8 February 2024

English only

Committee on the Peaceful Uses of Outer Space Scientific and Technical Subcommittee Sixty-first session Working Group of the Whole Vienna, 29 January–9 February 2024

## Proposal on a Consultative Mechanism on Lunar Activities

Paper submitted by the Delegation of Romania

## I. Introduction and Background

1. The near future will see a multitude of lunar missions through the efforts of both space agencies and commercial stakeholders. There are many mechanisms for cooperation for lunar and cislunar activities, but no dedicated forum for this work in the United Nations Committee on the Peaceful Uses of Outer Space. Since the Committee is the only forum in the United Nations system that is specifically designed to foster international cooperation and build consensus to advance the peaceful exploration and use of outer space for the benefit of all humanity. The need to preserve the peaceful uses of outer space, together with the desire to begin a new era of sustainable space exploration, urges increased discussion, coordination and cooperation for cislunar and lunar activities. A number of issues must be addressed to ensure sustainable lunar exploration and settlement in and around the Moon, including for lunar operators to share information on their ongoing and planned operations and to engage in consultations in order to coordinate operations, facilitate interoperability, improve safety, avoiding interference, protecting the lunar environment, mitigating the creation of debris in lunar orbit, regulating access to natural resources, sharing best practices and lessons learned, and building capabilities, identifying common needs and concerns of lunar operators.

## **II.** Proposal

2. An international consultative mechanism on sustainable lunar activities could facilitate addressing numerous issues facing future missions and such a mechanism could be studied within the framework of the Committee on the Peaceful Uses of Outer Space (COPUOS). To facilitate the examination on such a consultative mechanism, it is proposed that an Action Team on Lunar Activities Consultation (ATLAC) under the Committee is established for this purpose.

<sup>\*</sup> Third reissue for technical reasons (9 February 2024).





3. Such a mechanism could assist in resolving a multiplicity of technical and operational issues that could be faced by lunar operators, some of which are described here:

- Landing site coordination and lunar dust mitigation: Sites suitable for landing in the south pole of the Moon are quite limited. As multiple lunar operators plan to send probes to the south pole, the mechanism could serve a platform for sharing plans for lunar south pole landing and coordinating selection of landing sites. Furthermore, the lunar dust generated by landing and takeoff operations pose a serious challenge to the adjacent operators and will necessitate the development of best practices of dust mitigation which can be shared through the mechanism.
- Cislunar traffic: With multiple missions and stakeholders operating in lunar orbit and on the lunar surface, there is a pressing need to coordinate traffic to avoid collisions and conflicts. The sharing of information regarding the location and timing of cislunar operations can help prevent collisions, reduce risks to spacecraft and astronauts, and streamline operations where efficient traffic management can lead to smoother mission execution.
- Space resources: Natural resources on the Moon, such as water ice, will be essential for the support a long-term human presence. As these resources are limited and concentrated in particular areas, sharing information regarding resource activity will be critical for avoiding conflict or harmful interference.
- Debris mitigation: Increasing lunar activities may result in the generation of space debris that poses risks to lunar missions. Such debris could be located in lunar orbit as well as on the surface of the Moon. By sharing best practices for debris mitigation, this threat can be minimized. In additional, sharing information regarding the existence and location of debris will help ensure the safety of operations. The work carried out by the mechanism could also assist ongoing debris mitigation efforts, such as those undertaken by the Inter-Agency Space Debris Coordination Committee (IADC).
- Protection of sites of significant scientific interest and lunar heritage: The opportunity to share information regarding the nature and location of lunar sites of significant scientific or cultural significance will assist in the identification and protection of such sites.

4. To perform this feasibility assessment of such a mechanism an Action Team on Lunar Activities Consultation (ATLAC) is proposed to be organized as soon as possible at the level of UN COPUOS and its subcommittees.

### Annex

### **Consultations on the establishment of an Action Team on Lunar Activities Consultation (ATLAC)**

### I. Short history on Action Teams and COPUOS

1. The Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III), held in July 1999, adopted a strategy to address global challenges in the future through space activities. The strategy as contained in "Space Millennium: Vienna Declaration on Space and Human Development" included a few key actions to use space applications for human security, development and welfare.

2. In 2001, Member States accorded high priority to a limited number of selected recommendations of UNISPACE III. The Committee on the Peaceful Uses of Outer Space established action teams under the voluntary leadership of member States to implement those priority recommendations.

3. Among the 33 recommendations of the Vienna Declaration, 12 recommendations were identified for implementation by the action teams. As part of their agenda items, the Committee on the Peaceful Uses of Outer Space and its subcommittees are implementing 11 more recommendations.

Rec.	Action Team on	Lead by
1	Action Team on Environmental Monitoring Strategy	Islamic Republic of Iran
2	Action Team on Management of Natural Resources	India
4	Action Team on Climate Forecasting	Portugal
6	Action Team on Public Health	Canada
7	Action Team on Disaster Management	Canada, China and France
9	Action Team on Knowledge-Sharing	Malaysia and Greece
10	Action Team on Global Navigation Satellite Systems	India, Malaysia, ITU
11	Action Team on Sustainable Development	Nigeria
14	Action Team on Near-Earth Objects	United Kingdom, United States of America, COSPAR, IAU, Spaceguard Foundation
17	Action Team on Capacity Building	Japan
18	Action Team on Increasing Awareness	Austria, United States of America
32	Action Team on Innovative Sources of Financing	France

# **Action Teams**

# **Selected Achievements**

	Recommendation		Outcome
7	Implement an integrated, global system to manage natural disaster mitigation, relief and prevention efforts	•	International Charter Space and Major Disasters Establishment of the Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER)
10	Improve universal access to and compatibility of space- based navigation and positioning systems		Establishment of the International Committee on Global Navigation Satellite Systems (ICG)
13	Improve the protection of the near-Earth space and outer space environments through mitigation of space debris	•	Space Debris Mitigation Guidelines of the Committee
15	Protect the near and outer space environments through further research on the use of nuclear power sources	•	Safety Framework for Nuclear Power Source Applications in Outer Space
22	Create within the Committee on the Peaceful Uses of Outer Space a consultative mechanism to facilitate the participation of youth in cooperative space-related activities	٠	Establishment of the Space Generation Advisory Council in support of the United Nations Programme on Space Applications
26	Encourage the increased use of space-related systems and services by the organizations of the United Nations system and by the private sector	•	Reform of the Inter-agency Meeting on Outer Space Activities and strengthening of the Inter- agency mechanism
27	Invite States to ratify or accede to, and invite intergovernmental organizations to declare acceptance of, the outer space treaties	•	Increase in number of accessions
28	Further consider the agenda structure and working methods of the Committee on the Peaceful Uses of Outer Space and its subcommittees	۲	Revised structure of the agenda of the Scientific and Technical and Legal Subcommittees

3 June 2009

United Nations Office for Outer Space Affairs

11

4. The Action Team reported to the Committee and its Scientific and Technical Subcommittee at their sessions in 2001 concerning its objectives, work plan and final product. Eventually the Action Teams proposed specific recommendations for the Secretariat and Member States of the United Nations and other international organizations on actions that should be taken.

5. The terms of reference of the Action Team included the purpose, work plan, product and schedule of meetings.

6. The **membership of Action Team was open** to any interested member States of the United Nations as well as entities of the United Nations, other intergovernmental organizations and non-governmental entities.

7. The combination of the following elements led to successful implementation of recommendations of UNISPACE III: prioritization of work; flexibility in conducting work throughout the year; maximizing opportunities to meet and communicate; coordination and distribution of work; and strong leadership and secretariat support.

8. The Committee and its action teams benefited from active participation and substantive contributions by various entities of the United Nations system, in particular when the priority areas coincided with the priorities of those entities.

9. A good coordination mechanism was also important. Coordination at all levels among the action teams, as well as between the Committee, the action teams and the Scientific and Technical Subcommittee at their annual sessions, was a key factor for obtaining good results.

10. The action teams provided a flexible and dynamic mechanism for conducting work throughout the year by maximizing opportunities to meet and communicate, including face-to-face meetings, teleconferences and extensive use of Internet services, to exchange views and information and to prepare documents. This mechanism sustained progress while ensuring that the Committee and its Scientific and Technical Subcommittee continued to assume the primary responsibility for implementing the recommendations of UNISPACE III by providing guidance to the action teams. All the action teams met on the margins of the annual sessions of the Committee and the Subcommittee.

11. Where space-related activities are carried out by multiple government entities, participation in the work at the international level, such as in the action teams, is often difficult if effective coordination mechanisms at the national level are not fully established or fully utilized.

12. While the engagement of non-governmental entities in the process of implementing the recommendations of UNISPACE III was considered important, engaging the private sector by identifying appropriate and meaningful ways and means for it to work with Governments and international organizations as partners has turned out to be a challenge. Particularly in activities involving multilateral cooperation among States, building a partnership with industry requires a coherent approach by Governments, while taking into account the industrial advantages to be gained by participating States.