1. Asia Pacific Plan of Action on Space Applications for SDGs 2018-2030

• Third Ministerial Conference on Space Applications for Sustainable Development in Asia and the Pacific adopted two key documents on 10 October 2018.
  ✔ Ministerial declaration
  ✔ Asia-Pacific plan of action on space applications for sustainable development (2018-2030)

• The plan of action (POA) is a regionally-coordinated, inclusive and country-needs driven blueprint.

• POA covers the six thematic areas: (a) disaster risk management; (b) natural resource management; (c) connectivity; (d) social development; (e) energy; and (f) climate change.
1. Asia Pacific Plan of Action on Space Applications for SDGs 2018-2030

• Under the six themes, PoA set all 188 actions
  • Will contribute to 37 Targets of 14 Goals of the 2030 Agenda for Sustainable Development.

• 188 actions are (a) research and knowledge-sharing; (b) capacity-building and technical support; and (c) intergovernmental discussions and regional practices.
Integrating Geospatial Dimensions for a Sustainable Asia-Pacific

188 Actions for 37 Targets of 14 SDGs + SFDRR
2. 2020 Publication- “Geospatial Information for Sustainable Development: perspectives from Asia-Pacific”

Thank you for sharing over 100 country examples!

Purpose

- **Document** Phase I implementation of the Plan of Action
- Facilitate the **sharing of good practices**
- **Inspire actions** for development and management of geospatial information resources

Priorities:

- Show **benefits** geospatial information provides to Asia Pacific member states
- Illustrate **value** of geospatial information to policy makers
2. Knowledge Products

2017-2019
3. Structure of Regional Drought Mechanism

- Regional training institutes
- International organizations (e.g. UNOSAT)
- Other institutes (e.g. RIMES)

- Drought prone developing country
  - Landcover mapping
  - Drought monitoring/early warning system
  - Capacity building on space applications & GIS
    - Water accounting system
    - Seasonal forecasts and climate outlooks

- Support from other programmes, institutions, projects
  - Advisories and early warning
  - Planning and early decision making
  - Social protection response
  - Long term planning and policy making

- Experience of other RESAP countries

(Countries mentioned: India, China, Australia, Thailand)
On-going Projects on Drought and Crop

1. Project to develop a drought monitoring tools in Central Asia (2019-2021)

2. Project to build a pilot Central Asia Drought Information System (CADIS) / (2021-2023)

3. Project to enhance capacity of crop monitoring (2019-2021)
Technical Support for Drought Monitoring
Training and Capacity Building

Training Workshop on Geospatial Information Applications for Drought Monitoring

19 – 22 February 2019
Space Krenovation Park, Chonburi, Thailand
4. Contribution to COVID-19 analysis, monitoring and tracing

Figure 1. Time series metrics of COVID-19 in Indonesia with related policy

Figure 2. Time series metrics of COVID-19 in Thailand with related policy
### Top 10 needs

<table>
<thead>
<tr>
<th>Rank</th>
<th>Action Name</th>
<th>Thematic Area</th>
<th>Action Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Share good practices from the health sector, and work with existing intergovernmental mechanisms, international and regional organizations and relevant implementing agencies that could benefit from the use of geo-information science.</td>
<td>Social Development</td>
<td>AA3</td>
</tr>
<tr>
<td>2</td>
<td>Develop capacity for mapping and modelling urban and peri-urban areas and settlements.</td>
<td>Management of Natural Resources</td>
<td>AA2</td>
</tr>
<tr>
<td>3</td>
<td>Develop capacity to map health risk hotspots using geospatial information and big data.</td>
<td>Social Development</td>
<td>AA2</td>
</tr>
<tr>
<td>4</td>
<td>Develop capacity in integrating and utilizing space and geo-informatics applications with new methods, tools and technologies, from other digital innovations, for the mapping process.</td>
<td>Disaster Risk Reduction</td>
<td>AA2</td>
</tr>
<tr>
<td>5</td>
<td>Research opportunities for including Global Satellite Navigation System for infrastructure and utilities mapping, relevant to disaster damage assessment and early warning systems.</td>
<td>Disaster Risk Reduction</td>
<td>AA1</td>
</tr>
<tr>
<td>6</td>
<td>Provide technical support on how to integrate, enhance and strengthen multi-hazard monitoring and early warning systems and real-time situational analysis for rapid-onset disasters, including flash floods from high-altitude lake and glacial outbursts, as well as slow-onset disasters, including drought and sand and dust storms.</td>
<td>Disaster Risk Reduction</td>
<td>AA2</td>
</tr>
<tr>
<td>7</td>
<td>Promote the use of geospatial information management systems, global navigation satellite systems and communications satellite systems towards disaster risk reduction and management at the policy level.</td>
<td>Disaster Risk Reduction</td>
<td>AA3</td>
</tr>
<tr>
<td>8</td>
<td>Identify interfaces between, and integration of, traditional space-based information and frontier technologies to address disaster risk management and build resilience.</td>
<td>Disaster Risk Reduction</td>
<td>AA1</td>
</tr>
<tr>
<td>9</td>
<td>Develop community-based hazard maps to raise awareness on preparedness and mitigation.</td>
<td>Social Development</td>
<td>AA2</td>
</tr>
<tr>
<td>10</td>
<td>Carry out risk mapping of highly vulnerable areas and communities by identifying hazards, vulnerabilities and exposure to risks.</td>
<td>Disaster Risk Reduction</td>
<td>AA2</td>
</tr>
</tbody>
</table>

Priorities are health, urban development and disaster risk reduction.
6. Regional Space Applications Programme for SD (RESAP)

1. Annual plenary meeting: 23rd Session of Intergovernmental Consultative Committee (ICC)

2. The Committee reconfirms
   - Support the implementation of the Asia-Pacific Plan of Action on Space Applications for Sustainable Development (2018-2030) and
   - Support to address emerging challenges such as COVID-19
   - Promote regional cooperation and sharing of geospatial data on SPACE+, One-data-One-map-One-platform and Asia Pacific geospatial information platform
Integrating geospatial information to monitor progress in achieving SDGs.
8. On-going Projects and Planned Projects

1. Project to develop a **drought monitoring tools** in Central Asia (2019-2021)

2. Project to build a **pilot Central Asia Drought Information System (CADIS)** / (2021-2023)

3. Project to enhance **capacity of crop monitoring** (2020-2022)

4. Project to promote **Asia Pacific Geospatial Information Platform** in support of UN-GGIM-AP (2020-2022)

5. Project to promote the **Pan-Asia Partnership for Geospatial Air Pollution Information** (2020-2022) from support of KOICA / GEMS (2020-2022)

6. Project on **GIS for Clean Air for Sustainable ASEAN (CASA)** / (2021-2023)
Project on GEMS

GEMS:
Geostationary Environment Monitoring Spectrometer (GEMS) is UV-visible spectrometers to monitor air pollutants (O3, NO2, SO2, HCHO, CHOCHO, and aerosols) at an unprecedented spatial and temporal resolution from a geostationary Earth orbit for the first time.

20 Asian countries in GEMS domain

- Bangladesh
- Brunei
- Bhutan
- Cambodia
- China
- India
- Indonesia
- Japan
- Laos
- Malaysia
- Mongolia
- Myanmar
- Nepal
- Palau
- Philippines
- Singapore
- S.Korea
- Sri Lanka
- Thailand
- Vietnam
Project on CASA

AQMS

Data transmission

Cloud-based server

Integrated, synchronized data

Real-time data presentation

AAMIS: ASEAN Air quality Monitoring Information System

Capacity building for data analysis

Air quality data collection
Thank you very much