IN-SPACe - Private Space Industry in India

Why in news?

The Government of India has announced the creation of a new 'Indian National Space Promotion and Authorisation Centre' (IN-SPACe).

What is IN-SPACe for?

- IN-SPACe will be an autonomous nodal agency under the Department of Space.
- It is expected to be functional within 6 months (from June 2020).
- IN-SPACe is supposed to be a facilitator and a regulator.
- It will act as an interface between ISRO and private parties.
- It will provide the necessary support for the private space industry to conduct its activities.
- IN-SPACe will assess the needs and demands of private players including educational and research institutions.
- It will explore ways to accommodate these requirements in consultation with ISRO.
- It will also assess how best to utilise India's space resources and increase space-based activities.
- Existing ISRO infrastructure, scientific and technical resources and even data are planned to be made accessible to interested parties.
- [The infrastructure includes both ground- and space-based.]
- The decision comes as a part of an important set of reforms to open up the space sector.
- The objective is to make space-based applications and services more widely accessible to everyone.

How is India's private sector participation in space industry?

- Currently, there does exist private industry involvement in India's space sector.
- In fact, a large part of manufacturing and fabrication of rockets and satellites now happens in the private sector.
- There is an increasing participation of research institutions as well.
- However, Indian industry had a barely 3% share in a rapidly growing global space economy.

- Currently, the value of the global space industry is estimated to be $360 billion.
- Only 2% of this market goes for rocket and satellite launch services, which require fairly large infrastructure and heavy investment.
- A huge 95% are related to satellite-based services, and ground-based systems.
- Indian industry, however, is unable to compete.

Why is Indian space industry lagging behind?

- Till now, Indian space industry's role has been mainly that of suppliers of components and sub-systems.
- Indian industries do not have the resources or the technology to undertake independent space projects or provide space-based services.
- Additionally, the demand for space-based applications and services is growing even within India.
- The need for satellite data, imageries and space technology now cuts across sectors.
- It ranges from weather to agriculture to transport to urban development, and more.
- But, ISRO is unable to cater to this.
- ISRO would have to be expanded 10 times the current level to meet all the demand that is arising.

What opportunity will IN-SPACe offer?

- Currently, all launches from India happen on ISRO rockets, the different versions of PSLV and GSLV.
- Several Indian companies were waiting to make use of the opportunities as IN-SPACe provides.
- A few companies were also in the process of developing their own launch vehicles.
- ISRO is now wiling to extend its support to them.
- ISRO would provide all its facilities to private players whose projects had been approved by IN-SPACe.
- Private companies, if they wanted, could even build their own launchpad within the Sriharikota launch station.
- ISRO would provide the necessary land for that.

What does ISRO gain by this?

- **Commercial** - There is a need for greater dissemination of space technologies, and better utilisation of space resources.

- Moreover, there is an increased requirement of space-based services.
- ISRO seems unable to satisfy this need on its own and thus private participation would fill the gap.
- Notably, the private players will not take away the revenues that ISRO gets through commercial launches.
- The space-based economy is expected to "explode" in the next few years, even in India.
- So, there would be more than enough for all.
- Also, ISRO can earn some money by making its facilities and data available to private players.
- **Strategic** - Right now, too much of ISRO's resources is consumed by routine activities.
- This delays its more strategic objectives.
- There is no reason why ISRO alone should be launching weather or communication satellites.
- The world over, an increasing number of private players are taking over this activity for commercial benefits.
- ISRO, like NASA, is essentially a scientific organisation whose main objective is exploration of space and carrying out scientific missions.
- So, with private participation, ISRO can concentrate more on science, R&D, interplanetary exploration and strategic launches.

What are the other initiatives?

- IN-SPACe is the second space organisation created by the government in the last two years.
- In the 2019 Budget, the government had announced the setting up of a New Space India Limited (NSIL).
- The NSIL is a public sector company that would serve as a marketing arm of ISRO.
- Its main purpose is to market the technologies developed by ISRO and bring it more clients that need space-based services.
- This role was already being performed by Antrix Corporation, another PSU working under the Department of Space, and which still exists.
- It was unclear why there was a need for another organisation with overlapping function.
- However, the government said that it was redefining the role of NSIL.
- By doing so, NSIL would have a demand-driven approach rather than the current supply-driven strategy.
- So instead of just marketing what ISRO has to offer, NSIL would listen to the needs of the clients and ask ISRO to fulfil those.
- This change in NSIL's role is also part of the reforms that have been initiated

in the space sector.

Source: Indian Express

