



# Human Resource Development Project on Geo-Spatial Information of Kosovo

Projektin e Zhvillimit të Burimeve Njerëzore mbi Informatat Gjeo-Hapësinore të Kosovës

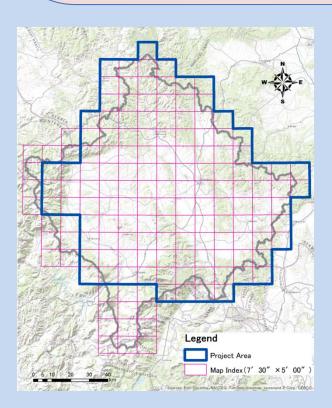
Projekat o razvijanju ljudskih resursa o Geo-prostornim informacijama Kosova

### **Project purpose:**

- Development of geo-spatial data
- Development of human resources (of KCA) to be engaged in geo-spatial data-related work
- Promotion of the utilization of geo-spatial data

### **Outputs:**

- □ 1/25,000 digital topographic map
- □ 1/25,000 GIS data
- □ Development of specifications necessary for the creation, revision and provision of geo-spatial data
- □ Development of human resources relating to geo-spatial data

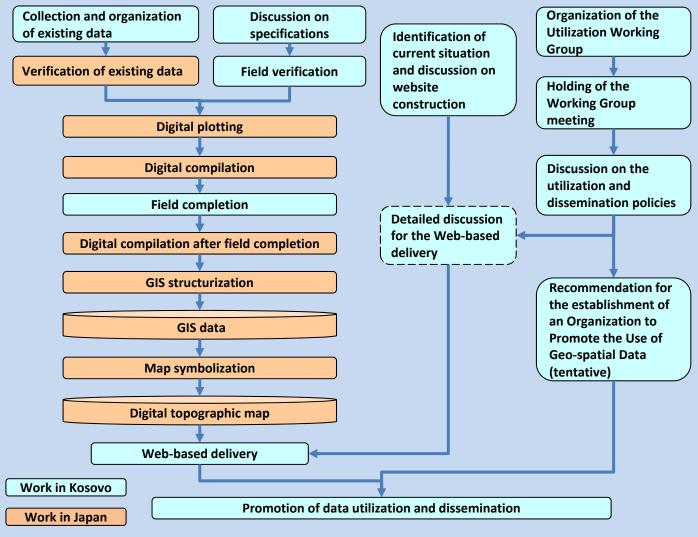


Target Area of the Project

- Project Period:October, 2013 ~ May, 2015
- Target area of the Project: approx. 9,900 km²
- The number of map sheet:
  130 map sheets
- Japanese experts who were assigned in the Project: Total 738 persons-days
- Data source for the geo-spatial data:

Existing aerial photographs taken in 2012, 2013

Diagram shown below figures out the conceptual flow and technical components of the Project. Organization of the **Collection and organization** Discussion on **Utilization Working** of existing data specifications **Identification of** 



The following technical items which are colored on green have been transferred to staff of KCA.

Digital completion after Digital plotting/digital **Control point survey Aerial triangulation GIS structurization** Map symbolization photography Field verification Field completion field completion compilation Aerial

### Aspect of Technology Transfer



Field Verification



**Aerial Triangulation** 



**Digital Plotting** 



**Digital Compilation** 



GIS structurization



Map Symbolization

The following equipment has been procured and installed in KCA.

### 2 Sets of Digital Photogrammetric System



### Hardware configuration

- PC
- 3D monitor (including glasses)
- Mouse for photogrammetry
- UPS

#### Software configuration

For photogrammetry

- Digital photogrammetry software
- Software for aerial triangulation
- Software for DEM data creation/compilation
- Software for digital plotting
- CAD software for digital plotting and compilation



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### Software configuration

For photogrammetry

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# 2 Sets of Computers for GIS and Map Symbolization



#### Hardware

#### configuration

- PC
- UPS

## Software configuration

- Software for GIS



#### Hardware

#### configuration

- PC
- UPS

**Software** 

### configuration

 Software for symbolization

### **Promising Utilization of Out-put Data**

It is considered that the 1/25,000 geo-spatial data created by the project can be effectively used in a various strategic plans for the development of Kosovo such as;

### **Revision of Spatial Plan of Kosovo**

#### Urban Development

The 1/25,000 geo-spatial data can be effectively utilized for formulation of the master plans which facilitate optimum urban development.

#### Agricultural Development

Assessment of land resources at the national level is indispensable for conservation and new development of agricultural land. The 1/25,000 geo-spatial data could give secure clues for better solution.

#### Trunk Road Network

The 1/25,000 geo-spatial data can be utilized as a source of information for proper design of road network.

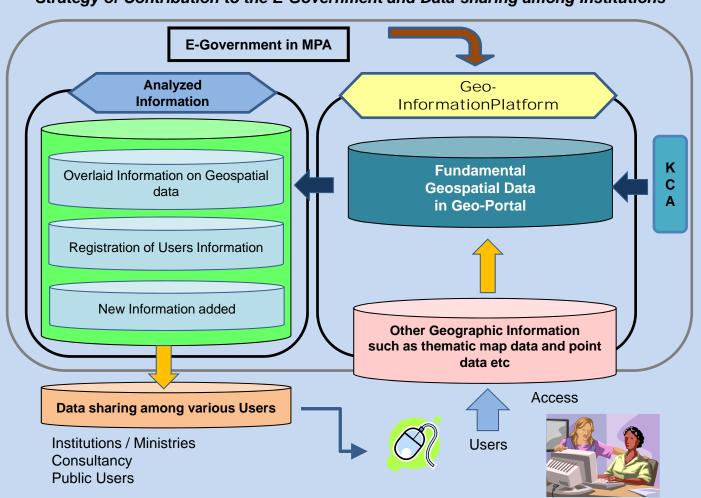
### **Environmental Conservation and Disaster Risk Management**

#### Useful Information Source for Basic Policy on Disaster Management

The 1/25,000 geo-spatial data can be utilized as a source of information for the simulation of the expansion and scale of areas affected by river flooding based on the data on land use and habitable areas in river basins.

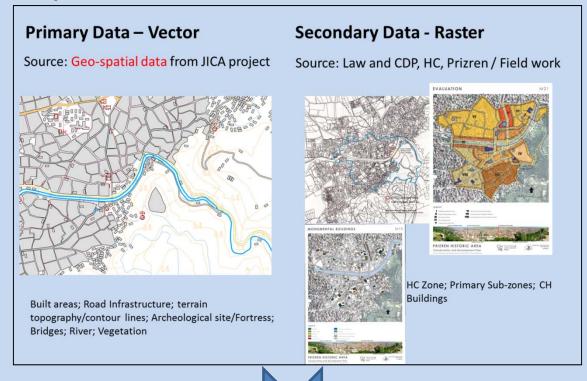
• Formulation of Guidelines for Conservation of Natural Environment and Cultural Heritages Conservation of forests and bio-diversity and better management of cultural heritages can be directed to proper solution using 1/25,000 geo-spatial data.

### Strategy of Contribution to the E-Government and Data-sharing among Institutions

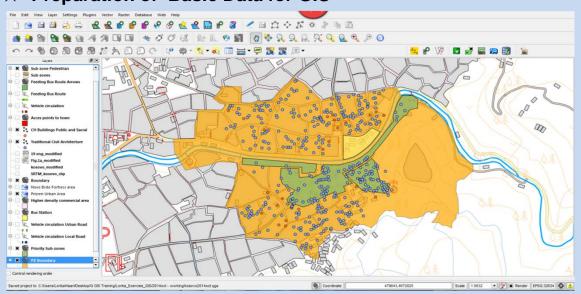


### Challenge of GIS APPLICATION operated by a member of "The Geo-spatial Data Utilization Working Group"

### ☆ Preparation of Basic Data for GIS



### ☆ Preparation of Basic Data for GIS





### ☆ Preparation of Basic Data for GIS

- ✓ Identified Potential Areas for Multi-Story Parking and transport facilities especially serving the Historical Center
- ✓ Proposed Route for small feeding buses to Historical Center



### How to Access and Utilize New Geo-spatial Data

Access to KCA Geo-Portal

Through the Geo-Portal, the users can search, view and download new geo-spatial data which are located in the server in KCA. For further detail, you are advised to contact "Marketing Department" in KCA.

### IN NEAR FUTURE

The data from different data providers (relevant institutions) are expected to be provided through the Government Geoinformation platform (tentative name) as NSDI (National Spatial Data Infrastructure) comes into force in near future.

