

From Courtrooms to Cosmos: The Legalities of Space and Where to Find Them

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The 1935 paper "The Place of Philosophy in International Law" by Edward Dumbauld is surprisingly relevant today. In this work, Dumbauld emphasizes the importance of international treaties and agreements, contending that they are not merely political documents, but rather reflect deeper philosophical and moral foundations. This perspective, which was advanced nearly a century ago, continues to hold true today as the global community grapples with complex issues that require a principled, philosophical approach to international cooperation and governance—the International Space Law included.

The expansion of space exploration and utilization has necessitated the development of a comprehensive legal framework to govern the activities of nations and private entities in this domain. As we advance the Philippines' space ambitions, there is now a pressing need to proactively contribute to these multilateral discussions and negotiations.

We must be armed with the necessary legal knowledge to do so.

The study of law, particularly international space law, is critical in ensuring that the Philippines' journey towards becoming a spacefaring and space-capable nation is conducted in a manner that is aligned with the principles of international law and the peaceful use of outer space. Navigating the often-complex web of national and international regulations governing space activities requires a deep understanding of the legal landscape.

However, as noted by scholars, there are significant gaps in the existing legal frameworks; and effective governance mechanisms for various aspects of space activities are not directly addressed in most national and international regulations.

It is then crucial for the Philippines to thoroughly understand and engage with the evolving field of international space law, and maximize the potential benefits of space technology for the country and its people.

But where do we start? Where should we find the resources?

Further in the field of international relations, treaties are crucial tools for cooperation that enable clear legal settings for peaceful engagements between states. They facilitate collaboration on global issues, ensuring that all parties adhere to agreed-upon principles and commitments.

This is why more thorough scrutiny of these principles are vital for the Philippines.

In law school, one learns that treaties are binding agreements between sovereign nations, and the five space law treaties and principles—the Outer Space Treaty, the Rescue Agreement, the Liability Convention, the Registration Convention, and the Moon Agreement—are no exception.

Although not all may be directly applicable to the Philippines' current space program yet, by examining the aspects of these treaties and addressing legal challenges related to commercial space activities, resource exploitation, and safeguarding national interests, the Philippines can create a local strategy tailored to the country's specific needs.

The Philippines has ratified the Outer Space Treaty, which outlines principles for the exploration and utilization of space. Through this ratification, we have committed to upholding key principles such as promoting the use of space ensuring access for all nations and prohibiting claims in space.

This ratification represents a significant stride for the Philippines, as it provides a strong legal and regulatory framework for the country to develop its space capabilities in a more responsible and sustainable manner. However, with this ratification comes an increased responsibility on the Philippine government to ensure proper oversight and management of space objects registered under its national registry (i.e., the Registration Convention).

The government must be more rigorous in fulfilling its duties, including implementing appropriate measures to prevent and mitigate any potential damages caused by these space objects.

Achieving these will involve an approach that combines expertise in space law with advancements in science, technology, and diplomacy.

We are no strangers to these capabilities and expertise.

The Philippines has long been contributing to the body of knowledge in space science and technology, from the development of small satellites to groundbreaking research and development initiatives in resource monitoring and disaster management. The country's growing proficiency in areas like space weather forecasting, remote sensing, and the use of other geospatial technologies has already demonstrated the country's potential to become a significant player in the space domain.

And the encouraging aspect of the Philippines' journey to becoming a space-capable nation is that we are not alone in this endeavor. We have never been alone.

The strategic partnerships that the Philippines had forged with other spacefaring nations, such as Japan, India, and United Kingdom, to name a few, provide the country access to cutting-edge technologies, technical know-hows, comprehensive capacity-building programs, and the opportunity to leverage shared resources and expertise.

These countries' existing space technology legal frameworks may significantly serve as a valuable reference point for the Philippines as it develops its own national space laws and regulations. By studying the approaches adopted by more experienced space powers, the Philippines can craft a tailored legal system that addresses its unique national priorities and constraints, while still adhering to the overarching tenets of international space law.

Japan has the nearest space system to ours.

Japan, as our long-time partner in space endeavors, has made significant progress in creating a comprehensive space policy and legal framework that regulates its activities in civil and commercial space spheres. The Philippines can learn from Japan's experience of having robust

domestic legislation on space such as the Fundamental Space Law and Basic Plan for Space Policy which have defined the direction of their country's space program.

Japan's proactive approach to integrating space capabilities for national security purposes can also serve as a model for the Philippines. By further studying Japan's efforts to leverage space-based systems for maritime domain awareness and disaster response, the Philippines can identify opportunities to similarly strengthen its own defense and security posture through the strategic utilization of space technologies and space observation datasets.

When we are armed with legal knowledge from these treaties and the existing national laws of more advanced spacefaring nations, the Philippines can potentially acquire the necessary expertise to navigate the military and security challenges and implications associated with space exploration.

In this context, we can leverage the Philippines' partnership with the European Union, which has been developing a comprehensive approach to space security and defense. On the national security front, the EU's space strategy for security and defense can serve as a model for the Philippines as it seeks to align its domestic regulations and policies with the overarching framework of international space law. The risks in space systems, such as the potential for space to become a domain of military confrontation, can be mitigated through the Philippines' deeper understanding of the legal limitations and cooperative mechanisms established in existing space treaties.

These use cases in space science and technology applications can be a starting point for legislative inquiry and space policy development in our country.

This brings us to the other international space law treaty: the Liability Convention - a crucial component of the international legal framework that the Philippines must familiarize itself with. This treaty establishes the liability regime for damage caused by space objects, both on Earth and in outer space.

The liability convention highlights the importance of domestic space legislation.

By enacting comprehensive national space laws, the country can not only meet its international obligations but also create a conducive environment for the growth of its domestic space industry. This will be instrumental in addressing regulatory challenges, from licensing and authorization procedures for private space companies to the management of space traffic and debris.

Now that the Philippines has delved into the development of microsatellites, it is now imperative to be equipped with the necessary knowledge on how to properly manage space debris and mitigate the environmental impact of our space activities.

The Space Junk, as scholars call it, poses a significant threat to the sustainability of space operations, and the Philippines must align its domestic regulations with the international frameworks governing this issue.

NASA estimates that there are over 27,000 pieces of orbital debris larger than a softball orbiting the Earth; and unexpected survived re-entry can cause significant property damage. Civic organizations are now calling for the urgent need for stringent international regulations and mitigation strategies to ensure the safety and sustainability of space operations. This is also our responsibility.

Hence, by studying the evolving legalities surrounding environmental protection in the space domain, the Philippines will be able to develop efficient monitoring and remediation strategies, as well as establish clear liability rules for any damages caused by its space objects.

Mastering-- or at least getting familiar with-- the terms and intricacies of this convention will empower the Philippines to protect its national interests and ensure that its space activities are conducted in a responsible manner that aligns with international policies.

Notwithstanding that the scope of these terms is still unclear for domestic legislation and adaptation, we still need a more comprehensive national implementation of International Space Law.

As the United Nations Office for Outer Space Affairs provide, space activity legislation extends to any activity within the territory of a state or carried out by its nationals, and proper authorization and continuing supervision of such activities are necessary. Therefore, adopting a comprehensive national space law will further enable the Philippines to define the rights and responsibilities of various stakeholders, including government agencies, private entities, and even the public, in the advancement of space-related activities.

To date, the Philippines — through the Philippine Space agency and the Department of Science and Technology— have been working hand in hand to promote research and development activities as well as operationalization of space technology related projects. These activities have already yielded tangible benefits in areas such as resource mapping, environmental monitoring, terrestrial domain awareness, and disaster risk management. With the existing space science and technology regulations, the country is well-poised to harnessing the full potential of space technology. The legal expertise gained through more robust study of space law will be instrumental in this endeavor.

The Philippine Space Agency has been taking the lead on this initiative, and we can achieve more by closely aligning the key objectives of the agency with in-depth legal analysis and policy formulation.

As the outer space domain becomes increasingly congested and contested, the Philippines must now start to develop a nuanced understanding of the legal principles that govern the peaceful use of space, the mitigation of space debris, and the prevention of the weaponization of space. This can be achieved through mutual respect and collaboration in exploration as well as exploitation of space beyond Earth's atmosphere.

Moreover, through scrutinizing the legal boundaries of safety zones, the need for international consultations, and studying the *erga omnes* nature of *res communis omnium* doctrine, we can significantly enable a balance between the Philippines' sovereign ambitions and shared responsibility in space stewardship. By conforming to these acknowledged legal frameworks, the Philippines could show its dedication towards sustainable and responsible development of the space domain while gaining acceptance from global community as an honest and responsible partner in efforts collectively aimed at ensuring responsible exploitation of space assets.

The study of law, especially the international (space) law, will substantially help the Philippines to ensure its space-related endeavors adhere to internationally-established norms and protocols, mitigating the risk of potential conflicts or disputes with other nations. To add, a comprehensive grasp of space law will empower the Philippines to engage in effective diplomacy, negotiation,

and collaboration with other spacefaring states, ultimately strengthening its position as an emerging player in the global space arena.

Just like what Dumbauld said in 1935, international laws provide a valuable framework for addressing contemporary challenges— from climate change to human rights; from environmental monitoring to resource protection.

Dumbauld's work serves as a reminder that timeless concepts can offer important guidance, even in the face of rapidly evolving global dynamics in courtrooms to cosmos, even in space and beyond.

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