Space Technology for Disaster Management in Sri Lanka:

Country profile, national perspectives & vision....

Professor Ranjith Premalal De Silva
Vice Chancellor
Uva Wellassa University of Sri Lanka
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Historical background

- Use of space technology prior to 2005
- Academic interest and curiosity
- No collaboration/ coordination
- Poor investments and returns
- Constrained to mandated tasks
- No training opportunities locally

Historical background

- Use of space technology after 2005
- Government patronage
- Establishment of DMC
- Inter-agency collaborations
- Data sharing and exchange
- Academic curricula & setting training agenda

Institution profile

- About 88 institutions in state, commercial, non-profit, NGO, Academia, Development partners
- Initial screening through available expert knowledge base
- 29 institutions chosen for profiling
- 21 institutions participated
- DMC,ICTA, Arthur C.C.C., UNDP not included

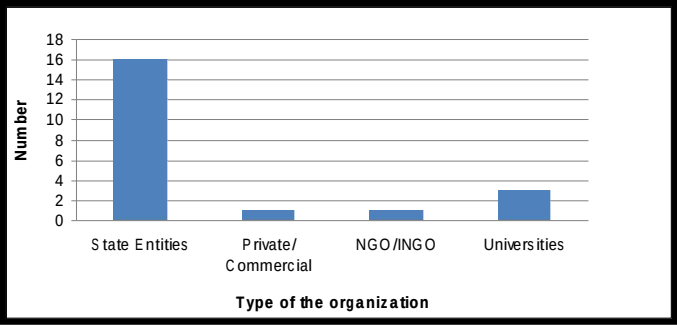
Profiling approach

- Two sets of questionnaire – person to person and telephone interviews
- Developed and administered by panelist
  - Dr. Dhammika Dayawansa – UOP
  - Dr. Chitrangani Ratnayake – UWU
  - Dr. S. Premachandra – CGR
  - Prof. Ranjith Premalal De Silva

Questionnaire

Type of organizations

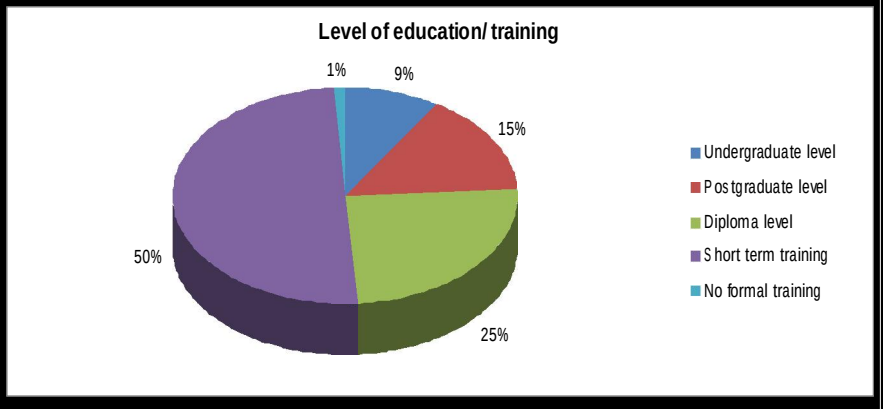
- **Majority of the organizations surveyed are government departments, authorities, bureaus, etc. Only one INGO and a commercial organization selling GIS, remote sensing and surveying software was involved. There are three universities selected in the sample.**



Mandated tasks

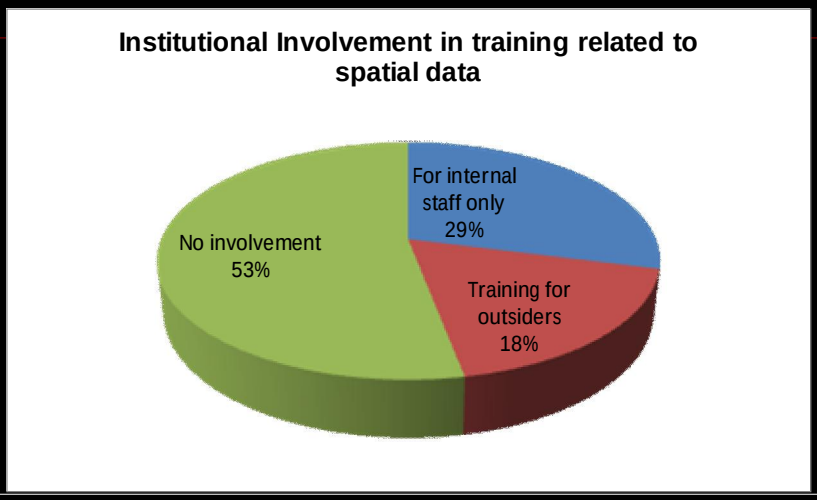
- Data user = 10
- Data users and provider = 11
- Data provider only = 0

Education and training in handling spatial data



99% have received some training

Involvement in training by institutions



Lack of knowledge sharing initiatives

Availability of core spatial data sets

Digital data availability

Type of data	Number of organization
Topographic	9
Satellite	6
Air Photos	8
LiDAR	3

Few have all & some others donot have any

Availability of core spatial data sets

- Few organizations process special kind of data for their work such as bathymetric data for coastal areas, Colombo city map with all type of roads, special kind of satellite data for meteorological purposes etc.
- The available topographic data sets are relatively old (more than 5 years). Satellite remotely sensed data are available in six organizations and the spatial resolution of these data sets vary according to the use.

Data from following satellite sensors are available

- IRS LISS data
- Landsat TM and ETM+
- MODIS SeaWiFS
- ASTER
- QuickBird
- WorldView
- GeoEye
- NOAA
- SPOT
- ALOS
- INSAT
- Meteo 5

Constraints to acquire/ use space data

- Unavailability of software due to high cost
- Lack of trained persons to handle satellite data
- Technological limitations for updating/ maintenance, screen shot pictures

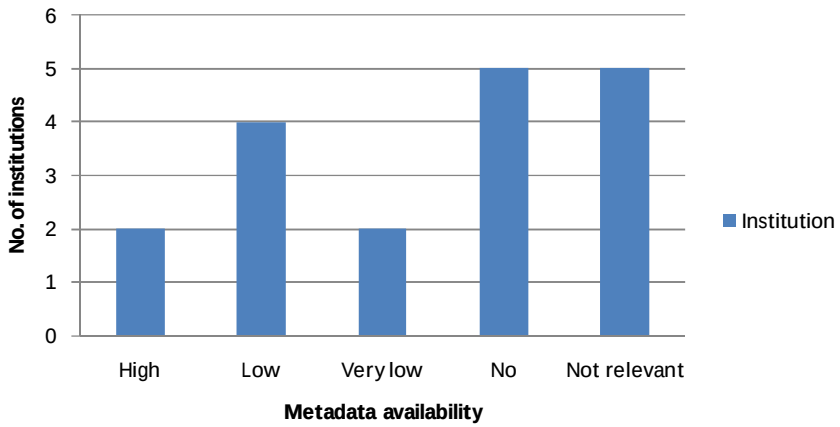
Related info:

- Use of google earth data, google earth pro to downlaod multi-temporal data

Software usage

- Use licensed software but number is limited
- ArcGIS is widely used software, available in all institutions. , ARCView, ER Mapper and IDRISI are also used & ERDAS Imagine is the software used in satellite image analysis.
- Special software used by some for special work
  - Marine Explorer
  - SatAID
- Use of open source software is not common, only one institution has experimented with open source software.

Metadata availability



Data standards and interoperability

- Data standards are not properly maintained by the institutions which provide spatial data. Only one organization (IWMI) maintains data standards according to ISO 19139 for metadata. They have shifted from Federal Geographic Data