

Perspective: Indian Space Policy 2023

For Prelims: <u>Indian Space Policy - 2023, New Space India Limited (NSIL)</u>, <u>InSPACe</u>, <u>SAMVAD Program</u>, Indian Space Research Organisation (ISRO).

For Mains: Highlights of the Policy, <u>Significance of Private Sector Participation</u>, <u>Current Status of India's Space Sector</u>.

Why in News?

Recently, the government approved the <u>Indian Space Policy - 2023</u>. The policy states that the <u>Indian Space Research Organisation (ISRO)</u>, as the national space agency will focus primarily on the research and development of new space technologies and applications and on expanding the human understanding of <u>outer space</u>.

The policy is described as a futuristic one that will position India and launch the Indian Space Sector in the 21st century.

What are the Highlights of the Policy?

- The policy creates four distinct, but related entities, that will facilitate greater private sector participation in activities that have usually been the traditional domain of the ISRO.
 - InSPACe (Indian National Space Promotion and Authorisation Centre): It will be a single window clearance and authorisation agency for space launches, establishing launch pads, buying and selling satellites, and disseminating high-resolution data among other things.
 - It will also share technologies, products, processes and best practices with NGEs (non-government entities and this will include private companies) and government companies.
 - New Space India Limited (NSIL): It will be responsible for commercialising space technologies and platforms created through public expenditure, as well as, manufacturing, leasing, or procuring space components, technologies, platforms and other assets from the private or public sector.
 - Department of Space: It will provide overall policy guidelines and be the nodal department for implementing space technologies and, among other things, co-ordinate international cooperation and coordination in the area of global space governance and programmes in consultation with the Ministry of External Affairs.
 - It will also create an appropriate mechanism to resolve disputes arising out of space activity.

Why Private Sector Participation is Important?

■ **To Increase Global Space Economy:** India's share in the global space economy is less than 2% at present and the space policy will help it increase substantially to 10% in the future.

- This policy will pave the way forward with much-required clarity in space reforms and augment private industry participation to drive the space economy opportunity for the country.
- **Space Exploration:** Allowing private companies to perform space missions has benefited nations such as the United States by promoting private-sector investment.
 - For example, <u>SpaceX's</u> reusable <u>Falcon 9 rockets</u> has become a popular choice for space missions around the world.
- **International Competitiveness:** With the increasing global interest in space exploration, private companies can help countries remain competitive in the industry.
- **Flexibility**: Private companies are often more agile and adaptable than government agencies, allowing them to respond more quickly to changing market demands and technological advancements.

What is the Significance of the Policy?

- **Key Steps to Boosting India's Space Industry:** The policy will develop space industry standards, promote identified space activities and work with academia to widen the space ecosystem and enable industry-academia linkages.
- Innovation and Maintaining India's Leadership: ISRO will focus on research into outer space. This will lead to the development of new space technologies and applications to maintain India's edge in the areas of space infrastructure, space transportation, space applications, capacity building and human spaceflight.
- Expanding India's Footprint in Space: To augment space capabilities; enable, encourage and
 develop a flourishing commercial presence in space; use space as a driver of technology
 development and derived benefits in allied areas; pursue international relations, and create an
 ecosystem for effective implementation of space applications among all stakeholders.

What is the Current Status of India's Space Sector?

- Current Scenario:
 - The Indian Space Sector has been globally recognised for building cost-effective satellites, and now India is even taking foreign satellites to space.
 - As part of India's commitment to the Geneva Conference on Disarmament (1979), the country continues to advocate peaceful and civilian use of outer space and oppose any weaponization of space capabilities or programs.
 - ISRO is the **6th largest space agency in the world** and holds an exceptional success rate.
 - With over 400 private space companies, India ranks fifth globally in the number of space companies.
 - According to the <u>Economic Survey of India</u>, there have been over 100 active space companies since 2012.
- Recent Developments in India's Space Sector:
 - Defence Space Agency: India has recently set up its <u>Defence Space Agency (DSA)</u> supported by the <u>Defence Space Research Organisation (DSRO)</u> which has the <u>mandate to create weapons to "degrade, disrupt, destroy or deceive an adversary's space capability".
 </u>
 - Also, the Indian Prime Minister launched the Defence Space Mission at the Defence Expo 2022, Gandhinagar.
 - Expanding Satellite Manufacturing Capabilities: India's satellite-manufacturing opportunity will reach USD 3.2 billion by the year 2025 (in 2020 it was USD 2.1 billion)
 - <u>SAMVAD Program:</u> To encourage and nurture space research among young minds, ISRO launched its Student Outreach Program called SAMVAD at its Bengaluru facility.

Conclusion

The introduction of India's new space policy is a significant milestone in fostering a commercial space ecosystem, but there are still important questions to be addressed to fully realize the potential benefits of private sector participation. Clear directives on how the government and other entities will actively

engage with private start-ups and the regulatory role of INSPACe will be critical in ensuring that the policy leads to a thriving and sustainable commercial space industry in India.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Mains

- **Q.1** What is India's plan to have its own space station and how will it benefit our space programme? **(2019)**
- **Q.2** Discuss India's achievements in the field of Space Science and Technology. How the application of this technology helped India in its socio-economic development? **(2016)**

