International Mechanism for Cooperation in the Peaceful Exploration and Use of Outer Space based on Non-binding Agreements

UNCOPUOS, Legal Subcommittee
52nd Session
Vienna, 15 April 2013

Ministry of Education, Culture, Sports, Science and Technology (MEXT) / Japan Aerospace Exploration Agency (JAXA)
The Categories of international cooperative mechanisms

- legally binding international agreements

- non-binding principles and technical guidelines

- multilateral coordination mechanisms
  - ex) the Group on Earth Observation,
    the International Space Exploration Coordination Group

- international and regional conferences
  - ex) Asia-Pacific Regional Space Agency Forum
GEO and CEOS and Japan and JAXA

GEO/GEOSS

30 Space Agencies

23 Associates organizations

88+EC Governments

69 Organizations (international institutions or agencies)

CEOS
GEOSS : Japanese Main Activities

GEOSS 10 years implementation plan

9 Societal Benefit Areas

1. Disasters
   - Disaster prevention and mitigation
   - Monitoring flood, earthquake, crustal deformation, forest, biomass, etc.

2. Health

3. Energy

4. Climate
   - Greenhouse gas and carbon flux

5. Water
   - Climate change and water cycle
     - Precipitation, cloud, aerosol, SST, snow, ice, etc.

6. Weather
   - Eco-systems

7. Agriculture

8. Bio-diversity
**Participation**

- Space agencies
- Governmental bodies
- International organizations
- Universities
- Research institutions
- Private entities
  involved in space activities.

**Organizers**

- MEXT, JAXA
- Local host organizations.


**APRSAF-19 (2012): in Malaysia**
**Goal**

- To promote and expand space activities and their applications for socio-economic development in Asia and the Pacific.

**Objectives**

- Provide a forum where agencies and international organizations in the Asia-Pacific region gather to exchange views, opinions and information on space activities;
- Identify and undertake measures to contribute to the sustainable development in the region.
- Promote and expand mutually beneficial cooperation in the region.

**Approach**

- Open and flexible framework for cooperation;
- Participation on a voluntary basis
One of the APRSAF Initiatives: Sentinel Asia

Sentinel Asia is a voluntary initiative by a collaboration between space agencies and disaster management agencies, applying remote sensing and Web-GIS technologies to assist disaster management in the Asia-Pacific region.

In Oct 2005, APRSAF-12, in Kitakyushu, Japan, approved the plan to initiate the pilot project.
Framework of Sentinel Asia

~ Voluntary and best-efforts-basis initiative by participating organizations ~

**Sentinel Asia**

*Joint Project Team (JPT)*

Join Project Team consists of total 88 organizations including 74 organizations of 25 countries/region and 14 international organizations as of March 2013.

JAXA is the secretariat of JPT.

**Space Community**

- APRSAF*
  - Data Provision
  - Promotion of Utilization
  - Capacity Building

* Asian-Pacific Regional Space Agency Forum

**Disaster Management Community**

- ADRC**
  - Member Countries
  - Utilization (User)

**International Community**

- UN / ESCAP
- UN / OOSA
- ASEAN
- AIT etc.

**Asian Disaster Reduction Center**

JPT meeting in Daejeon, Korea in November 2012

International Cooperation
International Space Exploration Coordination Group (ISECG)

- Established in 2007; and 14 space agencies attending
- Discusses globally coordinated human and robotic exploration of human-reachable destinations in decades
- Coordination forum working in a non-binding, consensus-driven manner
  - To discuss interests, objectives and plans
  - To develop conceptual products
  - To enable multilateral or bilateral partnerships necessary to accomplish complex exploration missions
  - To promote interest and engagement in space exploration among citizens and society
A long-range exploration strategy
Exploration Pathways

Near-term Focus on Guiding Capabilities, Technologies and Leveraging ISS

Deep Space Habitat at Earth-Moon Lagrange Point

Mars: Ultimate Goal for All Scenarios

Long-term Focus is Discovery Driven and Enhanced by Emerging Technologies
The Global Exploration Roadmap: GER

Contents of GER
1. Introduction
2. Common Goals and Objectives of Space Exploration
3. Mapping the Journey: Long-Range Human Exploration Strategy
4. Human Exploration Preparatory Activities
5. Conclusion
Conclusion

- It is valuable for Member States to take stock of the range of the various categorized mechanisms employed by Member States with a view to identifying common principles and procedure under the new agenda item.

- On the occasion of the discussion under this new agenda item, international cooperation mechanisms based on non-binding agreement are also important and play a key role to challenge and advance the peaceful exploration and use of outer space.

- Since it is meaningful to review a number of existing cooperation, get the overview of different forms of cooperation and analyze their pattern, Japan would like to make contribution to the new agenda item as much as possible.