

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

Regional Report UN-GGIM: Americas 2015-2016

June 2016

1. Summary

The Regional Committee of Experts of the United Nations on Global Geospatial Information Management for the Americas (UN-GGIM: Americas) was created in August 2013, replacing the Permanent Committee for Geospatial Data Infrastructure of the Americas (CP-IDEA). During its first three years of existence, the Committee has worked in the activities of its five working groups, in the incorporation of the Caribbean Region to UN-GGIM activities, while strengthening their national and regional spatial data infrastructures; in the consolidation of cooperation between the institutions of the Joint Action Plan, and in reinforcing new regional and international relations.

2. Introduction, background

In August 2013, the United Nations Committee of Experts on Global Geospatial Information Management for the Americas (UN-GGIM: Americas) was created. This regional body replaced the Permanent Committee for Geospatial Data Infrastructure of the Americas (CP-IDEA). This significant action was taken in accordance with the new mandate of the regional committee to enhance cooperation and coordination with the Committee of Experts of the United Nations on Global Geospatial Information Management (UN-GGIM).

Stefan Schweinfest, Director of the United Nations Statistics Division, in his opening remarks at the 10th United Nations Regional Cartographic Conference for the Americas (UNRCCA), said: "The new Regional Committee will be aligned to a global architecture, which will better address regional and global challenges especially in the context of sustainable development and humanitarian assistance."

3. Objective

The Committee shall determine the relevant regional issues on geospatial information management, wherein it will take the necessary action to maximize the economic, social and environmental benefits derived from its use. This, based on the knowledge and exchange of experiences and technologies by Member States, thereby advancing the establishment of the Geospatial Data Infrastructure in the Americas initiative, and other national initiatives, in addition to their contributions to UN-GGIM.

4. Activities, Areas of Work – Achievements

a. Contribution to UN-GGIM activities

During the fifth session of the Committee of Experts on UN-GGIM, Mr. Rolando Ocampo, President of UN-GGIM:Americas, was elected Co-chair of the Committee of Experts, along with Mr. Timothy Trainor from the United States of America and Mr. Li Pengde from China. This election contributes to the regional Committee having a global vision of the agenda on geospatial information management, as well as regional contributions and visions enriching the global UN-GGIM agenda.

The main contributions of the Regional Committee to the Committee of Experts of UN-GGIM are related to the work of its five working groups, aligned with the global agenda of the Committee of Experts.

The main areas of the regional committee's Working Groups (WG) are: Integration of Statistical and Geospatial Information; Access and use of geospatial information for disaster risk reduction and climate change; Standards and Technical Specifications; Promotion and Evaluation of Spatial Data Infrastructure, and International Coordination and Cooperation.

The Second Session of the Regional Committee was held in November 11 and 12, 2015 in Mexico City, under the framework of the Latin America Geospatial Forum (LAGF); 77 participants from 32 Members States attended the meeting, together with the following national, regional and international organizations: UN-GGIM Secretariat; United Nations Economic Commission for Latin America and the Caribbean (ECLAC); Mexico's National Institute of Geography and Statistics (INEGI) and

Ministry of Foreign Affairs (SRE); Centro Geo (Mexico); SIRGAS; the Pan American Institute of Geography and History (PAIGH); GeoSUR; the Open Geospatial Consortium (OGC); the National Space Organization of Taiwan; the Caribbean Disaster Emergency Management Agency (CDEMA); the Association of Caribbean States (ACS); the Urban and Regional Information Systems Association (URISA), Caribbean Chapter; The University of West Indies (UWI), what3words, among others.

During its second session, the Regional Committee agreed that the formal UN Regional Cartographic Conference format was no longer a necessary requirement. UN-GGIM:Americas recommended that ECOSOC consider removing the UN-RCCA from the UN calendar of conferences and meetings, with its mandates and obligations assimilated by UN-GGIM at the global level, and its technical and substantive activities at the regional and national level assimilated by UN-GGIM:Americas

Another important resolution of the Second Session of the Regional Committee, which contributes to UN-GGIM activities, is the new roles and responsibilities taken on by Caribbean countries. For instance, Sint Maarten took over as coordinator of the Working Group on access and use of geospatial information in disaster risk reduction and climate change. As in the global Committee of Experts, the regional working group is now led by a Caribbean country, which contributes to the incorporation and active participation of the Caribbean region to UN-GGIM activities. This Working Group held its first *ad hoc* meeting in March 2016, during a Course on Metadata for Caribbean Countries, under the frame of the IX International Geomatics Congress in Havana, Cuba.

Currently, UN-GGIM:Americas, the United Nations Statistics Division (UNSD) and the United Nations Geospatial Information Section (UNGIS), as the joint Secretariat of UN-GGIM, are organizing a UN-GGIM International Forum on Geospatial Information and Services for Disasters, along with URISA Caribbean Chapter, and in cooperation with the Government of Mexico. The Forum will be held September 4 to 5, 2016 in Bridgetown, Barbados.

Taking into account the importance of the integration of Geospatial and Statistical information, UN-GGIM:Americas, through its working group on this matter, have been working on the Statistical and Geospatial Framework for the Americas (MEGA for its acronym in Spanish), aligned with the proposal for a Global Statistical Geospatial Framework (GSGF). This project will enable the linking of statistical information of various types, and its geospatial location, trough recognized geocoding methods. MEGA has been shared with the Statistics Conference for the Americas of the Economic Commission for Latin America and the Caribbean (CEA-CEPAL, for its Spanish acronym), to explore future collaboration through this project, with the aim of integrating the Statistical and Geospatial Communities, both nationally and regionally.

At the global level, the President of the Regional Committee, Mr. Rolando Ocampo has continued its active participation in UN-GGIM activities. As Co-Chair of the Expert Group on the Integration of Statistical and Geospatial Information (EG-ISGI) together with the Australian Bureau of Statistics. The co-chairs and UN-GGIM secretariat have been holding regular conference calls, along with various members of the Group. The Third Meeting of the Expert Group on the Integration of Statistical and Geospatial Information was held in Paris, April 25 and 26, 2016, under the framework of the Sixty-fourth plenary session of the Conference of European Statisticians (EuroStat).

This past year, the Statistical and Geospatial Community has been focused on the 2030 Agenda for Sustainable Development, which specifically demands for "new data acquisition and integration approaches to improve the availability, quality, timeliness and disaggregation of data to support implementation at all levels, including to exploit the contribution to be made by a wide range of data, including Earth observations and geospatial information". In this regard, the President of UN-GGIM:Americas jointly with the Group on Earth Observations, the Permanent Mission of Mexico and the Permanent Mission of Denmark, organized a side event during the 47th Session of the United Nations Statistical Commission titled: "Geospatial Information and Earth Observations: Supporting Official Statistics in Monitoring the SDGs". The aim is to

establish this event as a regular integration forum, bringing together geospatial and statistical experts during the yearly session of the UN Statistical Commission.

In the context of the monitoring and measuring of the 2030 Agenda and its Sustainable Development Goals, the Inter-Agency and Expert Group on the Sustainable Development Goal Indicators (IAEG-SDG) recently agreed to create a Geospatial Information Working Group (GIWG). Rolando Ocampo, representing Mexico, serves as co-chair of this Working Group, along with Marie Haldorson from Statistics Sweden. This constitutes a unique opportunity to bring the experiences from UN-GGIM to the group, and provides a general vision to UN-GGIM:Americas of the contributions that the geospatial community can make to the monitoring and implementation of the SDGs.

b. Legal and Policy

The website http://www.un-ggim-americas.org/, hitherto ran by the National System of Territorial Information (SNIT), Chile, underwent a migration process, and is now administered by INEGI, Mexico. This process has streamlined the work of maintaining and updating the site by the Executive Secretary, who is also based at INEGI.

c. Administrative Arrangements

- 1. PAIGH Pan American Technical Assistance Project 2016: The PAIGH supported the UN-GGIM: Americas project with \$8,000 USD for 2016 which were partly used to finance the participation of 4 Member States to the Joint Meeting between the Executive Committee of the Statistical Commission for the Americas and the Executive Board of UN-GGIM: Americas, held on June 17 at the headquarters of the UN Economic Commission for Latin America and the Caribbean (ECLAC), in Santiago, Chile.
 - The other part of the budget will be used for funding the participation of Member States to the Third Session of the Regional Committee in October 2016 in Mexico City.
- 2. Support from the Ministry of Foreign Affairs of Mexico, through its Agency for International Development Cooperation (AMEXCID)- from August 2015 to June 2016, the project activities aimed at strengthening the Geodetic Network and Building Capacity, added an investment of \$1.04 million USD in Geodetic Equipment, Capacity Building, Human Resources, and travel expenses.
- **3.** Chile-Mexico Joint Development Cooperation Fund- from August 2015 to June 2016, the project activities aimed at Building Capacity, added an investment of \$50,000 USD
- **4.** Geospatial Media & Communications: For the third year in a row, agreed with The National Institute of Statistics and Geography of Mexico (INEGI) and UNGGIM: Americas to host the third session of the Committee during the Latin America Geospatial Forum 2016 in Mexico City in October, financing the attendance of 20 Member States of the Regional Committee.

d. Capacity Development

As part of the Capacity Building component of the *Project for Strengthening of the Spatial Data Infrastructure in the Caribbean (Caribbean Project, for short)*, the third training course, on Cartography, was held at INEGI Headquarters, in Mexico City in November 2015, with the participation of representatives from 14 participating countries. The course was imparted by Bheshem Ramlal, Senior Lecturer and Head Department of Geomatics Engineering and Land Management of the Faculty of Engineering from The University of the West Indies (UWI); and Valrie Grant, President of The URISA Caribbean Chapter.

The fourth course, on Geographic Information Metadata, was held from March 14th to 18th in Havana, Cuba, under the frame of the IX International Congress of Geomatics. The course instructors were José Luis Mondragón from INEGI, México, and Pablo Morales from SNIT, Chile. The course and the Congress were attended by 15 country

representatives, through financing from Caribbean Project partners (Mexico-Chile Joint Cooperation Fund).

The fifth course, on Spatial Data Infrastructures, will be held on July 31 and August 1st, at the UN Headquarters in New York, on the margins of the Sixth Session of the Committee of Experts. Course instructors will be Jorge Prado from the Institute of Geography, National Autonomous University of Mexico, and Aarón Villar from INEGI.

e. Publicity and Outreach

The Regional Committee has been represented in the following international forums, through the participation of the President of the Committee:

- 1. International Seminar on the use of Geospatial Information, organized by SNIT, Chile and the European-Latin American Forum on Climate Change of ECLAC. Santiago, Chile. 07 and 08 September, 2015.
- 2. 20th United Nations Regional Cartographic Conference for Asia and the Pacific. Jeju, Island, Republic of Korea. 6-9 October, 2015. Represented by the Executive Secretary, Monica Aguayo.
- 3. 8th Meeting of the Statistics Conference for the Americas (SCA) and the 14th Conference of Ministers and Heads of Planning of Latin America and the Caribbean. Quito and Yachai, Ecuador. 17 to 19 November, 2015.
- 4. UN-GGIM Bureau Meeting. UNHQ, New York. 07 to 09 December, 2015.
- 5. 47th Session of the United Nations Statistical Commission. UNHQ, New York, 04-09 March 2016, and the following side events:
 - "Towards Better Information Systems for the 2030 Agenda use of administrative records, Big Data and geospatial information"
 - Geospatial Information and Earth Observations: Supporting Official Statistics in Monitoring the SDGs (GEO-UN-GGIM);
 - Briefing on the Project to Strengthen Geospatial Data Infrastructures in the Caribbean with representatives of the permanent missions from the Caribbean Countries at the UN.
- 6. Course on Geographic Information Metadata on March 14th to 18th in La Habana, Cuba and participation at the IX Congress of Geomatics.
- 7. 4th. High Level Forum on UN Global Geospatial Information Management. Addis Ababa, Etiopia. 18-22 de abril de 2016
- 8. 3rd meeting of the United Nations Expert Group on the Integration of Statistical and Geospatial Information and the Sixty-fourth plenary session of the Economic Commission for Europe. 25-29 April, 2016.
- 9. Presentation of the report of the Committee of Experts of UN-GGIM during the Economic and Social Council's Coordination and Management Meeting and briefings promoting the strengthening of the Committee of Experts. UNHQ, New York, May 31 to June 01, 2016.
- 10. Meeting with the Minister of National Assets of Chile, Joint Action Plan Meeting and Joint Meeting of Executive Committees of the SCA ECLAC and UN-GGIM: Americas. Santiago, Chile. 15-17 June, 2016.
- 11. 6th Session of UN-GGIM, UNHQ, New York. August 1st to 5th 2015.

f. Technical

The regional Committee, at its second session held in Mexico City in November 2015, approved the resolution proposed by the Working Group on the Integration of Geospatial and Statistical information regarding the use of the KML format as an OGC standard, so that it may be used as the standard by member countries of the Americas.

The coordinators of the working groups prepared a final report of the questionnaires for the diagnosis made to the countries, which was responded by 29 Member States from the Americas. This report will be presented at the third meeting of the regional committee in October, 2016 in Mexico City.

The Caribbean Project is divided into three main components: Diagnosis, Capacity Building and Infrastructure Acquisition. For the third stage of the project regarding Infrastructure Acquisition, 43 GNSS receivers and 16 GNSS Stations were acquired and installed, for the strengthening of the geodetic network in the region. These stations were distributed as follows:

Country	Station GNSS	Equipment GNSS
Antigua and Barbuda	0	2
Bahamas	2	4
Barbados	1	2
Belize	0	2
Cuba	3	4
Dominica	1	2
Grenada	0	2
Guyana	0	4
Haïti	1	4
Jamaica	1	3
República Dominicana	1	4
St. Kitts and Nevis	1	2
St. Lucia	0	2
St. Maarten	1	2
St. Vincent and the Grenadines	1	2
Suriname	2	0
Trinidad and Tobago	1	2
TOTAL	16	43

Location of GNSS Station:



In addition, satellite imagery of the countries and territories in the region, for the construction of a Land Cover Map and the updating of national cartographies, were delivered during a side event for The Caribbean Project in August 2015, during the Fifth Session of UN-GGIM.

Another item of the infrastructure strengthening component of the project, includes the development of a computer application/geomatics solution, designed to serve as a means to integrate, support and disseminate geographic or geo-referenced statistical information of the countries and the region. This computational tool is currently being developed by INEGI, and is based on a platform called MxSIG—an open source platform created to facilitate interaction between providers and users of geographic information, referenced through web services, and which can hold and cross-reference dozens of information layers on an interactive map. To support these activities, a competitive bidding process will be implemented this year to acquire servers and computer equipment, intended as hardware for the geomatics solution to be installed and operated. The functionality to be achieved is that each country can locally promote the use of their geographic information through a concentrated, single national service; likewise, the availability of a central server that offers the service throughout the region.

5. Partnerships and Regional and International Collaboration.

Collaboration Agreement between the Ministry of Foreign Affairs of Mexico (SRE) through its International Development Cooperation Agency AMEXCID and INEGI: This agreement has been the framework for collaboration between the two institutions to develop the Project for Strengthening the Spatial Data Infrastructure in the Caribbean under the UN-GGIM:Americas Regional Committee.

Under the Caribbean Project framework, a Technical Committee was constituted, formed by specialized, academic and intergovernmental institutions from the region: the Association of Caribbean States (ACS); INEGI; the Mexican Agency for International Development Cooperation (AMEXCID); the Caribbean Disaster Emergency Management (CDEMA); URISA, Caribbean Chapter; The University of Guyana and The University of the West Indies. Decisions are taken jointly at this committee for the benefit of the project, taking into account their knowledge and expertise, geospatial information, regional intergovernmental relations and international cooperation, as well as of the Caribbean region. On May 2016, The Institute of Geography of the National Autonomous University of Mexico (IG-UNAM) was incorporated to the Technical Committee.

To continue the efforts of integrating the Caribbean Region to UN-GGIM, and strengthening their SDIs, another important contribution for capacity building in the region, is being made by the Governments of Chile and Mexico through the Chile-Mexico Joint Development Cooperation Fund, formed by the International Development Cooperation Agency of Chile (AGCID) and the Mexican Agency for International Development Cooperation (AMEXCID), and with the technical collaboration of INEGI and the Chilean National System for the Coordination of Territorial Information (SNIT), part of Chile's Ministry of National Assets.

In August 2016, under the frame of the Sixth Session of UN-GGIM in New York, the new Joint Action Plan 2016-2020 will be signed by representatives of the PAIGH, SIRGAS, GeoSUR and UN-GGIM:Americas, whereby the main purpose is to accelerate, in a coordinated and effective way, the development of SDIs in the Americas.

Geospatial Media & Communications (GM&C), an international company serving the geospatial community, has been another important partner for UN-GGIM: Americas, alongside INEGI, to carry out the Third Latin America Geospatial Forum in Mexico City in October 2016. During this important Forum, the third session of UN-GGIM:Americas will be held and, with the joint support of the Caribbean Project,

GM&S and INEGI, 38 member countries from the Americas will be supported to participate.

An important collaboration project between the Statistical and Geospatial Communities in the Americas has been framed in resolution 712 (XXXVI) approved in the 36th session of ECLAC, held in Mexico City in May 2016. This resolution, on the Regional Integration of Statistical and Geospatial Information, recommends the establishment of a forum for substantive dialogue between the Statistical Conference of the Americas of ECLAC (SCA-ECLAC) and UN-GGIM: Americas, in order to coordinate efforts and define a joint agenda for the integration of statistical and geospatial information at the regional level, through cooperation between these two entities. The resolution recognizes that the immediate overarching goal of the regional agenda on geostatistical integration is its use in the measurement, monitoring and achievement of the Sustainable Development Goals, and in conducting and analysing the 2020 round of censuses. It also recommends the exploration of joint mechanisms for projects such as the Integrated Map of the Americas of the Pan American Institute of Geography and History, containing statistical information on population; and an atlas of information on gender-related matters for the Americas. The resolution calls for the holding of regular joint meetings between UN-GGIM: Americas and SCA-ECLAC, deciding to carry out the first joint meeting on June 17 in Santiago, Chile. This meeting was as a first approach to explore future collaboration in projects such as the Integrated Map for the Americas with Statistical information (MEGA) and the Regional Gender Atlas, which will serve as an exercise of integration of communities at national and regional level.

6. Priority Issues and Challenges

For UN-GGIM: Americas, one of the priority issues is to continue the integration of the Caribbean Region to the activities of UN-GGIM and UN-GGIM: Americas, both through the participation in global and regional UN-GGIM meetings, and through the continuity and sustainability of the Caribbean Project, which includes ensuring that the acquired infrastructure and capacity built will be sustainable in time for the 19 countries involved.

Another important objective for the Regional Committee is the active participation of member countries in Working Groups and activities related, recognizing their great potential in priority areas for Geospatial Information Management in the Americas; the main challenge in this regard is the continuity of commitment of representatives, as there are many internal changes within Member States and the commitment with the Regional Committee is not always institutional but personal.

These two priorities also constitute the main challenges for the Regional Committee: to ensure continuity and active participation of representatives of member countries, along with getting the support of their countries' authorities, which includes receiving financial support for meetings of the Committee and its Working Groups, among others.

7. Perspectives and Future Plans.

The immediate plans for the Regional Committee are the activities to be carried out within the framework of the 6th Session of UN-GGIM in New York City in August 2016, including a training course on Spatial Data Infrastructures for Caribbean countries, and a side event for the Regional Committee, aiming to be a preparatory meeting to the 3rd Session of the Regional Committee in October in Mexico City.

The sixth course under the capacity building stage of the Caribbean project, will be a Workshop on the Use of Geodetic Equipment that has been installed in the Caribbean Countries. This workshop will take place at the University of West Indies in St Augustine, Trinidad & Tobago, from August 15 to the 19. It will be given by Francisco Medina from ECO, and Javier Arellano from INEGI.

Currently, future training events are being analyzed in terms of priorities and major needs/priorities of participating Caribbean countries and territories. There are some tentative courses that include topics such as: Remote Sensing, Geoportals and Geoservices, Digital Elevation Models, Geographic Database, among others.

Another important event for the Regional Committee will be the UN-GGIM International Forum on Geospatial Information and Services for Disasters that will be held on September 4-5, 2016, under the frame of the URISA Caribbean 2016 GIS Conference, in Bridgetown, Barbados.

On October 5th and 6th, the third session of UN-GGIM:Americas will be held in Mexico City, under the Latin America Geospatial Forum. The program includes this year's progress and activities; final results of the regional diagnosis; regional and international cooperation; working groups' progress, and future plans for the Regional Committee, among others.

The Caribbean Project work program includes the purchase of computer equipment for the creation of the geomatics solution for the Caribbean, which will contribute to the interoperability and availability of geospatial data from/to the region.

The Regional Committee Working Groups coordinators will analyze and use the final results of the joint diagnosis of Geospatial Information Management, and outline the committee's future actions, giving priority to reducing the gaps between countries.

8. Conclusions

UN-GGIM:Americas has successfully worked to address relevant regional issues on geospatial information management, and taken the necessary action on these to maximize the economic, social and environmental benefits derived from the use of geospatial information built on the knowledge and exchange of experiences and technologies from different countries, based on common standards, allowing the establishment of the regional Geospatial Data Infrastructure.

Some breakthroughs and foundational tasks, such as the incorporation of the Caribbean Region and the strengthening of their SDI; the integration of Statistical and Geospatial Information; and the International and Regional Cooperation, have been key to the consolidation of UN-GGIM: Americas.

UN-GGIM: Americas, in the last three years has become the regional linkage between the national decision makers on geospatial information management and the Committee of Experts of UN-GGIM.

Acknowledgments:

Key players for the significant growth experienced by UN-GGIM:Americas include the regional and international development cooperation agencies from the Governments of Mexico and Chile (AMEXCID and AGCID, respectively), the Technical Committee (ACS, INEGI, CDEMA, URISA Caribbean Chapter, The University of Guyana, The University of the West Indies and IG-UNAM) and SNIT, for the support and implementation of the Caribbean Project and the difference it will make to the Region's Spatial Data Infrastructure.

Within the Committee, the active role of the Vice-President of the Regional Committee, Álvaro Monett, has been crucial, as an active coordinator of the Working Groups tasks and a in the development of the region's General Diagnosis.

A special recognition goes to INEGI's team for their technical and logistical support at all the Committee activities, their participation in training events and the work during the last year managing the of UN-GGIM:Americas website.

Representatives of Member States that have been active handling high responsibility activities, including the Coordinators of the Working Groups representing the

following organisms: Natural Resources Canada; the Geographic Institute Agustín Codazzi and the National Administrative Department of Statistics of Colombia; Ministry of Public Housing, Spatial Planning, Environment and Infrastructure of Sint Maarten; National Territorial Information System of Chile; and the National Institute of Statistics and Geography of Mexico. And also our Vocal Members, representing the following organisms: Natural Resources Canada; National Institute of Geography of Costa Rica; National Lands Agency of Jamaica and the Brazilian Institute of Geography and Statistics.

Also and finally, thanks to the Secretariat of UN-GGIM for coordinating and ably supporting the global and regional efforts on geospatial information management, working closely with UN-GGIM: Americas.

To all of them, our recognition and gratitude

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