OneMap Myanmar Factsheet

Initiative of the Government of Myanmar

Main objective:

Generate and share accurate land map (spatial) data on an online database to support land management and land use planning

Financial support by: Swiss Agency for Development and Cooperation (SDC)
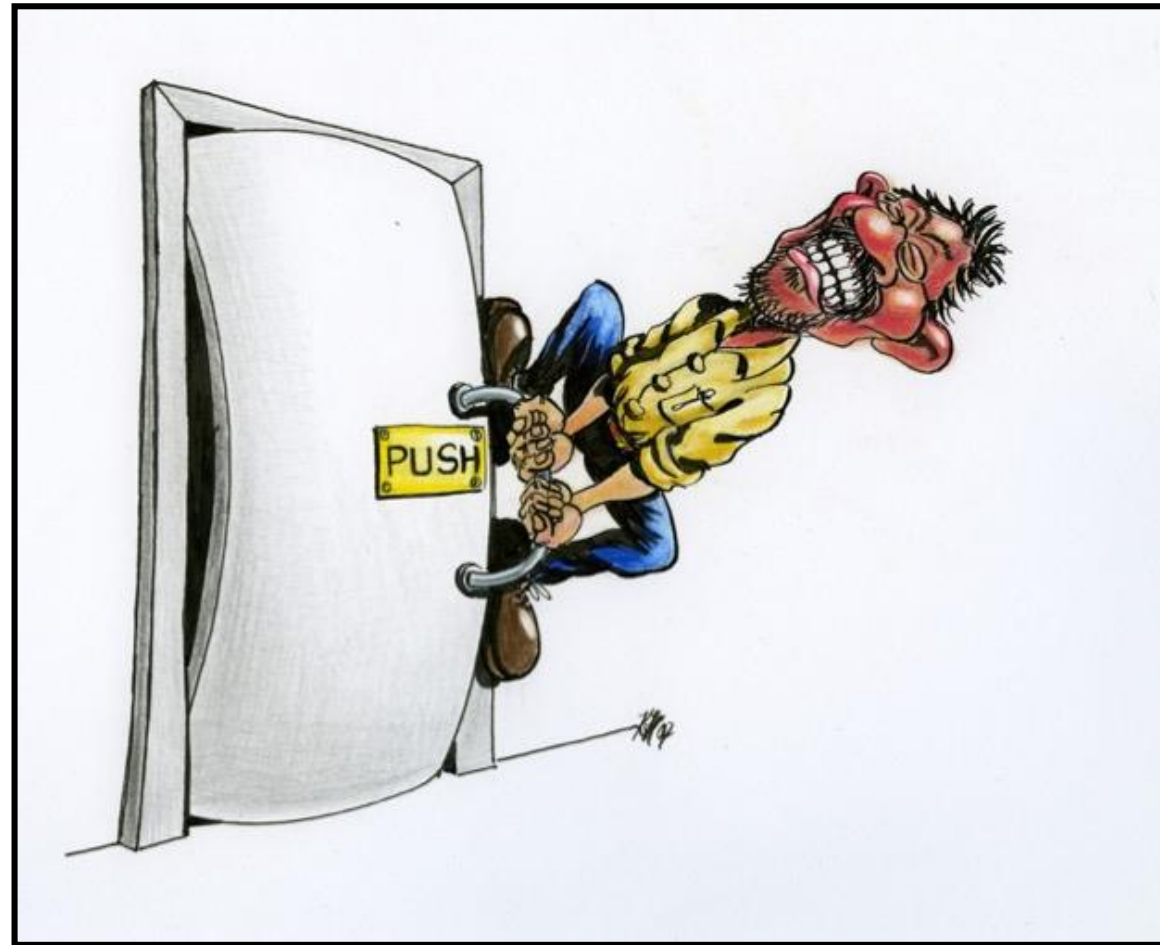
Start date: August 2015 - **End date**: July 2023

Total duration: 8 Years through

Implementing agencies:

Government partners: 26 line agencies (from 11 Ministries and 3 City Councils)

Technical Assistance Implementing Agencies: Centre for Development and Environment from University of Bern (Switzerland) & the Land Core Group

The OneMap initiative

Data is needed… But data alone is not enough

From Data to Knowledge

| Sustainable land management | Goal oriented and equitable decision making | Navigating trade-offs (sectors and scale) | Knowledge | Data / information |
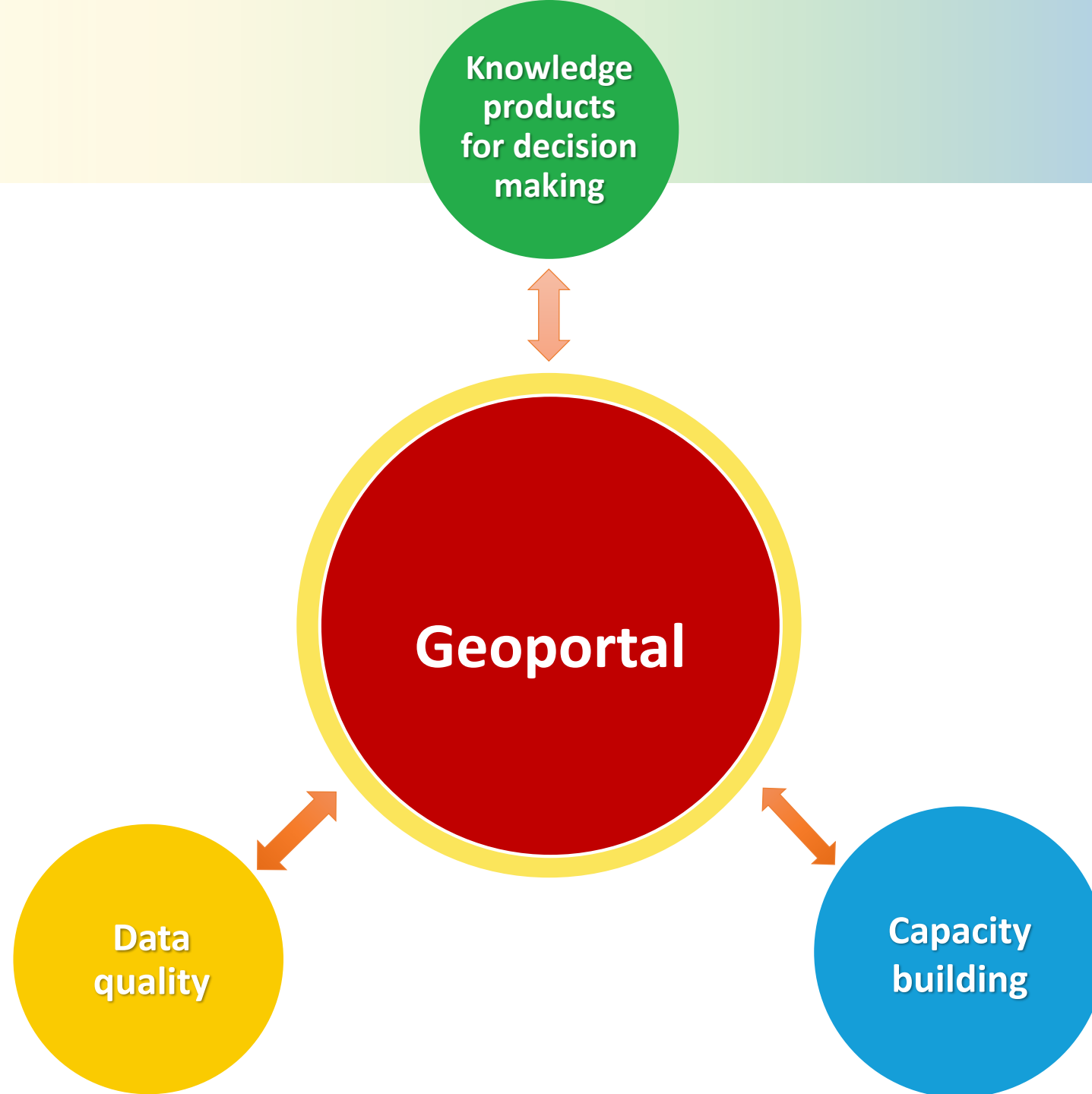
Interagency coordination for OneMap Myanmar

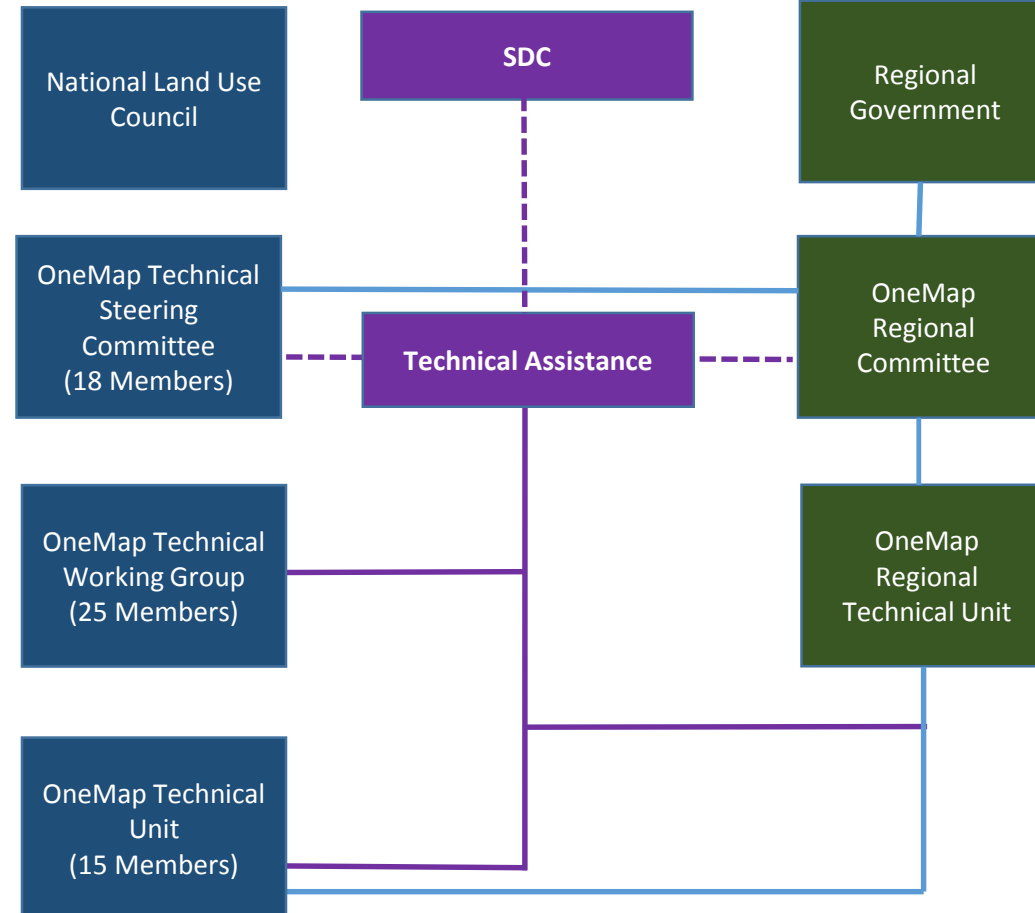| Agencies involved |
|---|
| Ministry of Agriculture, Irrigation, Livestock and Fishery |
| Ministry of Natural Resources and Environmental Conservation |
| Ministry of National Planning and Economic Development |
| Ministry of Immigration and Population |
| Ministry of Construction |
| Ministry of Education |
| Ministry of Home Affairs |
| Ministry of Transport and Communications |
| Ministry of Electricity and Energy |
| Ministry of Defense |
| Ministry of Social Welfare, Relief and Resettlement |
| City Development Councils |

Union Level Government   **Regional Government**

National Land Use Council

SDC

Regional Government

OneMap Technical Steering Committee (18 Members)

Technical Assistance

OneMap Regional Committee

OneMap Technical Working Group (25 Members)

OneMap Regional Technical Unit

OneMap Technical Unit (15 Members)

OneMap Governance

Which data can be included in OneMap Myanmar?

Base data

- Topographic maps
- Rivers and water bodies
- Elevation
- Aerial photos
- Satellite imagery

Forest

- Permanent Forest Estates
- Forest Cover
- Forest Plantations
- Forest Zones

Agriculture

- Agricultural zones
- Vacant lands

- Large scale plantations
- Land holdings
- Shifting cultivation
- Crop types

Population

- Demography
- Poverty
- Health
- Education

Infrastructure

- Housing
- Transportation networks

Geology & soils

- Soils type

- Geological layers

Mining

- Mining exploration areas
- Mining sites

Settlements

- Village and settlement name and location
- Land parcels
- Buildings

Land cover

Natural hazards

- Risk maps
- Vulnerability maps

Etc

Data sharing

Currently, data quality, availability and accessibility is very limited

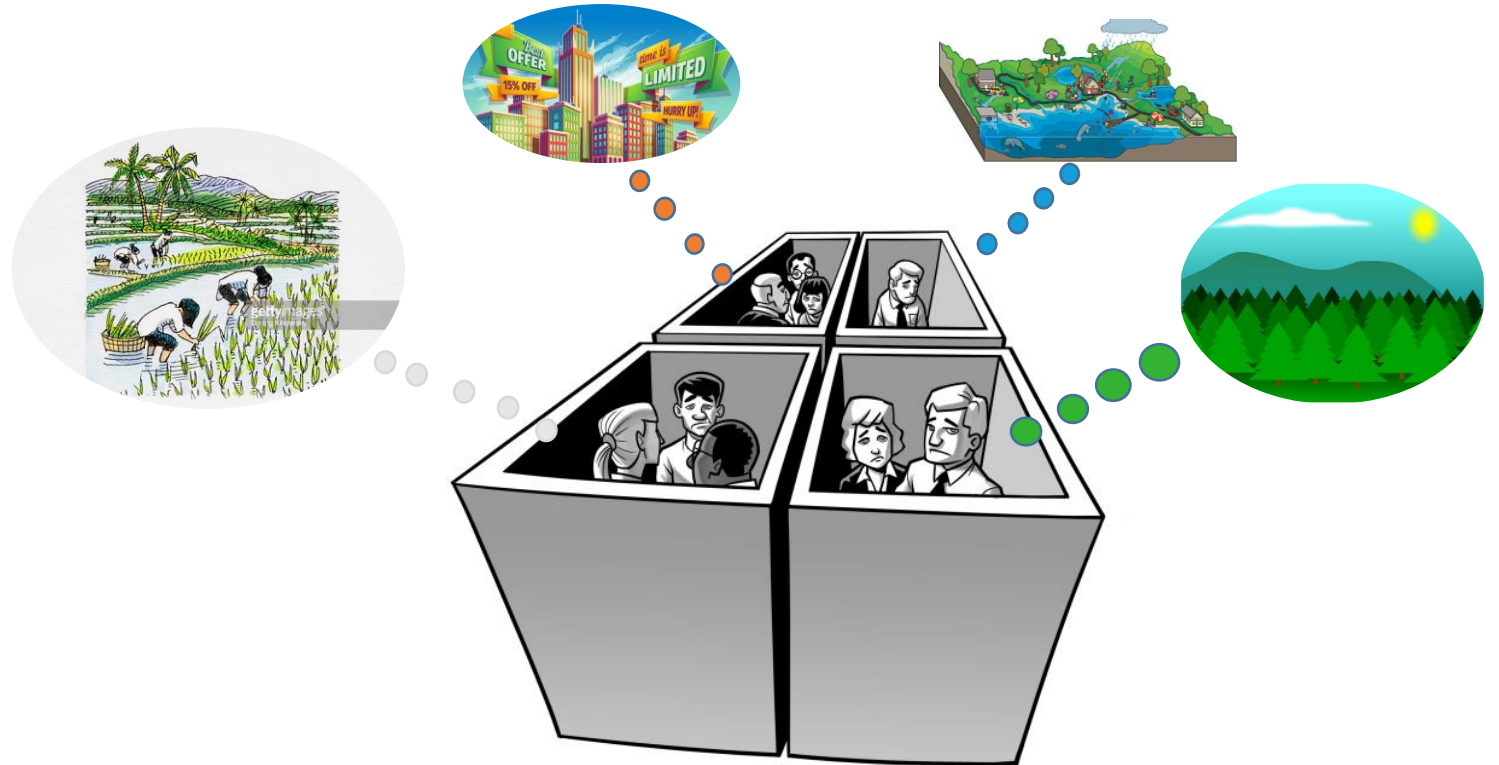**Data situation**

Many data still in paper format

Digital data not managed systematically

Low data quality due to old methods and lack of capacities (technical, financial, etc)

No information sharing mechanism institutionalized

No data standards across agencies: data cannot be integrated between different sectors

Coordination between agencies is limited

Incoherent data leading to inconsistent planning & decisions

Interagency coordination – including data sharing – is needed to move towards integrated land use and development planning
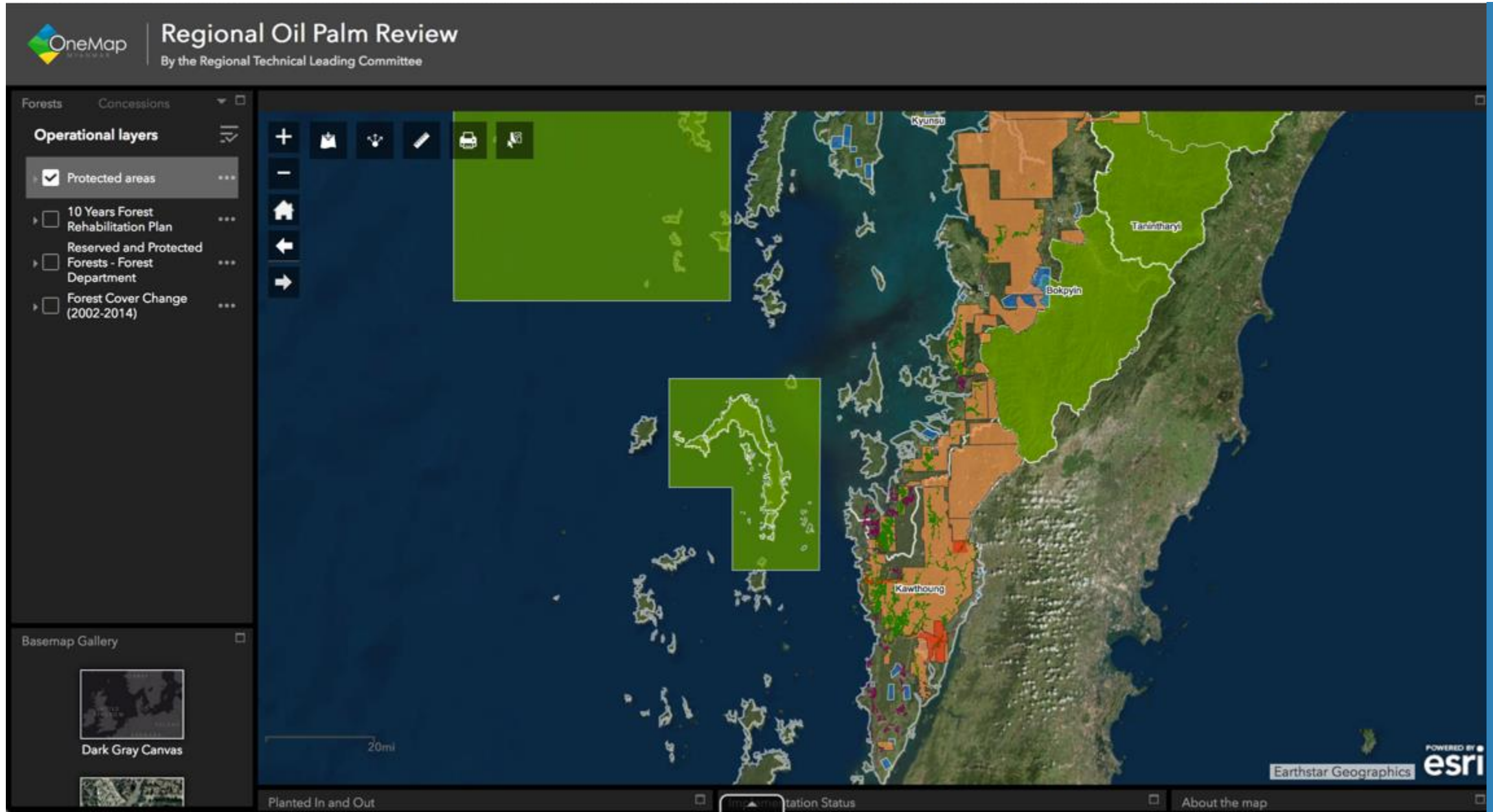
Opportunities

- Increasing number of GIS users
  - Strong interest in government, academic and civil society
  - Establishment of GIS Units in many department
  - Citizens engagement
- Democratization of tools and access to data (financially and technically)
- Network of universities with GIS capacities as a foundation
- Sector specific training schools for future professionals (survey, land administration, etc)
- Online training opportunities
- Prominent role of GIS in international reporting (SDG, REDD+, etc) as an incentive
- More international projects promoting geospatial technologies

Current Capacities

Challenges in capacities for geospatial technologies

- Currently, mostly on the job, task specific trainings, based on project inputs rather than integrated training modules. Professionals often miss the fundamentals (eg: projection systems, data management, quality control).
- High diversity of needs, requirements, workflows => need tailored approaches
- Technological choices as legacy of old project: outdated technologies. Lack of updates after the end of projects. Not fit for purpose
- Cost of most advanced technologies as a limiting factor
- Capacities building often does not put enough emphasis on consolidated workflows and quality control.
- Brain drain from government to international organizations
- Lack of technical understanding of senior decision-makers. Wrong expectations.
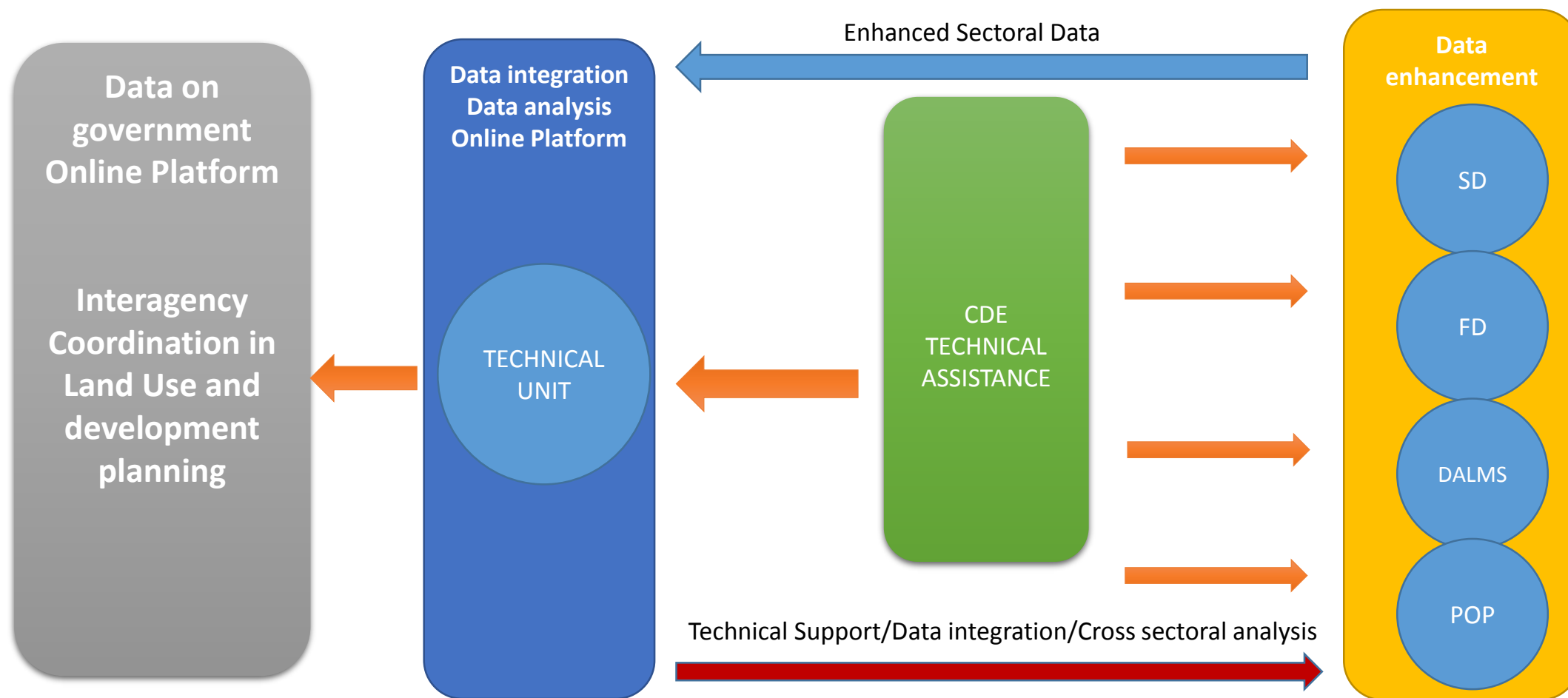
OneMap capacity building activities

- RS/GIS trainings
- Google Earth training
- Google Earth Engine training
- Drone trainings
- Open Street Map
- Excel trainings
- Data management training

* Above trainings were conducted in close collaboration with MIMU and SERVIR Mekong

50 $^+$ training ~ 900 trainees

Capacity building

Strengthening technical capacities of government

OneMap MYANMAR

Data on government Online Platform

Interagency Coordination in Land Use and development planning

Data integration
Data analysis
Online Platform

TECHNICAL UNIT

Enhanced Sectoral Data

CDE TECHNICAL ASSISTANCE

Technical Support/Data integration/Cross sectoral analysis

Data enhancement

SD

FD

DALMS

POP

Capacity building

Working bilaterally with key departments

- **Objective:** to improve the quality and availability of spatial datasets
- **Process:**
  - Conduct joint technical assessment to identify needs, priorities, opportunities and challenges
  - Develop long term technical assistance based on self defined priorities
  - Pilot new approaches in selected areas
  - Provide training, equipment and technical advise for the implementation of the workplan
  - When the department is ready, it can decide which data should be shared with whom.
- **Technical Focus**
  - Data quality and accuracy
  - Tailored and integrated workflows using centralized geo database systems
  - Web mapping technologies
  - Adoption of data standards

Capacity building

Working bilaterally with key departments (2)

Capacity building approach

- Ensure fundamentals are aquired
- Tailored, demand-driven
- Hands-on as much as possible
- Long term targets

Challenges

- Diversity of technical needs and requirements vs OMM's internal capacities = need to outsource some components
- Staff time and turn over
- Reluctance to adopt new workflows, tools, software, etc
- Complexity of workflows vs limited technical and financial capacities to adopt powerful tools

Capacity building

Piloting Drones Aplication for cadastral mapping in Taungoo

ArcGIS training in Survey Department (Yangon)

Capacity building
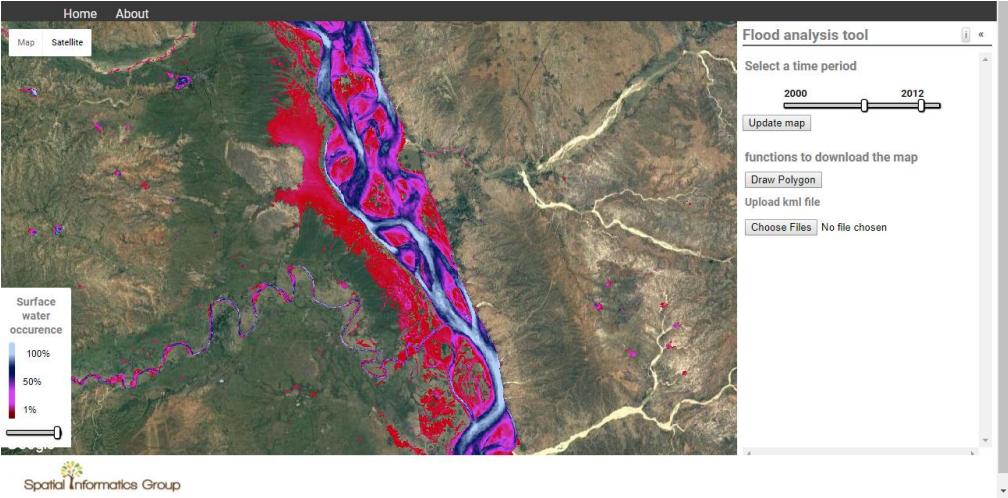
Department of Population Village tract boundary validation

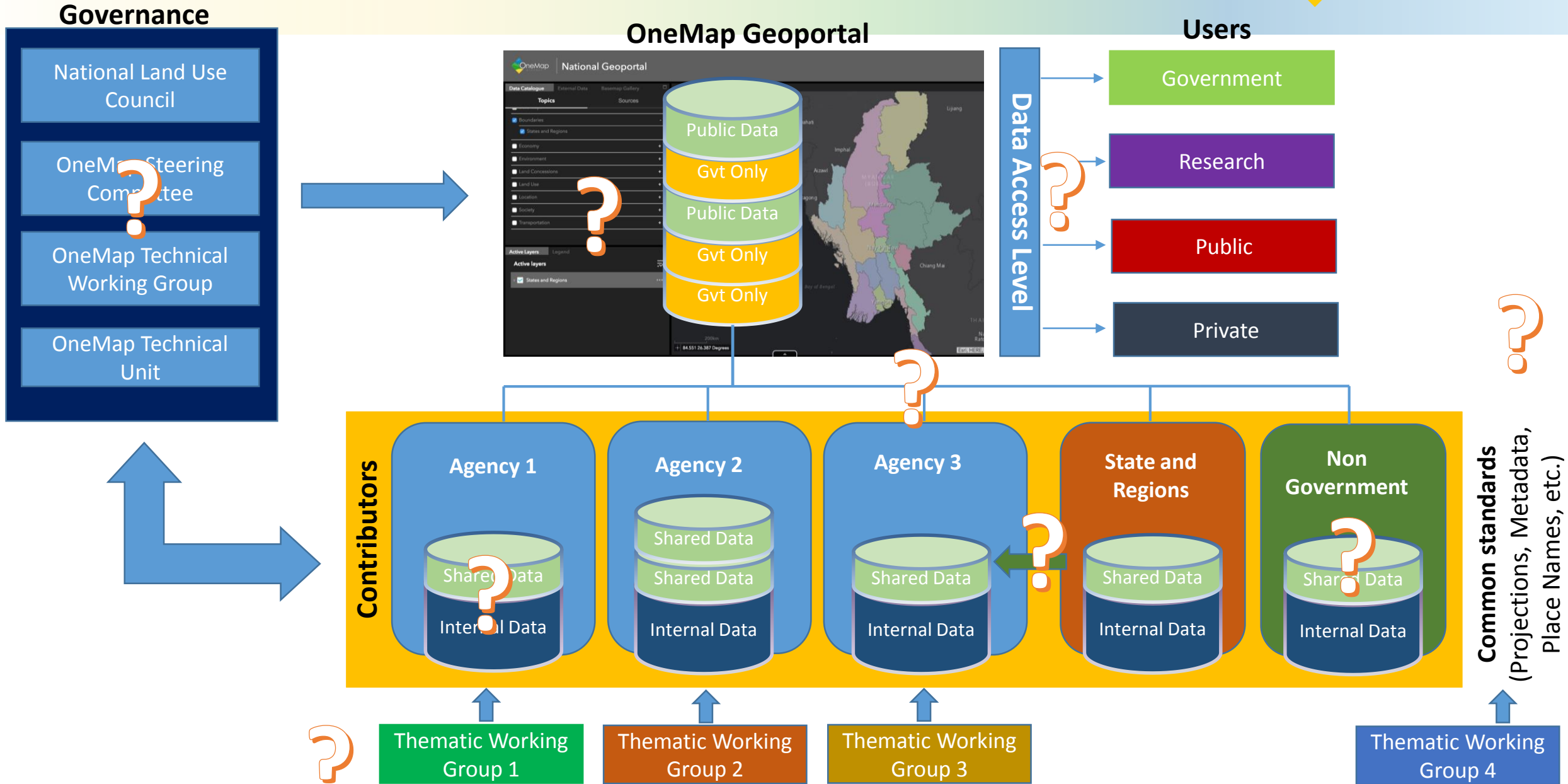# OMM-RRD-SERVIR-Mekong

Capacity building

Technical Units: implementing cross-sectoral data integration

- Establish interagency technical units at central and State/Region level.
- **Objective and mandate**:
  - Foster data integration and harmonization across thematic sectors
  - Deliver cross sectoral data analysis services and products to the government
  - Update and maintain the online portal and related databases (national level only)
- **Training areas**
  - Basic and advanced GIS
  - Geo database management
  - Web mapping
  - Data analysis
- **Capacity building approach**
  - Both formal and task based trainings
- **Challenges**
  - Commitment of respective agencies
  - Staff turnover
  - Unsuitable Nomination
  - Significant Capacity gap

Capacity building

Consolidating the national geospatial framework:
Towards a OneMap national policy

OneMap
MYANMAR

Governance

- National Land Use Council
- OneMap Steering Committee
- OneMap Technical Working Group
- OneMap Technical Unit

OneMap Geoportal

| Public Data |
| Gvt Only |
| Public Data |
| Gvt Only |
| Gvt Only |

Users

- Government
- Research
- Public
- Private

Data Access Level

Contributors

| Agency 1 | Agency 2 | Agency 3 | State and Regions | Non Government |

- Agency 1: Shared Data / Internal Data
- Agency 2: Shared Data / Shared Data / Internal Data
- Agency 3: Shared Data / Internal Data
- State and Regions: Shared Data / Internal Data
- Non Government: Shared Data / Internal Data

Common standards (Projections, Metadata, Place Names, etc.)

- Thematic Working Group 1
- Thematic Working Group 2
- Thematic Working Group 3
- Thematic Working Group 4

Conclusions

- Growing availability of professionals with GIS, but still insufficient
- Universities have an important role to play:
  - capacity building of future professionals.
  - Identifying needs. Asking the right question
  - Developing tools and data
  - Turning data into knowledge
- Geospatial data still at very early stage in the country. Additional fit for purpose support is needed
- Technologies are at a tipping point with the development of web-based GIS, satellite data sources and cloud computing. Training curriculum should reflect the technological changes
- Donor and implementing agencies coordination is needed to avoid overlaps.

Thank you

www.onemapmyamar.info

Coming soon…