CHAPTER 6:
NATIONAL RESPONSE TO ACTIVITIES ON THE MOON AND OTHER CELESTIAL BODIES
6.1: Introduction

The development of legal regime governing the moon and other celestial bodies started in the international level and it remained mainly within the international domain, despite the emergence of a strong need for national support. Though the five international space treaties provide guidance for conducting the activities on the moon and other celestial bodies, they are found insufficient in the wake of recent developments in the exploration and exploitation of the moon and other celestial bodies. The progressive development of the international space law halted with the Moon Agreement 1979 due to the differences between the states. Since then the deliberations are going on for the further development of space law. While not favoring the adoption of new treaties,\(^1\) the UNCOPUOS is making an attempt in the direction of strengthening the existing space treaties and promoting the drafting of national space legislation.\(^2\)

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\(^1\) The new treaties would again encounter the problem of diverging state views, which would result in non-ratification by the majority of states.

\(^2\) Since 2002, every year workshops are organized by the UNCOPUOS in different regions to encourage the states to legislate national space laws.
The obligation to legislate national space law is also imposed on the states, though indirectly, by the international space treaties by way of providing space for such laws.\(^3\) This chapter delves on the need for national legislation and the obligation imposed on the states to enact such legislation for governing the activities on the moon and other celestial bodies. Though there is very little development in the field of national legislation governing the activities on the moon and other celestial bodies, the attempts made by the space faring nations like the US, Russia, Australia and United Kingdom are highlighted in this chapter.\(^4\) The chapter ends with the developments in India regarding the activities on the moon and other celestial bodies.

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\(^3\) The participating states in the United Nations / Ukraine Workshop on the theme “Status, application and progressive development of international and national space law” observed that the space treaties facilitate the establishment of national space legislation, in particular where the private entities are involved. UN General Assembly Doc. A/AC.105/880 (7 February 2007) p. 23.

\(^4\) At present only very few states have enacted national space laws. None of the states have enacted separate legal regime to govern the activities on the moon and other celestial bodies. The moon and other celestial bodies, being the part of outer space, are subject to the common regime governing the outer space as a whole provided under the national space laws. Therefore in this chapter, reference to outer space also includes the moon and other celestial bodies.
6.2: Need for National Legislation to Govern the Activities on the Moon and Other Celestial Bodies

The five major space treaties provide only the fundamental principles governing the activities on the moon and other celestial bodies, and they do not go further into detailed rules on the implementation. Enumeration of such detailed rules of implementation becomes necessary in applying the space treaty principles to regulate the space activities in municipal sphere.\(^5\) Therefore, being the parties to the space treaties, the obligation to provide such detailed rules in the municipal sphere is presumed to be on the states. Moreover, with the development in space technology and consequential private activities in outer space, the moon and other celestial bodies, it is found that the space treaties are by no means sufficient to clarify the law relating to activities on the moon and other celestial bodies.\(^6\)

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\(^6\) When the space treaties were drafted, only the states were involved in the space activities. Therefore all the space treaties are oriented towards defining the rights and duties of states as space actors. However they fail to deal with the complex legal issues relating to present day private space activities. At present, the only way to regulate the private activities is by way of enacting national space legislation. Henri A. Wassenbergh, ‘The Law of Commercial Space Activities’, in Gabriel
The need for national space legislation to support the international legal framework, especially for governing the activities on the moon and other celestial bodies, has multiplied by many folds since the failure of the Moon Agreement. At present, the insufficiency of the legal framework is so blatant that the preliminary question like how the relations between states and private enterprises involved in the space activities are to be settled itself remains unresolved. These factors constitute the driving force behind the urge for national space legislation.

The national legislation to fill in the gaps is found necessary in many space treaty provisions. Article VI of the Outer Space Treaty and Article 14 of the Moon Agreement are in need of clarification regarding the commitment of states to authorize and supervise the private activities on the moon and other

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celestial bodies. The act of authorization and supervision is vital for the regulation of the activities on the moon and other celestial bodies. The way in which the authorization and supervision are carried on is left to the determination of states by the space treaties. This obligation can be discharged only by means of enacting the laws in the municipal sphere.

The states need to clarify their laws for their own advantage as well as for the advantage of private investors in the activities on the moon and other celestial bodies. A clear municipal law is advantageous to the states because it clarifies the extent of their responsibility or liability for private activities on the moon and other celestial bodies. As discussed in the previous chapter, this could be done by imposing license requirement for every private activity on the moon and other celestial bodies. Failure to adopt such a measure would expose

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the states to unlimited liability for damage caused by the activities of their private entities on the moon and other celestial bodies.\textsuperscript{13} The municipal law would also help the states to clarify the issue of their responsibility and liability in case of transfer of ownership of the objects launched into the moon and other celestial bodies from launching state’s private entity to a private entity situated in a non-launching state.\textsuperscript{14} A clear national space law also helps the private entities involved in the activities on the moon and other celestial bodies, as they would be more clear about their liability for any damage caused by their activities.\textsuperscript{15} The transparent and reliable legal framework would attract more and more investment from the private sector, which is essential for expanding the activities on the moon and other celestial bodies.\textsuperscript{16}

In the wake of private activities on the moon and other celestial bodies, Article VIII of the Outer Space Treaty and the provisions of the Registration


\textsuperscript{14} It would be ridiculous to state that the original launching state should be made liable even after the transfer of space objects to other states. UN Doc. A/AC.105/C.2/L.225 (23 January 2001).

\textsuperscript{15} The private entities would be certain about the jurisdiction and law applicable in case of any damage caused by their activities. Valerie Kayser, \textit{Launching Space Objects: Issues of Liability and Future Prospects}, (Dordrecht: Kluwer Academic Publishers, 2001) p. 149.

\textsuperscript{16} \textit{Supra} note 3, p. 24.
Convention also need to be supplemented by national legislation. Since there is no provision in the space treaties for transfer of registration from one state to another, the question arises as to the registering state in case of transfer of ownership of launched object from a private entity of registering state to a private entity of another state. The answer to the question is very important because of the fact that jurisdiction and control over such objects and personnel thereof depends on the determination of registering state. Though jurisdiction and control is conferred on the state of registry under Article VIII, it would be unreasonable to state that the original registering state continues to be the registering state and enjoys jurisdiction and control even after the transfer.

Article IX of the Outer Space Treaty, while advocating for the protection of environment of the moon and other celestial bodies, calls the states to take appropriate measures to avoid harmful contamination of the moon and other celestial bodies. Though it does not clarify what constitutes appropriate measures, one of the possibilities available to the states is to enact national laws in this regard. Similarly the international regime specified under Article 11 of the Moon Agreement needs supplementary provisions in the

domestic law. These provisions must honor specific property rights on natural resources of the moon and other celestial bodies to the extent necessary for exploitation in accordance with the international regime.\textsuperscript{18}

Apart from clarifying these provisions, the national legislation is also required to solve the new issues that have come into picture due to the possible extensive private activities on the moon and other celestial bodies. The major issues relate to the financing of the activities on the moon and other celestial bodies, resolution of disputes between the private entities, bankruptcy proceedings and the protection of intellectual property rights (IPR).\textsuperscript{19} The solution to these issues also involves the review of the existing traditional domestic laws to determine their possible applicability with or without modifications in this special context.\textsuperscript{20}


\textsuperscript{19} Kunihiko Tatsuzawa, ‘The Regulation of Commercial Space Activities by the Non-Governmental Entities in Space Law’, \texttt{[http://www.spacefuture.com/archive/the_regulation_of_commercial_space_activities_by_the_non_governmental_entities_in_space_law.shtml (Accessed on 29 December 2007, 7:02 pm)]}

Finally, the need for national space legislation also spurs from the point of view of popularizing the space law. Since municipal legislation is one way to popularize space law in the domestic sphere, every common man interested in the space ventures would look forward to his state to clarify the law. The state, being the protector of its subjects, is duty bound to make every effort to meet the needs of its subjects.

In the wake of above factors, a state, no matter whether or not it automatically accepts the provisions of international treaties as part of domestic law, should enact clear and detailed national space laws. In cases where there is a requirement to transform the international treaties into domestic sphere, the national legislation serves the purpose of implementing international obligations of the state. In cases where the international treaties are directly applicable, the national legislation provides for the rules to implement the treaties. Due to these factors, Stephan Hobe proposed the drafting of an Explanatory Protocol as an annex to the Outer Space Treaty, obligating the

21 Dualist states.

22 Monist states.

states to enact national space legislation.\textsuperscript{24} Such need for national space legislation is also recognized in the United Nations’ deliberations.\textsuperscript{25}

Further support to national space legislation can be seen in the recommendations of Project 2001\textsuperscript{26} and International Law Association (ILA) Space Law Committee’s Report. While recommending the enactment of national laws to implement the international obligations of authorization and continuing jurisdiction of non-governmental entities, the Project 2001 stressed on the harmonization of the national laws with a co-ordinated procedure.\textsuperscript{27} The ILA Space Law Committee also advocated for the enactment of national laws, but at the same time it cautioned about the negative effects of the over-regulation on space commerce.\textsuperscript{28}

\textsuperscript{24} Supra note 9.


\textsuperscript{26} Project 2001 was a joint research initiative by the Institute of Air and Space Law of the University of Cologne and the German Aerospace Center.


\textsuperscript{28} Ibid., pp. 139 & 140.
6.3: The US Legislation

The United States holds the credit of being the first state to enact national space law. Though there are several US laws on the space activities, they are directed towards the more efficient commercial utilization of outer space, the moon and other celestial bodies and not towards the implementation of the idealistic principles enumerated in the space treaties. This is expressly mentioned in almost all US space legislation. The chief objective of the US policy is to encourage flexibility and to discourage the government’s intervention in the private space activities. More importantly, none of the US space legislation recognizes the need for special provisions to govern the activities on the moon and other celestial bodies. Therefore, in the absence of special provisions, the moon and other celestial bodies are subject to the regime governing the outer space.

29 The US passed National Aeronautics and Space Act (NASA Act) in the year 1958.
30 Section 102 (c) and Section 203 (a) (4) of the NASA Act 1958 (As amended in 2000), the Preamble to and Section 101 of the Commercial Space Act 1998 and Section 2451 (c) of the United States Code, Title 42 (The Public Health and Welfare) specify the maximum commercial use of the outer space.
The NASA Act declares that the US activities on the moon and other celestial bodies must be devoted to peaceful purposes for the benefit of all mankind.\(^3\) However, as it is already discussed, the US interpretation of peaceful purposes is non-aggressive purposes and not non-military purposes. Therefore what is prohibited under the NASA Act is only the aggressive military use of the moon and other celestial bodies. In furtherance of peaceful uses provision, the Commercial Space Act 1998 prohibits the use of ballistic missiles in the space activities.\(^3\) However it is again silent about other kinds of weapons. The US also negotiated Military Technology Control Regime (MCTR) with the Group of Seven (G-7) states. But the MCTR suffered from lack of enforcement by the parties to the regime.\(^3\) The relevance of the mankind provision provided under the NASA Act is not clear, as there is no supplemental provision for conferring the benefit of US activities to the mankind as a whole.

The NASA Act calls for cooperation between the United States and other states for conducting the activities stipulated under the Act and for

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\(^3\) Section 102 (a) of NASA Act.

\(^3\) Section 205 of Commercial Space Act 1998.

peaceful application of the results thereof. A brief reference to minimization of the environmental degradation can be seen under the purpose and policy of the Act. However it is not clear, whether its application is confined to earth’s atmosphere or extends beyond, so as to apply to the environment of the moon and other celestial bodies.

The NASA Act has established a civilian agency, National Aeronautics and Space Administration (NASA), for exercising control over the space activities sponsored by the United States. NASA is made responsible for all the government sponsored space activities conducted under the Act. Both the Commercial Space Act and the NASA Act contain provisions for the promotion of private space activities. These provisions are supplemented by the elaborate provisions of Title 49, US Code, Subtitle IX.

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35 Section 102 (d) (7) of the NASA Act.
36 Section 102 (e), Ibid.
38 Section 102 (b) of the NASA Act.
39 Section 204 of the Commercial Space Act and Section 203 (c) (8), Ibid.
The Secretary of Transportation of US Department of Transportation is authorized by Title 49 to regulate the operations of private space activities.\textsuperscript{40} The Department of Transportation administers the commercial space launch laws and regulations through its Office of Commercial Space Transportation.\textsuperscript{41} Title 49 requires the private operators to obtain license from the Office of Commercial Space Transportation for conducting any space activity.\textsuperscript{42} This license is not transferable to another person, unless the issuing authority approves such transfer. The licensee is obligated to obtain liability insurance or demonstrate financial responsibility to compensate any damage that might be caused by his activity.\textsuperscript{43} Any damage caused in excess of liability insurance or financial responsibility is compensated by the US government to the extent of $1,500,000,000.\textsuperscript{44} Therefore the US has limited its liability to the amount exceeding the liability insurance or financial responsibility of private entity and

\textsuperscript{40} Section 70103 of Title 49.


\textsuperscript{42} Section 70104 of Title 49.

\textsuperscript{43} Section 70112, \textit{Ibid}.

\textsuperscript{44} Section 70113, \textit{Ibid}.
the amount not in excess of $1,500,000,000.\textsuperscript{45} The Secretary of Transportation can exercise supervision and control over the private activities by placing an officer for monitoring the activities.\textsuperscript{46}

The US space laws also contain provisions for the protection of IPR.\textsuperscript{47} They concentrate on granting protection to the inventions, trade secrets and confidential information. Any invention in the US space object is considered to be done within the territory of the United States and both (inventions in outer space and inventions on US territory) are conferred with same degree of protection.\textsuperscript{48} Section 305 of the NASA Act expressly provides for granting patent rights to the government as well as to private individuals for the inventions conducted in the outer space. In addition, NASA has developed


\textsuperscript{46} Section 70106, \textit{Ibid}.

\textsuperscript{47} Section 303 and 305 of the NASA Act, Section 105 of 35 USC and Section 2 (8) (B) (ii) of the Commercial Space Act.

\textsuperscript{48} An invention in the space is given the same priority as if it has taken place on the territory of the United States. This also has a significant role in the determination of ‘prior art’. Pamela Meredith, ‘Status of the “Patents In Space” Legislation in Congress - October 1989’, \textit{Journal of Space Law}, Vol. 17, No. 2, 1989, pp. 163 - 167 at p. 164.
flexible IPR policies to encourage more and more industrial participation in commercial space activities.\textsuperscript{49}

The above discussion shows that the US has adopted the approach of protection and promotion of its individual interest rather than furthering the space treaty provisions in any way. Though the provisions of the space treaties to which the US is a party are directly applicable in the municipal sphere of the US,\textsuperscript{50} they lack proper implementation due to the strong desire of the US to promote private commercial space activities. The US licensing authority has adopted a liberal approach to promote commercialization by authorizing every legally, technically and financially qualified applicant. This open entry policy is rooted in the fundamental philosophy that competition, rather than regulation will serve the public interest of the United States.\textsuperscript{51} This me first approach of the US runs against the very basis of CHM.

There is also contradiction between the US national laws and the provisions of international space treaties. The best example of such


\textsuperscript{50} The provisions of international treaties to which the US is a party are directly applicable in the municipal sphere due to the monistic approach of the US.

\textsuperscript{51} Supra note 10, p. 139.
contradiction is the limitation on the liability of the US for damage caused by the private space activities. Neither the Outer Space Treaty nor the Liability Convention provide for fixing the maximum extent of liability for any damage caused by the space activities.\(^{52}\) The states are liable to pay full compensation for any damage caused to the person or property of other states. Therefore by no stretch of imagination, the self declared restriction on the liability by the US could be enforced in a claim for compensation by other states. Apart from this, the US laws also fail to address different problems associated with the private activities on the moon and other celestial bodies.

### 6.4: Laws of Russian Federation

Russia, being the main successor of former Soviet Union, inherited most of the space launch capability of the Soviet Union. It relied heavily on its commercial space activities to overcome its economic struggle after the cold war period. Russia enacted first national space legislation in 1993.\(^{53}\) Unlike the US laws, the Russian laws not only give importance to the promotion of private


activities but also for other wide range of purposes, including the implementation of international space treaties of which Russia is a party. Quite significantly, there are also some separate provisions applicable to the moon and other celestial bodies.

Under the Russian law, the activities on the moon and other celestial bodies must be carried out with the goal of promoting well being of its citizens as well as solving the global problems of mankind. The Law of the Russian Federation About Space Activity recognizes the application of basic space law principles, such as restriction of monopolistic activity, protection of the environment, promotion of international cooperation and state responsibility for activities conducted under its jurisdiction, in the governance of the activities on the moon and other celestial bodies.

The dilemma regarding application of prohibition on the adverse changes provision to the environment of the moon and other celestial bodies is clarified by providing express prohibition on creating unfavourable changes

54 Article 2 of the Law of the Russian Federation About Space Activity 1993 defines the space activity so as to include any activity on the moon and other celestial bodies.

55 Article 3, Ibid.

56 Article 4 (1) and (2), Ibid.

57 Stipulated under Article IX of the Outer Space Treaty.
in the environment of the moon and other celestial bodies. More importantly, use of the moon and other celestial bodies for military purposes as well as the deployment of nuclear weapons and weapons of mass destruction into their orbit are totally prohibited. The Russian laws also recognize the need for the protection of IPR on the moon and other celestial bodies.

The Law of the Russian Federation About Space Activity has established the Russian Space Agency for carrying out space activities under the jurisdiction of Russian Federation. The Russian Space Agency issues licenses for all types of space activities. The private entities must procure liability insurance in the amounts required by the Russian government for conducting the space activities. If the insured sum is insufficient to compensate any damage, recourse may be taken against the property of relevant private entities. However the Russian legislation does not speak about the liability of Russian government for any private space activity.

59 Ibid.
60 Article 4 (3), Ibid and Paragraph 4 of Resolution No. 468, Regulations of Russian Space Agency.
61 Article 6, Ibid and Paragraph 1, Ibid.
63 Article 25 (1), Ibid.
64 Article 30 (4), Ibid.
The Russian Federation retains jurisdiction and control over all the space objects registered in it\textsuperscript{65} and also over the crew of such space objects.\textsuperscript{66} Ownership of the space objects remains unaffected even when such objects are on the moon and other celestial bodies. However these factors do not confer any right on the surface or the subsoil of the moon and other celestial bodies occupied by the space objects.\textsuperscript{67} This clearly shows that the Russian practice does not favour the claim of private property rights over the moon and other celestial bodies.

The Russian laws recognize the obligations assumed by Russia under the space treaties signed by it, and gives utmost importance for their implementation.\textsuperscript{68} There is also a reference to the promotion of international cooperation to solve the legal problems. Therefore it can be concluded that the Russian laws try to implement some fundamental principles of space treaties in contrast to the US policy of mere commercialization of outer space, the moon and other celestial bodies.\textsuperscript{69}

\begin{footnotesize}
\begin{enumerate}
\item Article 17 (2), \textit{Ibid.}
\item Article 20 (4), \textit{Ibid.}
\item Article 17 (5), \textit{Ibid.}
\item Article 26 (2) and (3), \textit{Ibid.}
\item \textit{Supra} note 13.
\end{enumerate}
\end{footnotesize}
6.5: Australian Regulations

The study of the Australian space legislation is significant due to the fact that Australia is one of the very few parties to the Moon Agreement. Though there is no separate regime to govern the activities on the moon and other celestial bodies, the Space Activities Act 1998 applies to an area beyond the distance of 100 kilometers above the mean sea level,\textsuperscript{70} which includes the moon and other celestial bodies. The objectives specified under the Act recognize Australia’s obligations under the UN space treaties and its commitment to their implementation.\textsuperscript{71}

The Australian legislation draws much on the US experience with the US Commercial Space Launch Act. The authorization and supervision of private activities on the moon and other celestial bodies are done through issuance of licenses and permits. Every private space launch in Australia requires a launch permit\textsuperscript{72} and a space license.\textsuperscript{73} There is a requirement of insurance coverage / financial requirement, compliance with Australian

\textsuperscript{70} Section 8 of the Space Activities Act 1998. This stands as the first and the only attempt to define outer space in any space legislation.

\textsuperscript{71} Section 3 (c), \emph{Ibid}.

\textsuperscript{72} Section 11, \emph{Ibid}.

\textsuperscript{73} Section 15, \emph{Ibid}.
environmental laws and protection of public health, safety and national security. In order to prevent military activities in the outer space including the moon and other celestial bodies, the Act prohibits the carrying of the nuclear weapons or weapons of mass destruction of any other kind.

The Space Activities Act transfers the liability of Australian government under the Liability Convention to the private launch operators. Unlike the United States, the Australian government does not share liability with private entities for any damage caused by the private space activities. In addition to the liability for damage caused to the third parties, the Act fixes liability on the private entities to compensate any damage caused to the Australian government. The private entities are required to obtain insurance coverage against any possible loss or alternatively, they may self-insure by proving that they have sufficient assets to cover the potential liability. The Act also provides for the investigation of accident and incident to prevent the occurring of other accidents and incidents.

The Australian legislation, being in line with its US counterparts, is more oriented towards the commercial use of outer space, the moon and other

74 Sections 67 and 68, Ibid.
75 Section 47, Ibid.
76 Section 87, Ibid.
celestial bodies. It fails to address the important issues like, protection of environment of the moon and other celestial bodies, application of the principles of province of all mankind and CHM, IPR protection etc among other issues. Therefore despite being a party to the Moon Agreement, Australia has failed to fill in the gaps in the Agreement and to implement its provisions in the municipal sphere. The failure of the Australian government is also evident from its inability to recognize the necessity of a separate regime to govern the activities on the moon and other celestial bodies.

6.6: **UK Outer Space Act 1986**

The UK Outer Space Act, though a small piece of legislation, contains more provisions directed towards the implementation of space treaty obligations when compared to the US and Australian laws. The state responsibility under Article VI of the Outer Space Treaty has been the major impetus behind the enactment of the UK legislation. The Outer Space Act establishes a uniform regime applicable to outer space, and the moon and other celestial bodies. The Act confers the authority to the Secretary of state to


78 Section 13 (1) (b) of the Outer Space Act 1986 - “Outer space” includes the moon and other celestial bodies.
license the private space activities. The Secretary of State must be satisfied by the private entity that the activities authorized by the license are consistent with the international obligations of the UK.

In furtherance of the UK’s international obligations, the Act requires the licensee to conduct the operations in such a way as to prevent the contamination of outer space and avoid interference with the activities of others in the peaceful exploration and use of the outer space. Any breach of UK’s international obligation results in the withdrawal of license. Just like other municipal laws, the private entities are required to obtain insurance cover to compensate any damage caused by their activities. The compensation paid by the UK government due to liability incurred by it under the Liability Convention for the private space activities must be reimbursed by the private entity. Unlike in the US, the liability of private entity in UK is unlimited, since the Space Activities Act requires full indemnification of the UK government for any compensation paid by it on behalf of the private entities.

79 Section 3, Ibid.
80 Section 4 (b), Ibid.
81 Section 5 (e), Ibid.
82 Section 5 (f), Ibid.
83 Section 10, Ibid.
These factors show that to a certain extent, the UK law tries to strike a balance between the space treaty obligations and the commercial need.

6.7: Indian Scenario

India, being one of the major space actors, is still in search of a law in the municipal sphere to regulate the activities in outer space, the moon and other celestial bodies. The Office of the Prime Minister directly administers the Indian space program. The government of India passes the space policy statements, which are implemented by the Department of Space through Indian Space Research Organization (ISRO) and other agencies. The 1999 Space Policy Statement outlines the development of commercial uses of outer space. India has also established Antrix Corporation in 1992 for facilitating the commercialization of outer space.

Despite the efforts by the Indian government, space activities in India have remained exclusively within the domain of public sector. Though there is an instance of obtaining a launch license by the private operator,\(^{84}\) there is no instance of launch by the private entities in India. Since the private space

\(^{84}\) In 2002, the Indian government issued a private launch license for launching a communications satellite, however the license was not used. Supra note 13.
activities are yet to start in India, the absence of National space legislation is not found as a serious problem till date.

India is a party to the Outer Space Treaty, the Rescue and the Return of Astronauts Agreement, the Liability Convention and the Registration Convention. However the provisions of these space treaties are not directly enforceable in the municipal level due to the fact that India follows the theory of specific adoption. In the absence of a specific legislation passed by the Indian Parliament, space treaty provisions are of no use in the governance of space activities in the municipal sphere.

The space activities in India are expanding in a considerable speed. While the government has announced the missions to the moon\footnote{Chandrayaan - 1 is planed to be launched during this year. ‘Why go to the Moon’, \textit{The Hindu Daily}, Mangalore (ed.), 1 December 2007, p. 12. Also there is a likelihood of Chandrayaan - II in 2011. ‘Chandrayaan II launch likely in 2011: ISRO official’, \textit{The Hindu Daily}, Mangalore (ed.) 3 January 2008, p. 17.} and other celestial bodies,\footnote{Madhavan Nair, ISRO chief, has revealed the plans for Mars mission. T. S. Subramanian, ‘We are capable of sending a spacecraft to Mars: ISRO chief’, \textit{The Hindu Daily}, Mangalore (ed.), 28 September 2007, p. 10.} the private sector is showing its enthusiasm to enter into the sphere of outer space activities. This changing situation has brought forward the urgent necessity of enacting a comprehensive law governing all kinds of
space activities. Though ISRO, in collaboration with National Law School of India University, Bangalore, has conducted a study in this direction, no national space legislation is enacted till date.

6.8: Chapter Conclusion

The above discussion shows that the national response to the need for regulation of activities on the moon and other celestial bodies is very poor. Not even handful of states have rudimentary national laws on the space activities. Though the early space entrants have enacted some basic laws on the space activities, none of them have established a separate regime to govern the activities on the moon and other celestial bodies. While the US and Australian laws are entirely commerce oriented, the Russian and UK laws try to accommodate some of the space treaty principles.

Despite the large-scale increase in space activities, India has not enacted any national law to govern the activities in outer space, the moon and other

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celestial bodies. Since the drafting of national space legislation is absolutely required, the Parliament needs to examine the unique economic, social and political circumstances prevailing in India together with the experiences of other countries, which have already enacted the national space laws. The international space treaties, including the Moon Agreement, should serve as the starting point for the national space legislation. The Russian and UK experiences are very relevant for India, as they try to strike a balance between the space treaty principles and the commercial needs without giving undue emphasis on commercial space activities. More importantly, India should also think in terms of a special regime to govern the activities on the moon and other celestial bodies either by way of enacting a separate legislation or by the incorporation of some provisions in the national space law.