

# Sustainability of Space Environment: Draft UNGA Resolution

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## Abstract

It is well known that the sustainability of outer space can be endangered by not respecting specific measures aimed at protection of space environment. Article IX of the Outer Space Treaty provides for a general legal framework of these measures. These are periodically elaborated by the COSPAR, an international non-governmental organization, in the form of non-binding recommendations. Realistically, there is lack of international preparedness to draft a new, treaty document implementing Article IX in a binding form at present.

The solution how to fill a gap between general binding and detailed recommendatory rules could consist in the elaboration and adoption of an interpretative UNGA resolution. The resolution could confirm the preparedness of States to comply with the rules embodied in Article IX, and to inform UN Secretary General on measures taken to protect the space environment. Furthermore, it could invite the States to deliberate to include the measures for planetary protection among the conditions necessary for licensing the space objects according to their domestic law, and to suggest the UN Secretary General, together with the COSPAR, the specific areas on celestial bodies which deserve special protection.

## I The Status Quo

Sustainability of space activities has moved in centum of attention both by the UN bodies and the academia. However, only little binding legal documents require special measures which have to be taken by the space operators and controlled by the launching states. The provisions of the Outer Space Treaty deal in general only with biological contamination, the Space Debris mitigation guidelines do not have binding character.

The path to a binding rule is a long one, both in the form of treaty or a customary rule. It can have various forms and number of parties. The global character

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of space activities makes, however, a universal regulation advisable. In contrary to the 60ies and 70ties, when the majority of space treaties occurred, there is today little preparedness to adopt the next, treaty rules: they would be perceived by many as an impediment of space activities. However, some steps to guarantee an awareness of these issues and certain level of common standards seem to be necessary. Whereas specialized structures like the International Telecommunications Union in the area of the use of GSO and frequency spectrum, or the COSPAR in the sphere of biological contamination, are developing specific regulations, it seems to be advisable to elaborate and adopt a more general text reminding the States about the dangers of uncontrolled space activities for the environment in outer space.

It is not necessary to go too far for an example of detrimental consequences of man made activities for environment as the Antarctic suffered for years under environmental pollution. However, the regime of a Protocol on Environmental Protection to the Antarctic Treaty (1991) could today serve as a successful model for other environments. Before it happens in relation to outer space, several steps are necessary – the elaboration of an UNGA resolution seems to be a open ended result which does not limit the freedom of space exploration and exploitation but, at the same time, could initiate an evolution which may, later, result in the development of a recommendatory rule or as a basis for later treaty provision.

## II Recent Developments

The Scientific and Technical Subcommittee of the UN Committee of the Peaceful Uses of Outer Space considered on its 49th session not only the item Space Debris, but also the agenda item “Long-term sustainability of Outer Space activities”<sup>1</sup>. From the views expressed during the deliberations, the following one can be quoted as symptomatic: “Some delegations expressed the view that the consideration of the long term sustainability of outer space activities should not be used as pretext for States that had been able to develop their space capabilities without control, resulting in the challenges faced today, to restrict or impose controls on the States wishing to exercise their legitimate right to use the same technology for their national benefit.”<sup>2</sup> The Report also mentions an expert group D “regulatory regimes” of the Subcommittee with its work in progress. As a further endeavor to improve the sustainability of space environment in the framework of the Scientific and technical Subcommittee can be described its focus on the agenda “Examination of the physical nature and technical attributes of the geostationary orbit” (GSO) dealing with the actual situation in the GSO, as well with the new methods of sharing of compatible systems in specific ranges of spectrum.<sup>3</sup>

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1 A/AC.105/1001, p.28 ff.

2 Ibid, p. 30.

3 Ibid, p. 33.

The Legal Subcommittee devoted in its 2012 session several sessions related to the issue of sustainability – on the use of the geostationary orbit, including the issue of rational and equitable use of GSO, on the use of nuclear power sources in Outer Space, as well as on information on national mechanisms relating to space debris mitigation measures.<sup>4</sup> Some delegations expressed the view that a more structured relationship between the Legal Subcommittee and the Working group on the long-term sustainability of Outer Space Activities of the Scientific and Technical Subcommittee and its expert group, in particular the expert group on regulatory regimes and guidance for actors in the space arena, was needed<sup>5</sup>.

The issue of sustainability of Space activities appeared also on the deliberations of the UN Committee of the Peaceful Uses of Outer Space, this time in connection with the GSO<sup>6</sup>: Some delegations reiterated the view that the GSO was a limited natural resource at risk of becoming saturated, which threatened the sustainability of Outer Space activities. Those delegations were of the view that the exploitation of the GSO should, with participation and cooperation of ITU, be rationalized and made available to all States. As a result of several discussions, the Committee decided to include the item “Space and Sustainable Development” on the agenda of its 56th session.

The academia devoted to the question of sustainability part of deliberations of the Space Law Committee of the International Law Association – mostly in the connection with the space debris, and included the condition of environmental impact assessment into the proposed model law on national space legislation.<sup>7</sup> General issues connected with the problems of sustainable development were discussed in the ILA Committee “International Law on Sustainable Development” which described the precautionary principle as some of the key elements of sustainable development, however accompanied by uncertainties as regards its scope and status in its final report.<sup>8</sup> In the Annex to the Report, the following statement can be found: “Environmental impact assessment is a mandatory rule of customary international law and must be recognized by judicial bodies especially in all matters effecting shared and common natural resources, and where there is a risk of transboundary and global environmental harm”.

### III The Resolution

The solution how to fill a gap between general binding and detailed recommendatory rules in the sphere of space activities could consist in the elaboration and adoption of an interpretative UNGA resolution. The resolution could confirm the preparedness of States to comply with the rules embodied in Article IX,

4 A/AC.105/1003.

5 Ibid, p. 7.

6 A/67/20.

7 ILA, Sofia Conference (2012), available online, p. 23.

8 P. 19.

and to inform UN Secretary General on measures taken to protect the space environment. Furthermore, it could invite the States to deliberate to include the measures for planetary protection among the conditions necessary for licensing the space objects according to their domestic law, and to suggest the UN Secretary General, together with the COSPAR, the specific areas on celestial bodies which deserve special protection. The text of the draft resolution has been elaborated in the framework of the IAA Study Protecting the Environment of Celestial Bodies. The draft suggests the following principles:

States, recognizing that:

- Outer Space, including celestial bodies, is the province of the mankind;
- Outer Space, including celestial bodies, has to be preserved for future generations;
- By exploration and exploitation of Outer Space, including celestial bodies, the principle of due diligence to the interests of others as embodied in Article IX of the Outer Space Treaty is of utmost significance;
- Acknowledge that:
  1. States guarantee that persons under their jurisdiction comply with rules embodied in Article IX of the Outer Space Treaty; by doing so, they shall take into account criteria developed by COSPAR;
  2. States furnish the UN Secretary General the information on measures taken to protect the environment of celestial bodies during their space activities. This information shall be made public by the UN Secretary General.
  3. States include measures for planetary protection among the conditions for licensing space objects according to their domestic law; they take into account practices on impact assessment embodied in the Antarctic Treaty.
  4. States indicate, in co-operation with COSPAR and the UN Secretary General, areas on the celestial bodies that deserve special protection according to Article VII.3 of the Moon Treaty.

#### **IV Conclusion**

The draft resolution should be considered as a contribution to the present discussion on the sustainability of space activities. As it covers only those impacts on environment which are of material character and does not deal with the issues of congestion of the GSO and frequency spectrum, it cannot be considered as completed. To build a bridge between the area of space law and the international law of telecommunications remains one of the greatest challenges for the future.