The Search for SDI Model

The Saudi Experience
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The Need for NSDI

- Sharing and utilizing the Geospatial data
- Cost effective
- Minimizing Efforts
- Accelerating projects and decision making
- Authorized and Unified Referenced data
- Support National Planning Development
- Eliminate duplication
- Fostering the partnerships
In 1992, a national GIS Concept Study was conducted by a team of national and international consultants.

The study recommended the following:
- Formation of a national committee for Geographic Information
- Implementation and development of the new national Organization for Surveying and Mapping
- Development of the User Network
- Development of national Interfaces
- Development of national Standards
The study also recommended the following transition phases:

- Design Phase
- Implementation Phase
- Operation Phase

But due to the shortcomings in the basic NSDI components and high estimated cost, could not be implemented at that time (1992).
NSDI Basic Components

- Policies and Institutional Framework
- Technological Framework
- Standards & Specifications
- Geospatial Data
- Qualified Human Resources
Polices and Institutional Framework

- Committees and Formation of Institutions
- Creating Legislations
- Establishing Policies
- Fostering Partnerships
Technological Framework

- Hardware
- Software
- Networks
- Applications
- Services
- Portals
- …
Standards & Specifications

- Unified geodetic reference system
- Cataloguing
- Metadata
- Developing Profiles for the ISO/TC211 Standards
- …
Geospatial Data

- Nationwide Multi-Scale Datasets
- Seamless Integrated Geospatial Data
- Digital Products
- ....
Qualified Human Resources

- Human Resources Development
- Qualification
- Certification
- Training
- …
The Situation was:

- Duplication
- Different standards and specifications
- Different systems
- Unconsentent data
- High operational costs
- Lack of information linking
- Lack of coordination and collaboration
- …
A Royal Order was issued on 2003 to form the NSDI Committee, membership of the relevant authorities in order to:

- Set the general principles and identify the national requirements for the NSDI.
- Develop the required strategies for the NSDI
The National Committee formed the following five Subcommittees:

- Geospatial data Subcommittee
- Network Subcommittee
- Standards Subcommittee
- Policies and Institutional Framework Subcommittee
- Financial Subcommittee
The achievements

- Collecting comprehensive information of all standards and Geospatial data available in the government agencies.
- Identifying the key partners of NSDI.
- The adoption of the (ISO / TC 211) standards by SASO.
- Coordinating with the E-Gov. Program to take advantage of the capabilities and infrastructure for e-gov. program.
- Enhancing the geodetic reference system (vertical and horizontal) used in the KSA.
- Developing policies and regulations for the NSDI.
- Preparing the TOR for the implementation of a pilot project.
Pilot Project

- Linking four Organizations at the national level, three at the regional level, and three cities at the municipality level.
- Developing the required mechanisms, technology, and management for the NSDI.
Pilot Project Diagram

NSDI

GCS
MOMRA
KACST

ADA

MAKKAH MUNCIPIILITY

MADINAH MUNCIPIILITY

SGS
Geospatial data

Admin. Boundaries
Geographical Names
Satellite Imageries
Road Network
Elevation Data
Geodetic Network
Obstacles

- Difficulty of coordination between organizations
- Difficulty of developing national standards
- Overlapping and conflicting obligations of some government organizations.
- Geospatial data Copyrights
Conclusion

- Study came from Saudi Experience.
- Federal committee or neutral agency to regulate and administrate NSDI.
- Encouraging the Stakeholders is the key for success of Establishing NSDI.
- Commitment of Copyrights for partners.
- Quick wins important to Encourage others for participation in NSDI.
- Defining roles and responsibilities for each partner.
Thanks for your Attention

Mohammad Dalbouh
dalbouh@awalnet.net.sa

Walid A. Molla
wmolla@kacst.edu.sa