



UN-GGIM

UNITED NATIONS INITIATIVE ON
GLOBAL GEOSPATIAL
INFORMATION MANAGEMENT



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United Nations Initiative on
Global Geospatial Information Management

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Everything that happens,
happens somewhere...



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UN-GGIM: Mandates

- ECOSOC, recognizing the importance of geospatial information in national and global development, established UN-GGIM in July 2011 following extensive consultation with Member States
- ECOSOC encouraged Member States to ‘hold regular high-level, multi-stakeholder discussions on global geospatial information, including through the convening of global forums, with a view to promoting a comprehensive dialogue with all relevant actors and bodies’
- **“Recognize the importance of comprehensive hazard and risk assessments, and knowledge and information sharing, including **reliable geospatial information**”**
2012 Rio +20 Conference, ‘The Future We Want’



UN-GGIM: Motivation

- Strengthen national capacity and improve global availability of authoritative, trusted, maintained, definitive mapping data and its appropriate coordination and dissemination
- There was no global forum at governmental level for member states where global geospatial information management issues can be discussed; Statistics and Environment already have similar structures
- Due to the global nature of policy challenges and the opportunities offered by the fast development of IT capabilities, there was general support for the idea to create a global forum, supported by an expert committee, to discuss and help address Geospatial Information Management issues



UN-GGIM: Role

- An Inter-Governmental mechanism to make joint decisions and set directions on the production and use of geospatial information within national and global policy frameworks
- Working with Governments to improve policy, institutional arrangements and legal frameworks
- Addressing global issues and contributing collective knowledge as a community with shared interests and concerns
- Developing effective strategies to build geospatial capacity in developing countries
- **Realizing a Vision: To make accurate, reliable and authoritative geospatial information readily available to support national, regional and global development.**



Examples of UN-GGIM: Areas of Work

- Development of the global geodetic reference frame
- Integration of Statistical and Geospatial Information
- Land Administration and Management
- Trends in National Institutional Arrangements in Geospatial Information Management
- Geospatial Information and Services for Disasters
- SDG WG on Geospatial Information



UN-GGIM Organization

- Managed by UN Statistical Division Secretariat
- Member States
 - Three Co-Chairs – U.S., Mexico, and China
- Expanded Bureau
 - Five regional entities: Americas, Europe, Asia Pacific, Africa, and Arab States
 - Joint Board on GIS – International Professional Societies
 - Academic network
 - Private sector network



Recent Events & Activities

- Approval by ECOSOC with a strengthened mandate
- Expanded Bureau Meeting
 - U.S. proposed a new WG on Marine Global Geospatial Data
- UN World Data Forum
- Geospatial World Forum – U.S.-Indo Business Forum
- UN-GGIM Arab States
- Collaboration with UNGEGN & UN-GGIM Bureaus
- 48th UN Statistical Commission Meeting



Upcoming Events - 2017

- April - UN-GGIM Americas Plenary – Santiago, Chile
- May - IAEG SDG WG on Geospatial Information – Kunming, China
- August – UN-GGIM 7 – New York



Five broad themes identified

- Trends in technology and the future direction of data creation, maintenance and management
- Legal and policy developments
- Skills requirements and training mechanisms
- The role of the private sector and non-governmental sectors
- The future role of governments in data provision and management



Legal and policy developments

- Who owns the data?
- What is the model for investing in and maintaining new and expensive content?
- Establishment of trans-national frameworks needed to overcome the increasing trend in data piracy and hacking.



Govt to bring in geospatial data Bill in Budget session, says Sibal

Regulator to oversee licensing of geospatial information

Our Bureau
New Delhi, Jan 18
Geospatial sector in India is expected to get a start in the next few months with the Union Government bringing in legislation and pass the National Geospatial Data Authority Bill in the Budget session.
"It is being discussed in inter-ministerial meetings. We expect that it will be introduced in the Budget session," Mr Kapil Sibal, Minister for Science and Technology, Human Resources Development and IT and Telecom, said.
The geospatial sector in the country has been growing with the entry of private and international companies utilizing data generated from space-based platforms. The remote sensing and navigation capabilities about various forms of natural resources and developing geo-



Mr Kapil Sibal, Minister for HRD, Science and Technology, Earth Science, Communications and Information Technology, at the Geospatial World Forum meeting in Hyderabad on Tuesday. Also seen are (from left) Dr K. Kasturirangan, MP and Minister of Planning, Dr M. P. Narayanan, Chairman, GIS Development, and Dr R. Sivakumar, CEO, National Spatial Data Infrastructure. - PTI/Sankar

13) Five-Year Plan should use geospatial technology in planning.
Herald a National GIS System was being developed to synthesize geospatial data and create a system to access the same.
A task force would look into the capacity requirement for the industry and create a geospatial culture in the country.
The task force was expected to submit its report in a month.
AWARDS
Mr Sibal presented awards to national Resources Canada (Canada) - Project Mapping Agency, Ms. Varsha Laxmiconce CB, Director-General and Chief Executive of United Kingdom's Ordnance Survey, Geospatial Technology (Canada), India group (World Leaders in Geospatial)



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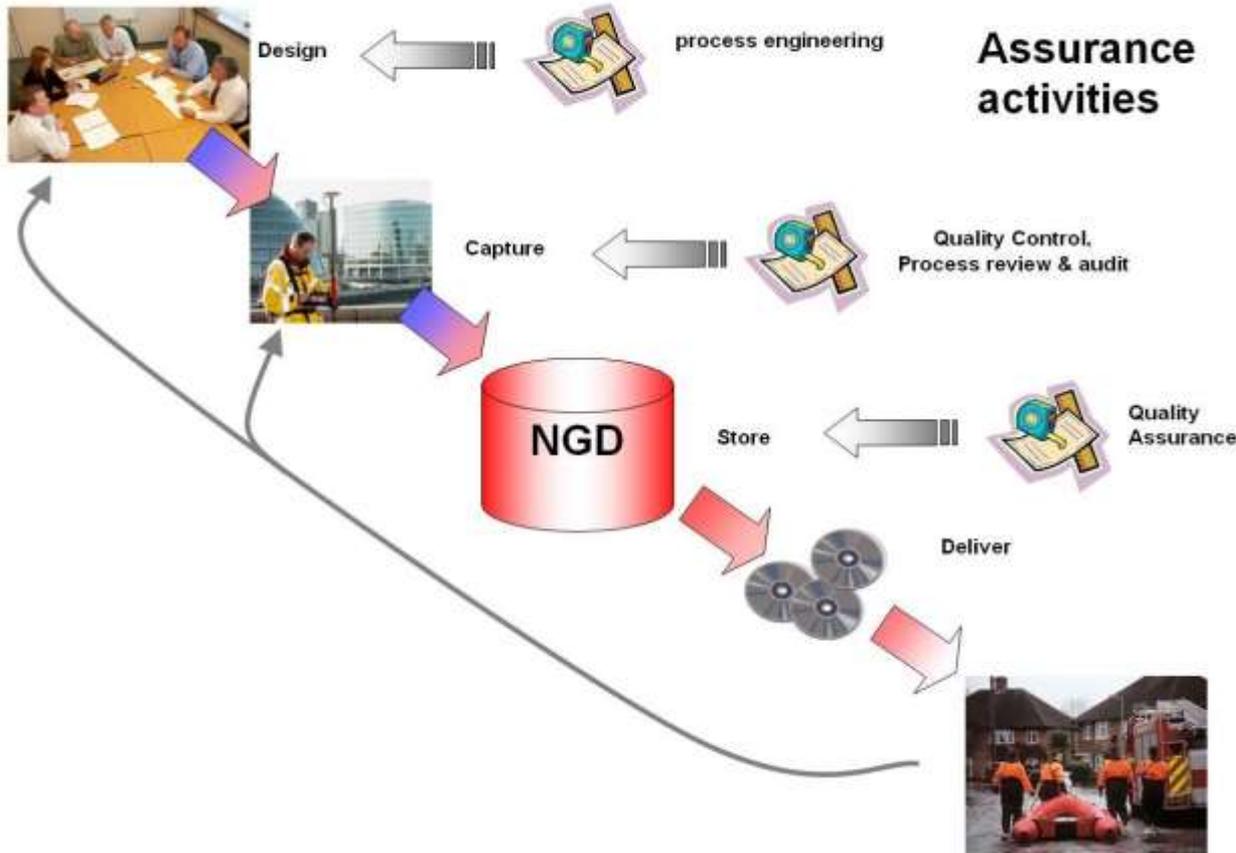
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The role of the private and non-governmental sectors

- Government will likely remain the largest customers and commissioning agents for private sector geospatial information.
- Private sector will face challenges – for example, creating and finding opportunities outside the government and NGO markets, and funding models will increasingly need to be driven by either value add-ons, or through other means.
- Government release of open data, means the private sector may have to focus elsewhere in the value chain, and will likely lead to greater public-private partnerships.



The future role of governments in geospatial data provision and management



- Increase in the number of sources of geospatial information will challenge NMCAs, forcing a reconsideration of the traditional role played by government in collection of and provision of geospatial data.



The future role of governments in geospatial data provision and management

- End-users should be able to consume government-assured spatial data with the level of trust in quality as they do when they get water from the tap – they are going to get what they expect.



Sustainable Development Goals



GGIM Links Geospatial Datasets to SDGs

SDGs are Geospatial
...and statistical

...and require international collaboration

...and multi-stakeholder partnerships.

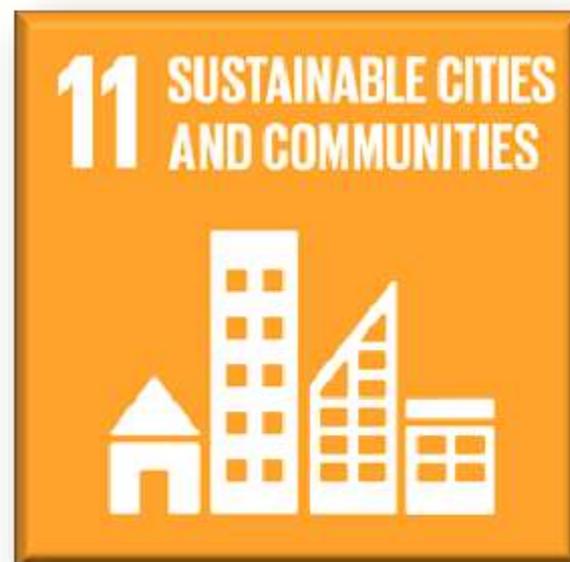


Example Goal | Target | Indicator

Goal 11: Make cities and human settlements inclusive, safe, resilient, and sustainable.

Target 11.7: By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, particularly for women and children, older persons and persons with disabilities.

Indicator: The average share of the built-up areas of cities in open space in public ownership and use.



Goal 11: Getting Started

- **An assumption** – there is public accessibility to diverse datasets and GIS tools on a national and global scale
- **An urban geography framework** - small area geography to merge target group statistics, and land use/land classification data
- **Diverse datasets** – demographic data, earth observation data, crime data, land use/land classification data, open areas, or protected areas
- **A geospatial methodology** - an integrated solution to geospatial problem; see previous studies listed below

2012, S. A. Bennet, N. Yiannakoulis A. M. Williams, P. Kitchen. Playground Accessibility and Neighborhood Social Interaction Among Parents, *Social Indicators Research* 108:199-213.

2001 S. Nicholls, Measuring the accessibility and equity of public parks: a case study using GIS, *Managing Leisure*, 6:201-212.



Case Study for Goal 11: Pittsburgh, PA

Data Sources:

- **Base layers** (Boundaries/roads/DEMs)
- **Target Population Data** (Population, age/sex, crime statistics)
- **Accessible Open Space Layer** ((Protected Areas Database), Open Street Map, Parcel data)
- **National Land Cover Database (NLCD)**
- **Additional Gridded Datasets**
 - Landscan - Oak Ridge National Labs
 - CIESIN/SEDAC - NASA/Columbia University



Data Integration Model: A GIS Solution for Goal 11

- Assess data quality and select appropriate **small area geography**; e.g., block group, census tract, or gridded polygons;
- Extract **access points** to open space or protected areas; e.g. parks, recreation areas;
- Link **target population data** to small area geography or gridded polygons; e.g. demographic, economic, health, crime statistics;
- Create “**isochrone/isodistance**” maps (time/distance to access points);
- Develop a “**proximity index**” for each city (weighted (average) time and/or distance to the areas of interest) to allow comparison to other cities.



FGDC Take-Aways

- OMB is coordinating the U.S. response to the SDGs
- The SDGs provide a reason on the need for geospatial data
- Geospatial data is core to the 2030 Sustainable Development Agenda
- Statistics are the facts that measure compliance to the indicator framework
- Data integration of geospatial data types with statistical data is required and is a challenge





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