

APSCO's Contribution to the Long Term Sustainable Development in Outer Space

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About APSCO



- A non-profit, International, Inter-governmental organization
- Purpose is to promoting multilateral cooperation in space science, technology and applications
- China is the Host Country
- Headquarters is located in Beijing China
- Diplomatic Status in China
- 11 Members

Full Members: Bangladesh, China, Iran, Mongolia, Pakistan, Peru, Thailand, Turkey

Signatory: Indonesia (ratification in process)

Associate Member: Egypt (ratification in process)

Observer: Mexico, ISNET





20 years preparation 14 years of operation

1988

China, Pakistan and Thailand came up with the idea of Multilateral Cooperation

1992

**AP-MCSTA
Workshop,
Beijing
MoU Signed**

**2005
and
2006**

**APSCO
Convention was
signed by 9
Member States**

2008

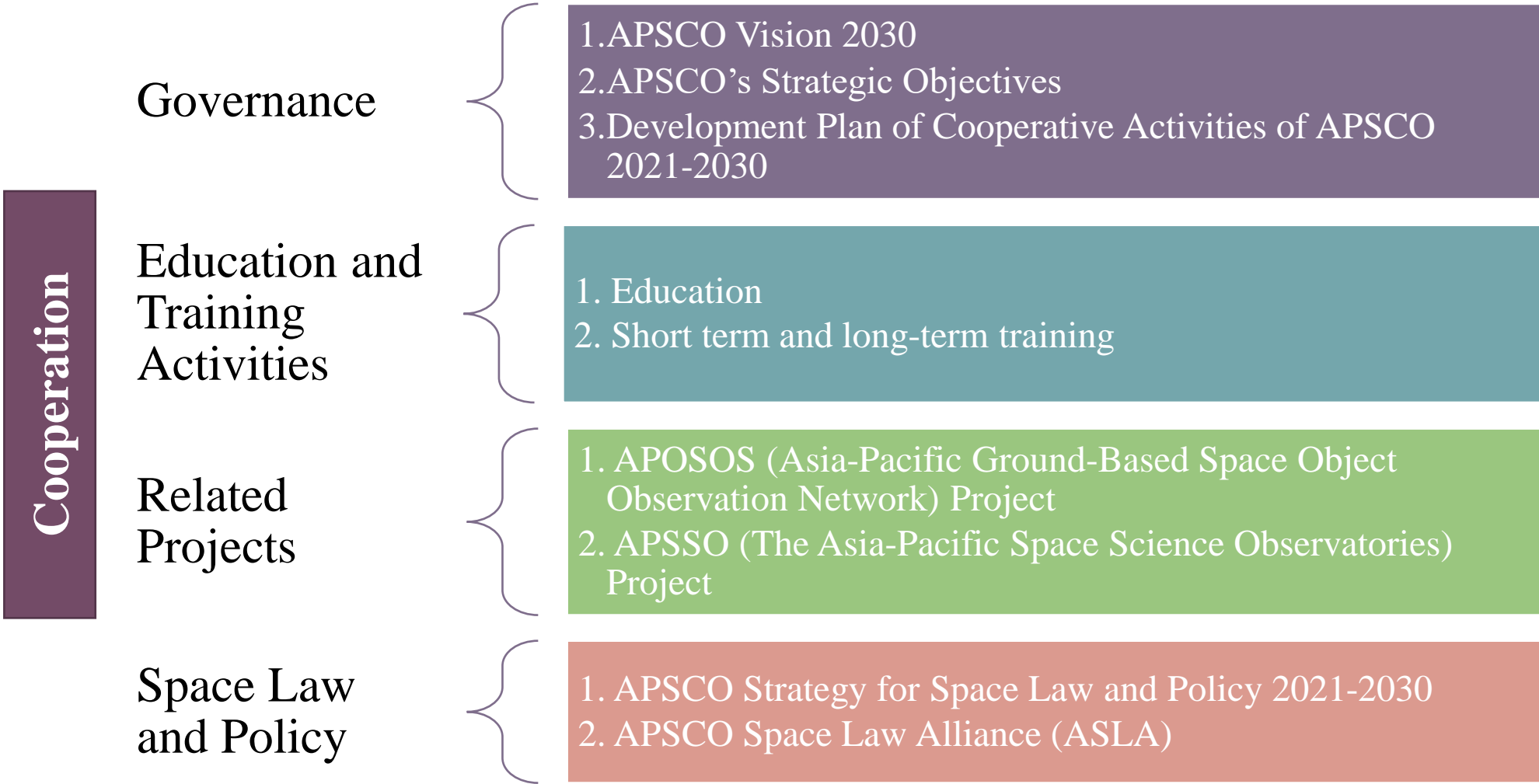
**APSCO was
formally
established**

2018

**10 years
Anniversary of
APSCO**

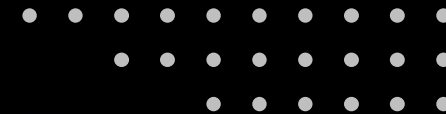


Long-term Sustainability of Outer Space





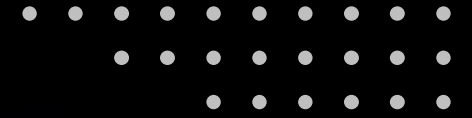
APSCO Vision 2030



*“APSCO shall significantly enhance capability of its Member States in particular, and in the Asia-Pacific region in general, in peaceful uses of outer space, in the domains of space science, space technology and space technology applications; by establishing the basis of cooperation through voluntary sharing of financial, technological and human resources, and leading the regional cooperation, work with and contribute to the collective efforts of international space community toward space governance and **long-term sustainability of the outer space activities.**”*

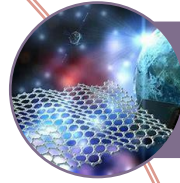


APSCO's Strategic Objectives



*“To encourage the Member States to practice towards the space governance and **long-term sustainability of outer space activities** that are complying with the guidelines of the United Nation’s Committee on Peaceful Uses of Outer Space (UN-COPUOS).”*

Development Plan of Cooperative Activities of APSCO 2021-2030



Space Science and Exploration: Space environment, space weather and solar



Space Debris Mitigation



Space observation, monitoring and mitigation technologies



Space Debris Data Centre



Capacity Building on Space Debris Mitigation

APSCO & Education

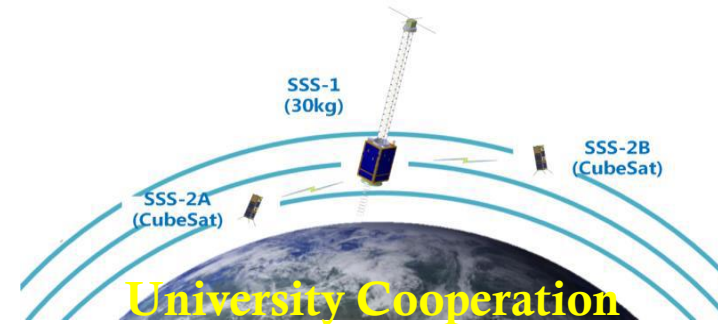


- Master & PhD
- BUAA & HIT & NPU
- Full Scholarship Support



- On-line Training
- On-site Training
- Centralized Training

- Space Education Curricula Development
- Student Small Satellite(SSS) program



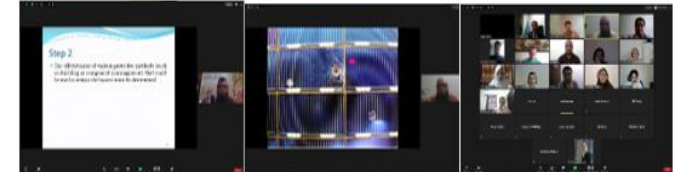
- Space Science School
- APSCO Microsatellite Contest
- Space Innovation Contest

APSCO & Training



APSCO conducted the distance-training course on *"Space Debris: Challenges and Mitigation Techniques"* from 22 to 26 June 2020, focused on imparting knowledge to the professional in the following areas:

- Introduction to Space Debris Environment
- History of Space Debris
- Space Debris Tracking and Cataloguing
- Space Debris Challenges
- Designing for the Debris Environment
- Space Debris Mitigation Techniques

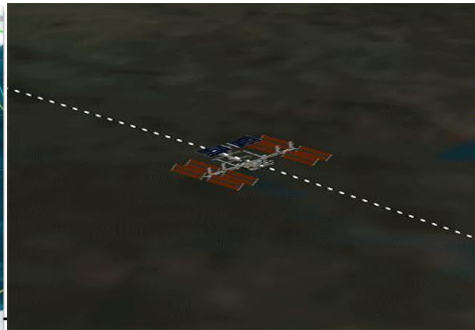
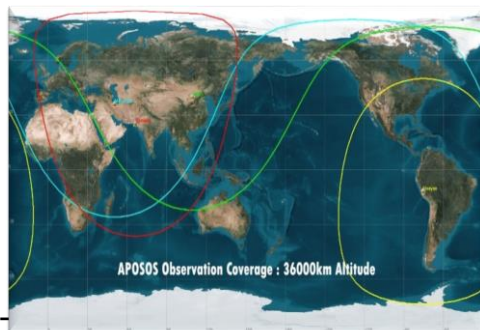




Related APSCO Projects

1 Asia-Pacific Ground-Based Space Object Observation Network (APOSOS)

- Approved in 2009, establishment 2014, completed in 2017
- APOSOS consists of three 15cm telescopes installed in Peru, Iran and Pakistan
- the Center for Data and Operation Management (hereafter CDOM) of APOSOS was founded in NAOC (National Astronomical Observatories, CAS) .
- Based on three 15cm telescopes and some existing telescopes, several joint survey activities have been carried out.



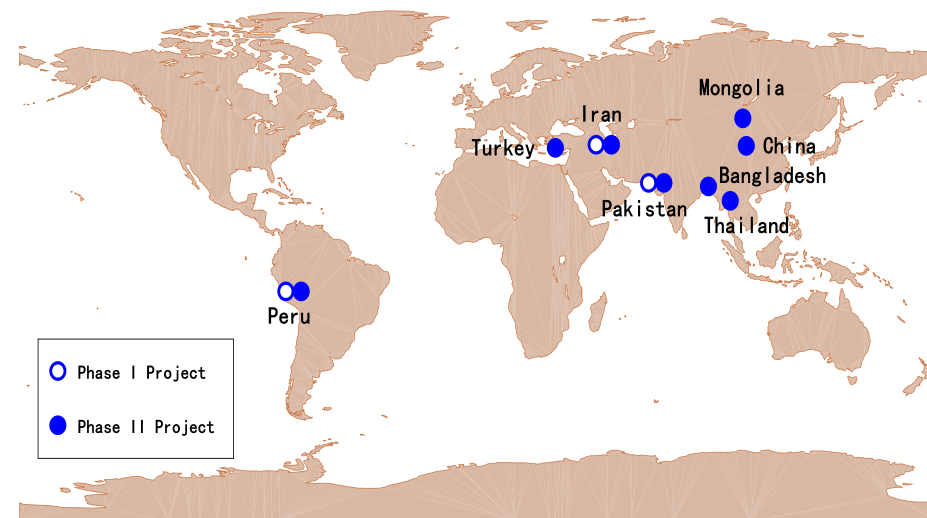
Related APSCO Projects

2 APSSO (The Asia-Pacific Space Science Observatories) Project

- APSSO is the second phase of the APOSOS
- **≥50cm telescopes** will be installed in all eight member states.
- Implementation time is five years from 2020 onwards

Objectives:

- To establish a **satellite, space debris and NEOs survey and tracking monitoring network** to provide APSCO member states with high-quality orbital data
- To establish a **data application service network** for data sharing, space hazard prevention and response for APSCO members
- To establish **an international cooperation network for technical exchange and training** in the field of outer space for APSCO members
- To establish astronomical research and a **popular science network** to provide a platform for the popularization of science to APSCO members.

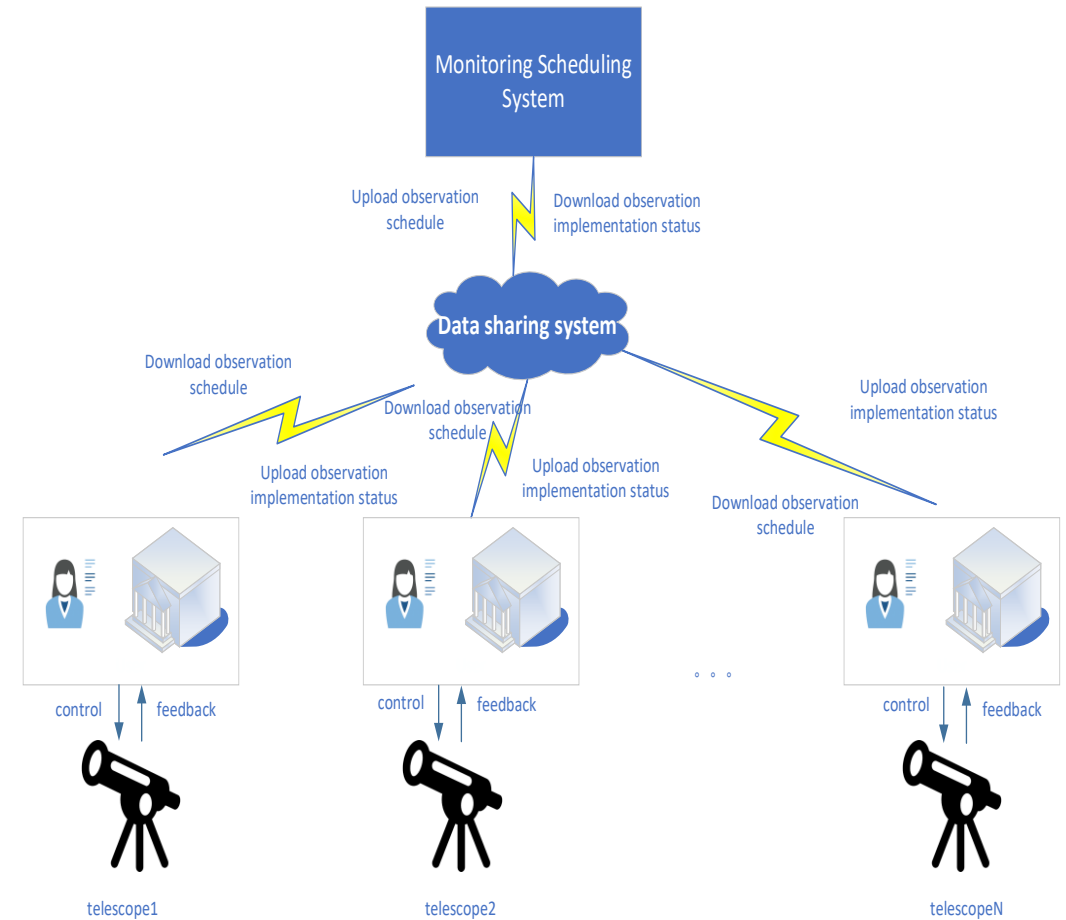


Related APSCO Projects

2 APSSO (The Asia-Pacific Space Science Observatories) Project

- Monitoring Scheduling System: Formulate the whole network observation task
- Data sharing system : Data sharing among users
- Telescope system: Automate Operation

Establish and maintain orbital database of satellite, space debris and NEOs

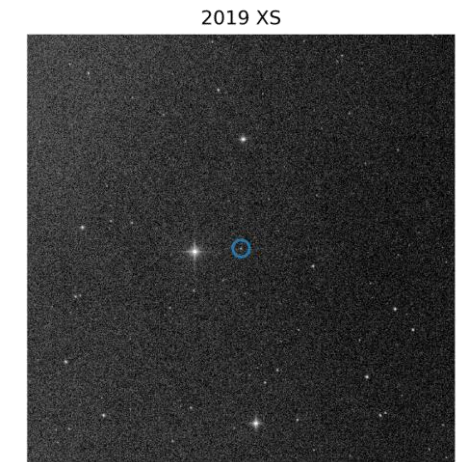




Related APSCO Projects

2 APSSO (The Asia-Pacific Space Science Observatories) Project

- At the beginning of 2021, a set of 60cm automatic telescope in Xinlong station of China has been completed as a **demonstration station**
- The automatic operation of the telescope was realized through the developed remote intelligent control software
- Observed IWAN international NEA joint observation object (2019XS)



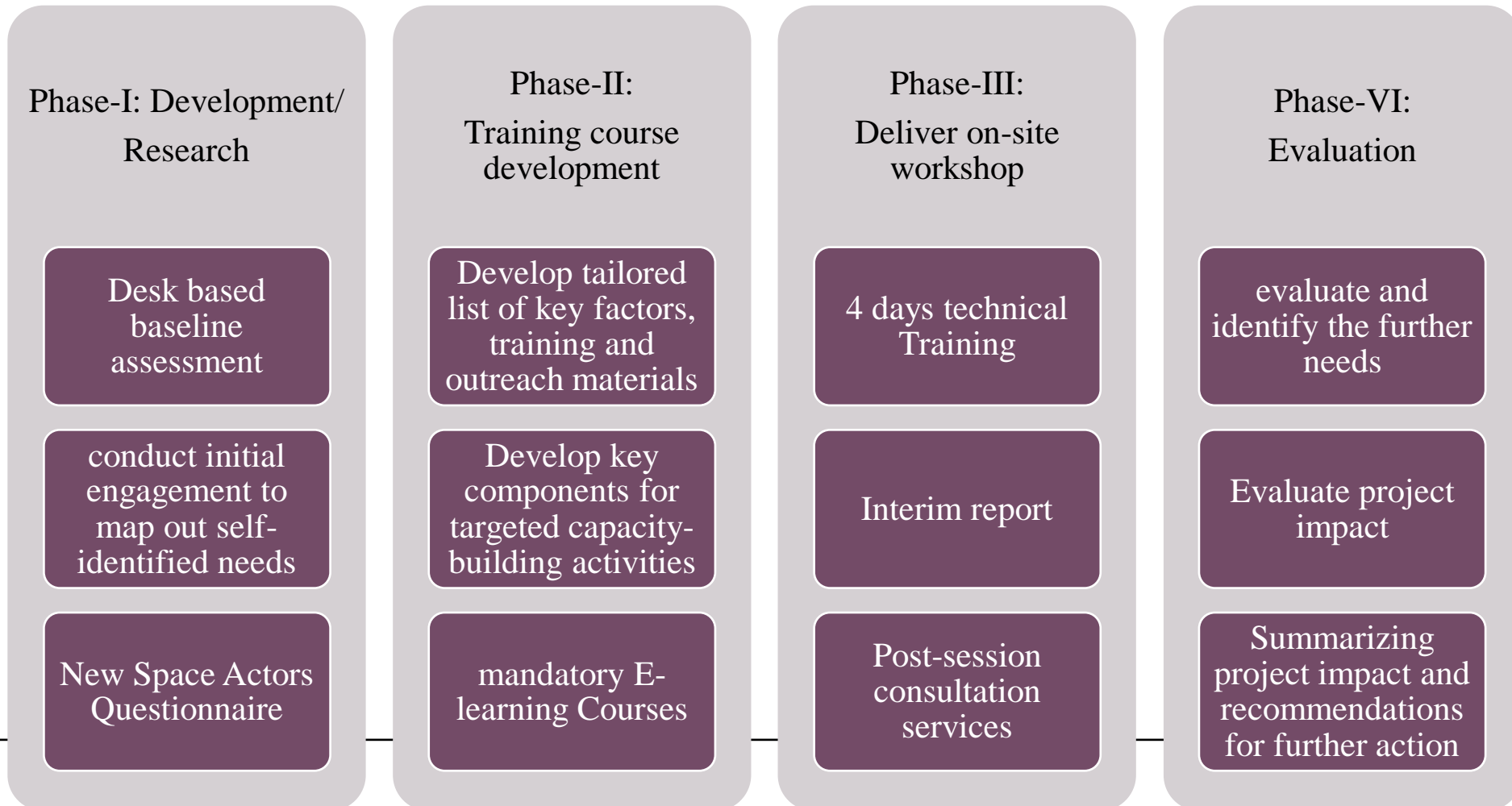
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APSCO Strategy for Space Law and Policy 2021-2030



No	Main Areas	Timeline
1	Capacity Building in Space Law and Policy	2021-2030
2	Executive Courses	2022-2030
3	Cooperation with UNOOSA for Legal Advisory Services	2021-2022
4	Cooperation on Knowledge Enrichment and Focused Capacity Building on Drafting of National Space Policy	2022-2023
5	Participation at the Legal Sub Committee of UNCOPUOS	2021-2030
6	Cooperation with ITU	2021-2030
7	Alliance with International Organizations	2021-2030
8	Alliance with Institutes/Organizations of Space Law in MS	2021-2030
9	Research on Contemporary Issues in Space Law and Policy	2021-2030
10	Publications	2025-2030
11	Creation of Pool of Space Law and Policy Experts	2021-2030

National Space Legislation for APSCO Member States



APSCO Space Law Alliance (ASLA)



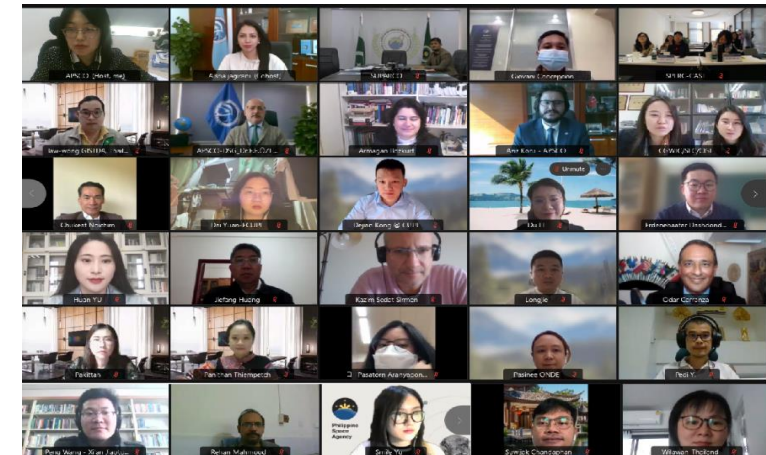
First Meeting

- Organized by APSCO on 7th September, 2021, during APSCO/ESA/CISL Space Law Workshop, in Sanya, China.
- Discussed the idea of establishing APSCO SPACE LAW ALLIANCE (ASLA) to support Member States to develop legal mechanisms to address long-term Sustainability of Outer Space.



Second Meeting

- Organized by APSCO on 18 October 2021, in virtual.
- In total, 60 representatives from 38 space organizations, institutions and universities from Member States attended the meeting.
- All organizations, institutions and universities unanimously and strongly supported ASLA and showed their consent to join ASLA.



APSCO Space Law Alliance (ASLA)



Third Meeting-APSCO SPACE LAW ALLIANCE 14 June 2022, Virtual

67 representatives of **39** different space organizations, institutions and universities from Member States of APSCO: Bangladesh, China, Iran, Mongolia, Pakistan, Peru, Thailand and Türkiye attended the meeting.



“All the representatives of space organizations, institutions and universities from Member States **uniformly agreed on the need of establishment of ASLA** and **strongly recommended to submit proposal of establishment of ASLA to the upcoming Administrative Heads Meeting and Council Meeting for consideration and approval.**”

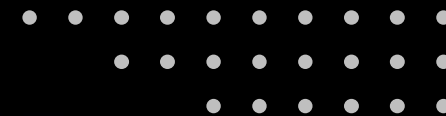
Objective

- Development of networking among research institutes, organizations etc. working in the field of space law and policy
- Promoting joint activities, joint research and collaboration on matters related to space law and policy with renowned universities in Member States of APSCO, international organizations and institutions.
- Providing exchange opportunities to boost capabilities, knowledge sharing and research among ASLA Members.
- Promote ASLA members work and initiatives among each other.

Benefits

- Avail greater connections and cooperation opportunities in space law and policy.
 - Contribute to the development of the space law and policy in the region.
 - Be part of the international space law community in advance research.
 - Avail publication opportunities in renowned publications of alliance members.
 - Become part of the data-bank on space law experts in the Asia-Pacific region.
 - Learn from each other experiences and get support from members.
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Summary and Expectation



APSCO is committed to supporting Member States to develop legal mechanisms to address Long-Term Sustainability of Outer Space with a number of space law and policy activities, to provide more practical benefits to Member States.

With the development of the APSSO project, APSCO will promote the technological development of member countries in the space field and play an exemplary role in global sustainable space development cooperation.

Call on everyone to pay more attention to the threat of asteroid impacts on the earth, strengthening data sharing with Member States and organizations.



**looking forward to working together for a
safe, secure and sustainable outer space!**

THANK YOU!