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Committee on the Peaceful Uses of Outer Space

Report on the United Nations/Argentina Workshop on Space Law on the theme "Contribution of space law to economic and social development"

(Buenos Aires, 5-8 November 2012)

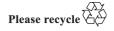
#### I. Introduction

## A. Background and objectives

- 1. International and regional cooperation in the peaceful uses of outer space helps to bring the benefits of space technology applications to a wide circle of stakeholders, both governmental and non-governmental, and to intensify and diversify national space programmes. Policy and regulatory frameworks at the national, regional and international levels are of paramount importance for providing the necessary basis for States, particularly developing countries, to meet development goals and address challenges to sustainable development. In this connection, it is necessary to continue to strengthen the linkages between international space law and the conduct of space activities.
- 2. Each year the General Assembly, in its resolution on international cooperation in the peaceful uses of outer space, reaffirms the importance of international cooperation in developing the rule of law, including the relevant norms of space law, and urges States that have not yet become parties to the international treaties governing the exploration and use of outer space to give consideration to ratifying or acceding to them, as well as incorporating them into their national legislation. National space laws and other regulatory frameworks are necessary for States to implement their obligations under the United Nations treaties and to meet their specific national requirements.
- 3. Given the growing number of benefits derived from space science and technology applications, space activities by States, intergovernmental and non-governmental entities, and the private sector continue to expand. In developing international and regional space cooperation, States should ensure that all actors

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conducting space activities comply with the requirements of international space law and that this branch of public international law properly reflects the needs of contemporary space activities.

- 4. The successful implementation and application of the international legal framework governing space activities depend on the understanding and acceptance, by policy- and decision makers, of the legal framework governing the conduct of space activities. The presence of suitable professionals, particularly in developing countries, who are able to provide legal advice and disseminate information and knowledge relating to space law is therefore dependent on adequate opportunities for education in space law and policy.
- 5. In order to promote adherence to the five United Nations treaties on outer space and to assist States in building their capacity in space law, the United Nations, together with the Government of Argentina and the National Commission on Space Activities of Argentina (CONAE), and with the support of the European Space Agency (ESA), organized the Workshop on Space Law on the theme "Contribution of space law to economic and social development", held in Buenos Aires from 5 to 8 November 2012.
- 6. The workshop, among other things, provided an overview of the legal regime governing the peaceful uses of outer space, examined and compared various aspects of existing national space legislation, considered the contribution of space law to economic and social development, discussed global governance of space activities and the role of the Committee on the Peaceful Uses of Outer Space and its subsidiary bodies in fostering international cooperation in space activities and considered the current state of university-level studies and programmes in space law and ways of enhancing the availability and development of those studies and programmes. The main objectives of the workshop were:
- (a) To promote understanding, acceptance and implementation of the United Nations treaties and principles on outer space;
- (b) To promote exchange of information on national space legislation and policies for the benefit of professionals involved in national space activities;
- (c) To consider the contribution of space law to economic and social development, and the use of space-derived geospatial data for sustainable development;
  - (d) To consider trends and challenges to international space law;
- (e) To consider mechanisms for increasing regional cooperation in the peaceful uses of outer space;
- (f) To consider the development of university-level studies and programmes in space law, with a view to promoting national expertise and capacity in this field.
- 7. The workshop was the eighth in a series of workshops organized by the Office for Outer Space Affairs of the Secretariat to build capacity in space law.
- 8. The present report was prepared for submission to the Committee on the Peaceful Uses of Outer Space at its fifty-sixth session and to its Legal Subcommittee at its fifty-second session, both in 2013.

#### B. Attendance

- 9. The workshop was attended by 113 legislators, Government officials, practitioners and educators holding positions in Government departments and representatives of space agencies, international organizations, national universities, research institutions and the private sector, as well as university students.
- 10. Invited speakers and participants from the following countries and from academic institutions in those countries contributed to the workshop: Argentina, Bolivia (Plurinational State of), Brazil, Canada, Chile, Colombia, Cuba, Dominican Republic, Ecuador, Honduras, Mexico, Paraguay, Peru, United States of America, Uruguay and Venezuela (Bolivarian Republic of). The Chairs of the Legal Subcommittee and the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space and officials from ESA and the Office for Outer Space Affairs also contributed to the workshop.
- 11. Funds provided by the United Nations, CONAE and ESA were used to cover the travel and living costs of 26 participants selected on the basis of their experience and potential to influence the development of space law and policy, build capacity and promote education in space law in their countries.

### C. Programme

- 12. Representatives of CONAE, the Government of Argentina, ESA and the Office for Outer Space Affairs opened the workshop with introductory and welcoming statements.
- 13. The first session of the workshop focused on the contribution of space law to economic and social development, and in this context the roles of both the Legal Subcommittee and the Scientific and Technical Subcommittee were addressed. In addition, the Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries (Benefits Declaration) was studied from the perspective of overarching governance of space activities. Presentations on the following topics were given:
- (a) Space law and economic and social development: the role of the Legal Subcommittee;
- (b) Space applications for economic and social development: the role of the Scientific and Technical Subcommittee;
  - (c) Governance of space activities: the role of the Benefits Declaration.
- 14. The second session, dedicated to international legal frameworks governing space activities, brought into focus key concepts and functions of international space law. Topics that were covered included actors involved in space activities, questions of responsibility and liability for national space activities, the settlement of disputes in space law and the role of international intergovernmental organizations. Presentations on the following topics were given:
  - (a) Actors in the space arena;

- (b) Responsibility and liability for national space activities;
- (c) Dispute settlement in space law;
- (d) United Nations Register of Objects Launched into Outer Space;
- (e) Legal practice of intergovernmental organizations: the example of ESA.
- 15. In a logical continuation of the preceding sessions, the third session focused on national legal frameworks governing space activities. The session comprised two panel discussions in which participants considered how national space laws and policies were developed in countries of the region. In the light of the report of the Legal Subcommittee Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space on the work conducted under its multi-year workplan (A/AC.105/C.2/101), special attention was paid to regulating national space activities and implementing provisions of the United Nations treaties on outer space. Participants considered ways of developing a national regulatory framework in various countries, taking into account the specific nature of their national space activities. The following countries participated in the panel discussions: Argentina, Brazil, Canada, Chile, Colombia, Cuba, Ecuador, Honduras, Mexico, Paraguay, Peru, United States and Venezuela (Bolivarian Republic of).
- 16. The fourth session focused on the legal aspects of the use of space technology and space-derived geospatial data for sustainable development. Participants examined specific questions related to the use of space applications when addressing challenges to humanity and sustainable development, and discussed the role of space science and technology in addressing the outcome of the 2012 United Nations Conference on Sustainable Development (Rio+20) and the emerging post-2015 development agenda. Presentations were made on the following topics:
  - (a) A brief survey of remote sensing law around the world;
- (b) Legal aspects of global navigation satellite system (GNSS) applications the case of liability;
  - (c) Legal implications of space applications to meet global climate change;
- (d) The principle of international cooperation in space law: analysis and applications in agriculture in Argentina;
  - (e) The use of satellite data in court proceedings.
- 17. The fifth session was dedicated to various topics of special interest to the contribution of space law to economic and social development. The session comprised presentations on the following topics:
  - (a) Space debris;
  - (b) Use of the geostationary orbit;
  - (c) Delimitation of airspace and outer space;
  - (d) Institutional aspects on the coordination of near-Earth object response;
  - (e) Legal aspects of the mining of asteroids.

- 18. During the sixth session, mechanisms and frameworks for regional and interregional cooperation in space activities were considered. Presentations on the following topics were delivered:
- (a) Regional and interregional cooperation: the role of bilateral and multilateral agreements;
  - (b) Space Conference of the Americas.

The session ended with a round-table discussion on regional cooperation, focusing on experiences at the national level, with the following countries participating: Argentina, Brazil, Chile, Colombia, Ecuador, Mexico and Peru.

- 19. The seventh session was dedicated to specific considerations regarding and needs for capacity-building and education in space law. Participants examined the experience of educators in promoting education and developing courses in space law, considered mechanisms for overcoming regional challenges and discussed opportunities for regional cooperation in the field of education in space law. Presentations on the following topics were delivered:
- (a) The role of the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean, affiliated to the United Nations;
- (b) Opportunities for education in space law in the region and the role of the Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation.
- 20. The session ended with a round-table discussion on ways and means of promoting education in space law, with participants from a number of universities, academic institutions and research institutes in the following countries: Argentina, Brazil, Canada, Chile, United States and Uruguay.
- 21. The papers presented at the workshop are available on the website of the Office for Outer Space Affairs (www.unoosa.org/oosa/en/SpaceLaw/workshops/2012/index.html) and will be published as proceedings of the United Nations/Argentina Workshop on Space Law.

# II. Recommendations, observations and conclusions

- 22. The workshop opened with overarching assessments of the global governance of space activities, and of the role of the Committee on the Peaceful Uses of Outer Space and its Scientific and Technical Subcommittee and Legal Subcommittee in fostering international cooperation in space activities. The contribution of space law to economic and social development and to the protection of the Earth environment and the space environment was highlighted.
- 23. The workshop noted with concern the recent Hurricane Sandy, which had affected a number of countries in the region, and the earthquake in Guatemala, with many people suffering from their devastating effects. The workshop observed that loss of life and property would be diminished if better information were available through improved risk assessment, early warning and monitoring of disasters, and that increased coordination was needed to ensure a systematic, timely and adapted integration of the space-based technology applications of remote sensing, satellite

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meteorology, satellite telecommunication and global navigation satellite systems to multi-source geospatial data sets.

- 24. In that regard, the workshop welcomed the fact that the outcome document of the 2012 United Nations Conference on Sustainable Development entitled "The future we want", annexed to General Assembly resolution 66/288, recognized the importance of space-technology-based data for sustainable development.
- 25. The workshop recalled that through the 2011 United Nations Declaration on the Fiftieth Anniversary of Human Space Flight and the Fiftieth Anniversary of the Committee on the Peaceful Uses of Outer Space (General Assembly resolution 66/71, annex) the States Members of the United Nations had acknowledged that significant changes had occurred in the structure and content of the space endeavour, as reflected in the emergence of new technologies and the increasing number of actors at all levels, and therefore had noted with satisfaction the progress made in strengthening international cooperation in the peaceful uses of outer space by enhancing the capacity of States for economic, social and cultural development and by strengthening the regulatory frameworks and mechanisms to that effect.
- 26. In this connection, the workshop recalled its overarching objective of looking into legal and institutional aspects of governance at the global, interregional, regional and national levels aimed at meeting economic and social needs for development, with a strong focus on legal aspects of the use of space technology and space-derived geospatial data for sustainable development.
- 27. The Benefits Declaration and the Principles relating to Remote Sensing of the Earth from Outer Space were identified by the workshop as important instruments for global governance and for harnessing the use of space-derived geospatial data for sustainable development, notwithstanding the possibility of introducing minor adjustments to make them consistent with changing contexts. In that regard, the workshop took note of the contribution of the Committee on the Peaceful Uses of Outer Space to the Rio+20 Conference (A/AC.105/993) providing a set of recommendations on ways and means of strengthening the use of space-derived geospatial data for the purpose of supporting sustainable development policies and of establishing national spatial data infrastructures.
- 28. An overview of laws and other regulatory frameworks at the national level related to remote sensing and data policies was made. The range of legal mechanisms for GNSS applications was also examined. The workshop noted that satellite data were increasingly used as evidence in court proceedings and international litigation processes. This broad overview of legal matters related to the use of space technology and space-derived geospatial data for sustainable development was deemed necessary in view of the need for a holistic approach to the challenges to humanity, in particular those posed by global climate change, and the challenges to areas such as agricultural development and food security, and to global health, all interlinked with the effects of disasters.
- 29. The workshop examined several topics on the agendas of the Committee and its two Subcommittees, where both scientific and technical matters, as well as legal perspectives, were represented, such as issues related to space debris, the use of the geostationary orbit, the delimitation of airspace and outer space, the coordination of near-Earth object response and the exploration of asteroids. The need to preserve the

space environment and to foster long-term sustainability of outer space activities in order to secure the future use of space technology applications for the benefit of human development was emphasized.

- 30. The workshop recommended that, in view of the growing number of cross-cutting issues related to economic and social development considered by the Committee and its Scientific and Technical Subcommittee and Legal Subcommittee, including the various mechanisms for international cooperation, improved synergy and a constructive exchange of views between the Committee and its two Subcommittees should be encouraged.
- 31. In reviewing the legal mechanisms of space law, with a focus on responsibility and liability for national space activities and on the settlement of disputes in the space arena, the workshop noted the importance of the responsibility of States to ensure the use of outer space for peaceful purposes. It recalled the obligations contained in the United Nations treaties on outer space to exchange information on the nature, conduct, locations and results of space activities, in particular by establishing national registries and submitting registration data to the Secretary-General of the United Nations.
- 32. The workshop recalled the annual General Assembly resolutions on international cooperation in the peaceful uses of outer space, whereby the Assembly reaffirmed the importance of international cooperation in developing the rule of law, including the relevant norms of space law, and urged States that had not yet become parties to the treaties governing the exploration and use of outer space to give consideration to ratifying or acceding to them and incorporating them into their national legislation.
- 33. The workshop conducted an overview of national regulatory frameworks, legislative developments and institutional mechanisms for space activities of 13 countries in the region, and noted that different approaches were taken by those States in dealing with various aspects of national space activities and that States were adapting and developing further their national legal and institutional frameworks to their specific needs and practical considerations.
- 34. In conducting that overview, the workshop acknowledged the value of the report of the Legal Subcommittee Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space on the work conducted under its multi-year workplan (A/AC.105/C.2/101), and that the report together with the schematic overview of national regulatory frameworks, being developed within the framework of the Legal Subcommittee, already assisted States in gaining an understanding of how a wide range of States had regulated their respective space activities. The workshop encouraged more States in the region to study those documents further and to provide information on their national mechanisms and domestic legal frameworks, for the benefit of other States and in order to further enhance prospects for international and regional cooperation.
- 35. The workshop further noted the new agenda item of the Legal Subcommittee entitled "Review of the international mechanisms for cooperation in the peaceful exploration and use of outer space", which endeavoured to categorize the range of mechanisms for international cooperation, including existing bilateral and multilateral agreements, non-binding arrangements, principles, technical guidelines and other cooperative mechanisms, with the aim of developing an understanding of

the range of collaborative mechanisms employed by States and international organizations.

- 36. In an effort to enhance cooperation and coordination in space activities at the international, regional and interregional levels, and as a step in the process leading to the possible establishment of a regional space organization, the workshop recommended that the idea of a mechanism for increasing awareness and understanding of developments in national legal frameworks, as well as collaborative mechanisms among States in the region, could be considered with the assistance of regional and international cooperation efforts, such as those from the Space Conference of the Americas.
- 37. The workshop regarded capacity-building, training and education in space law as being of paramount importance to further develop the practical aspects of space science and technology and to increase knowledge of the legal framework within which space activities were carried out. Among other institutions in the region, the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean, affiliated to the United Nations, was regarded as an important institution for further training in these interdisciplinary areas.
- 38. The workshop also encouraged closer cooperation and dialogue between universities and institutions with established space law programmes and those educational institutions wishing to develop such programmes. The workshop noted that such cooperation could help to overcome the hurdles of limited access to materials and the related costs.
- 39. The workshop acknowledged the important role of the Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation in providing capacity-building and training in space law and space policy for the benefit of regional and interregional cooperation. It was also noted that the International Astronautical Federation and the International Academy of Astronautics could provide incentives for further studies in that context, as appropriate.
- 40. The workshop recognized the importance of the development of the space industry for the advancement of space activities in the region.
- 41. The workshop paid tribute to Aldo Armando Cocca of Argentina for his long-standing achievements in the development of space law and contribution to the establishment of the legal regime on outer space.
- 42. The workshop expressed its appreciation to the Office for Outer Space Affairs, the Government of Argentina, CONAE and ESA for the organization of the important event and for the excellent conference facilities provided by the Catholic University of Argentina.