



UNITED NATIONS



**UN-GGIM:Americas**

REGIONAL COMMITTEE OF UNITED NATIONS  
ON GLOBAL GEOSPATIAL INFORMATION  
MANAGEMENT FOR THE AMERICAS

# Global Statistical Geospatial Framework AND ITS FIVE PRINCIPLES

PRINCIPLE

2

“Using geocoded unit record data in a data management environment”



REGIONAL WEBINAR SERIES ON THE GSGF AND ITS FIVE PRINCIPLES  
SECOND WEBINAR  
Using geocoded unit record data in a data management environment

PRINCIPLE 2

Facilitated by the WG on Integration of Statistical and Geospatial Information of UN-GGIM: Americas and ECLAC  
Date: April 2, 2024  
Time: 10:00 AM to 11:00 AM (GMT-5)

Concept Note

Background:

The United Nations Global Forum on the Integration of Statistical and Geospatial Information convened in New York in August 2014 identified that "there is an urgent need for a mechanism, such as a global statistical-spatial framework, to facilitate consistent production and integration approaches for geo-statistical information."

The resulting Global Statistical and Geospatial Framework - (GSGF), is a principles-based framework that has evolved from the Australian Spatial Statistical Framework and has been guided by a global consultation process<sup>1</sup>, constituting "a common method for enabling statistical and administrative data geospatially, to ensure that data from a variety of sources can be integrated, based on their location, and can be integrated with other geospatial information". *United Nations Committee of Experts on Global Geospatial Information Management, New York 2015.*

The Committee of Experts at its ninth session of August 2019, adopted, the Global Statistical and Geospatial Framework, GSGF as "an important bridge that enables a range of data to be integrated from both the geospatial and statistical communities. Through the application of its five principles and supporting key elements, GSGF permits the production of standardized and integrated geospatially enabled statistical data to facilitate data-driven decision-making."

The five GSGF Principles provide the broad processes for taking this input data and applying a range of geospatial and statistical infrastructure and processes to enable its integration. The resulting data can be integrated with statistical, geospatial, and other information to inform and facilitate data and evidence-based decision making to support local, subnational and national development priorities and global agendas, such as the 2020 Round of Population and Housing Censuses and the 2030 Agenda for Sustainable Development.

*Principle 2: "Geocoded unit record data in a data management environment"*<sup>2</sup>

Principle 2 supports the process of linking or storing high-precision geographic references (i.e. geocodes – coordinates, small geographic area codes, or linked-data identifiers) to each microdata/statistical unit record. This is often referred to as geospatially enabling data, and must occur within a secure, standards-based data

<sup>1</sup> <https://ggim.un.org/meetings/GGIM-committee/8th-Session/documents/Global-Statistical-Geospatial-Framework-July-2018.pdf>

<sup>2</sup> [https://ggim.un.org/meetings/GGIM-committee/9th-Session/documents/The\\_GSGF.pdf](https://ggim.un.org/meetings/GGIM-committee/9th-Session/documents/The_GSGF.pdf)



management environment. This process applies the address coding infrastructure and fundamental data from Principle 1.

The goal of Principle 2 is to allow all statistical unit records to be linked to a location, wherever it is possible to do so. This will then enable integration of data from a wide variety of sources, such as other socioeconomic statistical data, administrative data, and geospatial information about the built and natural environment. The incorporation of these data, using geospatial processing, can then deliver new, geospatially enabled statistical variables for analysis. Principle 2 also enables flexible application of any geographic content when preparing data for release and analysis. This includes supporting future aggregation of statistical data into new geographical units or adapting to changes to existing geographies over time.

Principle 2 includes the use of data management tools, techniques, standards, and good practices to facilitate the linking and management of geocodes within statistical datasets. This also serves to ensure that privacy and confidentiality requirements are correctly managed for the released data.

Implementation of Principle 2 achieves the following objectives:

- All statistical microdata is geospatially enabled for flexible use in analysis, visualization, dissemination, and statistical data integration processes.
- Aggregation of data for larger geographies is simplified through storage of a unique identifier or code for a small area geography or standard grid cell for each unit record.
- Adaptation to changes to existing geographies or to allow compilation of data for new geographies is enabled.
- Data can be effectively managed, including the protection of privacy and confidentiality.
- Clear data maintenance and custodianship roles are defined; and geocoded information and metadata are consistent, interpretable, and systematically maintained.

#### **Seminar objectives:**

In alignment with the global GSGF framework, the Working Group on Integration of Statistical and Geospatial Information of the United Nations Regional Committee on Global Geospatial Information Management for the Americas (UN-GGIM Americas) led by Colombia and Mexico, the technical assistance of ECLAC and the work of the Expert Group on Integration of Statistical and Geospatial Information (EG-ISGI); will develop a series of webinars, with the purpose of providing the Member States and stakeholders with the conceptual basis related to the five principles of the GSGF, to enhance the use of integrated statistical and geospatial information.

In addition, to achieve the following objectives:

- a. Provide guidance to Member States and stakeholders, on the implementation of the resulting Global Statistical and Geospatial Framework - (GSGF).
- b. To strengthen interrelationships with relevant groups in the statistical and geospatial communities.
- c. Provide Member State representatives responsible for geostatistical integration the opportunity to learn about challenges around statistical and geospatial integration and establish work plans that identify and promote solutions in a participatory and inclusive manner.

- d. Implement and operationalize in the Member States, the Global Statistical and Geospatial Framework -GSGF, as a tool to obtain geospatially enabled statistical data for the 2030 Agenda, the 2020 Population Census Round and issues related to climate change and disaster resilience, among others.

#### Agenda:

##### 10:00 – 10:05 Welcome remarks

- Sofía Nilo - President of UN-GGIM: Americas

##### 10:05 – 10:20 General information about GSGF Principle 2

- Joshua J. Coutts - Chief of the National and International Engagement Branch, United States Census Bureau
- Claudio Stenner - Director of Geosciences, Brazilian Institute of Geography and Statistics

##### 10:20 – 10:55 Discussion with countries from the Americas region

Moderator: Joshua J. Coutts

- **Costa Rica** - Luis Carlos Paniagua Carvajal – Coordinator of the Cartography Unit, National Institute of Statistics and Censuses
- **Colombia** – Sandra Liliana Moreno – Specialized Professional, Geostatistics Directorate, DANE
- **Santa Lucía** – Sherma Small – Mapping Supervisor, Central Statistics Office

##### 10:55 - 11:00 Closing

- Rolando Ocampo – Director, Statistics Division, ECLAC



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