

Indian National Space Promotion and Authorisation Centre (IN-SPACe)

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The structural reforms in space administration that are being carried out would prepare India to prove itself as a space faring nation both scientifically and commercially. In that regard, the new bodies like IN-SPACe and NSIL are to be studied thoroughly for both UPSC CSE Prelims and Mains. We can expect direct questions in Prelims and indirect questions in Mains.

In news The government approved the creation of a new organisation to ensure greater private participation in India's space activities

Placing it in syllabus

1. Science and Technology- developments and their applications and effects in everyday life
2. Awareness in the fields of Space

Static dimensions

1. IN-SPACe
2. Its objectives and functions

Current dimensions

1. Its relation with ISRO and NSIL
2. Need of IN-SPACe

Content

What is IN-SPACe?

- IN-SPACe is the new entity of the Department of Space which regulates and promotes building of routine satellites, rockets and commercial launch services

through Indian industry and startups.

- These activities were largely the domain of the 50-year-old Indian Space Research Organisation (ISRO) until now.
- IN-SPACe is a body that will ensure a level playing field for Indian industry in a fast-growing global space sector.
- It will function autonomously and parallel to ISRO.
- IN-SPACe will have its own directorates for technical, legal, safety and security, monitoring and activities promotion.
- IN-SPACe will be located in Bengaluru.
- Its chairman will be the chairman of the board. The directors, i.e. the heads of the directorates, will be board members. Representatives of the academia and industry will also be its members.

The position of IN-SPACe

- IN-SPACe is a parallel mechanism to the ISRO within and under the Department of Space.
- This is an additional vertical, independent of ISRO or its other systems.
- The Space Commission is the apex body controlling space activities in India; it will remain so and above the new entity.
- IN-SPACe will also report like ISRO to the Space Commission as and when required.

The functions of IN-SPACe

- It will enable private players to do their job.
- ISRO has its own agenda of developing advanced technologies in satellites and launch vehicles. Routine aspects will be given out to IN-SPACe.
- Earth Observation also will come under it. Advanced activities will be done by ISRO.
- Private players will be free to do all of it i.e. commercial activities as well as work on advanced

technologies.

- It will assess the needs and demands of private players, including educational and research institutions.
- It explores ways to accommodate these requirements in consultation with ISRO.
- Existing ISRO infrastructure, both ground- and space-based, scientific and technical resources, and even data are planned to be made accessible to interested parties to enable them to carry out their space-related activities.

The state of NewSpace India Ltd. (NSIL)

- The year-old NSIL [NewSpace India Ltd] will be strengthened and empowered with a larger role in what the government has called the new `open and inclusive` space sector.
- It will work with IN-SPACe and enable industry consortia to take on some of the activities of ISRO. These include launch vehicles and satellite production, launch services and space based services.
- Over the last two years, ISRO has been in the process of finding industry partners who could take up these services.
- Industry teams had been involved in assembling and testing satellites and also launched one navigation satellite last year.

Why this restructuring?

- This restructuring will allow ISRO to allocate more time and resources for Research and Development endeavours.
- ISRO will continue to carry out its present activities with greater emphasis on development of advanced technology, human space flight missions and capacity building besides supporting private endeavours in the space sector.
- The reforms in the space sector are aimed at tapping the

potential of the entire country for unlocking its potential by enabling private enterprises and startups to undertake end-to-end space activities.

- They are also aimed at mitigating the large investments required to set up facilities for undertaking space activities through sharing of such existing facilities under ISRO
- It will create a large number of jobs.

Why private players?

- Indian industry had a barely three per cent share in a rapidly growing global space economy which was already worth at least \$360 billion.
- Only two per cent of this market was for rocket and satellite launch services, which require fairly large infrastructure and heavy investment.
- The remaining 95 per cent related to satellite-based services, and ground-based systems.
- Indian industry, however, is unable to compete, because till now its 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 of the kind that US companies such as SpaceX have been doing, or provide space-based services.
- The demand for space-based applications and services is growing even within India, and ISRO is unable to cater to this.
- The need for satellite data, imageries and space technology now cuts across sectors, from weather to agriculture to transport to urban development, and more.
- ISRO would have to be expanded 10 times the current level to meet all the demand that is arising.

Mould your thought How the new bodies like IN-SPACe and NSIL along with ISRO would reap India's space prowess in the near

future?