation ecosystem is a combination of two distinct economies, knowledge economy and the commercial economy. In this context illustrate the major challenges faced by India's innovation ecosystem and entrepreneurship.

Answer:

- An innovation ecosystem is a combination of two distinct but largely separated economies: i) the knowledge economy (comprised of knowledge producers), which is driven by fundamental research, and ii) the commercial economy (comprised of knowledge users), which is driven by the marketplace.
- In India, the innovation ecosystem includes the entire national innovation system , plus individual innovators and entrepreneurs; mentors; government policies; angel, venture capital, institutional, and industrial funding mechanisms, intellectual property rights mechanisms; technology transfer mechanisms; market inputs; and incentives, awards, and other innovation-recognition mechanisms, among others.
- Ideally, these various structures and mechanisms facilitate the smooth translation of innovations through the various segments of a complex innovation chain that takes ideas from “mind to market”. Thus, the functional goal of the innovation ecosystem is to enable technology development and innovation.
- Key challenges faced by India’s innovation ecosystem and entrepreneurship in general are listed and described below
 - a) Fragmented policy and policy implementation: There has been no comprehensive policy focusing on innovation and entrepreneurship so far. Also, the mechanisms to operate existing, fragmented policies were not uniform, which resulted in gaps in understanding and failure to achieve the desired effects of such policies.
 - b) Inadequate funding of R&D: Little national funding is available for R&D.
 - c) Difficult and lengthy funding procedures: Although funding is available from banks and public sources, the procedures for accessing such funding are often complex, cumbersome, lengthy, and bureaucratic; in other words, not conducive to innovation and entrepreneurship. Moreover, despite these difficult and lengthy procedures, the system seeks immediate returns. However, the returns from innovation are often uncertain, late, or not quantifiable immediately.
 - d) Angel, venture capital, and seed funding: Despite 100s of angel networks operating in India (e.g., Indian Angel Network; Mumbai Angels), only tens of deals are made each year. For such a populous country, this magnitude of deals is very low compared to the numbers from abroad and fall short of India’s requirements.
 - e) Weak linkages between stakeholders: The linkages between industry, especially medium and small-scale enterprises and R&D or academic institutions are weak.
 - f) Non-conducive education system: The general education system is still too focused on grades and careers and is not oriented toward innovation and entrepreneurship. This situation is further worsened by the inherent problems of lack of infrastructure and good facilities in the educational institutions; delays in the funding system; and delays in the funds or other support reaching innovation projects.

- g) Poor infrastructure facilities in villages: Basic infrastructure facilities such as electricity, Internet, roads and rail, and even the availability of a skilled workforce, are not evenly distributed in India and often weak in smaller cities or towns and rural parts of the country.
- h) Risk aversion among entrepreneurs: Indian entrepreneurs often seek established technology as a basis for starting their business; they are hesitant to take on innovative ideas because of the risks involved, including the low availability and high cost of funds that often arrive too late.
- i) Inadequate protection of intellectual property rights: In India, the intellectual property regime is weak. Innovators do not generally seek protection for their intellectual property unless forced to.
- The government of India has taken many initiatives towards strengthening the innovation ecosystem, the most important of which are: i) the establishment of the National Innovation Council, whose mandate is to coordinate various innovation-related activities, and ii) the new Science, Technology and Innovation Policy 2013, which is intended to promote entrepreneurship and science-led solutions for sustainable and inclusive growth.

PRACTICE QUESTIONS

Answer the following Questions

1. Discuss how American sanctions on its adversaries affect India. Taking the example of CAATSA, analyse how India can shield its strategic interests in face of such sanctions. (150 words)
2. Shrenis were very sound and stable institutions, and enjoyed considerable moral and social prestige not only among their own members, but in society at large. In light of the statement, explain the significant aspects of Shrenis or Guilds in ancient India. (150 words)