

# International Space Governance – Role of the United Nations


IIIA Training Course on Space Law and Cooperation, 9 November – 2 December 2021

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UNITED NATIONS  
Office for Outer Space Affairs



21 Guidelines on long-term sustainability of outer space activities adopted by COPUOS at its 62<sup>nd</sup> session in June 2019

- Work on a "Space2030" agenda moving forward
- Governance and method of work of COPUOS moving ahead



# Committee on the Peaceful Uses of outer Space (COPUOS)



1958 ad hoc body. 1959 established as permanent body (GA resolution 1472 (XIV))

- ❑ Developing international space law
  - Has created 5 treaties (OST, ARRA, LIAB, REG, MOON) and 5 principles (Legal Declaration, Television Broadcasting, Remote Sensing, NPS, Benefits Declaration)
  - Space Debris Mitigation Guidelines
  - Safety framework for nuclear power sources (NPS)
  - Guidelines for the Long-term Sustainability of Outer Space Activities (LTS Guidelines)
  - GA resolutions on launching State, registration practice, national space legislation. Study on international frameworks
- ❑ COPUOS has expanded the number of States members from 18 (1958) to 95 (2020). Has 42 permanent observer organizations (IGO and NGO)
- ❑ Two subcommittees: Scientific and Technical Subcommittee (STSC) and Legal Subcommittee (LSC)
- ❑ COPUOS reports annually to GA Fourth Committee – resolution on “international cooperation in the peaceful uses of outer space”



## 95 States members of COPUOS

Algeria, Benin, Burkina Faso, Cameroon, Chad, Egypt, Ethiopia, Ghana, Kenya, Libya, Mauritius, Morocco, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Sudan, Tunisia

Bahrain, China, Cyprus, India, Indonesia, Iran, Iraq, Japan, Jordan, Kazakhstan, Lebanon, Malaysia, Mongolia, Oman, Pakistan, Philippines, Qatar, Republic of Korea, Saudi Arabia, Singapore, Sri Lanka, Syrian Arab Republic, Thailand, United Arab Emirates, Viet Nam

Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Czech Republic, Hungary, Poland, Romania, Russian Federation, Slovakia, Ukraine

Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Mexico, Nicaragua, Paraguay, Peru, Uruguay, Venezuela

Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Israel, Italy, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States

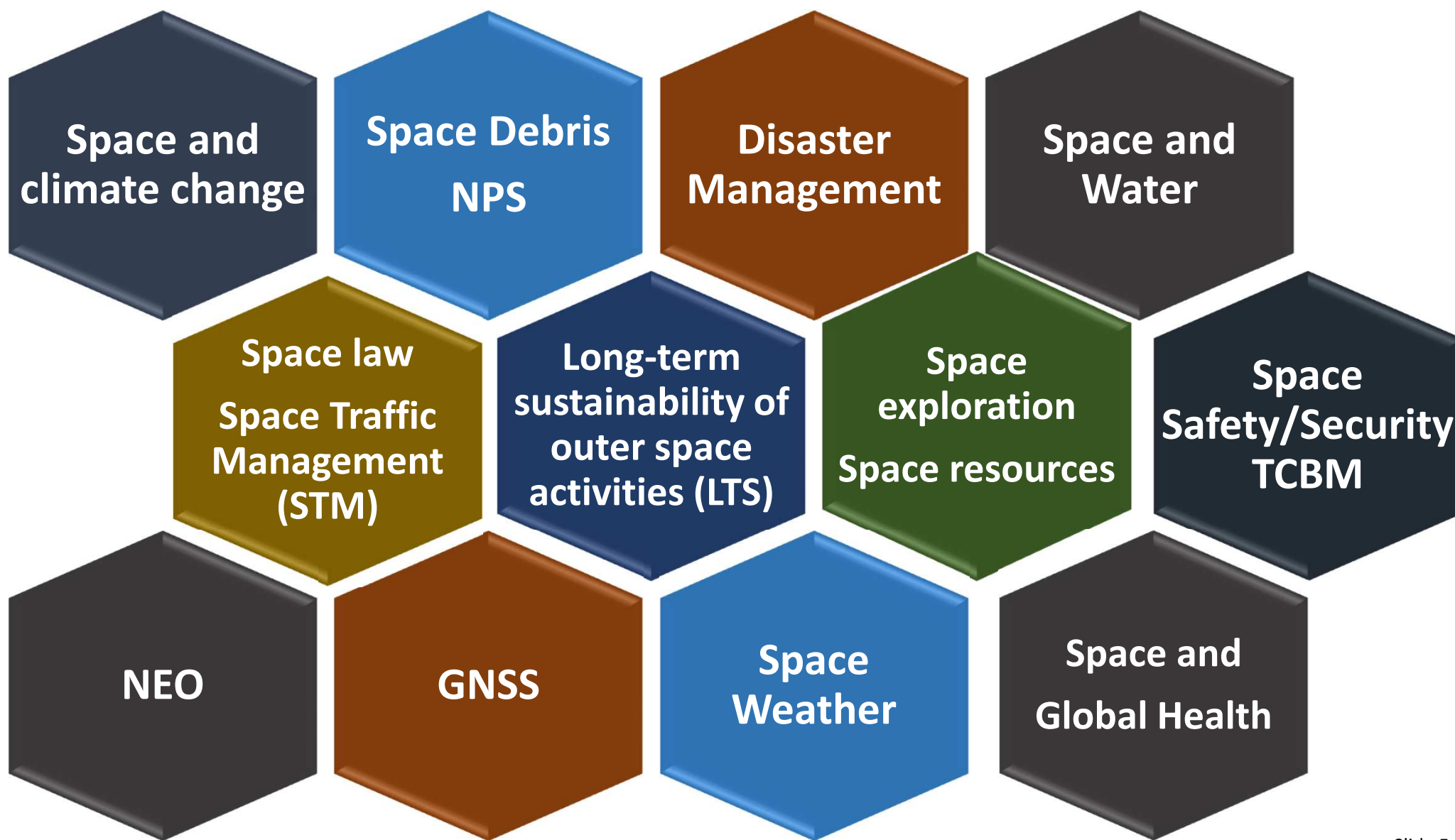
(Angola, Bangladesh, Kuwait, Panama, Slovenia recommended for membership 2021)



## COPUOS mandates

1959: UN General Assembly resolution 1472 (XIV) reaffirmed the role of COPUOS and mandated the Committee to:

- Review international co-operation
- Study space-related activities that could be undertaken under United Nations auspices
- Encourage and assist with national space research programmes
- Study legal problems which may arise from the exploration of outer space





## Highlights of COPUOS 2021

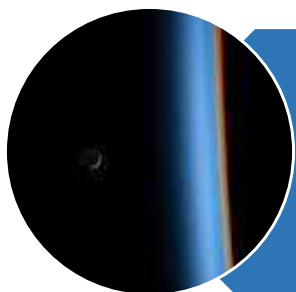
Hybrid format/160 statements/38 technical presentations/3 working groups

- 95+5 new States members = **100!** (Angola, Bangladesh, Kuwait, Panama, Slovenia). 3 new observers (UNIDROIT and SKAO as IGOs and Open Lunar Foundation as NGO)
- Endorsement of the “Space2030” Agenda (*A/76/L.3 adopted by GA Plenary 25 October 2021*)
- Endorsement of ToR and methods of work of LSC WG on Space Resources. Progress in way ahead of STSC WG on LTS. Agreement on establishment of Centre for Space Science and Technology Education in the Eurasian Region, affiliated to the United Nations
- Recommendation on GA proclamation of annual International Moon Day 20 July
- Movement intersessionally on Dark and Quiet Skies towards STSC agenda item 2022

*(GA resolution in A/C.4/76/L.3/Rev.1 on international cooperation in the peaceful uses of outer space adopted by Fourth Committee on 9 November 2021)*



## UNOOSA: supporting Member States



**CAPACITY BUILDER:** UNOOSA carries out specialized, targeted and cross-sectorial capacity-building activities in space science, technology, law and policy



**CONVENER:** UNOOSA facilitates the inter-governmental process. Brings stakeholders together (governments, NGOs, private sector)



**GATEWAY:** UNOOSA - the sole UN agency dedicated to space affairs. Fosters access to space. Builds partnership with private sector





## UNOOSA discharging responsibilities under space law



Maintaining the Register of Objects Launched into Outer Space (Registration Convention and GA resolution 1721 B)

Dissemination of information relating to outer space activities (including discovery of harmful phenomena) provided by States (Outer Space Treaty)

Dissemination of information relating to the recovery of “foreign” astronauts in distress and/or space objects by States within their territory and their return (Rescue Agreement)

Dissemination of information relating to lunar exploration and habitation (Moon Agreement)

Dissemination of information under the Nuclear Power Source Principles (NPS-principles)



## Other UN system entities and space

**International Telecommunications Union (ITU)** - Radio regulations governing the use of the radio-frequency spectrum and satellite orbits, Telecommunications and remote sensing for disaster management

**United Nations Educational, Scientific and Cultural Organization (UNESCO)** - UNESCO Space Education Programme, World Climate Research Programme (Intergovernmental Oceanographic Commission of UNESCO)

**World Health Organization (WHO)** - Health Mapping Project

**World Meteorological Organization (WMO)** - WMO Space Programme and the space-based Global Observing System (GOS)

**World Bank Group** - Co-financing of space applications-based projects, Environmental monitoring, project assessments

**Economic and Social Commission for Asia and the Pacific (ESCAP)** - Regional Space Applications Programme (RESAP)

**International Atomic Energy Agency (IAEA)** - Safety of space nuclear power sources (NPS)

**Office of the United Nations High Commissioner for Refugees (UNHCR)** - Refugee Camp Mapping

**UNITAR Operational Satellite Applications Programme (UNOSAT)**



**World Food Programme (WFP)** - Vulnerability Analysis and Mapping (VAM)

**Department of Peacekeeping Operations (DPKO)** - Establishment of GIS units in major United Nations Peacekeeping Missions

**International Strategy for Disaster Reduction Secretariat (ISDR)** – PreventionWeb ([www.preventionweb.net](http://www.preventionweb.net)), Hazard and vulnerability profiles

**Office for the Coordination of Humanitarian Affairs (OCHA)** - ReliefWeb ([www.reliefweb.int](http://www.reliefweb.int)), End-user support for disaster response (ICT kits)

**United Nations Office on Drugs and Crime (UNODC)** - Illicit Crop Monitoring Programme

**Food and Agriculture Organization of the United Nations (FAO)** - GeoNetwork, AsiaCover, AFRICOVER Land Cover Mapping and Global Land Cover Network (GLCN), Global Terrestrial Observing System (GTOS), Advanced Real Time Environmental Monitoring Information System (ARTEMIS)

**International Civil Aviation Organization (ICAO)** - World Area Forecast , Aircraft emergency locator systems in co-ordination with COSPAS-SARSAT, Global Navigation Satellite System (GNSS) for navigation, Frequency spectrum issues in co-ordination with ITU and IMO

**International Maritime Organization (IMO)** - Maritime navigation, Satellite communications

**CTBTO (Preparatory Commission)** - Global Communications Infrastructure

**United Nations Office for Disarmament Affairs (UNODA)** – Security, disarmament, PAROS

**United Nations Institute for Disarmament Research (UNIDIR)**



## Governance phases of COPUOS

1960 – 1980: Treaties

1980 – 2000: Principles

2000 – 2020: Resolutions, Guidelines

2020 - ...



## Preamble and 21 LTS Guidelines

- Preamble and 21 Guidelines adopted by COPUOS at its 62<sup>nd</sup> session in 2019 (A/74/20, annex II)
- Voluntary implementation of the Guidelines. Not legally binding under international law
- Any action taken towards their implementation should be consistent with the applicable principles and norms of international law
- Nothing in the Guidelines should constitute a revision, qualification or reinterpretation of those principles and norms
- Nothing in the Guidelines should be interpreted as giving rise to any new legal obligation for States
- Reference to GGE-report on TCBM
- Review of implementation and updating of the Guidelines through COPUOS with the support of UNOOSA



## Adopted LTS Guidelines - key areas

- National regulatory frameworks (reference to GA resolution 68/74 on national space legislation);
- Supervision of national space activities (responsible national entities);
- Registration practice (reference to GA resolution 62/101 on registration practice);
- Safety of space operations (information exchange on space objects and events);
- Improve accuracy of orbital data;
- Sharing of space debris monitoring information;
- Conjunction assessments (all orbital phases of controlled flight/pre-launch);
- Share space weather data and forecasts/develop space weather models;
- Design and operation of space objects (including small satellites);
- Uncontrolled re-entry of space objects (risk assessment and consultation);
- Cooperation and capacity-building/scientific and technical research and development



## Working Group on the Long-term Sustainability of Outer Space Activities – Way Forward

- ❑ Chair, Umamaheswaran R. (India), elected and first meetings convened in 2021.
- ❑ To be guided by the following framework:
  - Identifying and **studying challenges** and **considering possible new guidelines** for the long-term sustainability of outer space activities;
  - **Sharing experiences, practices and lessons learned** from voluntary **national implementation** of the adopted guidelines;
  - **Raising awareness and building capacity**, in particular among emerging space nations and developing countries.
- ❑ Terms of reference, methods of work and workplan are being negotiated.



## Governance projection (promoting safety of space operations)

- Enhanced capacity-building and awareness
  - Increased dialogue with private space actors
  - Organized reporting on the implementation of the LTS guidelines and further development
  - Structured information exchange on space objects and events
- STM...?





## Space multilateralism – a cross-cutting projection

- Space environment – celestial bodies: exploration and innovation, utilization and presence, space resources - environmental and cultural/heritage protection - planetary protection (COSPAR) (forward contamination) →
  - Space environment - orbits: LTS Guidelines and safety of space operations - registration/frequency management/GSO - SSA - fabrics of STM →
  - Earth environment: planetary defence, planetary protection (back contamination), space weather (also orbits), dark and quiet skies, sustainable development →
- Order - interests of space actors (governance, commercial, scientific)



UNITED NATIONS

# UNISPACE +50

# Transforming our world: 2030 Agenda For Sustainable Development





## UNISPACE+50 cross-cutting areas

UNISPACE+50 **thematic priorities** based on the following **cross-cutting areas, where COPOUS has made its major contributions** (A/AC.105/1137):

- **Space governance** (UN treaties and principles on outer space, COPUOS guidelines GA resolutions on outer space)
- **Capacity-building** (in the use of space science and technology and their applications for the benefit of all countries)
- **Resiliency** (disaster risk reduction, near-Earth objects, space weather )
- **Interoperability** (including work done by the International Committee on Global Navigation Satellite Systems (ICG) and other current and new coordination mechanisms, such as IAWN, SMPAG)
- **Space for sustainable development** (efforts by the Committee and its member States as well as UNOOSA to meet the 2030 Agenda for Sustainable Development)



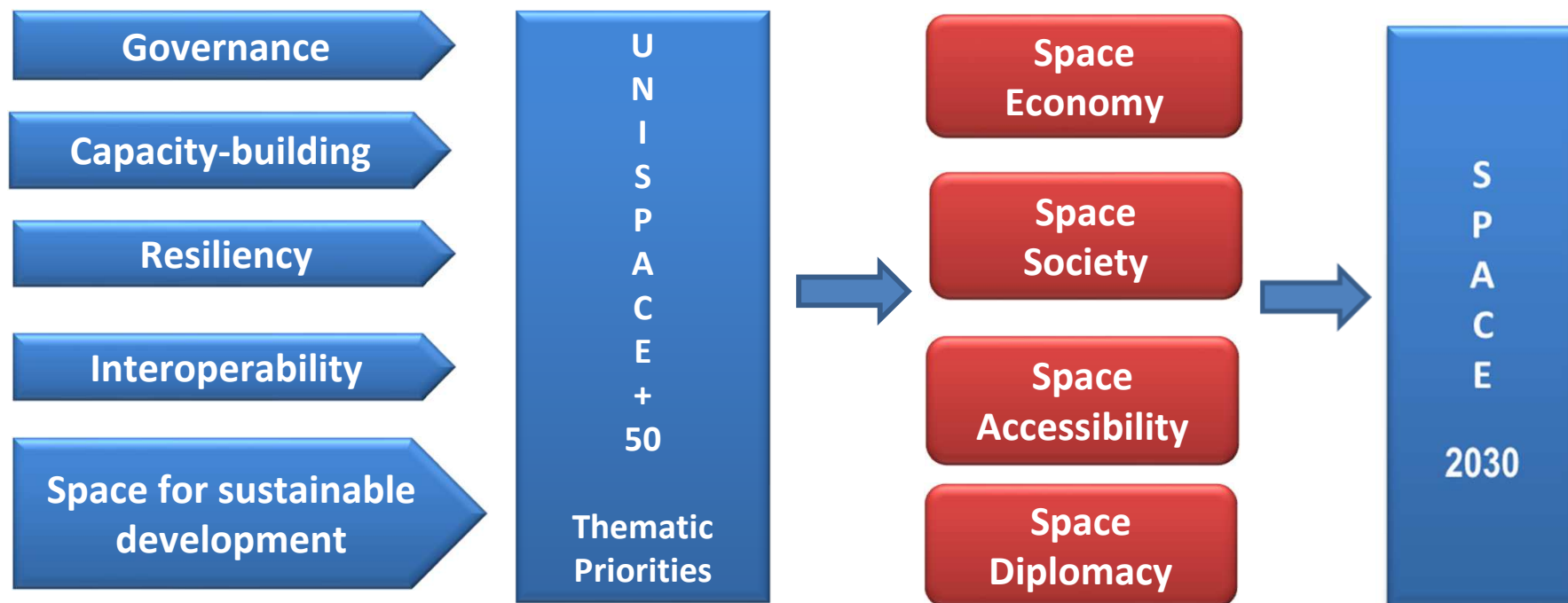
## UNISPACE+50 thematic priorities

### **7 thematic priorities with mechanisms agreed by COPUOS:**

- 1. *Global partnership in space exploration and innovation - Action Team with MS – agenda item of COPUOS***
- 2. *Legal regime of outer space and global space governance: current and future perspectives – LSC WG on Treaties developed guidance document***
- 3. *Enhanced information exchange on space objects and events – Mechanism TBD***
- 4. *International framework for space weather services - STSC EG on Space Weather***
- 5. *Strengthened space cooperation for global health - STSC EG on Space and Global Health – WG developing recommendations through GA resolution***
- 6. *International cooperation towards low-emission and resilient societies - UNOOSA***
- 7. *Capacity-building for the 21<sup>st</sup> Century - UNOOSA***



## UNISPACE+50 process towards “Space2030”



THANK YOU



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