Geospatial Capacity Building & Knowledge Transfer

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1. Africa
1. Ethiopia in its Regional Setting
1. The Federal Democratic Republic of Ethiopia

- Ethiopia
2. Introducing the Ethiopian Mapping Agency (EMA)

Organizational Background

- The origins of the Ethiopian Mapping Agency (EMA) date back to 1954.
- Established as an autonomous agency by the Proclamation of the Government of Ethiopia in 1980.
2. EMA ...

Mandate: Under the Proclamation, EMA is mandated to collect, transform, generate, store & disseminate the following sets of Fundamental Geospatial Data sets in Ethiopia:

- Geodetic Control Networks (Ground Control Points)
- Remotely Sensed Imagery (Aerial Photographs, Satellite Imagery)
- Topographic (Base) Maps
- Thematic Maps
- Hypsography (Contours, DEM, Spot Heights, etc.)
- Administrative Boundaries (International, Regional, Zonal & District)
- Geographic Names
- Atlas (National, Regional, etc.)
2. EMA ....

Furthermore, EMA is the authorized Agency of the Federal Democratic Republic of Ethiopia to Regulate Surveying & Mapping Activities.
4. Survey & Mapping Activities in Ethiopia

4.1. Surveying

- Establishment of the National Geodetic Network
4. Survey & Mapping Activities...

- Distribution of Ground Control Points
4. Survey & Mapping Activities....

Recently Established Primary GCPs
4. Survey & Mapping Activities....

4.2. Mapping

• 1: 250,000 (Full Coverage)

• 1:50,000 (85% Coverage)

• 1:2,000 – 1:25,000 (Major Urban Centres & Development Corridors)
4. Survey & Mapping Activities...

1:50k coverage
4. Survey & Mapping Activities....

• **Currently Available Maps**
  – 1:2,000,000 scale wall map of Ethiopia
  – 1:1,000,000 scale maps (10 sheets covering the whole country)
  – 1:250,000 scale maps (73 sheets covering the whole country)
  – 1:50,000 scale maps (1340 sheets covering 85% of the country)
  – Various large scale maps (1:2,000 to 1:25,000) of major cities and areas of interest.
5. Ongoing Survey & Mapping Initiatives

• 5.1. Surveying
   – Densification of the existing Geodetic Network
5. Ongoing/Planned Survey & Mapping Initiatives

Existing & Planned GCPs
5. Ongoing Survey & Mapping Initiatives

• 5.2. Mapping

  – Analogue to Digital Conversion and updating of existing Maps
  – 1:25,000 and 1:10,000 scale topographic and orthophoto mapping of the Country via Aerial Photography & Ground Survey.
  – Large scale mapping (1:2,000 to 1:5,000) of towns and other development corridors.
5. Ongoing Initiatives.....

• Establishing the Ethiopian National Spatial Data Infrastructure (ENSDI)
  – Policy (Legal Framework)
  – Organization
  – Standards
6. Capacity Building & Knowledge Transfer
Requirements

Interoperability of systems and data

1. Identify the data/information requirements and the appropriate processing tools
2. Identify and develop the required capacity to produce the required data/information and to use the tools.
6. Capacity Building & Knowledge Transfer..

Aspects of Interoperability

- Technical
- Policy
- Legal
- Institutional
6. Capacity Building & Knowledge Transfer..

• Human Resources Capability Development Aspect in:
  – Surveying
  – Photogrammetry & Remote Sensing
  – Cartography
6. Capacity Building & Knowledge Transfer..

• Technological Capacity Development Aspect
  – Hardware
  – Software
THANK YOU!!