

Sentinel Asia

Roll of Nodes and Measures to Strengthen their Activities

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Background/Objective

Until now the framework of Sentinel Asia has been organized.

Now, the next target is how to activate it !?

- As much data/information as possible from **data providers**
- Utilization of those data/information by **users**
- Capacity building for users by experts on RS/GIS/Disaster Management



Framework of Sentinel Asia

Space Community

APRSAF*

Content

Satellite Image

Promotion of Utilization

Capacity Building

International Community

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

International Cooperation

Sentinel Asia

Joint Project Team (JPT)

Join Project Team consists of total 52 organizations including 45 agencies from 19 countries and 7 international organizations as of January 2007

Digital Earth / Web-GIS Community

Digital Asia

Information Sharing Platform

Web-GIS

Data / Meta Data Management

Content

Digital Map

Social / Economic Data

Satellite Image

Disaster Reduction Community

ADRC**

Member Countries

Content

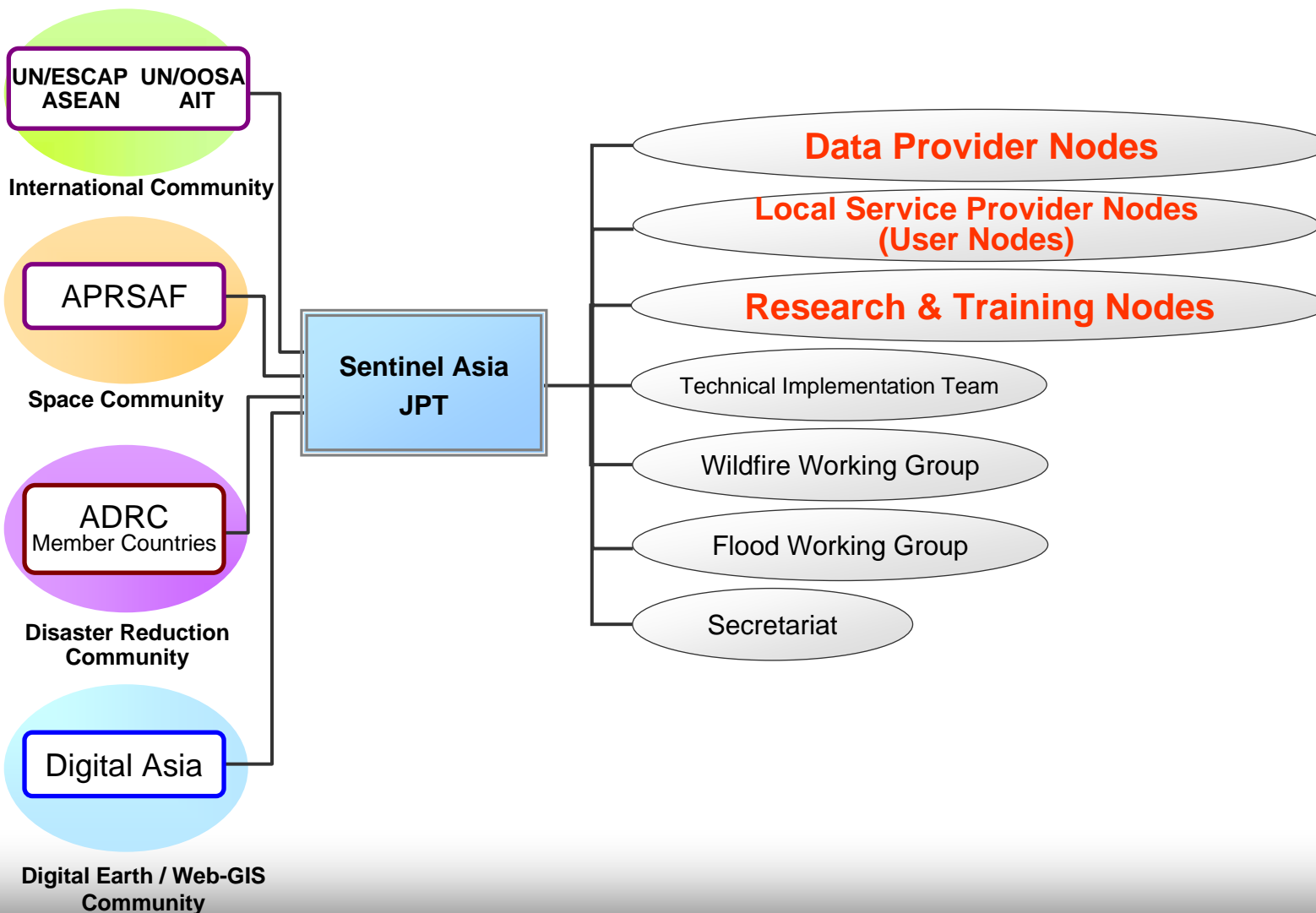
Disaster Information

Utilization (User)

** Asian Disaster Reduction Center

* Asian-Pacific Regional Space Agency Forum

Structure of Sentinel Asia



Status of Nodes

- How Many Nodes are **Active** Today?:
 - **Data Provider Nodes (Total 12 Organizations)**: Australia (COSSA, GA, Australian Bureau of Meteorology); China (NDRCC); INDIA (ISRO); Indonesia (LAPAN); Japan (Keio U., JAXA); Malaysia (MACRES); Singapore (CRISP); Thailand (GISTDA); AIT
 - **User Nodes (Total 40 Organizations)**: Australia (COSSA etc.); Bangladesh (SPARSSO); Brunei (MoD); Cambodia (Ministry of LMUPC); China (NDRCC); India (ISRO); Indonesia (BAKORNAS etc.); ADRC; Japan (Keio U. etc.); Lao P.D.R. (STEA-ERI etc.); Malaysia (PM-Dept.); Mongolia (NRSC); Myanmar (DMH etc.); Nepal (Dept. Wat Disast Prev. etc.); Philippines (NDCC etc.); Sri Lanka (Surv. Dept. etc.); Thailand (GISDTA etc.); Vietnam (MONRE etc.); AIT, ICHARM; CCOP
 - **Research & Training Nodes (Total 18 Organizations)**: Australia (COSSA); China (NDRCC etc.); India (ISRO); Indonesia (LAPAN etc.); Japan (Keio U. etc.); Malaysia (MACRES); Thailand (GISTDA); Vietnam (VAST etc.); AIT; ICIMOD; ICHARM; CCOP



Data Provider Nodes

“Data Provider Nodes”

- not only run Web-GIS services, but they also operate their own satellite reception facilities, and in some cases their own spacecraft
- are tasked to process the imagery they can collect in near real-time into agreed information products (e.g. GeoTIFF RGB's, wildfire hotspots), and make it available through the network

Current Status of Data Providers

Acting
Expected to Act

Data Provider Nodes

- Satellite Images

After Disaster:

JAXA (ALOS) , ISRO, KARI, GISTDA

Before Disaster (Archived Images):

JAXA (ALOS), Digital Asia (LANDSAT), ISRO, KARI,
GISTDA

- MODIS Hotspots: Hokkaido Univ, AIT/Tokyo Univ, CRISP, LAPAN, COSSA/GA , KARI, MACRES
- Satellite Image Products: JAXA, CRISP

Others

- List of Disasters: ADRC
- Precipitation products: IDI (IFNet)
- Digital Camera Images: WANTED!
- Map Data: Digital Asia
Fine Regional Map: WANTED!



Local Service Provider Nodes (User Nodes)

“User Nodes”

- will establish Web-GIS services that show baseline digital map information for their part of the region, combined with satellite data products
- Such information would be provided in near real-time, and voluntarily posted to the network together with their own country’s more detailed GIS information if applicable
- **Capacity building is essential to activation of User Nodes**



Research & Training Nodes

“Research & Training Nodes”

- are encouraged to develop new products (e.g. new automated processing methods for other disaster types such as droughts, pre-post earthquake or landslide change detection, etc), or to develop hotspot/flooding/drought etc. algorithms for their countries' satellite sensors.
- can also be involved in capacity building activities for Sentinel Asia.

Research & Training Nodes

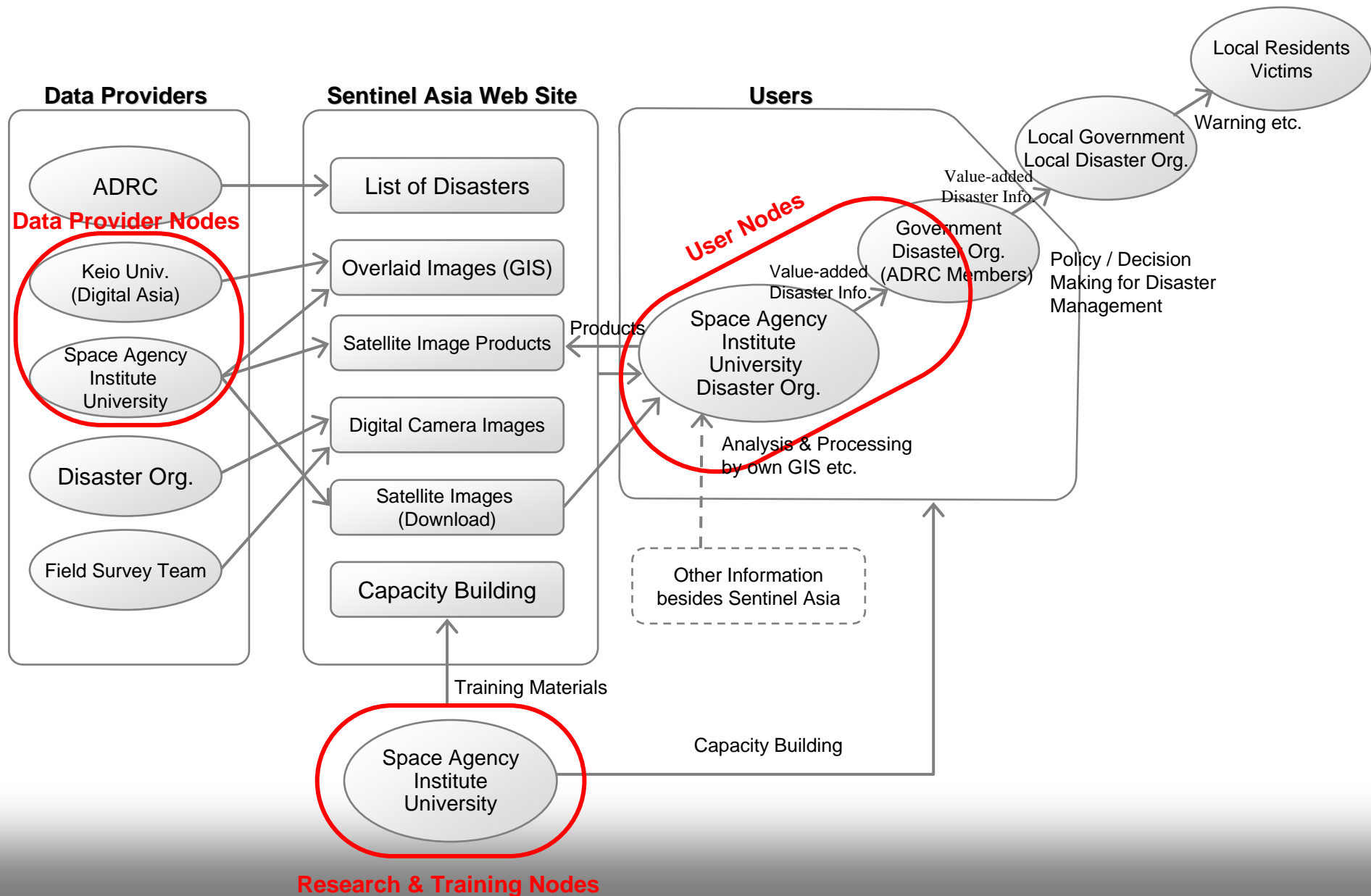
New Products

- Development of new products will be a task in the next step.

Capacity Building

- Intended for User Nodes and Users (Disaster Management Agencies)
- Expected Activities:
 - Provide Training Materials about RS/GIS & disaster management
 - Hold Seminar/Workshop etc. about RS/GIS and disaster management
- **Actual Cooperation is strongly requested for capable organizations.**

Scheme of Sentinel Asia



Thank you for your attention.

Please visit Sentinel Asia at
<http://dmss.tksc.jaxa.jp/sentinel/>

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