

The Establishment of Geographic Database for National Rehabilitation and Development Programme in The Union of Myanmar

Products and GIS Guideline
July 16, 2004
Yangon, Myanmar

Final Products

The following products were prepared finally in the Study

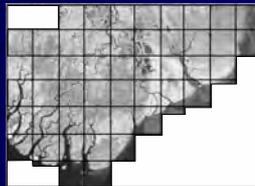
- **Maps**
 - Topographic maps
 - Land use maps
- **Digital data**
 - Topographic dataset
 - Spatial data framework
 - GIS database
- **Documents**
 - Final Report
 - Technical Specifications
 - Survey Manual
 - GIS Guideline

Topographic maps

Forty eight(48) topographic maps were produced



Target area



Study area is covered by 52 map sheets

Topographic maps

48 Map sheets were printed.



Price of map is 850 Kyats

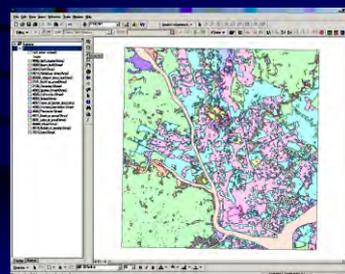
Land Use maps

11 Map sheets were printed.



Land use map

Eleven(11) sheets of land Use maps were produced.



Digital data

- Digital Topographic Data
- Drawing file for Printing
- Basic GIS Database
(Spatial data Framework)



Digital topographic data



Drawing file for printing



Basic GIS database

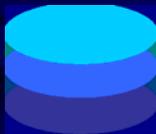
Topographic dataset

Topographic data are used as a resource for GIS



Topographic dataset

- Topographic dataset
this is original
resource was prepared.



Meta data

Topographic
data

Meta Data

- Title of the project
- Objectives
- Project area
- Planning & Executing organization
- Inquiry
- Catalogue of geographic features
- Quality of acquisition
-

Drawing File

Maps are output by plotter



Postscript file

Collected materials

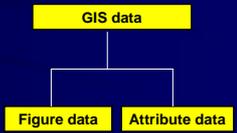
- Reference books
- Education CD
- Japanese maps



Other products

- Aerial photographs
- Ground control Points
- DEM
- Orthophotos

GIS database

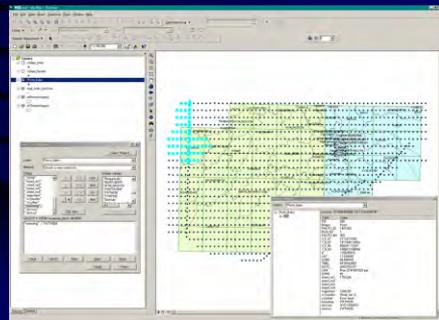


Aerial photograph management

- Aerial photos were converted to image data
- 1244 photos were taken



Aerial photo managing system



Aerial photo image



1 m resolution on the ground



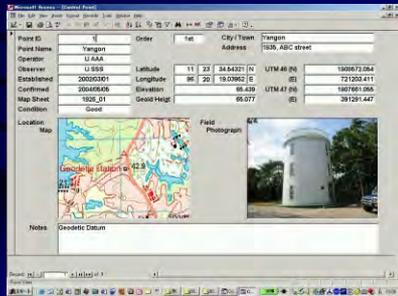
1:5,000 topographic map

1:5,000 scale map was prepared from 1:50,000 photo images



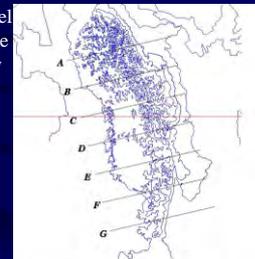
Geodetic control point management

Description of control point is able to query quickly



DEM

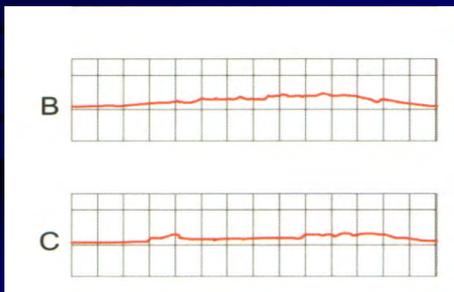
- Digital elevation model at 100m interval lattice was prepared in Study area.



Counter line map are generated by DEM

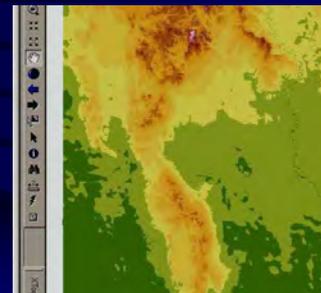
DTM -2

Profiles are prepared easily using DEM



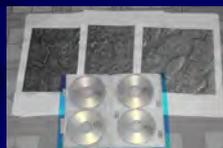
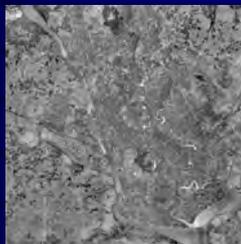
Digital Elevation Model

Preparation of gradient tint map



Orthophoto

- Orthophoto maps were prepared
- 2 m resolution on the ground
- 196MB



Spatial data framework

- Spatial data framework to build GIS database



GIS database



Open products to the public

- Japanese government wants strongly to use our products for Rehabilitation and Development of the Union of Myanmar

Technical specifications

Objectives:

- To improve a quality of map making
- To introduce standard work procedure
- To point out criteria of quality
- To specify definition of acquired features and applied rules
- To specify map symbol of features

Survey manual

- Definition of each work process in topographic mapping
- Necessary materials and data
- Requested hardware and software
- Standard procedure to work with important notices
- Output
- Textbook for newcomers

GIS Guideline

- Items to comply for building shared database
- Method to build basic GIS
- Extension of GIS
- Management of GIS
- Application of GIS

Suggestion 1 Building of National Spatial Data Infrastructure (NSDI)

- Policy to apply NSDI
- Infrastructure for Information communication
- Standard for distribution of information
- Partnership between Industry, university and government
- Spatial data framework

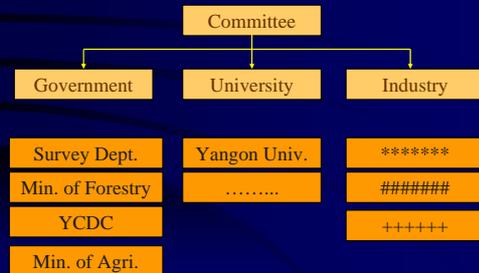
Suggestion 2

- Building of National Spatial Data Framework



Spatial data framework is composed of simple geographical data structure such as point, line and polygon

Steering Committee



Suggestion 3 Geographic Information Center

- Collect information concerning to geographic information
- Build clearing house
- Distribute map data through Internet



Suggestion 4 Mapping Museum

- Collection of maps
- Collection of referenced books
- Display of old-fashioned instruments



Suggestion 5 Education for Mapping

- Publish the national atlas
- Publish the text book of geography
- Publish the supplementary reader for map making
- Introduction of above items on home page using internet



To inform Daily Work of SD

Ministry of Forestry
Forestry in Myanmar

VISITOR

Paraword
Forestry

- Introduction
- Forest Resources Data
- Policy, Legislation and Institutions
- Management of Natural Forests
- Production of Forests
- Timber Non-wood Forest Products
- Forestry history
- Healthy Management
- Environmental Management
- Social and Economic Management
- Education, Research, Extension
- International Program/Cooperation
- International Organizations
- Media & Environment

▶ Map making

Forestry in Myanmar

certification checklist at the PMU level.

Code of Practice for Forest Harvesting: The National Code of Forest Harvesting Practices in Myanmar was developed by the Ministry of Forestry with FAO's financial and technical assistance. A number of training courses have been imparted to the staff of the Extraction Department of MTE for its clear understanding and immediate implementation in the field.



Monitoring resources in Hlaing Mada Forest



Team checking using GPS for resources assessment

Remote Sensing and Geographic Information System (RS & GIS): FD has been applying RS & GIS for its land use mappings and resource assessment since 1995. Jointly with the Forestry Agency of Japanese Government, land use maps, covering 67% of the country's land area were produced by FD during 1995 and 1999. Other agencies such as National Space Development Agency of Japan (NASDA), ISMCD and FAO have also provided FD with remote sensing data and GIS technologies. Since 1999, FD has been applying RS & GIS and global positioning system (GPS) in forest surveys.