Determination of Global Fundamental Geospatial Data themes



UNITED NATIONS COMMITTEE OF EXPERTS ON GLOBAL GEOSPATIAL INFORMATION MANAGEMENT

8th Session of the Committee of Experts August 2018

GGIM8 - Report

Report to GGIM8 includes:

- Methodology
- Theme Descriptions
- Theme icons
- Promotion activities
- Recommendations to Committee of Experts

UNITED NAT	IONS	E/C.20/2018/7/Add.
Econom	ic and Social Council	13 July 2018
Information Eighth session New York, 1-3 Item 6 of the p		
	Determination of global fundamental geospa hemes	tial data
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5	ummary.	
	The present paper combins the report prepared by the 3R inited Notions (Stoold Geospital Information Management for working group on global fundamental geospitali data their y the Committee of Experts adopted decision 7104, in which it is assume list of global fundamental geospital data their serventh session, held in New York from 2 to formative of Experts adopted decision 7104, in which it is or the office of the Regional Committee of United Nation of the Regional Committee of United Nation separate adopted to the regional Committee of the Regional Committee is accounted by the Regional Committee in the regional Committee of the Regional Committee of the regional Committee and their relevant working groups, their working groups of the Committee of the Regional Committees and their relevant working groups of the Committee of the Regional Committee Committee of the Regional Committee Commi	Europe on balaff of see for consideration Management. 4 August 2017, the dopted the proposed de approach of the sea (Global Georgania) soore details for each um lit and making it y, including the non- ummittee for Europe of the fundamental angagement with the its angagement with dology used and the criptions for each of shea by the working spatial communities, as events. The sport



Background to the Global Fundamental Geospatial Data themes

A report on fundamental data themes prepared by UN-GGIM: Europe and presented at 5th Session of the Committee of Experts

There was agreed there was:

'an urgent need for a set of **global fundamental geospatial data themes** that could be harmonized in order to enable the measurement, monitoring and management of sustainable development in a consistent way over time and to facilitate evidence-based decision-making and policy-making'





UN-GGIM: Europe asked to take lead to:



- Produce a recommendation for a minimum list of global fundamental geospatial data themes. Each data theme should be supported by a description and guidelines.
- Take account of existing activity being undertaken by UN-GGIM regional committees, ensuring that where possible existing resources are used.
- Consider the prioritisation of the data themes and how they link to other data needs with in the UN-GGIM programme of work.
- Consider the specific needs and vulnerabilities of small island developing States.
- Ensure that the data themes should be technical in nature so as not to raise political concerns.



GGIM7 – Fundamental Data Highlights

The Committee of Experts:

- Supported adoption of the minimum list subject to minor suggested amendments, noting that it had has been developed through broad consultation and consensus
- Agreed that UN-GGIM: Europe should complete the top level theme descriptions and further detail could be done with experts in specific domains.
- Supported the offer from UN- GGIM: Europe to work with Secretariat and other groups to draw up plans for promoting and socialising the proposed ML to the wider community including the non-geospatial community.
- Took note of the suggestions that the WG consider:
 - Including measures to ensure implement the data themes
 - Recognising positioning as a theme
 - How the themes may be integrated into statistics, EO and other imagery
 - How to bring contributing elements of GGIM's work together into a coherent communication so as to amplify their impact in influencing national policies



Data Themes and Reference Frame

- Addresses
- Buildings and Settlements
- Elevation and depth
- Functional Areas
- Geographical Names
- Geology and Soils
- Land Cover and Land Use
- Land Parcels
- Orthoimagery
- Physical infrastructure
- Population distribution
- Transport Networks
- Water
- Reference Frame: Global Geodetic Reference Framework



Progress since GGIM7







Methodology



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and and a

Theme Description – One side A4 only

Theme title
Description
Why this theme fundamental?
Which sustainable development goals (SDGs) will it help to meet?
Geospatial data features in more detail
Possible sources of geospatial data
Existing geospatial data standards



Example - Addresses

Theme title:

Addresses

Description

An address is a structured label, usually containing a property number, a street name and a locality name. It's used to identify a plot of land, a building or part of a building, or some other construction, together with coordinates indicating their geographic position. Addresses are often used as a proxy for other data themes such as Land Parcels.

Why is this theme fundamental?

Addresses underpin government administration at all levels; and good administration is a prerequisite for achieving sustainable development goals. An address is often the unit to which a public service, such as water, is provided. Addresses also enable effective communication with citizens; informing them of policies applying to them, and notifying them of relevant incidents. The theme also helps in managing buildings and properties, and supports social surveys. Datasets relating to individuals or households are often linked to addresses, which can therefore play a role in connecting otherwise-unrelated information. Geocoding addresses relates such information to geographic location. This allows for location-based data analytics and data mining.

Which sustainable development goals (SDGs) will it help to meet?

Addresses have been identified as playing a key role in the achievement of SDGs 4,6,7, 9 and 11.

Geospatial data features in more detail

The addresses theme comprises a single feature type, address, to which a variable number of attributes may be attached. Typically, in urban areas these comprise at least one locator (building, floor or apartment number and/or name), a two-dimensional geographic position and a number of address components which place the address within other features such as a road, a locality, an administrative unit or postal code. In rural areas the locator may be less precise.

Possible sources of geospatial data

Address datasets are usually maintained by public authorities. While data may be created and maintained at local level, it should ideally be compiled into a single national register.

Existing geospatial data standards

Note: This is indicative. Other lists of standards exist and UN-GGIM will seek to work with thematic experts to develop a list of relevant data standards.

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- INSPIRE Data Specification on Addresses Technical Guidelines 3.1
- ISO 19160-1:2015 Addressing -- Part 1: Conceptual model
- ISA Programme Location Core Vocabulary

UN-GGIM: EUROPE

ISO 19160-4(UPU, Universal Postal Union) Addressing---Part4: International postal address components and template language



Methodology



Promotion and awareness raising

Icons



Global Geodetic Reference Frame



Geographical Names



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Addresses



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Functional Areas





Land Parcels



Transport Networks

Elevation and Depth



Population Distribution



Land Cover and Land Use



Geology and Soils



Buildings and

Settlements

Physical Infrastructure



Water





Data Themes Storyboard Created by the GGIM Secretariat:



Inclusion in the Integrated Geospatial Information Framework





Regional and national implementation

Workshops on Fundamental Data



Dedicated three-day workshop organised at UNECA Addis Ababa in April2018



Small workshop organised as part of the UN-GGIM: Europe Plenary, May 2018



How did the FDWG do against the ToRs?

- 1. Produce a recommendation for a minimum list of global fundamental geospatial data themes.
- 2. Each data theme should be supported by a description and guidelines.
- 3. Take account of existing activity being undertaken by UN-GGIM regional committees, ensuring that where possible existing resources are used.
- 4. Consider the prioritisation of the data themes and how they link to other data needs with in the UN-GGIM programme of work.
- 5. Consider the specific needs and vulnerabilities of small island developing States.
- 6. Ensure that the data themes should be technical in nature as not to raise political concerns.

And

7. Suggestions from the Committee of Experts at GGIM7





The Committee of Experts is invited to:

- (a) Take note of the report and express its views on the valuable progress of the Working Group, including the provision of theme descriptions for the 14 global fundamental geospatial data themes; and
- (b) Provide guidance on steps to promote, communicate and raise awareness of the 14 global fundamental geospatial data themes widely across the global geospatial information community, UN-GGIM Regional Committees, wider UN System, and within the broader global geospatial ecosystem.



Thank you



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