



SPACE LAW- FUTURE OF INDIA

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ABSTRACT

The day to day development of India in the field of Science and Technology and especially in the field of Space requires a separate Legislation for Space. It is well known that it is the duty of the countries that they have to establish their own national legislation which is embedded in the treaty provisions contained in the corpus of international law of outer space. As a result of those legitimate principles in the treaties that this paper urges India to legislate a national space legislation at the earliest, not just to accomplish the treaty obligations but for the sole reason that the growth and expansion of space activities and space industry in the country have reached a level that makes a compelling case for legislative action.

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INTRODUCTION

Space legislation in India is the ultimate need of the nation, especially because India is progressively looking forward to privatise and commercialise space assets, expand and develop capability in space exploration and scientific discovery, commercialise its competence to build satellites and offer launch service from its launch vehicles. The pace at which India is developing and expanding in the space and space related matters, it can be argued that a national space law should be legislated with the principle of creating clear and transparent regulatory guidelines for domestic industry with the intention of accelerating investment and to make certain the growth and advancement in this capital intensive - high return strategic sector. It is well known that it is the duty of the countries that they have to establish their own national legislation which is embedded in the treaty provisions contained in the corpus of international law of outer space. As a result of those legitimate principles in the treaties that this paper urges India to legislate a national space legislation at the earliest, not just to accomplish the treaty obligations but for the sole reason that the growth and expansion of space activities and space industry in the country have reached a level that makes a compelling case for legislative action.

Now India is one of the six countries with homemade satellites in orbit. The Indian space programme has an impressive array of achievements in putting to use space technology for vital applications - for telecommunications, TV broadcasting, weather watching, forecasting agricultural crop and forest wealth assessment, water resources

management, flood mapping, drought forecasting, identification of marine resources, protection of the environment and rural literacy campaign. India also benefited significantly from international co-operation since the establishment of TERLS in 1962 to the present GSLV preparations.

Objectives

1. To study about the features of a Space Law.
2. To study about the Indian Space Activities and its International treaties and conventions regarding Space activities.
3. To study about the Space Law Legislation of the United States of America.

Space law

The term space law includes all activities of space both in national and international aspect to be governed by a legislation of a particular territory or by an international convention. The fundamental object of space law is to define the human activities in 'outer space.' But, there is no precise definition for outer space though several attempts were taken by both the scientists. At present the term outer space is assumed to be the later which is above 100km(600mi) from Earth. The era of space activities began with the launch of the artificial satellite named Sputnik-I by the Soviet Union in the year of 1957. After this various nations competed with each other in the launch of their own space vehicle, this initializing certain kind of disputes across the world. Thus the need of a legislation to govern such activities of human kind was felt essential to be regulated both in national and international aspects.

Nations across worldwide joined together to discuss on the need for a space legislation in the year of 1957. They

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submitted the issues to be discussed in the year of 1958. As a result on the discussion of the stated issues resulted in the formation of Committee on the Peaceful Use of Outer Space(COPOUS) in the year of 1959 by the United Nations¹. The committee created two Sub-committees in order to support the COPOUS committee in executing its functions. The two Sub-Committees were Committee Scientific and Technical Subcommittee and the Legal Subcommittee. The former is responsible for the governing of space related activities among the nations and the later is responsible for the regulations to be governed in the activities of space by the nations.

Based on the work of these two Sub committees and the head committee COPOUS, there were various international agreements and conventions signed between the nations for the governance of their space activities. They are as follows,

1. The 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (the "Outer Space Treaty").
2. The 1968 Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (the "Rescue Agreement").
3. The 1972 Convention on International Liability for Damage Caused by Space Objects (the "Liability Convention").
4. The 1975 Convention on Registration of Objects Launched into Outer Space (the "Registration Convention").
5. The 1979 Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (the "Moon Treaty").

The Outer Space Treaty is the most widely accepted treaty by various nations across the world amounting to 103 nations. The Resuce Agreement, The Liability Convention and The Registration Convention are the substantial Conventions of the Outer Space Treaty elaborating the provisions of the Outer Space Treaty.

The Moon Treaty is the treaty governing the activities of the nations related to the Moon. The United Nations delegates has commented that the Moon Treaty would probable supersede the Outer Space Treaty. There are only 13 parties to have signed the treaty. India is one the parties to have signed the treaty and accepted to abide by the provisions of the treaty in its future activities².

Further, the Treaty on Banning Nuclear Weapon Tests in the Atmosphere in Outer Space and Under Water has prohibited the test of nuclear weapons in outer space by the nations.

India and its Space activities

The era for modern space research in India began in the 1920's where scientists like S.K.Mitra conducted a series of tests on the basis of sounding of the ionosphere by the application of radio methods in Calcutta. Further, scientists like C.V.Raman who was honored with the Nobel Award for his contribution on the principle of Spectrum theory which is

mostly known as the Raman Effect and Meghnad Saha contributed for the scientific principles to be applied in space. The organized space research in India began with the establishment of Physical Research Laboratory at Ahmedabad and Homi Babha by Vikram Sarabhai in the year of 1945. The initial experiments done in relation to space were high altitude, the study of cosmic radiation, deep underground experimentation, airborne testing of instruments etc. The Department of Atomic Energy was founded in the year of 1950 with Homi Babha as its secretary, which provided the funds for space research all over India³.

The Indian National Committee for Space Reserach (INCOSPAR) was established in the year of 1962 by india's First Prime Minister Jawaharlal Nehru with Dr.Vikram Sarabhai as its Chairman. The First Rocket Launch from the Indian Soil took place in the year of 1963. Later, under the leadership of Dr.Praful Bhavsar INCOSPAR developed into ISRO in 1969.

ISRO- goals and objectives

The prime objective of the ISRO is to develop space research and technology in India. It also focuses on the application of the space technology for various national tasks. The Founding Chairman Dr.Vikram Sarabhai has stated in 1969 that, "*many people has questioned on the need for a Space Research in a developing nation like India. We cannot compete with the developed nations to stand as First among them, but we could not loose the chance of standing at Second among the developing nations.*"

This statement given by him as been an influence for the gradual development of the space related activities by India. The Late Scientist Dr.A.P.J Abdul Kalam has stated that, "*Those people who questioned the relevance of the ISRO in a developing nation like India. I term them as those who are having a myopic vision.*"

We cannot conclude that ISRO has no impact on the development of the economic progress of India apart from the development in Space activities. ISRO successfully launched two vital satellites in the name of Indian National Satellites (INSAT) which is for the purpose of communication services and Indian Remote Sensing (IRS) for the purpose of the management of the natural resources. In 2008 India became the first country to launch 11 satellites in a single rocket launch, of which 9 were from other countries.

Following by this, India actively launched several satellites and is constantly being marked as one of the most active and successful nations in the field of nations.

India- treaties with United Nations

India is a party to the following treaties with the United Nations

1967 Outer Space Treaty- the main objective of this treaty is to establish provisions for the space related activities by the nations across the world. It imposes liability on those nations

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[https://www.google.co.in/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&cad=rja&act=8&sqi=2&ved=0CFMQFjAJahUKewiQ493H66XIAhWGjo4KHfmrCWI&url=http%3A%2F%2Fwww.iffaadindia.org%2Fimages%2Farticle%2FDOES%2520INDIA%2520NEED%2520NATIONAL%2520SPACE%2520LAWS%2520\(4.3.10\)%2520NLU%2520\(Ranjana%2520Kaul\).doc&usg=AFQjCNE-4ahFf6hO25qm4Wlb74QollWPxA&bv=bv.104317490,d.c2E](https://www.google.co.in/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&cad=rja&act=8&sqi=2&ved=0CFMQFjAJahUKewiQ493H66XIAhWGjo4KHfmrCWI&url=http%3A%2F%2Fwww.iffaadindia.org%2Fimages%2Farticle%2FDOES%2520INDIA%2520NEED%2520NATIONAL%2520SPACE%2520LAWS%2520(4.3.10)%2520NLU%2520(Ranjana%2520Kaul).doc&usg=AFQjCNE-4ahFf6hO25qm4Wlb74QollWPxA&bv=bv.104317490,d.c2E), last seen at 03/09/2017.

¹ <http://works.bepress.com/cgi/viewcontent.cgi?article=1001&context=kaushikdhar>, last seen at 01/09/2017

² <http://works.bepress.com/cgi/viewcontent.cgi?article=1001&context=kaushikdhar>, last seen at 01/09/2017

who cause damage to the outer space and celestial bodies in its course of launch. It imposes liability for the act of both the space object and its component.

1968 Rescue Agreement- this treaty governs the provisions for the return of the Astronauts, Space objects etc by the respective nation to the nation from where the vehicle was launched. This provision substantiates the provision established in Article-V of the Outer Space Treaty.

1972 Liability Convention- the liability provisions established in the Outer Space Treaty has been further expanded and supplemented in this treaty.

This treaty also focuses on the object of imposing liability on those nations who have caused damage to Earth and other space objects in course of their launch.

1974 Registration Convention- this treaty establishes the provision that the nations launching satellites and other vehicles in outer space are supposed to maintain a registry of the launches done by it mandatorily in order to identify the space objects with the respective nations.

It also helps in deciding the identification, jurisdiction, control and ownership of the space object with reference to the respective country.

1979 Moon Agreement- this the most least ratified Space agreements. India is one of the few countries to become a signatory nation to this agreement. This agreement focuses on the right of the parties to collect or to remove samples from the Moon and also on the obligation of the nations to declare that the discoveries in the Moon are common for the human heritage and are not supposed to claim monopoly authority over the discoveries in the Moon done by the respective nations. India has agreed to abide by its provisions and obligations.

Constitution of India and International Law

India is a follower of the Specific Adoption Theory according to which, in order for an international law to be applied in India, the legislature of India has to legislate municipal law on the basis of the provisions of the international law. Thus in order for the application of the international law, the parliament has to legislate a municipal law.

The following articles of the Indian Constitution deals with the duty of the country to abide by the obligations arising out of the International Conventions signed by it and its relation to those agreements and Conventions.

Article-51- this article establishes that India should make respective legislations in accordance with the International agreements and Conventions entered by it in order to maintain international peace and security.

Article-253- this article confers powers for the Parliament of India to legislate respective laws in accordance with the Treaties, Conventions, Agreements entered by India with other nations. Thus this article enables the legislature of India to make respective municipal laws in substantive to the international laws.

Thus the above stated articles confers powers on the Indian legislature to abide by the Treaties, Agreements and Conventions entered and to implement its provisions in the form of municipal laws.

Space legislation of United States of America

The space legislation of United States of America comprises laws for both the making of space policy through the legislative process and also the execution of that policy by both civilian and military space programmes.

Space policy process - The space policy in US is drafted by the executive organ of the government through the direction of the President. The policy making could be advised by the Space advocacy which comprises of the groups such as Space Science Institute, National Space Society and Space Generation Advisory Council.

Drafting- while drafting the space policy the President has to consult with the National Aeronautics and Space Administration(NASA) which is the Prime space organ of US. The policies are drafted for two classified purposes like for civilian purpose and for military purpose⁴. The president is having the sole responsibility in deciding the segregation of the policies being drafted for the civilian and military purpose. The President is also supposed to consult with the National Security Council, Office of Science and Technology Policy and Office of Management and Budget.

Legislation- after the submissal of drafting by the drafting committee, the Congress at its most diligence evaluates the process of approving the policy and discuss on evaluating a budgetary expenditure for the implementation of the space policy. The policies for the civilian is reviewed by the House Subcommittee on Space and Aeronautics and also by the Senate Subcommittee on Science and Space. The Subcommittees may also consult NASA in reviewing the space policies.

Implementation- the civilian policies of being framed by the executive and legislative is implemented by NASA, but now the system is slowly changing where the implementation is done by private companies with the advisement of NASA. On the other hand, the Military Space policies are implemented by the Air Force Space Command, Naval Space Command and Army Space and Missile Defence Command.

Licensing- the licensing could be applied by any citizen or an entity as defined by space regulations, that are to be conducted in United States. The licensing is mandatory for the purpose of launch of any space vehicle, for a re-entry site, or for a re-entry of a re-entry vehicle. Different kinds of licensing such as commercial licensing, insurance financial licensing etc are provided depending upon the fulfillment of the respective required conditions.

CONCLUSION

Countries following democratic form of government requires a national legislation to be passed by the legislatures organ of that country for the implementation of an international obligation. Activities like space which could have an immense impact upon the whole of a county and even upon the entire humanity requires a prescribed legislation in order to prohibit the exploitation of such activities. Moreover, a specific national law is required in order to restrict the commercialization of the space activities. Clarity, transparency and a well defined legal regime is required for a

⁴ <http://csimpp.gmu.edu/pdfs/Dupont%20Summit%202011%20-%20Commercial%20Space%20Laws%20%20Regs.pdf>, last seen at 05/09/2017.

smooth and effective functioning of the space organ. The legislation of United States is one such example where the space related policies are being drafted in a step by step process with the consultation of the space agencies. The recent space activities of India have been successful. Hence a space legislation is required for governing the effective functioning and financing of the space organ and also for the prevention of commercialization of the field.

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