



ON BEHALF OF THE ASIA-PACIFIC SPACE COOPERATION
ORGANIZATION

The Role of International Intergovernmental Organizations in the International Governance of Outer Space

High-Level Seminar on Space for Development

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Dr. Jiang Hui, Secretary-General of APSCO; jianghui@apsco.int

SPACE · GOVERNANCE · COOPERATION

Roadmap

Four chapters trace the arc from **why** governance matters, through the **architecture** that exists, to **APSCO's** role and the **way forward**.



01

Why Governance Matters Now

The space economy is booming — and so are congestion, debris, and the strain on rules written for a slower era.

02

The Multi-Level Governance Architecture

From UN treaty law to regional implementation: one architecture, many actors — and IGOs are the connective tissue.

03

The Role of IGOs — and APSCO's Contributions

Four functions IGOs perform, illustrated by APSCO's projects, networks, data sharing, and capacity building.

04

The Way Forward

Strengthening UN-centered multilateralism, inclusive rule-making, and IGOs as implementation multipliers.



01

CHAPTER ONE

Why Governance Matters Now

Space is changing faster than its rules. **Twelve thousand active satellites** now orbit Earth — more than double five years ago — while the core treaty dates to 1967.

- CONGESTION
- DEBRIS
- INEQUITY

The Space Economy Is Booming — So Are Its Risks

Activity is accelerating across every dimension; the governance gap = capacity outpaces rules.

ACTIVE SATELLITES IN ORBIT

~12,000

More than **double** the count five years ago — driven by mega-constellations.

PROJECTED SPACE ECONOMY BY 2035

\$1.8T

Up from ~\$630B in 2023 — commercial activity reshaping who operates in orbit.

TRACKED DEBRIS OBJECTS > 10 cm

~54,000

Plus an estimated **1.2 million** fragments 1–10 cm — each a collision risk.

ORBITAL LAUNCHES PER YEAR

~324

Record cadence — and a record number of **actors and filings** seeking spectrum and orbits.

So what — capacity is scaling exponentially, but the core treaty (Outer Space Treaty, 1967) predates most of it. The gap is where governance must catch up.

Five Challenges the Current Framework Strains to Address

Each tests a rule-book written for state-led, low-cadence spaceflight.

- 1 Congestion and space debris**
Thousands of catalogued fragments and near-misses raise collision risk for all operators.
- 2 Mega-constellation spectrum and orbit pressure**
Tens of thousands of planned satellites compress finite radio-frequency spectrum and orbital shells.
- 3 Lunar activities and resource governance**
Multiple missions and base plans outpace the 1979 Moon Agreement; resource-use rules remain thin.
- 4 Commercial innovation vs. slow rules**
Rendezvous, servicing, refuelling and on-orbit manufacture blur the line between civil and sensitive uses.
- 5 Equitable access for developing countries**
Many states lack the capacity to file for spectrum, host sensors, or shape the rules that bind them.



The common thread

The speed of change is outpacing treaty-based rule-making.

Soft law (guidelines, best practices), **operational cooperation** (data sharing, coordination), and **capacity building** must do the heavy lifting in between.

This is where IGOs earn their keep — as the bridge between global rules and regional reality.



02

CHAPTER TWO

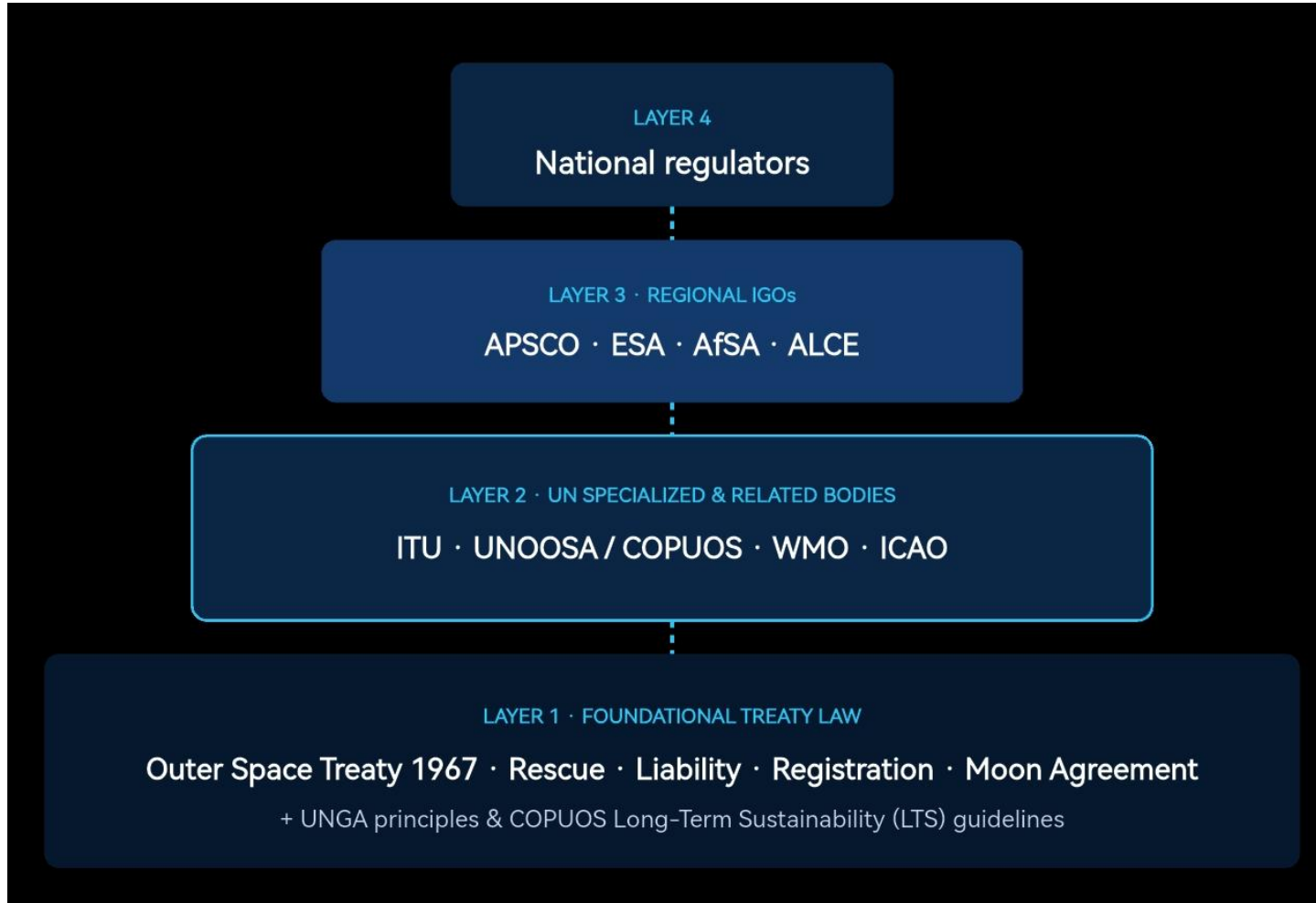
- TREATIES
- AGENCIES
- REGIONS
- STATES

The Multi-Level Governance Architecture

One architecture, many actors — from [treaty law](#) to [regional implementation](#); IGOs are the connective tissue between them.

From Treaty Law to Regional Action

Four layers, each with a distinct role; IGOs knit them together.



L1 • Foundations

Treaties set the floor: peaceful use, non-appropriation, liability, registration.

L2 • Global IGOs

Operationalize the treaties — ITU manages spectrum/orbits; UNOOSA hosts COPUOS; WMO coordinates space-based observing.

L3 • Regional IGOs

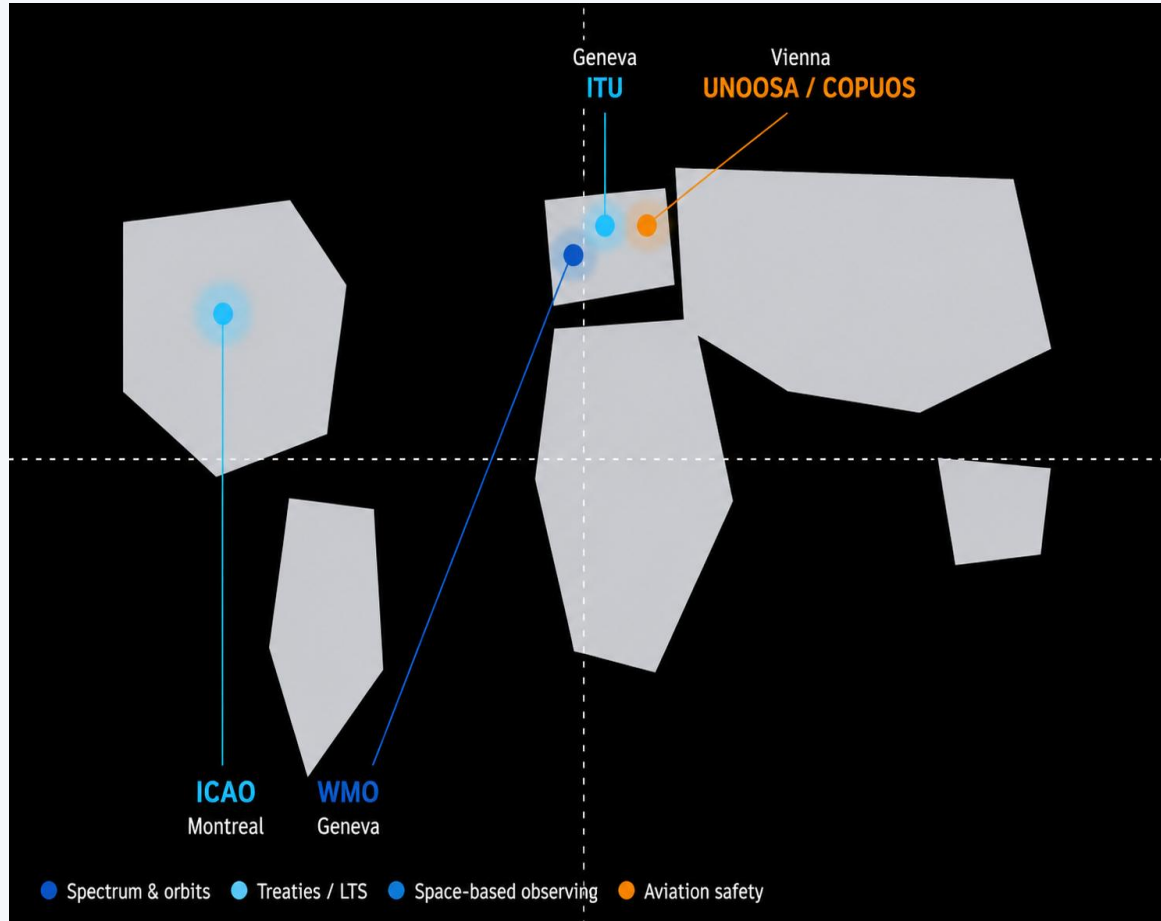
The missing link — **APSCO**, **ESA** and peers translate global norms into shared regional projects and capacity.

L4 • National

States licence, supervise, and register — the duty-bearers under the treaties.

Global IGOs Already at Work

Four UN-system bodies, four governance contributions — ITU's Radio Regulations are the flagship treaty success.



ITU

Geneva

Spectrum and satellite orbits

Manages radio-frequency spectrum and orbital slots as finite resources — the Radio Regulations are a binding treaty instrument, updated at WRCs.

UNOOSA / COPUOS

Vienna

Treaties and soft law

Custodian of the five UN space treaties; forum for Long-Term Sustainability guidelines and the Space2030 Agenda.

WMO

Geneva

Space-based observing

Coordinates the space segment of the Global Observing System — weather, climate and disaster data as global public goods.

ICAO

Montreal

Aviation safety uses

Sets standards for civil aviation uses of space — including satellite-based augmentation and air traffic over remote oceanic regions.



03

CHAPTER THREE

- NORMS
- OPERATIONS
- CAPACITY
- COOPERATION

The Role of IGOs — and APSCO's Contributions

Four functions, one organization — [APSCO](#) as a working case study of how an IGO turns global rules into regional outcomes.

WHO WE ARE



APSCO

Asia-Pacific Space Cooperation Organization —
pooling resources, multiplying benefits across
one of the world's most diverse regions.

 HQ Beijing, China · Established 2008

 2nd 10-Year Strategic Plan 2021–2030

 The Council + the Secretariat

Membership & Mandate

8

Member States

Bangladesh · China · Iran · Mongolia · Pakistan · Peru · Thailand · Türkiye

1 + 1 + 4

Signatory · Assoc. · Obs.

Indonesia · Egypt ·
Mexico + Venezuela + ISNET + AUASS

BD

CN

IR

MN

PK

PE

TH

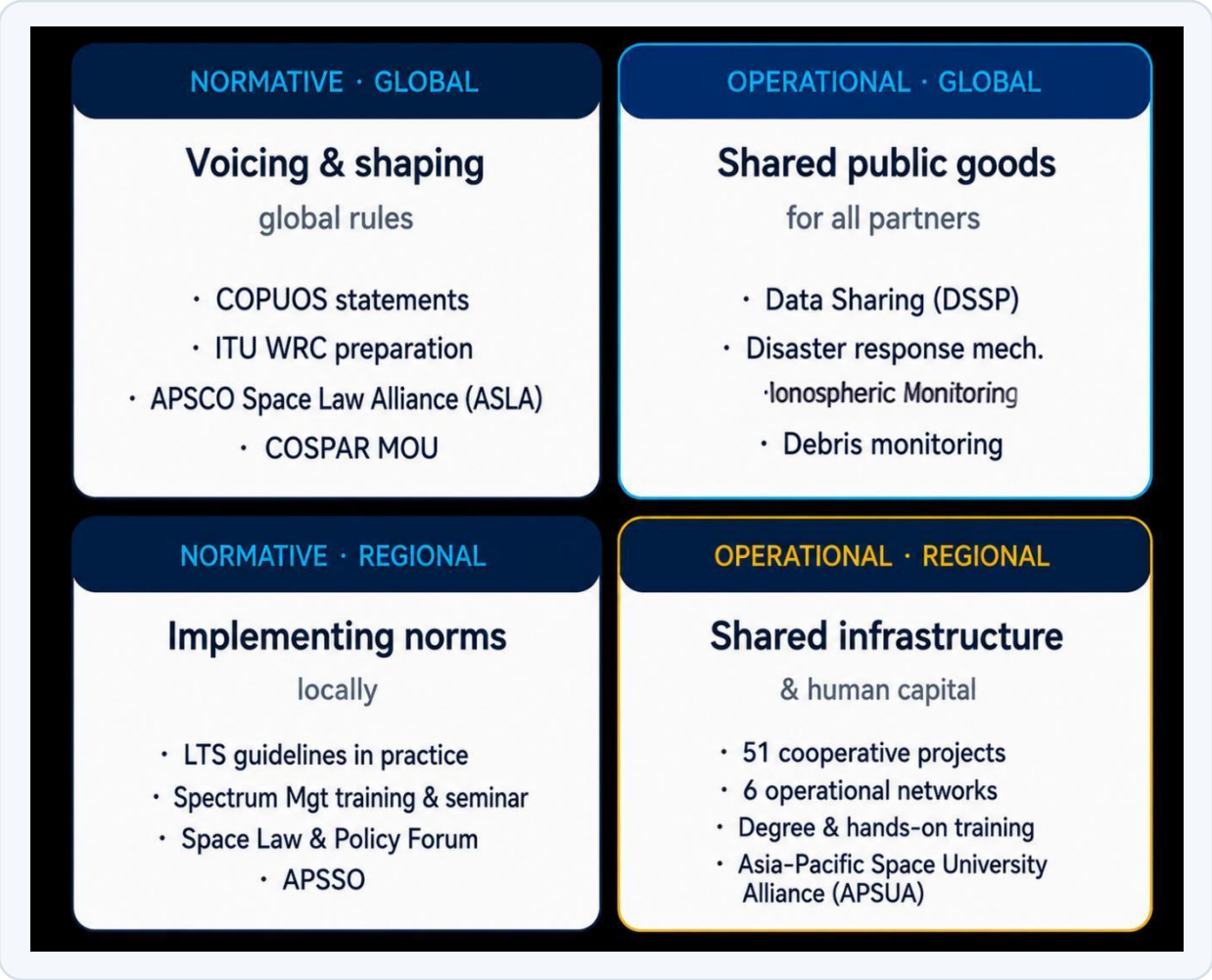
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Member State codes

APSCO's mandate: promote multilateral cooperation in space science, technology and applications across the Asia-Pacific region — **pooling and sharing resources** so every Member benefits, large or small.

Four Functions APSCO Performs in Space Governance

A 2x2 view — normative vs. operational, global vs. regional — each cell mapped to APSCO's work.



- Normative • Global**
APSCO brings Member States' voice to COPUOS and ITU, helps them prepare for ITU WRC cycles — including WRC-27 topics central to this seminar.
- Operational • Global**
Open data sharing, a disaster response mechanism, and COSPAR cooperation on planetary protection & debris make APSCO a contributor to global public goods.
- Normative • Regional**
The APSCO Space Law Alliance (ASLA) turns abstract guidelines into regional practice; APSSO builds space-object observation capacity.
- Operational • Regional**
Joint projects, shared networks and degree education pool resources so **every Member gains capability** — the heart of APSCO's 2021–2030 Plan.

Concrete Contributions — Projects, Networks, People

How APSCO operationalizes governance — through shared infrastructure, data, and human capital.

COOPERATIVE PROJECTS

51

Data Sharing and Earth Observation, Deep Space Exploration, Education, Training and Capacity Building, and strategic infrastructure.

OPERATIONAL NETWORKS

6

Data Sharing Service Network · Disaster Monitoring and Mitigation Network · Science Technology and Application Network · Education and Training Network · APSSO observatories · SOAP

SCHOLARS TRAINED (MSc + PhD)

401

289 Master + 112 PhD students on full scholarship via the China Scholarship Council.

Disaster Response Mechanism

Terms of Reference for the **APSCO Charter** approved by Council in Nov 2024 — operationalizing the DSSP for disaster monitoring & management.

Lunar and Deep-Space Cooperation

- International Lunar Research Station (**ILRS**) Cooperation
- Deep Space Exploration Engagement
- Partnership with International Deep Space Exploration Association (IDSEA)
- Assist MSs to access China Lunar Exploration

The Asia-Pacific Space University Alliance

ToR of **APSUA** - to strengthen international education cooperation and innovation and to enhance the talent cultivation capacity in space science, technology & applications and relevant advanced sciences & technologies in the Asia-Pacific region.

04

CHAPTER FOUR
The Way Forward



01

Strengthen UN-centered multilateralism

Coherence across UNOOSA, ITU and WMO; treaty law as the floor.

02

Inclusive rule-making

Bring developing countries into WRC-27 prep and LTS working groups.

03

Capacity building as governance enabler

Education, hands-on training, and shared infrastructure for all.

04

IGOs as implementation multipliers

Regional bodies turn global norms into regional outcomes.

**Outer space is a shared domain —
its governance must be built together.**

Thank you.

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