Private Investment in Space Sector

Why in news?

Principal Scientific Adviser has stated that the government would soon come up with a new space policy to increase private sector participation in space sector.

Why is development in the space sector important?

- The space avenue is an integration of the aerospace, IT hardware and telecom sectors.
- **Need for developing space sector**
    1. To bolster connectivity and combat climate-related implications through a more secure and effective means.
    2. To provide more accurate information on weather forecasts and assess long-term trends in the climate and habitability of a region.
    3. To serve as real-time monitoring and early-warning solutions against natural disasters such as earthquakes, tsunamis, floods, wildfires, mining etc.
    4. To utilize real-time tracking for multiple purposes in defence.
    5. To reach more remote areas where conventional communication networks would require a heavy complimenting infrastructure.

> *The World Economic Forum had stated (2020) that satellite communication can help connect 49% of the world's unconnected population.*

Where does India stand in the global space market?

> *India is the **sixth-largest player** in the industry internationally having 3.6% of the world's space-tech companies (as of 2021).*

- **Leading players**- U.S. holds the leader's spot housing 56.4% of all companies in the space-tech ecosystem.
- Other major players include U.K. (6.5%), Canada (5.3%), China (4.7%) and Germany (4.1%).
- **Valuation**- The Indian Space Industry was valued at 7 billion dollars in 2019 and aspires to grow to 50 billion dollars by 2024.
- **Budgetary allocation**- India's total budgetary allocation for FY2022-23 towards the Department of Space was Rs. 13,700 crore.
- **Investment**- As per Tracxn data, funding into the sector's start-ups in India nearly tripled to 67.2 million dollars on a year-over-year basis in 2021.
- U.S. and Canada were the highest receivers of space-related investment in 2021.

- **Composition**- Of the 60-odd start-ups that had registered with the Indian Space Research Organisation (ISRO), a majority of them were dealing in projects related to space debris management.
- **Distinction**- India holds the distinction of being the first country to have reached the Mars' orbit in its first attempt and at $75 million which is cheaper than Western standards.
- India's standout feature is its cost-effectiveness.

How is the private sector's involvement regulated in India?

- **Space reforms** - In 2020, the Union government announced reforms in the space sector to provide a "level playing field" to private companies in satellites, launches and space-based services.
- **IN-SPACe**- An announcement for the establishment of the Indian National Space Promotion and Authorisation Centre (IN-SPACe) was made.
- It was mandated the task of promoting, authorising and licensing private players to carry out space activities.
- As an oversight and regulatory body, it is responsible for devising mechanisms to offer sharing of technology, expertise, and facilities free of cost (if feasible) to promote non-government private entities.
- **Role of ISRO**- ISRO shares its expertise in matters pertaining to quality and reliability protocols, documentations and testing procedure through IN-SPACe's interface mechanism.
- **NSIL**- NewSpace India Ltd (NSIL), constituted in 2019, is mandated to transfer the matured technologies developed by the ISRO to Indian industries.
- **New space policy**- The final version of the new space policy would soon be referred to the Empowered Technology Group for further examination.
- Private sector's involvement in the long term is believed to help spur investment and expertise in the realm which is capital-intensive and demands high technology.

References

1. https://www.thehindu.com/business/Industry/explained-why-is-indias-space-industry-looking-for-private-sector-investment/article65682662.ece?homepage=true

SHANKAR IAS PARLIAMENT
Information is Empowering