The Evolving Role of the Environmental Impact Assessment as a Valuable Legal Tool for the Protection of Outer Space and the Sustainability of Space Activities

Pierfrancesco Breccia *

Abstract

As other types of human activities, the exploration and use of outer space causes a variety of environmental consequences. Although some of the risks involved have been understood only recently, the international community has long known that space activities contribute to environmental degradation. The protection of the outer space environment is still considered inadequate due to the increasing development of space activities also by private actors, the renewed interest in space exploration and the desired objective of the sustainability in outer space.

A tool to mitigate and prevent harmful consequences of human activities is the prior assessment of their potential impact on the environment. Despite its success in many fields on Earth, as well as for extra-terrestrial activities (e.g. launching rockets and space objects re-entry), environmental impact assessment (EIA) is currently not a well-established tool in the international legal framework applicable to outer space activities. Hence, the rules of international environmental law constitute an important gap-filler for finding legal solutions to the main needs in this area.

Protecting the Space Environment in an Evolving Phase of Space Activities

The rapid progress in space technology has created new opportunities for using outer space. The development of small satellites and the technical advancements of the space industry have enabled more States to become active in this field. Companies worldwide (e.g. SpaceX, Planet and OneWeb) plan the deployment of large constellations of satellites for furnishing different services. The industry is growing consistently, and it is even more

^{*} Dr. Pierfrancesco Breccia, Sapienza University of Rome.

evident if one considers that in 2021 two private companies demonstrated that space tourism is not only an aspiration anymore. The technological development in space activities has also made important steps forward in programs directed towards the exploration of outer space with renewed interests and purposes. It is in this context that the plans for a Lunar Gateway are inserted, relating to the development of a station orbiting the Moon as part of the Artemis Program which aims to bring the human being back to the lunar soil and to reach Mars therefrom.

The growing number of activities in outer space has also been raising awareness of their environmental impacts. The main sources of pollution have been already recognized as posed by space debris; the combustion of propellants for rockets and spacecraft; radioactive contamination potentially resulting from nuclear-powered space objects. Also, the foreseeable physical activities on the Moon, Mars, and elsewhere, such as construction, mining, energy production, and human habitation, may adversely affect the extraterrestrial environments.

The practice on Earth proves that adverse environmental impacts have the potential to increase long-range costs, negatively impact commercial activities and lead to other undesirable outcomes. The EIA has been widely acknowledged as a crucial instrument to manage adverse consequences of human activities on the environment. From *Apollo Program* to the recent *Mars 2020*, NASA has provided numerous Environmental Impact Statements (EISs) of its space projects. Since 2012, the European Space Agency (ESA) carries out the *Clean Space initiative* to consider the environmental impact of the agency's missions across their entire life cycle. Generally, there is a growing awareness towards environmental consequences of space activities as proved initiative at international, regional and national level. However, there are factors that can hinder the development of EIA in space activities, among which there are the uncertainties related to the proper technology to elaborate any impact assessment and the lack of scientific knowledge.

2. An Environmental Outlook on the International Legal Framework Governing Space Activities

From a legal perspective, the environmental consideration in the United Nations (UN) treaties devoted to the space activities is modest. In the treaties adopted between 1967 and 1979, the protection of the space environment was not very much considered, as the major "environmentalist" concern was the so-called "back-contamination" with an Earth-oriented perspective.

¹ S. E. Mustow, Environmental impact assessment (EIA) screening and scoping of extraterrestrial exploration and development projects, in Impact Assessment and Project Appraisal, 2018, p. 467 ff.

Activities in outer space are *per se* ultra-hazardous, which may be harmful to both the space and the terrestrial environments and pose a significant risk of harm.² The emphasis is on the risk of severe damage requiring that they should be carried out with a high standard of care and due diligence. The international legal framework for outer space activities lacks a proper duty to assess the environmental impact of space activities. However, references to EIA can be gathered by several provisions of the UN space treaties.³ Indeed, it has been pointed out that if analysed with an evolving prospective the *corpus* of principles and rules of space law provides a basic environmental regulation.⁴

Looking at the wording of art. I of the Outer Space Treaty (OST), it is drafted with a two-fold perspective that, on the one hand, provides the freedom of all States to explore and use outer space without harmful interferences, and, on the other hand, encompasses the protection of the space environment as an essential component for preserving the freedom to perform space activities today and in the future.⁵ Particular attention also deserves Article VI of the OST as a relevant provision for implementing environmental obligations for space activities, also in the light of EIA. It sets up international responsibility of States for national space activities carried out by governmental and non-governmental actors. Indeed, Article VI OST provides for the "authorization and continuing supervision" of the activities of non-governmental actors in outer space, the Moon and other celestial bodies by the concerned State Party to the OST. Even more remarkably, Article IX of the OST encompasses the principles of cooperation, mutual assistance and of due regard to the interests of all States, also providing the obligation to "pursue studies in outer space, including the Moon and other celestial bodies, and conduct exploration of them so as to avoid their harmful contamination". This appears as the closer reference to an environmental assessment requiring prior consultations in the case of a planned space activity or experiment that might cause "potentially harmful interference"

² S. Marchisio, Article IX, in S. Hobe, B. Schmidtt Tedd, K.U. Schrogl (Eds.), Cologne Commentary on Space Law, Vol. I, Outer Space Treaty, Carl Heymanns Verlag, Cologne, 2009, pp. 169-182.

³ A. Boyle, Outer Space and International Environmental Law, in S. Hobe, S. Freeland (Eds.), In Heaven as on Earth? The Interaction of Public International Law on the Legal Regulation of Outer Space, 1/2 June 2012, Bonn - Oberkassel Institute of Air and Space Law of the University of Cologne/Deutsches Zentrum für Luft-und Raumfahrt e.V. German Aerospace Center, 2013, pp. 61-65; L. Viikari, Environmental aspects of space activities, in F. von der Dunk, F. Tronchetti (Eds.) Handbook of Space Law, Elgaronline from Edward Elgar Publishing, 2015, p.727 ff.

⁴ S. Marchisio, Article IX, cit.

⁵ S. Marchisio, The Law of Outer Space Activities, Rome, 2022, p. 289 ff.

with the space activities of other states parties.⁶ Finally, article XI of the OST holds that all parties are obliged to "inform the Secretary-General of the United Nations as well as the public and the international scientific community, to the greatest extent feasible and practicable, of the nature, conduct, locations and results of such activities."

Particular attention on the environment is enshrined in the Moon Agreement. Its art. 7, para. 1 addresses the risk of lunar contamination, binding States to adopt appropriate measures to prevent the disruption of the existing balance of its environment. This is a more specific and defined perspective compared to that of the OST, but its concrete effectiveness is hindered by the limited acceptance of the Moon agreement in the international community.

Non-binding instruments elaborated within COPUOS also refer to the assessment of environmental risks. In terms of EIA, the 1992 UN General Assembly resolution on Principles Relevant to the Use of Nuclear Power Sources in Outer Space concerns also the prior assessment of potential impacts of space missions carrying nuclear power sources. Principle 4 requires, on the one hand, that a comprehensive safety assessment is conducted prior to the launch, covering "all relevant phases of the mission"; on the other hand, it demands that the results of this safety assessment "shall be made publicly available prior to each launch, and the [UN] Secretary-General ... shall be informed on how States may obtain such results of the safety assessment as soon as possible prior to each launch".

3. A Broader Perspective from International Environmental Law

The international legal framework applicable to outer space activities is not confined to the UN treaties. International law cannot always be applied *sic et simpliciter* to the activities in outer space due to their features, but Art. III of the OST provides that all the activities conducted in outer space have to comply with international law, including the Charter of the UN. This means that rules of international law *at large*, including, for our purposes, those related to the concept/objective of sustainable development, can play a relevant role as gap-fillers for the protection of the space environment. The principle of sustainable development is acquiring relevance even in the space sector.⁷ Its application in outer space is a consequence of the general obligation of States not to damage the environment beyond national jurisdiction. This obligation was enshrined in two important documents, such

⁶ L. Viikari, The Environmental Element in Space Law: Assessing the Present and Charting the Future, Martinus Nijhoff, Leiden, The Netherlands, 2008, pp. 273.

⁷ M. Uchitomi, Sustainable Development in Outer Space: Applicability of the Concept of Sustainable Development To Space Debris Problems, in Proceedings of the 43rd Colloquium on the Law of Outer Space, IISL, 2-6 October 2000 (Rio de Janeiro). AIAA. 2001, pp. 71-80.

as the Stockholm Declaration in Principle 21 and the Rio Declaration in Principle 2. They provide that the States have the responsibility to ensure activities within their jurisdiction or control do not damage the environment of other States or of areas beyond the limits of their national jurisdiction. Outer space belongs to this latter category, and, while new norms will be elaborated within space law, there are interactions among rules and principles related to the protection of the environment on Earth that can apply to outer space.

In this sense, the application in outer space of the duty of control, preventive action and due diligence as a part of the more general duty of environmental prevention of customary character has been recognized by the International Court of Justice (ICJ). Indeed, in its 1996 advisory opinion on the Legality of the Threat or Use of Nuclear Weapons, the Court held that "the existence of a general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national jurisdiction is now part of the corpus of international law relating to the environment". 8 Moreover, the ICI in the case Gabcikovo-Nagymaros recognised that "new norms and new standards" have been affirmed by many instruments that tend to reconcile economic development with the protection of the environment, aptly expressed by the principle of sustainable development. In the Pulp Mills on the River Uruguay case, the Court qualified sustainable development as an *objective* that specific state conduct must comply with. In this sense, States are bound to put all the possible efforts to achieve such objective.

In carrying out space activities States have a continuing duty to take appropriate measures to prevent, minimise and control the environmental harm, that corresponds to an obligation for States to act with due diligence. However, it is not possible to start from the assumption that all the environmental principles and rules are applicable to space activities indiscriminately. Instead, we must assess the applicability of these principles, both from a technical-scientific point of view and from the strictly legal.

3.1. The EIA in International Law

EIA consists of a procedure and constitutes a legal technique which tends to render possible the integration of environmental considerations in the decision-making process concerning the authorization of projects. The EIA

⁸ Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, ICJ Reports 1996, p. 226.

⁹ Gabcíkovo-Nagymaros Project (Hungary v. Slovakia), Judgment ICJ Reports (1997) 7, 25 September 1997, at para.140.

¹⁰ U. Bohlmann, S. Freeland, *The regulation of space activities and the space environment*, in S. Alam, Md J. Hossain Bhuiyan, T. M.R. Chowdhury and E. J. Techera (eds.), *Routledge Handbook of International Environmental Law*, Routledge, New York, 2013, pp.1081-1085.

embodies the idea that the impact of potential environmentally harmful projects should be analysed before the authorization is granted. It is linked with the principle of prevention and incorporates different obligations between neighbouring States and forms insofar part of the due diligence obligation to prevent significant extraterritorial damage.

The EIA found its recognition firstly in domestic legislation and at international level afterwards. The very first idea of EIA can be traced back in 1969 with the National Environmental Policy Act (NEPA) of the United States that required an EIS. At international level, EIA emerged after the UN Conference on the Human Environment in 1972. Subsequently, EIA did find its way into several UN based soft-law instruments, indicating a growing acceptance of EIA as a norm of international environmental law, although these early instruments did not elaborate upon the precise content of the obligation, leaving the details of implementation to States. An exception were the 1987 UNEP Goals and Principles of Environmental Impact Assessment, which sought to provide guidance to States in the development of domestic EIA procedures, and in respecting reciprocal procedures which included obligations to notify affected States and of consultation.

The progressive recognition of the EIA and its potential value as a tool to promote sustainable development was affirmed at the 1992 UN Conference on Environment and Development (UNCED). Principle 17 of the Rio Declaration states that "environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority". In the same route, the adoption of the document "The Future We Want" after the Rio+20 Conference in 2012, in line with the outcomes of the previous global conferences, called for enhancing the effective use of impact assessments, mainly in the context of oceans, seas and common areas. 11 The EIA has found a particularly relevant role within the legal framework of the European Union and an even stronger endorsement of the principle came with its inclusion in several international conventions and non-binding instruments adopted both at regional and global level.¹² The United Nations Convention on the Law of the Sea (UNCLOS) requires the prior assessment of the effects of activities on the marine environment; the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention); the Convention on Biological Diversity (CBD), and the Protocol on Environmental Protection to the

¹¹ G.G. Nucera, Transboundary Damage, Cooperation and Environmental Impact Assessment: New Trends for the Protection of the Environment, in M. Arcari, L. Balmond, A.-S. Millet-Devalle (eds), The Management of Spaces in International and European Law, 2016, p. 179 ff.

¹² P. Sands, J. Peel, *Principles of International Environmental Law*, Fourth ed., Cambridge University Press, 2018, p. 657 ff.

Antarctic Treaty. With regard to non-legally binding instruments, the International Law Commission's Draft Articles concerning Prevention of Transboundary Harm from Hazardous Activities in art. 7 affirm that "Any decision in respect of the authorization of any activity within the scope of the present Articles shall, in particular, be based on the assessment of the possible transboundary harm caused by that activity, including any environmental impact assessment".

Although assessment processes may vary from a system to another, EIA is based on some common key elements. First, there is a screening phase aimed at determining whether a specific activity shall be subject to an EIA. Secondly, part of the process will focus on defining the scope of the impact assessment. Finally, after consultations with technical bodies and public review, the appropriate institution will assume the final decision with regard to the concerned activity.

Regarding the scope of the EIA, the first issue concerns the threshold of the activity's "significant" impact on the environment. The threshold requirement that triggers the duty to conduct an EIA is the likelihood of 'significant adverse impact on the environment'. In the context of the ILC Draft Articles, 'significance' constitutes the threshold for obligations of harm prevention and is defined as a level of harm that is more than 'detectable', but not necessarily 'serious' or 'substantial'. In this, there is a strong link to the prevention principle, which can be traced back to the Trail Smelter Arbitration's requirement that international obligations are triggered by the prohibition of activities that cause serious transboundary harm to other States or to areas beyond the limits of national jurisdiction.

3.2. The Consolidation of the EIA in International Case Law

Environmental disputes have formed a significant portion of international case-law. Subsequently to the case *Gabcikovo-Nagymaros*, in 2010 the ICJ in the *Pulp Mills* case recognized that States are under a customary international law obligation to undertake transboundary EIAs prior to carrying out projects that may cause significant adverse transboundary impacts. ¹⁵ The ICJ reaffirmed this holding in its 2015 judgment in two joined cases concerning *Nicaragua's San Juan River*, in which it ruled "to fulfil its obligation to exercise due diligence in preventing significant transboundary environmental harm, a state must before embarking on an activity having the potential adversely to affect the environment of another state, ascertain if there is a risk of significant transboundary harm, which would trigger the requirement to

¹³ Yearbook of the International Law Commission (2001-II), Part 2, 148, 152, para. 2.

¹⁴ J. E. Viñuales (ed.), The Rio Declaration on Environment and Development: A Commentary, Oxford University Press, 2015, p. 457.

¹⁵ Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, 20 April 2010 ('Pulp Mills'), para. 204.

carry out an environmental impact assessment".¹6 In the same line, the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea (ITLOS) have similarly held in its 2011 Advisory Opinion. Based on the *Pulp Mills* judgement, the Chamber observed that "[a]lthough aimed at the specific situation under discussion by the Court, the language used seems broad enough to cover activities in the Area" and that "[t]he Court's reasoning in a transboundary context may also apply to activities with an impact on the environment in an area beyond the limits of national jurisdiction".¹7 In 2016, quoting the Seabed Disputes Chamber of the ITLOS, the arbitral tribunal in the South China Sea arbitration again stressed "that the obligation to conduct an environmental impact assessment is a direct obligation under the Convention and a general obligation under customary international law".¹8

International case law confirms that there is a general obligation under customary international law to conduct environmental impact assessment of the projects that may cause significant adverse impact on the environment of other States, shared resources or in areas beyond national jurisdiction. Although the customary legal obligation to carry out an EIA appears to have crystallized relatively recently, it is grounded in the well-established principles of due diligence and prevention. There is debate over whether the need to conduct an EIA is a standalone obligation, or whether it is a mean to fulfil the more general obligation of due diligence. However, it has been noted that "[i]t would be hard for a State to argue that it had acted in due diligence if it had not even studied what the impacts of a proposed project on another State's environment would be". 20

The obligation to perform a prior assessment of the environmental impact of certain projects therefore exists in international law even if the precise content of such assessment is still to be definitively determined. In this sense,

¹⁶ Certain activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua), joined with Construction of a Road in Costa Rica Along the San Juan River (Nicaragua v. Costa Rica), Judgment, 16 December 2015 ('Costa Rica v. Nicaragua'), para. 104.

¹⁷ Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area, Advisory Opinion, 1 February 2011, ITLOS Reports 2011 ('Responsibilities and Obligations of States'), para. 145.

¹⁸ South China Sea Arbitration (Philippines v. China), Award of 12 July 2016 ('South China Sea'), para. 948.

¹⁹ A. B. Loewenstein, Adjudication of Environmental Impact Assessment Claims before International Courts and Tribunals, in C. Voigt (ed.), International Judicial Practice on the Environment, Cambridge, 2019, p. 293 ff.

²⁰ K. Bastmeijer, T. Koivurova (Eds), *Theory and Practice of Transboundary Environmental Impact Assessment*, Leiden, The Netherlands, 2008, p. 7. See also, Costa Rica v. Nicaragua, Separate Opinion of Judge Donoghue, para. 13; Costa Rica v. Nicaragua, Separate Opinion of Judge Owada, para. 18.

some initiatives, especially in the context of the CBD, have been put forward to agree on guidelines detailing the impact assessments' content.

4. The EIA and the Need for a Sustainable Use of Outer Space

In this context, the wider performance of EIAs also serves the purposes of the sustainability of outer space activities. Since UNISPACE III, several initiatives have been launched at the international level to face the challenge of space safety, security and sustainability. The adoption of no legally binding instruments, as code of conducts, guidelines and technical standards, are important instruments for the evolution of the legal framework. The implementation of these documents is also supported by a range of national and regional design manuals and reports related to the design, testing and operation of space systems. Reference can be made to the IADC Space Debris Mitigation Guidelines that recommend the elaboration of a Space Debris Mitigation Plan for any space operation to be undertaken. This measure is not actually called EIA, but its content very much goes in this sense.²¹

Another relevant step along the same lines has been the landmark adoption of the Guidelines for the Long-Term Sustainability of Outer Space Activities (LTS). The LTS Guidelines do not refer to EIA, but they recognize that Earth's orbital space environment constitutes a finite resource that is being used by an increasing number of actors. Accordingly, they foster the adoption of regulations and policies that support the idea of minimizing the impacts of human activities on Earth as well as on the outer space environment, and encourage the operators to develop technologies that minimize the environmental impact and consider appropriate safety measures to avoid harmful contamination, taking advantage of existing measures, practices and guidelines. Thus, the ICJ's observations on the need to apply contemporary norms and standards as expressed by the concept/objective of sustainable development may find their own way for the management of environmental concern in outer space even throughout the implementation of these instruments.

In addition, given the increasing interest in missions to the Moon, Mars, and other parts of outer space States and stakeholders are putting efforts to ensure that exploration and use of resources is carried on in responsible and balanced ways. To date, all missions planned and launched by national space agencies to the Moon and other celestial bodies have adhered to planetary protection rules for limiting biological contamination, as outlined by the Committee of Space Research (COSPAR), consistent with OST. The Planetary Protection Policy have so far been largely followed by space actors

²¹ L. Viikari, Environmental Impact Assessment in the Space Sector, in K. Bastmeijer, T. Koivurova (Eds), *Theory and Practice of Transboundary Environmental Impact Assessment*, Leiden, The Netherlands, 2008, p. 278.

PROCEEDINGS OF THE INTERNATIONAL INSTITUTE OF SPACE LAW 2021

and they include requirements of pre- and post-launch analyses on the impact strategy.

4.1. A Glance on National Space Legislation

Along with international efforts, national space legislation much works in the sense of promoting the protection of the space environment. Considering art. VI of the OST, an EIA would be a legal instrument that forms part of the necessary requisite to authorizing activities into outer space. Considering the potential impacts of proposed launch activities that are of ultra-hazardous nature, the inclusion of EIA would be able to give a better compliance with the obligation imposed upon States by international law, Indeed, the EIA is already part of the process for licensing space operations, although it concentrates on the earth environment and mainly considers the avoidance of generating space debris. As explained above the first EIA procedures were set up by the NEPA in the United States. Space launches have been qualified as a Federal action for which EIAs is mainly undertaken for their immediate consequences relating to launching operations and potential polluting effects. Moreover, NEPA is supplemented by the NASA Policy for Limiting Orbital Debris Generation, which primarily avoid new orbital debris to decrease risks for present and future space activities. NASA has subjected to an EIA the Mars 2020 mission, for which compliance with NPS Guidelines, the IADC Guidelines as well as the UNOOSA Compendium on Space Debris Mitigation Standards were taken in due account. The performance of an EIA for Mars 2020 has allowed to incorporate environmental and scientific analyses in the decision-making process for the mission's planning and operation, taking also into account suggestions made by public participation. A more precise attention to the protection of the space environment is also involving the commercial sector. It is worth to note that, despite the mere economic interest in the market, Viasat, a satellite communications company, submitted a petition that challenged the approval by the Federal Communications Commission of the SpaceX Starlink satellite constellation arguing that the FCC had failed to analyse the environmental impacts of this latter.²² Also in other countries, an overall attention to space environment has been highlighted with respect to the national legislation regulating environmental protection as an implementation of art. VI of the OST.²³ Provisions of a broad character that stipulates the obligation to conduct an assessment and prevent harmful contamination can be split into two categories. On the one hand, those concerning the protection of the Earth's environment and the outer space environment. On the other hand, provisions that specifically

²² M.J. Ellis, Keep Environmental Red Tape Out of Outer Space, in Legal Memorandum, 2021, p. 7.

²³ A. Froehlich, V. Seffinga, National Space Legislation, A Comparative and Evaluative Analysis, Springer, 2018, pp. 173-177.

focus on the mitigation of space debris. With respect to the protection of the environment, whether that is the Earth's environment or outer space environment, several states have set out conditions or obligations that require the activities to be conducted under the legislation to not adversely impact the environment. The UK, China, the Netherlands, Austria, Indonesia, Denmark, Portugal and New Zealand have stipulated the obligation that activities need to be conducted in an environmentally safe manner, avoid pollution and should not cause harmful contamination or adverse changes in the environment.²⁴ Whereas, Australia, Belgium and France, Finland, regulate the protection of the environment primarily through the obligation upon the licensee to conduct an environmental impact assessment.²⁵ At the 60th session of the Legal Subcommittee of the UNCOPUOS, Finland stated that one of the objectives of its national space legislation, is to stress the importance of the sustainable use of outer space and the mitigation of space debris. It has been explained that "For this purpose, the operator is required to make a prior environmental impact assessment of its space activities, and report on those vearly".26

5. Concluding remarks

The EIA is a legal mechanism which can serve the aim of granting the double dimension of sustainability and sustainable development, especially due to its procedural relevance. In this sense, it may be significant for different issues in the field of space activities such as debris mitigation, large satellites constellations, space traffic management, protection of the space environment in the face of new projects of human and robotic exploration. From the same perspective, this may also contribute to implement the 2021 G7 Leaders' Summit recommendation on the importance of developing common standards, best practices and guidelines for sustainable space operations, especially in relation to space debris. Even though a precise content of an EIA has not been defined in binding instruments nor through case-law derivation, this should not hinder its practical relevance as a useful tool for the protection of the space environment. Due to the wide range of possible activities involved, in an often-unpredictable environment, the undefined content of the notion of EIA comes with no surprise. As happened for the high seas, ocean soils and subsoils and their resources, the scenarios that may be opened can be highly diversified so that having an open and flexible mechanism, capable of being adapted to factual needs and conditions, may be an added value rather than a pitfall.

²⁴ See in general J. Wheeler (ed.), *The Space Law Review*, I-III editions, United Kingdom, 2019-2021.

²⁵ Ibidem.

²⁶ Finland's Statement in the 60th session of UNCOPUOS LSC, 31 May-11 June 2021.

PROCEEDINGS OF THE INTERNATIONAL INSTITUTE OF SPACE LAW 2021

The EIA requirements may appear as additional restrictions on the development of the space sector, but the use of environmental assessments show benefits in terms of safeguarding the space environment and reducing costs project in long run of which operators and space industry and can benefit. The negotiated non legally binding instruments and the national legislation have detected such a potential and embedded EIA in various forms. The latter, often require operators to assess prior impact on the space environment as a precondition for granting relevant authorizations under Article VI of the OST. In this sense, regardless its specific content, EIA can provide a straightforward contribution to the sustainability of space activities whether as an independent obligation or as part of an overall obligation of due diligence. In this context, international environmental law still effectively acts as a gap-filler, enhancing the undertaking of EIA even in the absence of a specific obligation in the space treaties.