

India needs a Limiting Space liability and Insurance Policy

India needs to move swiftly and bring in the National Space Act and SpaceCom policy which lay a facilitating risk management framework for the Industry. The policy must define the scope of damage to include all types of damage caused in all stages viz., prelaunch- launch, inorbit



BY ANIL PRAKASH

Space risk management is a critical aspect of the space missions and has evolved as one of the most talked about topic in recent years with the space sector becoming increasingly commercialized. The Space industry conversation is no longer about just exploring but about protection of National Space Assets.

The first satellite insurance policy was placed with Lloyd's of London in 1965 which was designed to cover physical damages on pre-launch of Intelsat 1. But now the definition of damage is wider with complex spacecrafts, new modernized payload facilities and all types of risk mitigation options available. The global scenario of insurance liability for satellites covers the risks in the Pre-launch period to launch to in-orbit risks with a new segment in ground insurance called "spaceports". Interestingly, the coverage deals mostly with the physical damages.

However, there is lot of ambiguity on the risk case scenario of a cyberattack on the space assets. The Lloyd's Market Association (LMA) recognized that there is an urgent need for the insurers and the space community at large to address the potential of a cyber-attack on satellites, launch vehicles or ground-based control

systems. ISRO too has acknowledged the criticality of cyberattacks on the space assets. As per global policy best practices space insurance and liabilities are viewed as a key cost for the operators. Policies are framed suitably so that insurance liability and cost are not very taxing on the private sector and the startups which would disrupt their commercial viability and stifle innovation.

Scenario in India

The democratization of space allowing private entities to participate in space activities is a revolutionary step and represents a striking shift in the vision of the government for the space programme.

However, in the absence of Space Policy or a space Act, issues of space liability and insurance remain critical. At present, the liability for damage caused to third parties or to space assets are guided as per established UN Liability Conventions, 1972.

The national draft SpaceCom policy which is in final stages requires the entities to insure themselves against any liability accruing from space operations in India or outside and also holds private entities liable

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for any damage caused due to its space operations. This obligation to be fulfilled by providing a financial guarantee/insurance cover as determined by IN-SPACe who would evaluate the risks involved in nature and operations of that space system in outer space.

The absence of a transparent risk assessment framework entails an open ended liability creating an ambiguous undertone to it. This would impose undue burden on private entities especially start-ups and MSMEs with limited financial capacity and resources.

There are several Startups and MSMEs in India that are poised to play a critical role in the value chain and cannot afford to abide by or sustain a liability clause which provides unlimited and absolute liability coverage to third parties. The burdening of the entire sovereign liabilities to the private sector is going to be non-starter for the NGPE participation in the Indian space economy.

Internationally, the policies are devised to limit the liability on the private entities and in most of the jurisdictions the State guarantees for excess liability claims or adopts the waiver scheme in public or government interest.

SIA-India has in its response to the draft SpaceCom policy 2021 stated the critical need to create a limited liability framework based on the best practices of International economies. The association thanks Mr. Anirudh Rastogi from IkigaiLaw and Dr. Ranjana Kaul from Dua Associates for their contribution to the matter of insurance liability Draft Spacecom Policy 2021.

Here are some of the common and most effective international practices followed in different jurisdictions that should be adopted by Indian Policy makers while drafting the New Spacecom Policy or a Space Act

- **Limited liability from private entities:** Major space faring nations have limited the liability of private entities towards third parties by providing a certain quantum of liability up to which the private entity is obliged to be insured. This practice is adopted by almost all nations to support the private sector for their space activities. This does bring about a gap in the liability arising out of any damage and the amount

insured by the industry player. Other tools of policy come into play to bridge this gap.

- **State guarantee for excess liability claims:** In the US, the state ensures the liability to be paid off if it exceeds the insured amount. The private entities are expected to get insurance for any space mission/activity. In terms of liability claims exceeding the insured amount, the government would pay up to a cap of \$1.5 billion. A similar practice is also followed in Austria and South Korea where the space operators are required to ensure a particular amount of sum for any space activity. Any damage exceeding the amount insured shall be paid by the state. India should consider adopting a similar approach, whereby the government provides guarantee for any liability claims exceeding the quantum of liability capped for private entities. With additional state guarantee, the quantum of liability for start-ups and MSMEs can be capped at a lower amount, and any liability claim exceeding that amount can be incurred by the state. This will reduce the burden on private entities especially start-ups.

British Petroleum could survive claims against the oil spill damage in the Gulf of Mexico because the UK Government provides sovereign guarantee for several high risk activities.

- **Right to recourse:** Russia, where in case of a higher degree of damage caused to either organization involved in a joint space mission must claim the liability and impose it on the organization which did not face immense damage. The degree of the damage is decided by the Russian Federation. Thus, ensuring the liability is not covered by the organizations equally.
- **Waiver of liability and insurance for space activities in public or government interest:** Space Legislation in Bulgaria states that the authority has the right to waive off the obligations:
 - When the operator has sufficient capital to compensate for the damages caused
 - When the nature of the space activity is for public interest and not for commercial usage.

The aforementioned international best practices which has helped the private players in the space industry to flourish must be studied and analyzed while framing the policies in India.

In Russia, the compensation of the damages caused to space objects would be taken up by the Russian Federation, given the space operation was conducted in association with the Russian Federation. Thus, waiving off the space operator from the compensation of the damages caused. Similar approach is also followed by France, Austria and some other nations.

To encourage space innovation, research and exploration among start-ups, a similar approach could be adopted in India. Start-ups engaging in space operations for public interest, including science, research or education, or at least jointly with the government, could be granted a complete waiver for any liability claims arising out of such operations and any compensation from liability claims could be borne by the government. The government could prescribe detailed rules on eligibility criteria and the types of space activities that will be considered to be in public interest. This will encourage private entities to take on space activities despite the enormous risks involved:

- **The limitation period for liability claims:** Under the French Space Operation Act (2008), there is a limitation period of one year from the damage caused by the entity which would be compensated after a year of the damage caused. If in any case, the compensation is not paid the following would be passed on to the government.
- **Mandatory reciprocal waiver of liability:** During space operations, the concept of reciprocal waiver is common and the agreement of mutual waiver of liability ensures that the involved launch providers, contractors and sub-contractors bear the loss or damage during the space operation equally. This international practice is followed in France and USA. It is considered that a similar practice must be followed in India as well, ensuring limited liability to the extent of the private entity's responsibility.
- **Formation of National Space Fund:** Implementation of the National Space Fund would focus on contributions from the profits of space missions and activities. In Russia, usually, the profits from space missions and activities is used for research purposes,

however, with the creation of the National Space Fund there is the utilization of the funds for compensation of liabilities from damages caused to space objects along with funds for research purposes as well. Such a collective burden sharing responsibility will be beneficial for start-ups and MSMEs. Unlike insurance solutions where funds from space industry move to insurance industry, a solution like this where the funds remain within the space industry must be adopted in India.

Conclusion

India needs to move swiftly and bring in the National Space Act and SpaceCom policy which lay a facilitating risk management framework for the Industry. The policy must define the scope of damage to include all types of damage caused in all stages viz., prelaunch- launch-inorbit. A smooth space traffic management framework must also take into account the insurer's or actuary's point of view as well. The aforementioned international best practices which has helped the private players in the space industry to flourish must be studied and analyzed while framing the policies in India.

Additionally, the insurance companies must collaborate with the space market to develop innovative solutions which allow the private sector to be more participative and encourage them to be risk-takers.

The participation of private sector enables the nation's aspiration for an exponential growth in the space economy and needs to be supported by government interventions including relief to the private segment from these liabilities and obligations. Major space economies use different practices to handle this matter in favour of the private companies and the startups. When the world is moving towards limited liability and insurance cost for private entities, India cannot afford to work otherwise. The government's approach on liability and insurance is, hence, very critical. 🙏

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