

# The Development of Space Law in Indonesia

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## I. GENERAL

As an archipelagic State with specific geographical situation, Indonesia has a strong interest in mastering and applying space science and technology to fulfill the needs of its national development. To come to that end there is a requirement to develop national legal system relevant to space activities, so called "national space law". National space law shall be developed as a part of national legal system and therefore it should be complementary and in no way in conflict with other national laws and regulations.

It is generally recognized that Indonesia has benefited from human achievement in space science and technology. In 1976 Indonesia became the 1st developing country which procured, owned and operated a satellite, called Palapa, as a means of its domestic communication system.<sup>1</sup> The contribution of Palapa satellite for preserving the unitary State of Indonesia is really meaningful. In addition to that, the existence of the national communication infrastructures has encouraged further economic growth.

<sup>1</sup> Since then we have launched and operated subsequent generation of Palapa satellites and other satellites such as "Satelit Garuda", "Satelit Cakrawarta", "Satelit Telkom". This coming October LAPAN (National Aeronautic and Space Institute) in collaboration with Technical University Berlin will operate a micro satellite called "Tubsat", a remote sensing satellite with the resolution of about 5 m. The satellite will be launched by the launcher from Indian Space Research Organization (ISRO).

Since then, the application of space science and technology to fulfill the national needs has been developing. Such application range from telecommunication, remote sensing, research and observation of the atmosphere and ionosphere, weather forecasting, global positioning system, disaster mitigation, etc.

This paper is aimed at providing a general description on the Development of Space Law in Indonesia. In order to have a better picture of such development, it is important to have some understanding on national space policy, national space law and national development. National space policy has been outlined and being used as guidelines and direction for conducting space activities, also how the relevant institutions work and contribute to attain national objectives and accommodate the interest of the people, while national space law will be functioned to guarantee that space related activities can be conducted in an orderly manner and shall promote prosperity and the betterment of the society.

## II. NATIONAL SPACE POLICY

### A. Basic Concepts in Formulating Space Policy

Paragraph 4 of the preamble of the Indonesian 1945 Constitution clearly states the objectives of establishing the unitary State of Indonesia, among others are: to promote general welfare, to promote the standard of education of the people and to maintain international order based on peace, eternal liberty/freedom/independence, and social justice. As the 1945 Constitution<sup>2</sup> is one of the primary sources of law within the framework of the Indonesian legal system, thus the norms of the constitution shall govern the formulation of any State policy, including space policy. Another consideration is, of course, the national interest in space. The pursuance of national interest in space, however, shall be conducted in such a manner that it respects the legitimate rights of other countries and the existing International Law. Moreover, the formulation process of space policy shall take into consideration the present and future development in the field of space science and technology and its applications.

### B. Policy Making Forum and National Space Policy

The highest coordinating body in formulating aerospace policy in Indonesia is the National Council for Aeronautic and Space (DEPANRI). DEPANRI was established by Presidential Decree No. 24 of 1963 as amended by Presidential Decree No. 99 of 1993. DEPANRI is chaired by the President of the Republic of Indonesia with members consisting of: The Minister of State Research and Technology,<sup>3</sup> Minister of Foreign Affairs; Minister of Trade and Industry; Minister of Defense; The Minister of Tourism, Post and Telecommunication,<sup>4</sup> and Minister of State Development Planning; and National Aeronautic and Space Institute (LAPAN).

The main duty of DEPANRI is to assist the President in formulating general policy in the field of aviation and space.<sup>5</sup> DEPANRI is obliged to provide consideration, opinion and advice to the President regarding legislation and utilization of air space and outer space for aviation, telecommunication and other national interests.<sup>6</sup>

Since the establishment of DEPANRI, it only managed to convene 2 (two) special sessions chaired and attended by the President and all members. The 1st was held in 1994,<sup>7</sup> while the second was in 1998.<sup>8</sup> The 1st session was held with the objectives of discussing certain issues in the field of aviation which were directly related to the national interest; and to stipulating national program in the field of aviation and space for the 2nd Long Term Development Program (PJP II). The decisions of the first session covered, among others:<sup>9</sup>

1. To develop and formulate national aerospace concept and national system in space as guidelines for designing aerospace policy and national aerospace development plan, including elaborations of rules and norms in the form of legal product;
2. To develop and promote aerospace manufacturing and service industry;
3. To conduct scientific research and development;
4. To promote the quality of human resource in the utilization, development and mastering of aerospace science and technology;

<sup>2</sup> As amended four (4) times.

<sup>3</sup> Also as Vice Chairman, acting Chairman and Member.

<sup>4</sup> Now it become Minister of Communication and Information (Menteri Kominfo).

<sup>5</sup> Article 2 of Presidential Decree No. 99 of 1993 concerning DEPANRI

<sup>6</sup> *Ibid.*, article 3

<sup>7</sup> For further detail, see Sekretariat DEPANRI, Laporan Sidang Paripurna Pertama DEPANRI 28 Mei 1994, Jakarta 10 June 1994.

<sup>8</sup> For further detail, see Sekretariat DEPANRI, Laporan Sidang Paripurna Kedua DEPANRI, 10 Desember 1998, Jakarta, 15 January 1999.

<sup>9</sup> See Sekretariat DEPANRI (1994), page 3.

<sup>10</sup> *Ibid.*



5. To develop relevant laws and regulations to encourage national aerospace efforts and securing its achievements, also to support the effort to accommodate national interest in international forum, especially international recognition of the rights to exercise national sovereignty in airspace, and to serve national interest in outer space in a comprehensive way.

An important result of the 1st session of DEPANRI was the decision that in peace situation 80% of the activities should be for commercial and 20% for military/defense, while in war situation all resource shall be mobilized for military/defense purposes.<sup>10</sup>

The 2nd special session of DEPANRI was held in 1998. The objective of the meeting was to discuss and determine policy, priority and goals/targets for aerospace development in order to make progress and achieve independency in aerospace field to be contributed for national development. The purpose/significance of the meeting was as a legitimating of the results of the 1st National Aerospace Congress held in the same year.

Another important forum in discussing and outlining the space policy is the National Aerospace Congress. The 1st National Aerospace Congress was held in 1998. The Congress was attended by all stakeholders in aerospace activities. Not only governmental agencies participated in the congress but also private entities, researchers, experts, intellectuals and individuals. Some fundamental and important issues were agreed during the congress covering, among others:

1. National Aerospace Concept, as an elaboration of perception and attitude of the nation in dealing with the utilization of aerospace as manifestation of its national interest in aerospace;
2. General Policy for the 2nd Long Term Development Program;
3. The amended national position on the matter of geostationary orbit in line with the dynamic development of the issues;
4. Law reform, especially in national space legislation program by ratifying relevant international legal instruments for space activities, enactment of national space act and

determination of national position on definition/delimitation of outer space;

5. Policy on International Cooperation.

During the congress, discussion was also devoted on some strategic issues which needed to be observed, including the recent international trends and development, such as: implementation of satellite-based aviation system; the possible impact of the International Space Station operation; commercialization of space activities; the increasing utilization of earth-orbits /spectrum resource; the latest development of space transportation system; atmosphere and ocean observation; space exploration; microsat and international cooperation.

The 2nd National Space Congress was held in Jakarta on 22-24 December 2003. During the congress ten (10) strategic issues in the field of aerospace development were discussed.<sup>11</sup> Certain strategic issues relevant to space activities include: Mastering aerospace technology (rocket and satellite); definition and delimitation of outer space; the use of frequency for (space) communication activities.<sup>12</sup>

On the efforts to mastering space science and technology, some strategic recommendations were determined, among others: increasing the sounding rocket capabilities within 5 years to about 300 km; the use of Biak Air Field in Papua as intermediate base for Air Launch Space Transportation System (ALS); multi purpose satellite technology development for telecommunication, defense and remote sensing application; further consideration on the possibility to join Missile Technology Control Regime (MTCR).<sup>13</sup>

### III. NATIONAL SPACE LAW DEVELOPMENT

In an attempt to develop national space law as a part of national legal system, considerations shall be taken to several factors, such as: national interest in space; national space policies; geographical situation of Indonesia; the trends of commercialization and privatization of space activities; protection of public interest; standard of space legislation; harmonization with both national

<sup>11</sup> The ten strategic issues covering: human resource development; law enforcement on State sovereignty in air space; mastering aerospace technology; aerospace manufacturing industry; national air space management; safety and security of air transportation; flight information region; frequency for telecommunication services, including other telecommunication activities; definition and delimitation of air space and outer space; national concept and perception on aerospace; and restructuring of DEPANRI organization. For further elaboration on the discussion of the above issues, see Sekretaris LAPAN, Laporan Kongres Kedirgantaraan Nasional Kedua, Jakarta, 22-24 Desember 2003, January 2004.

<sup>12</sup> *Ibid.*

<sup>13</sup> For further detail, see Sekretarian LAPAN, Ringkasan Laporan Kongres Kedirgantaraan Nasional Kedua, Jakarta, 22-24 Desember 2003, January 2004, page 2-3.



and international legal instruments; effective law enforcement mechanism.

In the process of developing national space law, the following steps have been and shall be taken:

#### **A. Transforming relevant international legal instruments related to space activities into a part of national law.**

As far as international legal instruments related to space activities is concerned, Indonesia has ratified almost all space treaties, namely:

- a. Treaty on Principles concerning the activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies of 1967;<sup>14</sup>
- b. Agreement on Rescue of Astronauts and Return of Objects Launched into Outer Space of 1968;<sup>15</sup>
- c. Convention on International Liability for Damages Caused by Space Object of 1972;<sup>16</sup>
- d. Convention on Registration of Object Launched into Outer Space of 1975.<sup>17</sup>

Among the Space Treaties, the only agreement that Indonesia has not ratified is the Moon Agreement as it is deemed not urgent. By ratifying the above mentioned international space treaties, Indonesia has transformed the provisions of those treaties from the norms of international law into a part of national law. Consequently, every effort to formulate national space legislation shall take into consideration and subject to existing international space law. The problem is that in further development of space activities, some States tend to take different interpretation and position on some provisions of international space treaties in the process of formulating their national space legislation.<sup>18</sup> In addition to international space treaties, some other UNGA Resolutions Governing certain Space Activities such as: Direct Television Broadcasting,<sup>19</sup> Remote Sensing;<sup>20</sup> Nuclear Power Sources,<sup>21</sup> and International Cooperation,<sup>22</sup> shall be taken into account in formulating National Space Law and Regulations.

Apart from the above "Space Treaties" some other relevant treaties should also be taken into

consideration, namely: Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space, and Under Water of 1963 ("Partial Test Ban Treaty"); The Treaty on the Non-Proliferation of Nuclear Weapon of 1968; The Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques of 1977; The Convention on the Protection of Ozone Layer of 1985 which is followed by the Montreal Protocol on Substances that Deplete the Ozone Layer of 1987 and the London Amendment to the Montreal Protocol of 1990; Missile Technology Control Regime; Convention on International Interest in Mobile Equipment of 2001.<sup>23</sup>

#### **B. Principles of Formulating a National Space Legislation that comply with International Standard**

We should bear in mind that in an interdependent world there is a trend toward internationalization of regulation on certain activities. Such trends also applies to space activities, in this regard national space legislation shall fulfill international standard of space legislation in order to guarantee of its effectiveness both at national and international level. One is of the opinion that in general such international standards would consist of several principles, such as<sup>24</sup>

1. International treaties and Existing National Space Legislation as a Basis and Guidelines;
2. Balance between International Obligation and National Interests;
3. Promotion of International Cooperation;
4. Maintaining Flexibility and Constant Evolvement;
5. Gradual Process with Order of Priority.

While another is the opinion that a comprehensive national space legislation shall cover the following issues<sup>25</sup>

1. International Law Responsibility for National Activities;
2. Governmental and Private Liability;
3. Government Safety Requirements for Commercial Space Vehicles;
4. Economic Stability of the Launch Business;
5. Compliance with Environmental Laws;
6. National Security Considerations;

<sup>14</sup> Ratified by Law No. 16 of 2002

<sup>15</sup> Ratified by Presidential Decree No. 4 of 1999

<sup>16</sup> Ratified by Presidential Decree No. 20 of 1996

<sup>17</sup> Ratified by Presidential Decree No. 5 of 1997 (DEPANRI)

<sup>18</sup> Concerning interpretation of international space treaties, see Supancana, "Interpretation and Implementation of International Space Treaties and Its Implications to the Formulation of National Space Legislation (An Indonesian Experience)" Paper presented at the Second Malaysia's Conference on Space Law, Kuala Lumpur 18-19 April 2004.

<sup>19</sup> UNGA Resolution No. 37/92 of 1982 concerning Legal Principles Governing Direct Television Broadcasting

<sup>20</sup> UNGA Resolution No. 41/65 of 1986 concerning Principles on Remote Sensing from Outer Space.

<sup>21</sup> UNGA Resolution No. 47/68 of 1992 concerning Principles on Nuclear Power Sources in Outer Space.

<sup>22</sup> UNGA Resolution No. 51/122 of 1996 concerning Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit of All Countries, especially those of Developing Countries.



7. Protection of Space Investments;
8. Promotion of National Space Commerce;
9. Definition of the Boundaries of Outer Space in Order to Ascertain the Scope of National Legislation;
10. Continues Oversight of Commercial Space Activities after Launch.

### C. Academic Draft and Main Provisions of Draft National Space Act

It is our intention that a national space act should, not only accommodate national interest and fulfill its international obligations, but shall also anticipate the current and future development of space activities which would affect national interest. As the basis of drafting national space act, an academic draft was prepared in order to provide academic background and justification to the draft of national space act. The first Academic draft was finalized by the end of 2003.<sup>26</sup> Such academic draft was designed to be comprehensive and taking into considerations the present and future development of space activities which would involve "national activities" of Indonesia, including but not limited to formulating rules governing participation of private entities in space commercialization ventures. Prior to formulating academic draft of national space act, a comparative study have been conducted to existing national space legislations of several space faring countries, such as: USA, Russia, UK, France, Sweden, South Africa<sup>27</sup> and lately also Australia.<sup>28</sup>

In general it can be said that academic draft of national space act of Indonesia could be used as a valid basis in formulating of national space act that would satisfy relevant parameters of being a national space act of international standard.

The following are the main provisions to be covered by the draft of national space act, among others:

- a. Terminology and definition  
It will elaborate certain terminologies and definitions to be used in the draft of national space act such as: aerospace, outer space; space activities; space object; celestial bodies, etc
- b. Primary Basis, principles and objectives  
The primary basis of draft national space act is: Pancasila; the 1945 Constitution (as amended); "Wawasan Nusantara" and "Konsep Kedirgantaraan Nasional". The principles of this draft act are, among others: Utilization; independency; flexibility, harmony. While its objectives are to provide direction and guidelines in a systematic and integrated way to all stakeholders in space activities for the prosperity of the nation, environment and humankind.
- c. The Legal Status of Outer Space, including the Moon and other Celestial Bodies  
It will confirm the status and legal regime applies to outer space, including the moon and other celestial bodies as referred to existing international space treaties;
- d. The Safety of the Space Mission in relation with the creation of National Licensing System  
In a way to guarantee the safety of any space mission, a high standard of safety regulations will be implemented. Furthermore, a national licensing system will be established for procurement, launching, deployment and operation of space related activities
- e. Rules and Procedures for State Responsibility and International and National Liability System  
As the existing space law has the characteristic of government to government basis, a set of rules and procedures will be implemented to deal with the issues of state responsibility and international liability for space activities, either conducted by governmental institution, private entities and even individuals. In addition to

23 Serious attention shall be paid to the current discussion within UNIDROIT and UNCOPOUS on the Draft Protocol of Space Asset to the Convention on International Interest in Mobile Equipment of 2001, especially its possible implications to the interest of developing countries in general and Indonesia in particular. For further analysis on this issue, see Supancana, "Preliminary Draft Protocol of Space Asset: Commercial Opportunities and Challenges for Developing Countries", *Satellite News Letter*, 2004.

24 For further elaboration and analysis of these principles, see Zhao Yun, "National Space Legislation, with Reference to China's Practice", Paper presented at Space Law Conference 2006, 2-3 August, Bangkok, Thailand, page 8-11

25 See Paul B Larsen, "Is National Legislation on Commercial Space Needed?", comments to the Paper of Zhao Yun at Space Law Conference 2006, 2-3 August, Bangkok, Thailand, page 15-19.

26 For more elaboration of the first academic draft of national space act, see Supancana, *Pelebagaan Undang-Undang Keantariksaan Nasional*, Penerbit Mitra Karya, Jakarta, 2006, page 123-201.

27 For further analysis of national space legislations in USA, UK, France, Sweden and South Africa, see Supancana, "Undang-Undang Keantariksaan Beberapa Negara (Suatu Perbandingan)", paper presented at Interdepartmental working group on drafting national aerospace act, Cisarua, 21-22 Desember 1999.

28 See Paul B Larsen, *op.cit.*, page 11-15

29 See Supancana, *Pelebagaan Undang-Undang Keantariksaan Nasional*, *op.cit.*, page 186-187.

30 *Ibid.*, page 187-188.

31 *Ibid.*, page 188.

32 *Ibid.*, page 189-190.



that, a national liability system shall also be established to guarantee a prompt, effective and adequate settlement of compensation to the potential or actual victims of space activities.<sup>33</sup> Thus there will be more victims-oriented;

f. National Registration System

Regulation concerning national registration system for object launched into outer space will be formulated in the draft national space act as registration of object launched into outer space is closely related to jurisdiction and control over such object. Certain national institution will be assigned to coordinate registration of object launched into outer space, either in the framework of Space Treaty and Registration Convention, in the framework of ITU<sup>34</sup> and possibly in the framework of would Protocol of Space Asset to the Convention on International Interests in Mobile Equipment (Capetown Convention 2001);

g. Institutional Issue

Institutional issue is a very important issue to be resolved, especially in relation with coordination among relevant governmental institutions/agencies. This issue will be carefully formulated in the draft national space act.<sup>35</sup>

h. International Cooperation

Considering the importance of promoting and encouraging international cooperation in space activities to accommodate national interest in space, the draft shall contain regulations concerning methods and requirements for international cooperation. By promoting international cooperation, it is expected that national interest in the utilization of space science and technology, transfer of technology and developing genuine capabilities in space activities might be well served;

i. Environmental Protection

With the understanding that space science and technology shall contribute to humanity, the coming regulation of space activities shall be "environmental-oriented" rather than "use-oriented" to secure sustainable development.<sup>36</sup>

j. Protection of Intellectual Property Rights

Realizing that space activities might involve the application of high technology and new inventions, it is the duty of the Government of Indonesia to properly protect intellectual property rights relevant to space activities, both domestic and foreign property rights. Such protection shall be reflected in the formulation of the draft national space act.<sup>37</sup>

k. Participation of Private Entities in Space Activities

In line with the trends of increasing role of private sectors in space activities, the draft of national space act will regulate procedures and mechanism for participation of private sectors in space activities. Such provisions will also cover rights as well obligations/liability of private sectors for its activities;<sup>38</sup>

l. Dispute Resolution Mechanism

Theoretically, in parallel with the rapid growth of space activities it will create more variable of disputes. To anticipate such possible situation, an effective and fair dispute resolution mechanism for space activities is required. Such dispute settlement mechanism shall cover administrative, technical and legal disputes. The existence of effective and fair dispute resolution mechanism will secure and boost orderly space activities.<sup>39</sup>

m. Sanction for Non-Compliance

Sanction for non-compliance to rules and regulations on space activities would include: administrative sanction, civil law and even criminal law sanction.<sup>40</sup>

At the moment an interdepartmental working group is still working on finalizing draft of national space act and makes some adjustment to the academic draft accordingly. It is scheduled that the draft national space act will be discussed and to be passed by Parliament in 2008.

Considering the ongoing intensive discussion between Russia and Indonesia, both at governmental level and private level, regarding space cooperation agreement, especially the realization of cooperation to develop and operate Air Launch Space Transportation System (ALS), some other relevant national laws and regulations shall be formulated, harmonized, reviewed and/or adjusted.

#### IV. Concluding Remarks

- A. As National Space Law is a part of National Legal System, it shall be developed in such a way that it is not in contrary, but complementary to existing laws;
- B. The development of Space Law in Indonesia, including the formulation of draft national space act, shall take into consideration national interest, international obligations, and present and future development of space activities, including the trend of commercialization and privatization of space activities;
- C. National Space Law shall be developed in line with National Space Policy;
- D. National Space Law shall be functioned to encourage and secure an orderly implementation of space policies for the prosperity of the nation based on justice, fairness and legal certainty.

33 Ibid, page 190-192.

34 Ibid, page 192.

35 Ibid, page 193.

36 Ibid, page 193-194.

37 Ibid, 194.

38 Ibid, page 194-195.

39 Ibid, page 195-196.

40 Ibid, page 196.