

## ANALYSIS OF SPACE ACTIVITIES BILL, 2017

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### Introduction

“Because of technologies from space exploration, we can begin to understand our world's origins, and our lives are improving. These are the reasons why dedicating a life to the sciences and space exploration is so meaningful and rewarding”-Emily Calandrelli<sup>1</sup>

From the time that Soviet Union launched its first artificial satellite in the year 1957, countries all over the world have come a very far away up until now. With each country investing massively in space exploration activities and programs, their persistent efforts for making space exploration a reality has made Space Economy a multi-billion-dollar venture. But as the countries made robust advances, the legal implications of their activities increased multifariously. That's why, international law came to play major law, with treaties like Outer Space Treaty of 1967, Moon Treaty 1979, Liability Convention 1972 etc. But countries have struggled to have a strong legal framework for space activities. One such example is of India, India has tremendous potential and capabilities in the field of science. And the country paved its way in space exploration in the year 1975, under the guidance of United States, by launching small space objects. The first satellite was launched in the year 1975 by the name Aryabhata<sup>2</sup>. But without a proper legal framework for commercial activities, determining liability for any damage in the course of space activity, management of space waste, the future endeavours by India will unfold many hurdles as without proper regulation many legal implications will remain unanswered. But the fact that Indian government has made remarkable strides by drafting the new Space Activities Bill 2017, reflects the efforts of the government for regularizing space activities and providing answers to the legal implications. The new Space Activities Bill covers many aspects of space activities in detail and is a commendable effort by the ministries working together. The Government has also realized the fact that since technologies and scientific

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<sup>1</sup> [https://www.brainyquote.com/quotes/emily\\_calandrelli\\_866262?src=t\\_space\\_exploration](https://www.brainyquote.com/quotes/emily_calandrelli_866262?src=t_space_exploration).

<sup>2</sup> Anubhav Pandey, India's Role in International Space Law, iPleaders (February 11, 2018, 10:04 AM), <https://blog.iplayers.in/space-law-india/>.

development in outer space exploration change very fast, it is indispensable to change rules so as to be at pace with every new development so the bill empowered the Government to make the necessary changes and rules whenever required. The main object of the bill is to provide a basic framework covering essential provisions of Treaty obligations, at the same time, providing specific provisions for regulating specific activities. The bill was drafted for facilitating private sector participation under authorization and supervision of Government<sup>3</sup>. The bill was needed so as to have a space specific legal regime which only enables further growth of space activities in India, rather than merely a regulatory or restrictive regime. Likewise, the bill has provided for proper licensing mechanism, defining its applicability only on Indian citizens Government and non- governmental entities, space activity regulatory mechanism defining powers of Central Government for promotion of space activities, it also defines the offences and penalties, prohibiting unauthorized activities. But with this bill covering almost every aspect, there are some gaps which have been left unanswered by and far. The bill has not provided for regulation for management of space waste, also the bill has not given any specific provision for determining liability of State and Private entities in the course of space exploration activities. Nevertheless, the country's efforts to have a proper framework have been lauded.

#### Mechanism for Regulating Space Activities

The bill imposes a duty on the Central Government to develop such a mechanism in order to promote the growth of space activities which shall include space exploration and should utilize the outer space which further fosters the development of scientific and technical potential in the sector.<sup>4</sup> The government may frame policies in relation to exploration and use of outer space for peaceful purposes and in the interest of national security.<sup>5</sup> A plan should be devised to establish goal and principles which should include comprehensive advancement and development of space sector. In order to uplift the commercial and economic needs of the nation, certain segments of infrastructure and technology should be grounded.<sup>6</sup> Licenses to any person shall be granted, transferred or suspended by the government<sup>7</sup> and further ensuring full compliance of terms and

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<sup>3</sup> <http://www.prsindia.org/uploads/media/draft/Draft%20Space%20Activities%20Bill%202017.pdf>.

<sup>4</sup> Space Activities Bill, sec. 3.

<sup>5</sup> Ibid., sec. 3, cl. a.

<sup>6</sup> Ibid., sec. 3, cl. b.

<sup>7</sup> Ibid., sec. 3, cl. c.

conditions of the license.<sup>8</sup> Permission will be granted to every professional and technical support to launch or operate any space object.<sup>9</sup> The government may arrange to provide authorization to launch or operate commercial space activity including corporate and other organizational structure either directly or through any agency<sup>10</sup> in the manner as regulated through the procedures for conduct and operation of space activity.<sup>11</sup> A register is maintained for the space objects.<sup>12</sup> All the space activity in the country should be done in conformity with the international space agreements of which India is a party.<sup>13</sup> Proper safety measures are to be taken<sup>14</sup> along with adequate supervision of every space activity for which the license has been granted.<sup>15</sup> Benefits and access to benefits including mechanism of products created by space activity and technology shall be shared by the government.<sup>16</sup> Investigation shall be conducted of any incident and accident in connection with the operation of a space activity.<sup>17</sup> The government can call upon any licensee at any time to get in writing information or explanation regarding any space activity.<sup>18</sup>

#### Authorization and License for Commercial Space Activity

A proper mechanism will be formulated and established for licensing and procedures that shall include fees for license, eligibility criteria and conduct of any space activity in accordance with the international agreements of which India is a part.<sup>19</sup> Financial insurance will be provided by the Central Government in order to establish the mechanism.<sup>20</sup>

No person can undertake any commercial space activity without obtaining a license.<sup>21</sup> Activities certified by the international arrangement which accomplishes the requirements of the

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<sup>8</sup> Ibid., sec. 3, cl. d.

<sup>9</sup> Ibid., sec. 3, cl. e.

<sup>10</sup> Ibid., sec. 3, cl. f.

<sup>11</sup> Ibid., sec. 3, cl. g.

<sup>12</sup> Ibid., sec. 3, cl. h.

<sup>13</sup> Ibid., sec. 3, cl. i.

<sup>14</sup> Ibid., sec. 3, cl. j.

<sup>15</sup> Ibid., sec. 3, cl. k.

<sup>16</sup> Ibid., sec. 3, cl. l.

<sup>17</sup> Ibid., sec. 3, cl. m.

<sup>18</sup> Ibid., sec. 4, cl. 1, sub cl. a.

<sup>19</sup> Ibid., sec. 5, cl. 1.

<sup>20</sup> Ibid., sec. 5, cl. 2.

<sup>21</sup> Ibid., sec. 6, cl. 1.

international obligations can be undertaken without a license.<sup>22</sup> The Central Government can exempt any person or space activity from any authorization,<sup>23</sup> but that notification has to be approved by both the Houses of the Parliament.<sup>24</sup> The Central Government has the power to grant license to a person who is subjected to specify the details of the commercial space activity and the purpose of such activity.<sup>25</sup> The license can only be granted if it does not jeopardize public health or the safety of individuals,<sup>26</sup> is consistent with the international obligations of India,<sup>27</sup> and does not compromise the integrity and sovereignty of India, security and defence of the nation, friendly relation with foreign countries, public order, decency and morality.<sup>28</sup> Any person to whom the license is granted is subjected to terms and conditions laid down by the Government.<sup>29</sup> The licence provided to any person should contain the unconditional permission by the Central Government for inspection of any space activity,<sup>30</sup> testing and examining of the licensee's facilities and equipments<sup>31</sup> and further detailing the purposes of the space activity.<sup>32</sup> Within fifteen days of the grant of licence, important information like the date and territory or location of the launch<sup>33</sup> along with the basic orbital parameters including nodal period, inclination, apogee and perigee, should be provided to the Central Government and other information concerning the nature, conduct, location and results of the licensee's activities.<sup>34</sup> For any modification which is not prescribed earlier in the licence, or any deviation from the orbital parameters, the licensee has to notify the Central Government for obtaining advance approval and the it should be aware of any unintended deviation.<sup>35</sup> The licensee should conduct his space activities in such a way so as to prevent damage and pollution to the outer space,<sup>36</sup> avoid interference with the activities of the others<sup>37</sup> and any breach to India's international obligations

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<sup>22</sup> Ibid., sec. 6, cl. 1, sub cl. b.

<sup>23</sup> Ibid., sec. 6, cl. 2.

<sup>24</sup> Ibid., sec. 6, cl. 3.

<sup>25</sup> Ibid., sec. 7, cl. 1.

<sup>26</sup> Ibid., sec. 7, cl. 2, sub cl. a.

<sup>27</sup> Ibid., sec. 7, cl. 2, sub cl. b.

<sup>28</sup> Ibid., sec. 7, cl. 2, sub cl. c.

<sup>29</sup> Ibid., sec. 8, cl. 1.

<sup>30</sup> Ibid., sec. 8, cl. 2, sub cl. a.

<sup>31</sup> Ibid., sec. 8, cl. 2, sub cl. b.

<sup>32</sup> Ibid., sec. 8, cl. 2, sub cl. c.

<sup>33</sup> Ibid., sec. 8, cl. 2, sub cl. D, sub sub cl. i.

<sup>34</sup> Ibid., sec. 8, cl. 2, sub cl. D, sub sub cl. ii.

<sup>35</sup> Ibid., sec. 8, cl. 2, sub cl. f.

<sup>36</sup> Ibid., sec. 8, cl. 2, sub cl. G, sub sub cl. i.

<sup>37</sup> Ibid., sec. 8, cl. 2, sub cl. G, sub sub cl. ii.

should be avoided.<sup>38</sup> The licensee should insure himself against any liability incurred in respect of damage or loss suffered by third parties, in India or outside India, as a result of any activity permitted by the licence.<sup>39</sup> No licence can be transferred to any other person without the prior written approval of the Central Government.<sup>40</sup> The licence of a person can be suspended or revoked by the Central Government if the licence is not in accordance with the provisions of this Act,<sup>41</sup> or is detrimental to the interest of India.<sup>42</sup> Reasonable opportunity to being heard is provided to the licensee before the suspension of its licence.<sup>43</sup>

#### Indian Law on Intellectual property rights in outer space.

As we know, India is a signatory to all the International Space treaties, and the question of intellectual property rights in Space has been a major concern for the lawmakers. The international treaties themselves don't have the specific solution for protection of intellectual property rights in space. However, as a general rule, the respective states, in which the patents are applied for, will govern the entire process of utilization and infringement activities of the patent. The question as to utilization of patents and copyrights in outer space is perplexed as the answer to this has not been clearly spelled out in any space law even the Inter-Governmental Agreement or commonly referred to as the IGA does not specify the utilization of patents and infringement activities. While the articles of Inter-Governmental Agreement govern the intellectual property at international level, the national laws of various nations, govern the detailed process of patents and copyrights<sup>44</sup>. Likewise, Indian government attempted at providing for specific regulations and protection of intellectual property rights for any invention made in the field of outer space activities, it has been spelled out in Section 25 of Space Activities Bill 2017;

(1) Any invention or other form of intellectual property rights such as patents, copyrights, trademarks or such other rights, developed, generated or created during the course of any space

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<sup>38</sup> Ibid., sec. 8, cl. 2, sub cl. G, sub sub cl. iii..

<sup>39</sup> Ibid., sec. 8, cl. 2, sub cl. h.

<sup>40</sup> Ibid., sec. 9.

<sup>41</sup> Ibid., sec. 10, cl. 1, sub cl. a.

<sup>42</sup> Ibid., sec. 10, cl. 1, sub cl. c.

<sup>43</sup> Ibid., sec. 10, cl. 2.

<sup>44</sup> Dr. Yun Zhao, 'Protection of Intellectual Property Rights in Outer Space'2006(11 February, 2018, 11:07 PM), <https://iislweb.org/docs/Diederiks.pdf>.

activity shall be protected under any law for the time being in force, with the primary objective of safeguarding the national interest.

(2) Any form of intellectual property right developed, generated or created onboard a space object in outer space, shall be deemed to be the property of the Central Government.<sup>45</sup>

The bill has provided that all the inventions made in outer space activities in the form of patents, trademarks, copyrights shall be protected under any law for the time being in force. This is an ambiguous aspect because India has specific intellectual property rights regulations and laws in force. But going by the words of section 25 “shall be governed by any law” is highly debatable. It should be replaced by the term “shall be governed under the existing Intellectual Property Laws” so as to bring more clarity in applicability of Intellectual laws. Doing so would also bring about clarity in the procedure for applying for patents, copyrights and trademarks. If we read the sub-section 2 of section 25, any form of intellectual property developed, generated or created onboard a space object in outer space shall be deemed to be the property of Central government, raises several questions as to ownership of intellectual property. Because if at all anything is invented, or generated on board by a private entity carrying out commercial activity, then who will be the owner of such a property? If we compare provisions of European Space Agency, which is one of the most important agencies on space activities, and its general provision and the Resolution on Information, data and intellectual property, has clearly specified the question of ownership in the following words, “the contractor shall be the owner of any invention made in the course of or resulting from the work, undertaken for the purpose of contract, and shall be entitled to protect such invention by patent or other form of industrial property rights in accordance with the applicable laws. The Space Activities Bill makes the Central Government the owner of intellectual property created on board. The Bill does not specify about the ownership of any invention made in the course of space activity. And if we don’t recognize the ownership of the person who generated or created such a thing, then will it not be against his human rights to enjoy economic and moral benefits of his creation? The answer to this perplexed question has not been mentioned anywhere in the Space Activities Bill. This section does not touch upon the questions of infringement of intellectual property rights and also points out the

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<sup>45</sup> <http://www.prsindia.org/uploads/media/draft/Draft%20Space%20Activities%20Bill%202017.pdf>.

fallacy in the bill as it has not provided for any provision specifically defining government's or private entity's liability in case of any infringement.

### Registration of Space Objects and Liability

It is the duty of the government to maintain a register of the space objects,<sup>46</sup> and check whether those space objects comply with the International Obligations of India.<sup>47</sup> The licensee can indemnify the Central Government against any claims brought against the Government in respect of any damage or loss arising out of a commercial space activity or in relation to a space object covered under the license.<sup>48</sup> The government has the authority to decide the quantum of liability that should be imposed upon the licensee.<sup>49</sup>

### Offences and Penalties

If a person undertakes any commercial activity in space without obtaining proper license and authorization from the Central Government, he is liable for imprisonment which can extend to three years or a fine which should be more than one crore rupees. In case of a continuing offence, the person is liable to pay an additional offence of fifty lakh rupees for every day during which the offence continues.<sup>50</sup>

Any person who uses illegal methods to obtain the license such as furnishing of false documents or false information is liable for imprisonment for a term which can extend to a year or a fine which should be up to fifty thousand rupees, or both.<sup>51</sup>

Any person who suppresses factual information from the Central Government or any officer or agency sub-ordinate to Central Government, while supervising a space object shall be punished

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<sup>46</sup> Ibid., sec. 11, cl. 1.

<sup>47</sup> Ibid., sec. 11, cl. 2.

<sup>48</sup> Ibid., sec. 12, cl. 1.

<sup>49</sup> Ibid., sec. 12, cl. 2.

<sup>50</sup> Ibid., sec. 13.

<sup>51</sup> Ibid., sec. 14.

with imprisonment for a term which can extend to one year and a fine of not more than fifty thousand rupees, or both.<sup>52</sup>

Any person who is caught polluting the environment of the earth, airspace or the outer space by any space activity shall be punished with imprisonment for a term which can extend to three years or a fine which should be more than one crore rupees, or both. In case of a continuing offence, the person is liable to pay an additional offence of fifty lakhs for every day during which the offence continues.<sup>53</sup>

In the case of cognizance offences, only Metropolitan Magistrate or a Judicial Magistrate of the First Class is of the authority to try an offence punishable under this bill.<sup>54</sup>

In a case where, an offence is committed by any person who is employed by the Central Government or the State Government, the court shall take cognizance of such offence according to the provisions laid down in the Code of Criminal Procedure, 1973.<sup>55</sup>

#### Ambiguity over role of ISRO

Any private entity that has to carry out an activity has to apply for licence from the Central Government, which is deemed to be the sole authority for granting licenses. But what about the role ISRO which is an organization that works under DOS (Department of Space), and under DOS one more private limited company named Antrix Corporation Limited. Antrix is the commercial arm of ISRO, its objective is to promote services, technologies and products of ISRO. Any private industries, if want to send satellite to orbits or they want to sell their any products that may help ISRO in future, can approach Antrix. People can design a satellite but for launch in India they have to take the services of ISRO (In USA other than NASA some private companies are also active i.e. SpaceX).and then the satellite design committee of ISRO will review it and will give clearance. But the bill has not provided, any specific provision for the commercial role of ISRO in Indian Space scenario.

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<sup>52</sup> Ibid., sec. 15.

<sup>53</sup> Ibid., sec. 16.

<sup>54</sup> Ibid., sec. 19, cl. 2.

<sup>55</sup> Ibid., sec. 24; Sec. 197, Crpc.

### Conclusion

No wonder that the drafting of Space Activities Bill has been lauded and Indian government's effort to provide for a proper specific legal framework has been a commendable and modest effort but the fact that the bill needs to remove a lot of gaps and loopholes is undeniable. As pointed above, there is no clear-cut provision for infringement of copyrights, a huge ambiguity exists over ownership of intellectual property created on-board. But the bill is so far an exemplary measure as it has even covered liability for environmental damage. Section 16 clearly provides for a penalty in case of any environmental damage that has been caused as a consequence of outer space activity. The bill also provides for a proper procedure that has to be complied with for obtaining a licence by central government and has even provided for penalties for contravention of such procedures. The regulatory mechanism of commercial activity by Government is strict so as to weed out any irregularity in the process of granting license. This is further ensured, by mandatory approval for the undertaking of any space activity by any person from both the houses of Parliament and prohibition of conducting any commercial activity without a licence is a very strong provision for ensuring Government's control.