### **UN-GGIM MEMBER STATE - PROFILE**

# (Pakistan)

**Region** South Asia

UN-GGIM Regional Body UN-GGIM-AP

**Participation** Active

**Mapping/GGIM Organization** Survey of Pakistan

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Position Surveyor General of Pakistan

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### **Organizational Features**

GIM Program Pak-NSDI is being implemented by Survey of Pakistan (SoP)

with collaboration of key stakeholders to manage geospatial data of the entire country. This GIM Program will help to ensure consistent mechanism for maintenance, dissemination

and sharing of geospatial data among all users.

GIM Policy NSDI established and maintained shall be for

development of a system of geospatial databases and data handling facilities, capable of interacting amongst all stakeholders and ensure putting in place design, implementation and maintenance mechanisms for facilitating, sharing, access and responsible for effective use ad management of geospatial data at an affordable cost. All basic data or information comprising geodetic data, gravity data, magnetic data, topographical or geographical data, aerial photographs and all relevant records, both analogue and digital, prepared and possessed by Survey of Pakistan shall be maintained in

the or form of a national geospatial database.

GIM Legislation To regulate surveying and mapping activities in Pakistan

an act has been passed by the parliament named as Surveying and Mapping Act, 2014.

**GIM Strategy/Plan** 

SoP shall prepare geospatial data, remote sensing and geographical information system applications of the entire country on various scales as advised by the Federal Government and provide above services as a deposit work for a specific area with pre-defined specifications to the Provincial Governments, district and local governments and other clients from public as well as private sector. Survey of Pakistan shall encourage and collaborate research activities in the field of surveying and mapping, remote sensing, GIS and other fields related to the discipline of surveying and mapping, cartography, instrument development and database with national and international organizations. The Survey of Pakistan shall endeavor to upgrade the scientific and technological level in this field and encourage and support any registered organizations and individuals that produce outstanding work in any field of surveying and mapping and related scientific or

GIM Web address www.surveyofpakistan.gov.pk

Leadership Surveyor General of Pakistan assisted by Deputy Surveyor

technological research.

Generals to provide leadership in the management of

geospatial information

Staff SoP has sufficient and qualified staff to handle GIM

activities in the entire country.

Specific GIM Budget Annual budget provided by the federal government

Government Entities All relevant stakeholders (Public sector)

Private Sector All relevant stakeholders (Private sector)

#### **Data and Standards**

Fundamental Data Topographic and geodetic data

**Availability** Geospatial information is available for sharing and use by the

user community

**Data Sets** Geodetic data, multi-scale digital topographic data,

geographical names, administrative boundaries, satellite



imagery and aerial photographs

Standards Geospatial metadata ISO 19115, Standard for geospatial

information production, OGC standards for geoweb services

Web/portal services Metadata catalog has been implemented. Therefore, users can

discover what spatial data is available as well as details on content, source, scale and other characteristics of spatial data in order to determine its usability. Presently, the catalog is running on Intranet, while resources are being arranged to

make it available via Internet, as well

Data Access policies Accessible as defined in data classification rules of SoP

### **Technical Infrastructure**

Geodetic Infrastructure GPS Network A order, AB order, B order, HP leveling

network, SBM network and traverse lines

ICT Infrastructure High end servers, Storage & Archiving System, Optic Fiber

LAN & Internet

**Hardware Platform** Workstations, High end plotters, Large format scanner

(colour) & Colour printers

GIM Software Platform Proprietary and open source including ESRI & GeoNetwork,

#### **Projects**

Project Name Global Mapping Project (http://www.iscgm.org/)

Organization International Steering Committee for Global Mapping

(ISCGM)

Project Objectives Provision of seamless global map data

Funding Voluntary contribution

**Duration** 08 years

**Achievements** Developed and shared Global Map data for Pakistan

Version 1 &2



## **Challenges and Needs**

#### **Challenges:**

- The concept of GIM and SDI is still in its infancy in Pakistan as is in many countries. So it is a big challenge to raise awareness about the concept of GIM and SDI in the country.
- For effective NSDI implementation, the challenge is to enhance the capacity of the institutions involved in GI production through tailor made trainings.
- Pakistan is low income country, thus it is a challenge to get the share from government exchaquer to acquire the latest geospatial technologies and tools.
- Geospatial standardization allows data from one source to be easily used with those from other sources to create richer and more useful products and services. The challenge is implementation of standards by all stakeholders.
- Inter-agency coordination and collaboration play vital role to make consensus, however, it is a big challenge to take on board all the stakeholders.

#### **Needs:**

- There is need to get political support from the highest level.
- Capacity building of the individuals and institutions involved in GIM is urgently required.
- Adequate funding is essentially required to procure the latest geospatial technologies and tools.
- There is need of inter-agency coordination and collaboration to support implementation of NSDI for effective GIM in the country.

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