TOWARDS BUILDING NATIONAL SPATIAL DATA INFRASTRUCTURE

Presentation to
Forty-Ninth Session of the S&T Subcommittee
NATIONAL SPATIAL DATA INFRASTRUCTURE

The Concept
Pilot Project
Project Award
Current Status
Way Forward
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THE CONCEPT

Administrative Mapping

Geo-Locating Infrastructure

Socio-Economic and Demographic Mapping

Decision Support Tools
Availability of Reliable and Current Data for Planning Purposes

NSDI
NATIONAL SPATIAL DATA INFRASTRUCTURE

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PILOT PROJECT

CONSORTIUM OF ORGANIZATIONS

TASK | To pilot NSDI concept

Population Census Organization

Pakistan Space and Upper Atmosphere Research Commission

Survey of Pakistan
PILOT PROJECT | DISTRICT JHELUM

The District at a Glance

3,587
area in sq km

1,188,066
May 2010 population estimate

72%
percentage of rural population

597
number of mauzas

TEHSIL JHELUM
169 Mauzas

TEHSIL DINA
135 Mauzas

TEHSIL SOHAWA
134 Mauzas

TEHSIL PD KHAN
159 Mauzas
PILOT PROJECT | DISTRICT JHELUM

District Record Room
Built 1860

Revenue Maps
Last updated 1940

Dire need for preservation and digital storage of Land Revenue Maps
(مساواہ بانی)
PILOT PROJECT | DISTRICT JHELUM

Building a Contact-less Scanner

- Contactless, so that old masavis are not damaged
- Low cost, from locally available materials
- Built in-house, in a few days
PILOT PROJECT | DISTRICT JHELUM

District Jhelum Scanning Operation

9,995 total images captured

~5,000 total masavis scanned

596 total mauzas scanned

7 team members doing scanning

2 number of scanners

150 effective DPI

47 total hours of scanning operation

2 scanners were in operation 70% of the time.
PILOT PROJECT | DISTRICT JHELMUM

4 Masavis stitched to form one complete mauza

Georeferencing of Masavis to Satellite image, based on common features
PILOT PROJECT | DISTRICT JHELUM

Mauza Mosaic and its Georeferencing
PILOT PROJECT | DISTRICT JHELMUM

Administrative Boundary Map
PILOT PROJECT | DISTRICT JHELUM

Mapping of Socio-Economic Parameters
PROJECT AWARD

• Consultancy contract with Govt. of Punjab (Punjab Information Technology Board)

• Joint collaboration of SUPARCO and LUMS

• For 18 Districts of Punjab
WEB BASED INTERACTIVE WIDGETS
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NATIONAL SPATIAL DATA INFRASTRUCTURE

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CURRENT STATUS

Districts completed

☑ Jhelum
☑ Sahiwal

Districts in progress

☐ Hafizabad
☐ Sheikhupura
☐ Nankana Sahib
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THE WAY FORWARD

Develop a national roadmap for spatial mapping

Create a strong liaison between SUPARCO, and other national and provincial stakeholders
THANK YOU