THE IMPLEMENTATION OF NATIONAL SPATIAL DATA INFRASTRUCTURE IN ALBANIA

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Overview:

- Goals of paper
- Some definitions of SDI – NSDI
- Development NSDI in ALbania
- ASDI & AGB
- Problems
- Future directions in development of ASDI
Goals of presentation

To highlight the development of the spatial data infrastructure in Albania.

To identify problems associated with the data infrastructure.

To determine future directions for further consolidation and development of the data infrastructure.
SDI (SPATIAL DATA INFRASTRUCTURE)

THE BROAD POLICY, ORGANIZATIONAL, TECHNICAL AND FINANCIAL ARRANGEMENTS TO SUPPORT GLOBAL ACCESS TO GEOGRAPHIC INFORMATION.

MAJOR INITIATIVE – INSPIRE directive

EFFECTIVE EXCHANGE OF GEOINFORMATION AMONG EUROPEAN UNION COUNTRIES

SPATIAL DATA INFRASTRUCTURES (SDI) IN EUROPE

TOOLS FOR GOOD AND MODERN GOVERNANCE, THROUGH THE ESTABLISHMENT OF A COORDINATED NETWORK OF NATIONAL SDI (NSDI).
SPATIAL DATA INFRASTRUCTURE (SDI)

SPATIAL DATA INFRASTRUCTURE AS AN INSTITUTIONAL CONCEPT ARE STANDARDS FOR SHARING AND USE SPATIAL INFORMATION IN THE NATIONAL INTEREST.

NATIONAL SPATIAL DATA INFRASTRUCTURE (NSDI) IS A FRAMEWORK OF SPATIAL DATA, METADATA, USERS AND TOOLS INTERACTIVELY CONNECTED.

TECHNOLOGY, POLICIES, STANDARDS TO PROCESS, STORE, DISTRIBUTE, IMPROVE UTILIZATION AND INTEGRATION OF GEOSPATIAL DATA.
DEVELOPMENT OF NSDI IN ALBANIA

ESTABLISHMENT OF ALBANIAN GEOINFORMATION BOARD IN 2004, WAS THE NEW PHASE FOR DEVELOPMENT OF ALBANIAN SPATIAL DATA INFRASTRUCTURE (ASDI).

BEFORE THIS TIME, TWO MAIN PROJECTS HAVE BEEN REALIZED:

- DIGITAL MODEL OF A LANDSCAPE and
- DIGITAL CARTOGRAPHIC MODEL;
AIMED TO PREPARE THE TOPOGRAPHIC MAPS.
ALBANIAN GEOINFORMATION BOARD
IS RESPONSIBLE TO:

- CONSTRUCTION OF A NATIONAL DATA NETWORK.

- DRAFTING OF NATIONAL POLICIES AND COORDINATION BETWEEN INSTITUTIONS AND AGENCIES THAT PRODUCE AND USE GEOGRAPHIC INFORMATION.

- DEVELOPMENT OF THE RULES FOR ECONOMIC ADVANTAGES IN USING GEOGRAPHIC INFORMATION.

- COORDINATION OF WORK TO PREPARE AND DETERMINE THE STANDARDS OF GEOINFORMATION.

- INTEGRATE THE DEVELOPMENT OF ASDI ACCORDING TO THE GLOBAL SPATIAL DATA INFRASTRUCTURE NET.
ACTUAL SITUATION

- Albania has large spatial data collections that consist:
  geodetic points,
  topographic data base,
  depths data base and
  thematic data base;
  which cover almost all of our territory;

- All of them are gathered and managed from several national and local agencies/institutions.
- They are stored in different standards.
- Have good quality.
- Not integrated in one unique system in national level.
In ALBANIA there are many organizations dealing with collection of spatial data. Just few institutions have operational GIS databases. Except Municipality of Tirana, there are no other online spatial data bases.
AMANDED
Geodetic and cartographic law in Albania in relation with NGIS

The amended geodetic and cartographic law lays down that the National Geographic Information System (NGIS) is a state register composed of standardized databases holding information about objects on and below the Earth’s surface in the whole country, also defining their location as well as procedures and methods for systematic data collection, updating, processing and accessing.

By law, the Military Geographic Institute is the top level organization for NGIS that has the obligation to perform terrestrial, sea and airborne mapping and maintenance of geodetic networks.
ASDI ACTORS

The Albanian Geoinformation Board (AGB) and Military Geographic Institute (MGI) are working to create and develop the National Geographic Information System in collaboration with:

INSTITUTES
- Public Administration Institutions
- Institute of Public Health
- Institute of Statistics
- Institute of Telecommunication and Transportation
- Institute of Geosciences
- Institute of Energy, Water and Environment

SERVICES
- Office for Registration of Real Estates
- Meteorological Service of Aerial Forces
- Geological Service, Agency for Legalization Integration of Informal Areas / Buildings

MINISTRIES
- Ministry of Public Works
- Ministry of Environment, Forests and Water Management
- Ministry of Agriculture, Foods and Protection of Consumers

MUNICIPALITIES

UNIVERSITY
- Faculty of Geology and Mining
- Faculty of History and Philology

ORGANIZATIONS
NONPROFIT NGO AND PRIVATE COMPANIES
PHASES OF ASDI

THE DEVELOPMENT OF ASDI IS A PROCESS IN TWO MAIN PHASES:

THE FIRST PHASE

RELATES TO THE DEVELOPMENT OF ASDI STRUCTURE,
DATA BASE AND METADATA AGENCIES,
THE NATIONAL CENTRAL OFFICE, MECHANISM AND STANDARD NETS.

THE SECOND PHASE

RELATES WITH THE EQUAL DEVELOPMENT OF THE FIRST PHASE,
BUT THE GOAL IS DIFFERENT, TO COMPLET THE TEMPLATE DEVELOPMENT.
PROBLEMS

THERE ARE MANY CHALLENGING ISSUES DURING THE CONSTRUCTION OF ALBANIAN SPATIAL DATA INFRASTRUCTURE

FIRST - MOST OF SPATIAL DATA, PRODUCED BY AGENCIES FOR THEIR OWN PURPOSES

SECOND - THE DATA ARE NOT MANAGED PROPERLY.

INSECURITY OF DATA

DUPLICATION OF COLLECTING DATA

THE UNAVAILABILITY AND ACCESS TO SPATIAL DATA

INCONSISTENCY, POOR MANAGEMENT AND ILLEGAL USES OF SPATIAL DATA.
FUTURE DIRECTIONS IN DEVELOPMENT OF ASDI

FOCUS THE IMPROVING COORDINATION MECHANISM.

COMPLETION OF THE SPATIAL DATA BASE.

DEVELOPMENT OF NATIONAL METADATA.

INVOLVEMENT OF STATE AGENCIES.

IMPROVING OF DEVELOPMENT OF DIGITAL DATA IN ALBANIA.

CONSTRUCTION OF THE TOPOGRAPHIC DATABASE REFERENCE.

BUILDING AND DEVELOPING THE INTEGRATED CADASTRAL SYSTEM.
In behalf of coauthors,

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THANK YOU FOR YOUR ATTENTION!!!

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INSPIRE 3 as a framework for cooperation