



Regional Workshop on the Long-Term Sustainability of Space Activities

Summary Report

Introduction

In the context of the long-term sustainability (LTS) guidelines effort underway in the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS), the Secure World Foundation (SWF), in collaboration with the Central American Association for Aeronautics and Space (ACAÉ) and with the support of the Ministry of Foreign Affairs of Costa Rica, held a regional workshop on the long-term sustainability of space activities. Held on April 7-8, 2015, in San José, Costa Rica, the workshop engaged representatives from the Group of Latin American Countries (GRULAC) members of COPUOS.

The invitation-only workshop was designed to serve as a platform to advance regional space sustainability discussions. International space policy experts and representatives from over 10 countries engaged in an active discussion on how best to address concerns that have been raised in advance of the June 2015 UNCOPUOS debate on the guidelines. Designed to take advantage of the momentum gained in space activities in the region, the event was also an information-exchange opportunity, and it helped facilitate discussions on common themes relevant to broader sustainability discussions, such as space and disaster management, and opportunities for progress in these areas.

This report includes an overview of the program and captures highlights from the discussions of the workshop. Presentations given during the workshop were on the record and are available on the event page of the SWF website at <http://swfound.org/events/2015/regional-workshop-on-the-long-term-sustainability-of-space-activities/>. The discussion portions of the workshop were not for attribution. The workshop agenda is included in Appendix A.

Overview of the Program

The two-day workshop involved a series of presentations and discussions among participants. Beginning with a group session to highlight key space developments within each country, the program continued with presentations by international experts on major space sustainability-related themes: development, disaster management, and regional space cooperation. This discussion was followed by a presentation on the background of international efforts to govern the space domain, a decades-long process that has included the development of international principles, treaties, and agreements, and that has led to the formulation of norms of behavior. This overview led to a detailed examination of the UNCOPUOS LTS guidelines effort – from the emergence of the question of sustainability within the Committee, to the establishment of the working group and its expert groups, to the release of a draft set of guidelines and

proposed amendments. A Brazilian proposal to the guidelines endorsed by GRULAC at the February 2015 STSC meeting was discussed in detail, as were other relevant international efforts, specifically the 2013 report of the UN-convened Group of Governmental Experts on Transparency and Confidence Building Measures for Space Activities, and the draft International Code of Conduct. The workshop closed with a moderated discussion that included consideration of action items proposed in a letter by the chair of the LTS Working Group, Dr. Peter Martinez of South Africa, and next steps that might be taken at both the national and regional level with respect to ongoing sustainability initiatives.

Discussion Highlights

Space applications that meet societal needs are a major driver for space investment in the region. Argentina's recent launch of the indigenous ARSAT-1 satellite is part of a national satellite plan that seeks to satisfy national telecommunications service needs. Likewise, a stated priority for the Mexican Space Agency is to "help solve national problems and needs." Cuba and El Salvador emphasized their reliance on Earth observation data sharing mechanisms, a desire for more data sources and improved capacity to utilize information products and services. Representatives from these countries also described efforts to incorporate environmental information into decision making to meet challenges such as sea level rise and vulnerability to natural disasters, such as volcanoes.

Both bilateral and multilateral cooperation at the international and regional level are considered important in the development of capabilities as well as a way to meet shared goals. Brazil, for example, described recent developments in its partnerships with China, India, Russia, and Japan. Peru discussed bilateral cooperation efforts in satellite development with the European Union, Russia, and the United States.

A recurrent theme in this discussion was capacity development and technology transfer, viewed as a way to promote continuity of projects and expand the reach of partnerships beyond "one-off" agreements. Because of this, several countries described capacity building as a key component in international cooperation programs to share costs and risks, while acquiring skills and practical knowledge. Venezuela emphasized this aspect of its bilateral cooperation efforts with China. In the joint Venesat-1 satellite program, 30 doctoral candidates and 60 operators from Venezuela acquired critical skills that helped strengthen the nation's technical capacity.

Several countries described internal processes to coordinate space activities, as well as institutional, legal, and financial challenges that are being addressed. Uruguay's space efforts have been rooted in a strong international legal framework, as well as decades-long involvement in multilateral space forums. Costa Rica's National Council for Aerospace Research and Development (CONIDA) was created in 2010 as a multi-sectoral advisory board to advance development of the necessary policies to "position Costa Rica in the aerospace development plan." While Chile currently does not have a national space agency, an institutional framework and a new national space policy have been developed to promote space activities within the country. Colombia is also considering the development of a space policy that would help promote research, support the development of private sector activities, and promote international cooperation.

Because space efforts are highly disaggregated in many of the countries in the region, the process by which each country informs and develops its political positions on space-related issues can vary widely. Some countries will go to their space agencies or space advisory bodies for input first, while others have content expertise focused on either the ministries of science or of foreign relations.

The role of UNCOPUOS as the key multilateral space forum was highlighted. A participant stated that engagement may mean being critical, while another made a distinction between consensus and unanimity. While the goal of the Committee is to reach consensus, it was pointed out that leadership on these issues lies at the state level.

Beyond UNCOPUOS, there is a challenge of inserting space into non-space conversations. When it comes to cross-cutting issues such as disaster management, delegations can play a more active role ensuring that the value of space assets in meeting these challenges is recognized. This is particularly relevant as the contributions of space in disaster management have brought attention to space within a broader community. As an example, the group discussed the Sendai Framework for Risk Reduction that was adopted at the Third World Conference on Disaster Risk Reduction, held in Sendai, Miyagi, Japan, in March 2015. After an active engagement effort from space agencies and other organizations providing Earth observations data from space, the framework includes language on the role of space assets in understanding and responding to natural disasters.

When it comes to space sustainability challenges, concerns over space debris are prominent in the region. In addition to being actively engaged in scientific, technical, policy, and legal discussions carried out internationally, countries such as Mexico and Brazil have incorporated internal debris mitigation protocols.

The concept of sustainability within the framework of development was defined broadly as a measure of the ability to withstand changes, a concept tied to the resilience of socioecological systems. The adoption of sustainability from this perspective is a stated goal of several countries in the region, such as Costa Rica. This was considered an opportunity with respect to alignment with other sustainability concepts, such as space sustainability.

The history of the LTS effort within UNCOPUOS was examined in detail. In this discussion, a number of issues of interest emerged: potential overlap between the guidelines and other UNCOPUOS agenda items, degree of interaction between the Committee's Scientific and Technical Subcommittee (STSC) and Legal Subcommittee (LSC); as well the engagement of UNCOPUOS with the Committee on Disarmament on relevant issues.

The view was expressed that the LTS guidelines effort has resulted in a significant investment of the Committee's resources. As a result, extending the activity beyond the agreed timeline may be met with a sense of frustration by some delegations.

The process by which the draft guidelines currently under consideration were developed was also discussed. Of note is the leadership role that Mexico, as co-chair of one of the expert groups, has played in this effort. Moreover, a Brazilian proposal recently endorsed by GRULAC and presented at the February STSC, was examined. The proposal includes a definition of space sustainability that includes the concept of equitable access as well as additional language that would specify that space is exclusively

for peaceful purposes. Participants were encouraged to examine this proposal as well as the recent proposals presented by the United States and the Russian Federation with their delegations.

The group welcomed the recommendations provided by the chair of the LTS Working Group, Dr. Peter Martinez, as short-term action steps the delegations could consider. These included:

- (1) Nominating a LTS focal point and considering an informal network of GRULAC LTS focal points to enable the rapid dissemination of ideas and views on LTS-related issues. This was motivated by the fact that only a handful of GRULAC countries currently have a designated LTS focal point, the point of contact for all communications relevant to the activities of the Working Group.
- (2) Continued engagement in the informal translation and terminology reference group established in June 2014. GRULAC is currently represented in this group and its contributions would be particularly relevant as language-related issues arise in the elaboration of the guidelines.

Participants were also encouraged to consider developing group positions with respect to the guidelines, in addition to developing national positions. This may be valuable given time constraints in the UNCOPUOS meetings and to help carry out deliberations more efficiently.

Conclusion

The workshop was successful in bringing together a diverse community of regional and international experts to examine space sustainability efforts. The discussions highlighted the diversity of experiences within the Latin America and Caribbean region, while indicating common priorities and areas of interest. Given shared concerns of sustainability from a broader development perspective, and a strong commitment to the peaceful uses of outer space, there is an opportunity for expanded dialogue on space sustainability-related issues from a regional perspective. In this context, space sustainability-related issues may gain a more prominent role as bilateral and multilateral regional efforts continue expanding in the coming decades.

Appendix A: Workshop Agenda

Tuesday, April 7

6:00 AM – 8:30 AM	Breakfast
9:00 AM – 9:30 AM	Registration
9:30 AM – 10:00 AM	Welcome and introductions <ul style="list-style-type: none"> ● <i>Welcome from host, recognition of partners</i> ● <i>Opening remarks from Linyi Baidal, General Director of Foreign Policy of Costa Rica</i> ● <i>Remarks from SWF on the rationale and goals of the workshop</i>
10:00 AM – 11:30 AM	Space in Latin America: Recent developments <i>Brief presentations from participants on basic goals and key space developments in their countries</i> <p style="text-align: center;">**All participants</p>
11:30 AM – 1:00 PM	Lunch
1:00 PM – 2:30 PM	Space and sustainability: Latin America focus <i>Presentations and group discussion on larger sustainability concerns in the region: placing the LTS guidelines in context.</i> <ul style="list-style-type: none"> - <i>Space and development</i> **Ciro Arévalo-Yepes, SWF Advisory Committee - <i>Space and disaster management</i> **Sergio Camacho-Lara, CRECTEALC - <i>Regional space cooperation efforts</i> **Carlos Alvarado Briceño, ACAE, Costa Rica
2:30 PM – 3:00 PM	Break
3:00 PM – 3:30 PM	Developing norms for outer space activity <i>Overview on the history of norms development for outer space within the UN.</i> <ul style="list-style-type: none"> - <i>Overview of space treaties</i> - <i>Why norms to address space sustainability?</i> - <i>Comparing/contrasting with legally binding efforts.</i> **Laura Delgado López, SWF

	Examining the UNCOPUOS LTS Effort
3:30 PM – 4:30 PM	<p>Background and introduction to the LTS effort <i>Background on the emergence of space sustainability as a concern within the UN. Introduction of the rationale and goals of the Working Group on the Long-term Sustainability of Space Activities.</i></p> <p><i>**Mazlan Othman, SWF Advisory Committee</i></p>
4:30 PM – 5:00 PM	<p>Overview of Expert groups <i>Overview on the general issue areas, process, and output of the four expert groups</i></p> <p><i>**Rafael Ortiz Aguilera, AEM, Mexico</i></p>
5:00 PM – 6:30 PM	Break
6:30 PM	Pick up for transportation to restaurant (Meet in the lobby)
7:00 PM – 9:00 PM	Dinner at Restaurante Mirador Tiquicia

Wednesday, April 8

6:00 AM – 8:30 AM	Breakfast
9:00 AM – 9:30 AM	Arrival
	Examining the UNCOPUOS LTS Effort: Continued
9:30 AM – 10:00 AM	<p>Final draft LTS guidelines and next steps <i>General discussion of draft guidelines as a whole, including consolidation proposals, and next steps.</i></p> <p><i>** Laura Delgado López, SWF, with prepared remarks from Peter Martinez, UNOOSA</i></p>
10:00 AM – 11:00 AM	<p>Overview of responses to LTS Guidelines <i>Presentations and discussion of responses to the guidelines (including GRULAC and individual countries) and issues that have been raised</i></p>

	<ul style="list-style-type: none"> - Brazil/GRULAC proposal <p><i>**André João Rypl, MRE, Brazil</i></p> <p><i>**Ciro Arévalo-Yepes, SWF Advisory Committee (Moderator)</i></p>
11:00 AM – 11:30 AM	<p>Review of other relevant sustainability initiatives</p> <p><i>Presentation on other relevant international initiatives to promote sustainability: the GGE on TCBMs and the draft ICoC.</i></p> <p><i>** Victoria Samson, SWF</i></p>
11:30 AM – 12:00 PM	<p>Opportunities for regional progress: LTS and beyond</p> <p><i>Group discussion on ways to promote space sustainability within the region and beyond, such as:</i></p> <ul style="list-style-type: none"> - <i>Opportunity to draft explanatory text to draft guidelines</i> - <i>Examination of national/regional implementation</i> <p><i>** All – moderated discussion</i></p>
12:00 PM – 1:30 PM	<p>Lunch</p>
1:30 PM – 2:30 PM	<p>Opportunities for regional progress: LTS and beyond (Continued)</p> <p><i>Discussion of common themes, issues raised by efforts discussed previously</i></p>
2:30 PM – 3:00 PM	<p>Closing Remarks</p> <p><i>**Alejandro Solano Ortiz, Vice Chancellor of Foreign Relations of Costa Rica</i></p>
3:00 PM – 6:00 PM	<p>Break</p>
6:00 PM – 8:00 PM	<p>Closing Dinner (At Hotel Restaurant)</p>