



United Nations
Office for Outer Space Affairs

Space Law and Disaster Management

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Space law as an enabler for secure conditions in space

- **Preventing** outer space from becoming an area of **conflict**
- **Strengthening** international cooperation and friendly relations
- **Distributing** space **benefits** between States
- **Advancing** the exploration and use of outer space through the establishment of **core principles** applicable to States and, through *national implementation*, non-governmental entities



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The Existing International Framework



Existing International Framework

5 Treaties

- Outer Space Treaty, 1967
- Rescue Agreement, 1968
- Liability Convention, 1972
- Registration Convention, 1975
- Moon Agreement, 1979

5 Sets of Principles

- Declaration of Legal Principles, 1963
- Broadcasting Principles, 1982
- Remote Sensing Principles, 1986
- Nuclear Power Sources Principles, 1992
- Benefits Declaration, 1996



Photo credit: UNIS Vienna



Other United Nations Instruments



Application of the concept of the “launching State” (2004)



Recommendations on registration of space objects (2007)



Recommendations on national legislation (2013)



Space Debris Mitigation Guidelines (2007)



Safety Framework for Nuclear Power Source (2009)



21 Long-term Sustainability Guidelines (2019)

<https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties.html>





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National Legislation



**Exploration and use
of outer space
traditionally subject
matter of public
international law**

**With technological
and economic
developments increased
number of States & non-
governmental entities take
part in space activities**

**Privatization and
commercialization in the
last decade involves new
space actors**

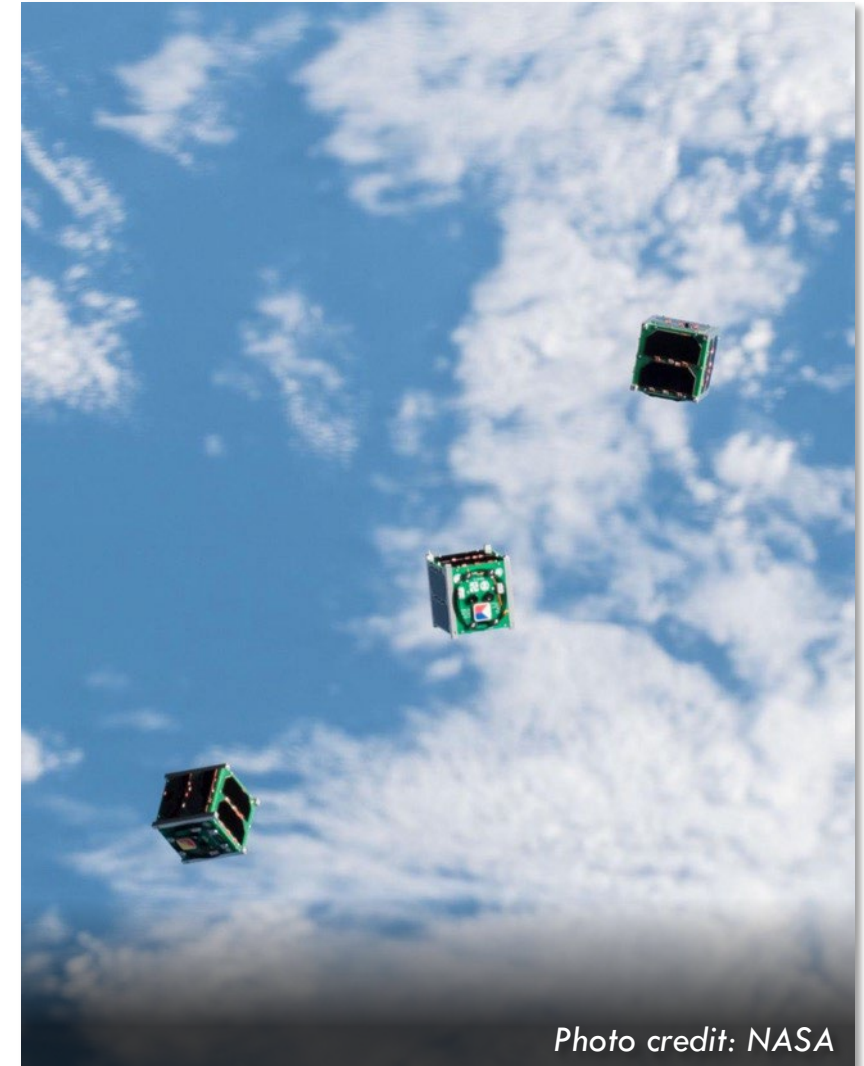


Wherever humans went, the law has followed.

Regulation may be perceived as a ‘restriction’

Instead, regulation can be understood as an enabler

- Secure frame conditions – investment factor
- Not only obligations but rights
- Expectation management
- Translation of industrial policy goals





Why national space law and policy?



Compliance with obligations under International (Space) Law



Prevent and avoid harmful consequences



Consistency & predictability



Practical regulatory system



Space economy, society, accessibility, diplomacy & national security



Regional and international cooperation

National Space Law as the continuation, concretion and completion of international space law



The need for national implementation



Treaties establish **high-level principles**



National implementation is necessary: both at legislative and (later) executive level



Approaches and choices by the national legislator reflect **national context, the national legal system, policies, spaceflight 'realities' and expectations**



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Space Law and Disaster Management



Space Law and Disaster Management: International Frameworks

International Charter on Space and Major Disasters

- Voluntary arrangement for fast-onset disasters
- Provides free satellite data for disaster response
- Activation by *Authorized Users* (national disaster management authorities, UN entities via UNOOSA/UNITAR)
- Universal Access: any registered national disaster management authority can submit requests to the Charter for emergency response support

UN-SPIDER

2006, GA Resolution 61/110

- Programme of UNOOSA
- Develops solutions to address the limited access of developing countries to technologies for disaster management and reduction
- Provides technical advice, training, and capacity-building
- Facilitates access to the Charter and other mechanisms

Sendai Framework for Disaster Risk Reduction (2015-2030)

- Non-legally binding UN framework
- Encourages states to integrate EO and satellite data in national disaster strategies
- Reflected in disaster risk management strategies rather than space law

COPUOS Guidelines on Long-Term Sustainability of Outer Space Activities

- Encourage responsible use of space, including disaster-related applications
- Highlight importance of data sharing for safety and resilience
- Non-binding, but serve as international best practice for states



Space Law and Disaster Management: National Frameworks

While global instruments exist, national frameworks determine effective implementation

Defining roles between space agencies, disaster management authorities, and other entities

- Space law can ensure accountability, and allow for rapid & coordinated responses during emergencies, e.g. through designation of space agency as entity mandated to activate the charter
- particularly important in federal systems or where multiple ministries are involved (e.g., defense, environment, science)

Enabling private sector involvement

- Licensing provisions can require commercial EO operators to make imagery available to the government during crises.

Facilitation of data sharing

- Space law can establish clear rules for inter-governmental or cross-border sharing of satellite data

Linking space assets to disaster management laws

- Space law can ensure that satellite data is systematically integrated into preparedness, early warning, and response.



Space Law and Disaster Management: Practical Examples

U.S. government can require priority tasking, data sharing, or restrict commercial sales of EO data in case of disaster response needs

French Space Operations Act gives the government priority access to EO data in case of national emergencies, natural disasters

Canada's Remote Sensing Act provides the state with rights to direct EO operations in case of disasters or threats to national security

CONAE (Argentina's space agency) can activate the Charter and serves as the interface between satellite data providers and national disaster management authorities;





Space Law and Disaster Management: Key Takeaways

Yes,

- Voluntary nature of international frameworks makes their availability depend on effective national coordination, not on rights;
- Many states lack clear provisions clarifying roles and responsibilities of governmental entities, causing delays and uncertainties;
- States may lack legal or institutional mechanisms to share, process and apply data rapidly;
- Balancing government needs with commercial operators' rights can be difficult without a clear regime



But!

space law makes disaster response faster and more effective

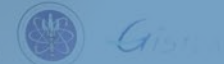


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SPACE LAW
TECHNICAL ADVISORY
MISSION IN THAILAND

UNITED NATIONS
Office for Outer Space Affairs

MOFA
Ministry of Foreign Affairs of JAPAN



www.gistda.or.th

The Global Space Law Project



The Global Space Law Project



Mandate:

“Requests UNOOSA to assist countries in developing national space laws and policies in line with international space law.”

i.e. Resolution on the 50th Anniversary of the Outer Space Treaty; Space2030 Agenda Resolution and annual resolutions on International Cooperation in the Peaceful Uses of Outer Space, which collectively emphasize the importance of helping countries develop national space laws in line with international standards



The Global Space Law Project

Space Law and Technical Advisory Missions

Tailored legal and policy assistance to help countries in drafting, finalising and implementing their national space law/policy, ensuring alignment with international space law frameworks

Four Stage Method



Country Assessment and Legal Baseline



Tailor-made course development



Deliver 2-3 days on-site technical advisory mission



Follow-up and evaluation





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NETWORKING EXERCISE



The country of **Novaterra** has been struck by a devastating cyclone. In order to assess damage and mobilize support relief operations, satellite imagery is crucial and urgently needed. Novaterra does not yet have a national space law in place. Thus, there is no clear legal framework regarding:

- Which **authority** may activate the Charter on Space and Major Disasters
- Whether **private Earth observation operators** must make data available during emergencies
- How data from **other international actors** can be received and shared with domestic agencies

As a result, there is no swift procedure to access the crucial satellite imagery and relief operations are slowed.

➤ Help Novaterra's government officials and advise them on why and how national space law should be implemented for disaster management.



Role of national frameworks

How can national space law or national space technology and innovation (NSTIs) help ensure timely access to space-based data for disaster management?

Should this be primarily addressed through space law, disaster management law, or a mix of both?

Public–private responsibilities

In times of disaster, how should responsibilities be shared between governments and private satellite operators?

What legal or policy tools could ensure that commercial Earth observation data is made available quickly and fairly?

Coordination and resilience

How can NSTIs and legal frameworks support coordination between space agencies, disaster authorities, and international partners?

Beyond immediate response, how can law and policy foster long-term resilience (e.g. domestic EO capacity, partnerships, training)?



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Thank you!

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<https://www.unoosa.org/oosa/en/ourwork/spacelaw/capacitybuilding/advisory-services/index.html>

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