



UN-GGIM:Americas

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

Regional Report UN-GGIM: Americas 2019-2020

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1. Background

The United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM), established by the Economic and Social Council of the United Nations (ECOSOC), is a formal intergovernmental mechanism to discuss, improve and coordinate availability and use of global geospatial information, through the participation of States Members of the United Nations.

In August 2013, the Regional Committee for the Americas (UN-GGIM: Americas) was created, which replaced the Permanent Committee on Geospatial Data Infrastructure of the Americas (CP-IDEA). This significant action was carried out in accordance with the new mandate of the Regional Committee to improve cooperation and coordination with the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM). The Regional Committee, aligned with the global architecture, would better address regional and global challenges, especially in the context of sustainable development.

2. Objective

The Committee determines the relevant regional issues for the management of geospatial information, and takes the necessary measures to maximize the economic, social and environmental benefits derived from its use. The foregoing is based on knowledge and the exchange of experiences and technologies by the Member States, which allows for the establishment of the Geospatial Data Infrastructures in the Americas and other national initiatives, in addition to the contributions to the debates in UN- GGIM.

3. UN-GGIM: Americas Regional Committee Structure

The Board of Directors of UN-GGIM: Americas Regional Committee, is integrated as follows:

- President: Paloma Merodio Gómez, Mexico (2° Period)
- Vice president Macarena Pérez García, Chile (2° Period)
- Executive Secretary: Gabriela García Seco, Mexico (2° Period)
- Vocal of North America: Eric Loubier, Canada (2° Period)
- Vocal of Central America: Marta Aguilar, Costa Rica (2° Period)
- Vocal of South America: Sergio Cimbaro, Argentina (1° Period)
- Vocal of the Caribbean: Keith Francis, St. Vincent and the Grenadines (1° Period)

4. Activities – Work Areas

4.1. UN-GGIM: Americas meeting in the framework of the 9th Session of UN-GGIM

In the framework of the 9th Session of UN-GGIM, a meeting of the Regional Committee was held on August 5, 2019. The meeting was attended by representatives of 15 Member States (Colombia, Chile, Canada, United States, Uruguay, Argentina, Costa Rica, Saint Vincent and the Grenadines, Mexico, Jamaica, Dominican Republic, Bolivia, Guyana, Barbados, and the Bahamas), as well as representatives of the Academic Network of the Americas, the Pan American Institute of Geography and History (PAIGH), the Private Sector Network for the Americas, the Economic Commission for Latin America and the Caribbean (ECLAC), the UN-GGIM Secretariat, UN-Women and Stuart Minchin, special guest from Geoscience Australia, who shared the work being done in the Regional Data Cube. He explained what the Data Cube is and showed examples of the products that have been created to add value to companies and citizens in the countries where it has been put into operation.

During the meeting some regional positions were discussed for the first time to declare during the plenary of the Committee of Experts.

It was commented that the Integrated Geospatial Information Framework, the IGIF, is being translated into the Spanish language and members were encouraged to study this Framework in order to make appropriate suggestions to the Global consultation period.

Coordinators of the Working Group shared the progress of the different projects that are being carried out and some proposals related to the subject of Geodesy were discussed. Finally, Mrs. Teresa Guerra from UN Women spoke about the work being done by the research group on geospatial and gender information.

4.2. Sixth Session of the Regional Committee

The Sixth Session of the Regional Committee was held on October 11, 2019, at the facilities of the National Institute of Statistics and Geography (INEGI), Mexico City, within the framework of the Geospatial Forum for the Americas (AGF). Seventy-five (75) participants attended the meeting including delegates from 29 countries of the Americas, 12 of which were from the Caribbean region, as well as the following international, regional and national organizations: the Association of Caribbean States (ACS) , the United Nations Economic Commission for Latin America and the Caribbean (ECLAC), the National Aeronautics and Space Administration (NASA), the National Oceanic and Atmospheric Administration (NOAA), the Pan American Institute of Geography and History (PAIGH), the Geocentric Reference System for the Americas (SIRGAS), the National Autonomous University of Mexico (UNAM), Esri, GeoSUR, the University of the West Indies (UWI)) Campus Saint Augustine, the World Bank, Geospatial Media & Communications, the Earth Observations Group (GEO), the UN-GGIM Secretariat of the United Nations Statistics Division and the Academic Network and Private Sector Network of UN-GGIM: Americas. Representatives from seven Statistical Offices from the following countries also attended: Antigua & Barbuda, Chile, Dominica, Jamaica, Nicaragua, the United States and Saint Lucia.

As part of the Session agenda, a workshop on the Integrated Geospatial Information Framework (IGIF) was held. To do this, attendees were divided into six working groups and two activities were carried out: the first was aimed at preparing regional feedback to the IGIF Global Consultation and the second, identifying the link between the IGIF and the development of National Geospatial Data Infrastructures.

The program of the meeting also included the presentation of the regional reports of UN-GGIM: Americas and SCA-ECLAC, as well as the presentation of the status of projects and work plans and the next steps of each of the working groups and lines of action of the Committee.

For the full report of the meeting, visit:

<http://www.un-ggim-americas.org/assets/modulos/eventos.html?evento=40&t=s>

4.3. Geospatial Virtual Summit 2020

The presidency of UN-GGIM: Americas, together with its academic and private sector networks, the UN-GGIM Working Group on Geospatial Information and Services for Disasters and partners, organized the 2020 Virtual Geospatial Summit, GIS Response to COVID-19 , held on April 8, 2020.

The Virtual Geospatial Summit was conceived as a free, fully online event designed to connect geospatial professionals and enthusiasts to share their common experiences through a digital platform.

The event began with a keynote conference on the role of GIS in planning and responding to the outbreak of infectious diseases, as well as the presentation of the Caribbean geoportal that is being developed within the framework of the "Initiative for Geospatial Development in the Caribbean "- CARIGEO, followed by five segments within which the work of the agencies in the fight against the COVID-19 pandemic using GIS was highlighted, the use of high-resolution satellite images for analysis and response to the pandemic , the development of tools and geovisors for monitoring and analysis of the disease, mechanisms of action of the geospatial community to break communication barriers and keep the population informed and the relevant contribution of GIS for decision-making.

4.4. Virtual Seminar Series UN-GGIM / COVID-19: Strategies for a geospatial response in the Americas

Due to the current global health crisis we are facing and the critical and urgent need for countries to act quickly to collect, analyze and disseminate the data that supports decision-making, the

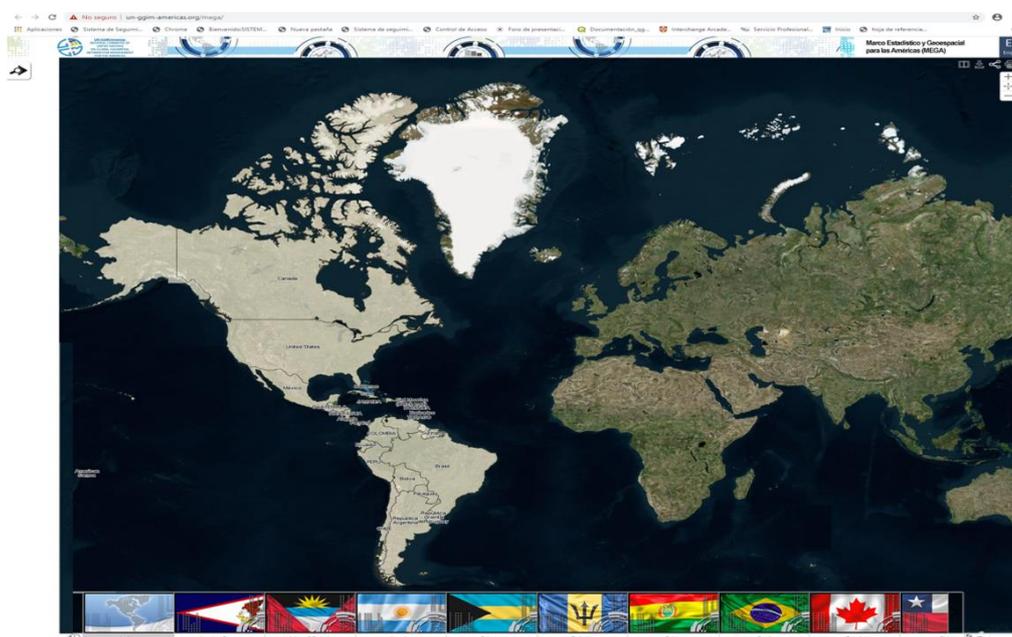
Economic Commission for Latin America and the Caribbean (ECLAC) and the United Nations Regional Committee on Global Geospatial Information Management for the Americas (UN-GGIM: Americas), with the support of the UN-GGIM secretariat, held a virtual seminar that took place on May 15, 2020 at 11am at 1:15 pm (UTC-4). The overall objective of the seminar was to provide participating countries and organizations with an opportunity to share practices and experiences in their geospatial methods, procedures, technologies and data in their response to COVID-19. The opening session was moderated by the president of UN-GGIM: Americas, who mentioned the importance of geospatial platforms for monitoring and generating planning strategies in the face of the COVID-19 pandemic. She thanked Rolando Ocampo and Greg Scott for their support and participation in the efforts to carry out this webinar. The meeting was divided into several sessions: 1) The context of response in the Americas, 2) COVID-19 collaboration and dissemination platforms, and 3) Examples of good practices (Mexico, Panama, Antigua & Barbuda and Colombia).

4.5. Working Groups

4.5.1. Working Group on Integration of Statistical and Geospatial Information (WG-ISGI)

In 2014 the Statistical and Geospatial Framework for the Americas (MEGA) project was established as one of the main axes of work of the Regional Committee, for the integration of statistical and geospatial information. MEGA will allow integrating statistical and geospatial information in a unified way for the region with common principles and standards, strengthening dissemination for decision-making.

During 2020, the WG-ISGI will prepare as a first objective, the Implementation Report of version 1.0 of the Statistical and Geospatial Framework for the Americas (MEGA) for this, the representatives of the Member States, both of the statistical and geographical organizations, should send a summary to the group coordinator about their experiences and lessons learned. It should be noted that so far 32 of the 36 countries that make up the Committee of the Americas have entered their information on the MEGA server.



As a second objective, the WG-ISGI plans to disseminate MEGA 1.0, which will be done through the UN-GGIM: Americas website, where the data of those countries that have sent their validation note to the Secretariat of the Regional Committee and a proposal will be made for version 2.0 of the MEGA, for this purpose new topics will be explored and identified and a pilot project will be designed. The third objective is to promote the use of geospatial information data in decision-making and the design of public policies. A methodology will be developed to recognize the concept of geospatial empowerment in public policies, as well as a document that will propose how to assess the capabilities of the environment in which a public policy is developed under the concept of geospatial empowerment. Both products are being developed by the Agustín Codazzi Geographical Institute of Colombia. Finally, the fourth objective of the

WG-ISGI is to develop and implement standards that facilitate and ensure the quality of the integration of statistical and geospatial information.

4.5.2. Working Group on Disasters (WG-Disasters)

In 2018, as part of its activities, the Working Group on Geospatial Information and Services for Disasters, carried out a survey on current practices and the problems that Member States have regarding the use of geospatial data in the context of disaster management. An important section of the survey had to do with the status of their capabilities on various aspects such as access to generic or specialized software (Geographic Information Systems - GIS - software), internet accessibility and bandwidth, availability of specialized personnel, existence of emergency plans, etc. The results of the survey were analyzed in a report entitled "Diagnosis and analysis of gaps" and the final version of which was presented in mid-2019. The analysis of the document will serve to improve the capabilities of members of the region in the use of geospatial information. to mitigate disasters and be more resilient in the event of disasters.

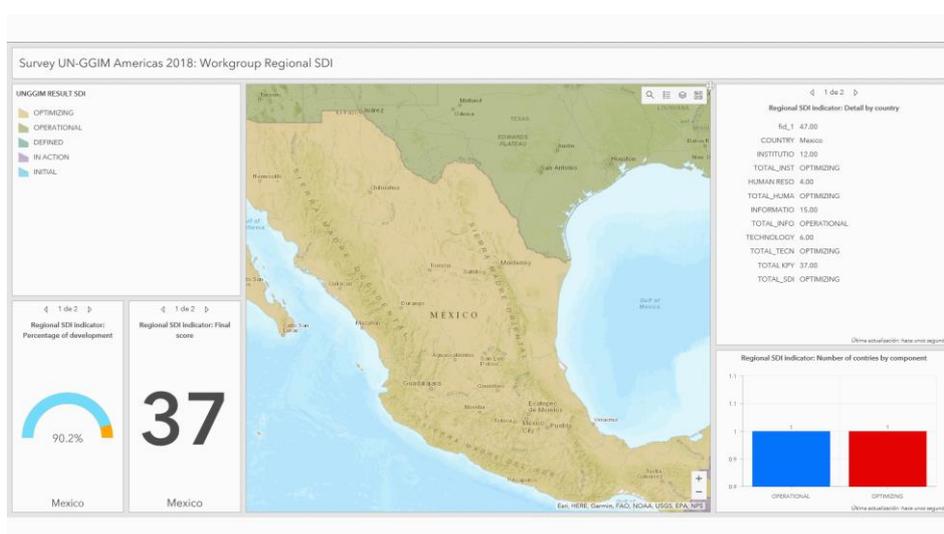
As part of the objectives of the WG in 2020, a Terms of Reference (ToR) document will be prepared for an action plan on capacity building at the regional level based on the elements identified in the 2019 Diagnosis document and other fundamental documents of the UN, including the Global Strategic Framework on Geospatial Information and Services for Disasters (GSF) and United Nations General Assembly Resolution 59/12 on how to address knowledge gaps in Disaster Risk Management (DRM).

Gaps were identified based on the five (5) priority areas of the GSF, so for the articulation of the implementation plans for capacity development, 5 task teams were created, led by:

- Government and policy -?
- Awareness-raising and capacity development - Canada
- Data management - Argentina
- Infrastructure and common services - Nicaragua
- Mobilization resource – Guyana

4.5.3. Working Group on Geospatial Data Infrastructure (WG-SDI)

The WG-SDI applied in 2018 and 2019 an evaluation and monitoring tool regarding the state of progress of regional SDI. With this evaluation, comparative results processing could be carried out. This periodic monitoring evaluation was carried out in early May 2020. Once the results are analyzed, observations and suggestions will be incorporated into the 2020 comparative report. As part of this year's questionnaire (2020), Member States were asked to share documentation on the use, standards and other elements associated with the use of SDI, in order to create an information matrix that will be hosted on the UN-GGIM: Americas website. Based on the determination of gaps or components of the region's SDI with different degrees of progress, it seeks to promote the holding of courses, seminars, and the transfer of technological tools that support regional SDI as alternatives for their development and operation. In this area, for example, it is considered to transfer tools such as GEONODO or MxSIG, which allow managing, storing and publishing territorial information.



4.5.4. Working Group on Geodetic Reference Frame for the Americas (WG – GRFA)

In the framework of Resolution 2019/5 of the Sixth Session of UN-GGIM: Americas, support was given to the proposal to create a task force, made up of the SIRGAS Executive Committee, delegates from the Americas in the UN-GGIM Geodesy subcommittee and interested Member States, to define the Terms of Reference of a fourth working group within the Committee. It was possible to form a task team coordinated by the SIRGAS Executive Committee, in which several member countries participate, and which is currently developing a proposal for the Group's Terms of Reference "Geodetic Reference Frame (GRFA)". It is estimated that the final version of the document will be submitted to the UN-GGIM: Americas Regional Committee during the Seventh Session.

In this way, if the creation of the Working Group is approved, an advance regarding the topic "Geodetic Reference Frame" will be presented to the UN-GGIM: Americas Regional Committee, which will elevate its category from "Line of Work" to that of "Working Group" in consonance with the rest of the Regional Committees.

4.6. Action Lines

4.6.1. Academic Network Americas (ANA)

ANA's main purpose is to academically support the objectives of UN-GGIM: Americas, specifically, ANA's activities for 2020 are listed below:

- a) Invite 30 new members to join the Academic Network for the Americas.
- b) Conduct a series of Webinars, mainly aimed at the Caribbean region on basic GIS concepts.
- c) Work with the SDI Working Group in order to identify the demands and needs for training and research related to Geospatial Data Infrastructures, based on the report carried out in 2019 by the WG-SDI.
- d) Develop a proposal to improve communication between the academy and the government, in relation to geospatial information.
- e) Create a digital platform of academic workshops taught by members of the Network, aimed at both members and the general public. The platform may simultaneously operate as a means of disseminating network projects.

This year, a survey was conducted in May in order to update the status regarding training needs in the region. Once the results are available, they will be shared with Member States of the Committee.

4.6.2. Joint Action Plan

The objective of the Joint Action Plan is to continue in the consolidation of the shared system of responsibilities, seeking synergy from each of the parties. Thus, the Pan American Institute of Geography and History (PAIGH) continues to strengthen itself in its role as facilitator and generator of capacities linked to its four Commissions; SIRGAS, as provider of the region's geodetic reference frame; UN-GGIM: Americas, as manager of regional policies and direct link with the United Nations; and GeoSUR, as a promoter of services, training, technical assistance and other generators of geospatial information at national and regional levels.

The planned actions of PAIGH as part of the 2020 work plan are:

- a) Preparation of the project entitled Design and implementation of the migration strategy of the GEOSUR PLATFORM and its evolution towards a Pan American SDI - Plan 2021-2025. The purpose of the project is to ensure the sustainability of the current GEOPORTAL and to implement the actions that allow it to evolve over a period of four years towards a Pan-American SDI.

Two phases are foreseen for the objective of this initiative:

- Phase 1: Transition. Maintain the GeoSUR platform with the essentials for its operation, through a transition process that will take a year.
 - Phase 2: Evolution. Evolve towards a PAN AMERICAN SDI in a span of 4 years.
- b) Updating and improving the quality of the Integrated Map of Americas. In 2019, the Integrated Map of North America initiative was funded, whose objective is to work with North American countries on their geospatial information to include it on the Integrated Map of America (MIA).
- c) Funding support for the United Nations Regional Committee on Global Geospatial Information Management for the Americas - Integration of Statistical and Geospatial Information in Central America, which aims to carry out a series of workshops with seven Central American countries for the integration of geospatial and statistical information.
- d) Continue with the institutional and financial support to the Geocentric Reference System for the Americas - SIRGAS. In this year, financing was provided to the SIRGAS 2020 project and balance of the Joint Action Plan 2016-2020 as a collaborative work for the implementation of SDI in the Americas. The project has the following objectives: a) Improve the structuring, processing and sharing of fundamental geodetic data, products and services in PAIGH member countries, b) strengthen collaboration between geodetic authorities and other national agencies that use geodetic data and products of SIRGAS, c) evaluate the achievements made in the framework of the Joint Action Plan 2016-2020 to accelerate the development of the SDI of the Americas, d) project the activities of SIRGAS for the next period of collaboration with PAIGH, UN-GGIM: Americas and GeoSUR/CAF.
- e) Provide institutional support to strengthen the generation of Geospatial Information (GI) in the Caribbean. As the first action, financing was granted to the Member State of PAIGH, Belize, for the development of the BNSDI Metadata Management Training project, which consists of training for 80 people on the subject of LAMPv2 in English, where it is planned to invite Caribbean countries.
- f) Continue strengthening the Pan American Professional Network (PPN). The PPN consists of a database of professionals, scientists and specialists in the areas of cartography, geography, history and geophysics, of PAIGH Member States. This network is intended to share and disseminate information of interest to them.
- g) Continue strengthening the scholarship and awards program in order to promote knowledge in the areas of GI. In 2019, the Republic of Korea was integrated as an Observed Country, which offered 21 scholarships for PAIGH Member States for training in “Geographical Names” in 2020.
- h) During 2020, the Cartography Commission will publish the call for the award “The Best Doctoral Thesis in Cartography, Geodesy and / or Geographical Information”, the purpose of which is to promote and recognize quality academic-scientific work carried out by students of Official Master's or Doctorate Programs from organizations or universities accredited by the Member States of PAIGH. Said award will be granted in the field of Cartography, Geodesy and Geographical Information in general, including aspects such as capture, manipulation, presentation and dissemination. Likewise, this Commission will offer 4 scholarships at the Center for Research and Development in Geographic Information - CIAF of the Geographic Institute Agustín Codazzi - IGAC in Colombia. The courses considered are the following:
- Digital Cartography
 - Digital photogrammetry with manned and unmanned platform images (drones)
 - Remote sensing and digital image processing GIS analysis and modeling with applications in the environment

In the case of the Geography Commission, the training will be in capacity building in modeling with a focus on climate change, at the local and regional level. The course modality will be virtual, with a total of 28 scholarships.

- i) Increase the quality and visibility of scientific publications. In 2019, the search for a platform that allows the regularization of the 6 Scientific Journals of this institution began. Currently, this institution is working with the Open Journal Systems (OJS) platform, which will allow the regularization and indexing of these journals.

The activities proposed by GeoSUR for 2020 are:

- a) Implementation of the light map service of the Integrated Map of South America-MIAS. The contract between CAF and the United States Geological Survey -USGS, was finally signed at the end of 2019. This delay did not facilitate reaching the objective set for 2019, however, by 2020 the commitment to reach the goal remains to serve the MIAS data in a mapping service in the GeoSUR geoportal as established.
- b) Update of the light visualizer of the Integrated Map of Central America - MIAC at the end of 2019, workshops were held to update the data of the Integrated Digital Map of Central America Project. In the framework of the GeoSUR Program, assistance will be given to update this data on the lightweight viewer housed in the GeoSUR geoportal.
- c) Update of the GeoSUR geoportal platform. Another of the activities proposed in 2020 is the update of the GeoSUR geoportal platform that will allow the implementation of new versions of the services and improve the performance of the platform to offer an improvement to the user that includes updating the catalog service of metadata, the regional map service, among others.
- d) Training in the Latin American Metadata Profile (LAMPv2) in the region. Additionally, a group of advisory hours will be available for those institutions that want to implement the profile and wish to validate a metadata registry entirely under the profile with the advice of the CNIG.
- e) Make improvements to the profile for its implementation and reception. With the support of the tutors of the metadata course taught in 2019 and students of the same course, a review of the Profile will be carried out to issue observations that aim to improve the reception of the profile in the institutions of the region.

The objectives proposed by SIRGAS within the context of the Joint Action Plan for 2020 are:

- a) Strengthening the geodetic capabilities of professionals and technicians responsible for maintaining national geodetic reference frames

Proposed activities: Within the framework of the Joint Action Plan and in accordance with resolution "A Global Geodetic Reference Frame for Sustainable Development" (A / RES / 69/266) adopted by the United Nations General Assembly in 2015, that encourages Member States and international organizations to strengthen global cooperation for capacity-building in geodesy, with the aim of ensuring the development, sustainability and promotion of a global geodetic reference framework, during 2020, it was planned to carry out three training activities: i) "Determination of precise geodetic reference frames, using scientific processing software GPS/GNSS GAMIT/GLOB-K", ii) "SIRGAS GTIII-2020 Workshop" and iii) "GNSS Geodetic Infrastructure". Unfortunately, they were canceled due to the pandemic, and the possibility of carrying them out the following year will be considered. Dissemination of the activities carried out by SIRGAS and other regional and international geodetic novelties.

Proposed activity: Within the framework of the Joint Action Plan and in accordance with resolution "A Global Geodetic Reference Frame for Sustainable Development" (A/RES/69/266) adopted by the United Nations General Assembly in 2015, that invites Member States to develop outreach programs that give greater visibility to the global geodetic reference

framework and make it more understandable to society, during 2020 SIRGAS will begin to manage its social networks through Facebook, Twitter, LinkedIn and YouTube.

To do this, it will establish a protocol for the administration of its social networks that establishes the basic guidelines for the management of information and participation of SIRGAS in digital media, as well as the interaction with its stakeholders through the channels mentioned above.

Lastly, in order to communicate the importance of developing the geodetic reference framework to decision-makers (often not very specialized) in an understandable way, the translation into Spanish of some of the videos of Spanish will be coordinated with the National Geodetic Survey. broadcast available in your library, and then will be distributed through the new channels of SIRGAS.

b) Establishment and maintenance of the geodetic reference frame in the Americas

Proposed activity: Within the framework of the Joint Action Plan and in accordance with resolution “A Global Geodetic Reference Frame for Sustainable Development” (A/RES/69/266) adopted by the United Nations General Assembly in 2015, recognizing the economic and scientific importance and the growing need for an accurate and stable global geodetic reference framework for the Earth, during 2020 SIRGAS will coordinate the work of the Data, Processing and Combination Centers of the Working Group I of SIRGAS in order to define and update the Terrestrial Geodetic Reference Framework in the region from the processing of the GNSS data observed by the stations that make up the SIRGAS-CON network. For this, GNSS data processing, adjustments of GNSS solutions and control of the results will be carried out on a weekly basis, in accordance with the methodology previously established and agreed by the Working Group I and the Scientific Council of SIRGAS.

On the other hand, the development of new Processing Centers in the Americas will be promoted. Currently, the development of three new Processing Centers is being coordinated with the National Geodetic Survey (USA), the Ohio State University (USA) and the National Geographic Institute of Costa Rica.

c) Development of a proposal to update the SIRGAS statute

Proposed activities: Within the framework of Art. 33 of the SIRGAS statute (approved by the SIRGAS Board of Directors on May 9, 2011), which establishes that “the organs of SIRGAS (Art. 8) must review this statute for what every eight years and propose the changes that are necessary to keep the structure and operation of SIRGAS updated”, and the need to align the activities carried out by SIRGAS with the Resolution of the United Nations General Assembly entitled “A Global Geodetic Reference Frame for Sustainable Development” (A/RES/69/266) and with the “Road Map for the Global Geodetic Reference Frame for Sustainable Development” elaborated by the UN-GGIM Subcommittee on Geodesy, will be developed and disseminated among Council members SIRGAS Executive and Scientific a survey that will allow gathering general information of the Member States and their opinions about the objectives of SIRGAS in the context of the UN-GGIM: Americas Regional Committee, with the purpose of updating the SIRGAS statute.

4.6.3. Private Sector Network for the Americas (PSN-A)

The main objective of PSN-A, in accordance with its 2020 work plan, is to support the Regional Committee Agenda by promoting the use of geospatial information to address key regional challenges, enable citizen services and support initiatives aimed at strengthening the alliances between public and private initiative. Participation in PSN-A is free and open to all private sector organizations and related associations. It will allow these entities to contribute and expand the capacities of regional policy to develop tools and services for the integration of geospatial information throughout the territory of the countries in the region.

The main objectives of the PSN-A for this year are:

- Lead Virtual Geospatial Summit - establish Organizing Committee with UN-GGIM: Americas, CARIGEO, WGIC, Americas Academic Network and URISA Caribbean Chapter.
- Find support mechanisms for the region against COVID-19
- Participate in all UN-GGIM: Americas Working Groups.
- Design and develop a Story Map to communicate activities throughout the region.
- Create synergies with the Academic Network of the Americas.

- Work closely with the Global Private Sector Network and UN-GGIM: Americas on priority Regional Cooperation and Collaboration initiatives.

4.6.4. Regional Cooperation and Collaboration

4.6.4.1. Collaboration with ECLAC

The following describes the actions carried out by ECLAC from July 2019 to date to support geospatial information management at the region and country level, in the process of synergizing with the objectives of UN-GGIM: Americas and UN-GGIM Global:

In September 2019, the First International Workshop on the Operationalization of the Integrated Geospatial Information Framework (IGIF) was held at ECLAC offices. This event aimed to increase and improve awareness, knowledge and understanding of the IGIF, and the development of its Implementation Guide and Action Plans at the country level, exploring conceptual approaches and available materials/resources to operationalize this Framework according to national circumstances. This activity had the support of UNSD and the participation of representatives of the geographic/cartographic agencies of 13 countries, corresponding to the focal points of UN-GGIM: Americas.

Since October 2019, in collaboration with UN-GGIM: Americas, ECLAC has been participating and supporting the CARIGEO initiative, in this context, ECLAC has contributed to the preparation of the Terms of Reference of this initiative, in the Spanish translation and French, and in the formulation of a general proposal for a medium-term work program.

On October 11, 2019, the Sixth Session of UN-GGIM Americas was held, with the collaboration of ECLAC to carry out a discussion module on the Integrated Geospatial Information Framework (IGIF) as input to prepare regional feedback to the Global Consultation of its Implementation Guide, including analysis of the link between the IGIF and the concept of National Geospatial Data Infrastructure. At this meeting, the Statistics Division of ECLAC also presented its annual report on activities in the field of geospatial information management.

In November 2019, during the X Meeting of the Statistical Conference of the Americas (SCA-ECLAC), the Member States of the Conference were urged to disseminate the Global Statistical and Geospatial Framework among the organizations that make up the national statistical systems and to define strategies working together with national geospatial data infrastructures and their governing bodies to advance in the implementation of said Framework. A joint declaration on the integration of statistical and geospatial information, signed by SCA-ECLAC and UN-GGIM: Americas, was also approved.

From August 2019 to date, ECLAC has been contributing to the Project for the Integration of Statistical and Geospatial Information in Central America, led by the National Section of the Pan American Institute of Geography and History (PAIGH) of the United States, in conjunction with the UN-GGIM: Americas Presidency. The original objective of the project is to add new themes to the MEGA project and increase the levels of territorial disaggregation for the deployment of these data. Coordination with geospatial experts from the national statistical offices of the participating countries has been facilitated by ECLAC.

In December 2019 and March 2020, ECLAC carried out geospatial technical assistance activities in Cuba and Panama, through inter-institutional workshops convened by the National Office of Statistics and Information of the Republic of Cuba and the Tommy Guardia National Geographic Institute, respectively, with the participation of public and non-governmental organizations involved in geospatial information management.

In these workshops, collective/collaborative self-evaluation exercises were carried out around the nine strategic pathways of the Integrated Geospatial Information Framework (IGIF) to prioritize activities in the short and medium term and integrate them into roadmaps, and strengthen communication and coordination between national public actors.

In April 2020, ECLAC participated in the Virtual Geospatial Summit on COVID-19, organized by UN-GGIM: Americas and its Academic and Private Sector networks, to learn and share how the global community of geospatial scientists has been creating tools innovators to support and manage the containment of this pandemic. ECLAC shared the experience of implementing its Observatory COVID-19 Latin America and the Caribbean.

In May 2020, ECLAC jointly UN-GGIM: Americas, with the support of the UN-GGIM Secretariat at the global level, organized the virtual seminar "COVID-19: Strategies for a

geospatial response in the Americas", which had an audience of 250 experts from different countries and organizations at the regional level.

At a global level, ECLAC collaborates with the Group of Experts on the Integration of Geospatial Statistical Information as a member of its Task Force on Capacity Building, participating in the preparation of the work program of this group, focused on the application of diagnoses on preparedness of the countries to implement the Global Geospatial Statistical Framework, a mapping of training activities and the development of maturity models.

It also integrates the Geospatial Information Working Group of the Inter-Agency Expert Group on Sustainable Development Goals (WGGI -IAEG SDG). In March 2020, ECLAC participated in the Sixth Meeting of this Working Group, whose main objective was to define the work program for the period 2020-2021, including as activities in the short term the updating of the lists of SDG indicators that have Geospatial support for their production and dissemination, the compilation of methodologies, the strengthening of communication/coordination of the geospatial/statistical community with the IAEG SDGs and the preparation of capacity inventories.

ECLAC integrates the Steering Committee of the global instance UN Geospatial Network, established as a coordination mechanism between the entities that are part of the United Nations System, to carry out a series of activities focused on strengthening communication, governance and knowledge in geospatial information management subject.

Finally, it should be noted that ECLAC regularly participates in the meetings of the UN-GGIM: Americas Board of Directors and in the meetings of its three working groups, providing feedback on the execution of its activities.

4.6.4.2. Chile-Mexico Project

In 2019, the cooperation project between Chile and Mexico began called "Strengthening of the geospatial information platforms GEONODO and MxSIG in Chile-Mexico and Latin American and Caribbean countries. Its main purpose is to strengthen the GEONODO and MxSIG platforms for the benefit of Chile, Mexico and the countries of Latin America and the Caribbean and implement them as a component of the region's SDI.

At the end of that same year, Mission 3 was carried out in Mexico, where SNIT officials from Chile visited INEGI in Aguascalientes, Mexico to review the following points:

- The new functionalities developed in GEONODO and MxSIG after mission 2 of the project were presented. With the aim of obtaining feedback from professionals from SDI Chile and INEGI.
- The progress of the Diagnostic report was presented.
- The MxSIG and GEONODO roadmaps were reviewed.
- The proposal to create an Integrated Data Catalog of the Americas was reviewed, as a proposal for the tangible result of the integration of GEONODO and MxSIG, which will be published on the UN-GGIM: Americas portal.
- The results of the SDI Survey of the Americas 2018 and 2019 were reviewed with the aim of identifying the countries that are candidates to implement the project.
- The activities to be carried out in missions 4, 5 and 6 that will be carried out in 2020 were reviewed.

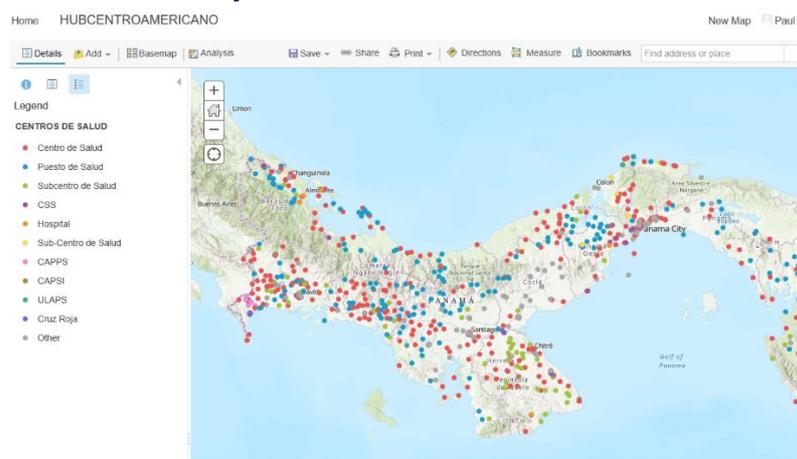
During the second half of November and December, through video conferences, the GeoNode configuration on INEGI servers was completed to carry out the integration of information into the catalog test.

As part of the activities in 2020, the following activities will be carried out:

- Teleworking meetings with SNIT and the project consultant, work is under way to integrate MxSIG into GEONODO.
- Generation of the ontological model of geospatial and statistical information.
- Share public statistical, geospatial and ontological model information to work on the AI model for natural language processing.
- The implementation of GEONODO continues on INEGI servers.
- Construction of the library of information search examples.

4.6.4.3. Project on Integration of Statistical and Geospatial Information for Central America

The multidisciplinary project “UN-GGIM: Americas, United Nations Regional Committee on Global Geospatial Information Management for the Americas; Integration of Statistical and Geographical Information in Central America”, whose main objective is to add value and broaden the region's knowledge on the integration of statistical and geospatial information, has focused its efforts this year on building a vulnerability index for COVID -19 based on the index developed by the National Statistical Administrative Department -DANE of Colombia. It should be noted that, in the face of the current situation, today more than ever, the integration of statistical and geospatial information plays a leading role in tackling the pandemic. As part of the project, a geospatial platform is being developed that will contain various geo-referenced statistical variables that will provide valuable information about COVID-19 for decision-making in Central American countries. The platform will also serve as a tool to centralize relevant documents and national geovisors on COVID-19. Within the framework of the project, a virtual workshop will be held to learn the methodology developed by Colombia for the construction of the vulnerability index.



4.6.4.4. CARIGEO Initiative

The Caribbean Geospatial Development Initiative (CARIGEO) is a collaborative effort between the United Nations Regional Committee on Global Geospatial Information Management - UN-GGIM: Americas, the Economic Commission for Latin America and the Caribbean - ECLAC, the Group of United Nations Experts on Geographical Names - UNGEGN, public organizations of the Member States and Caribbean Territories, private sector organizations in the geospatial field, academic institutions and representatives of civil society, which seeks to empower the countries and territories of the region of the Caribbean, to promote the use and exchange of statistical and geospatial information that supports national and regional sustainable development.

CARIGEO was based on the achievements of the "Project for the Strengthening of Spatial Data Infrastructures" in the Member States and Territories of the Association of Caribbean States (Caribbean Project) sponsored by the Government of Mexico with the support of the Association of Caribbean States and the University of the West Indies. Through technical cooperation, capacity building workshops and sponsorship of GNSS teams and servers, much progress was made towards the implementation of SDI at the regional and national levels.

CARIGEO will focus on cadastral and cartographic institutes, as well as national statistical institutes, as a regionally led project with the support of international and regional partners for collective action.

This year, the CARIGEO Terms of Reference were prepared, defining an Executive Board that will be the governing body of CARIGEO, which will report on the activities and progress of the initiative projects during the annual sessions of UN-GGIM Americas, or as required by the needs, and will be composed as indicated below:

President - President of UN-GGIM: Americas.

Technical Secretary - Representative of the Statistics Division of the United Nations Economic Commission for Latin America and the Caribbean (UN-ECLAC).

Vocals: TBD

Two experts in the field: one from the statistical community and the other from the geospatial community.

The general management of any project within the framework of this initiative will be carried out by a Project Steering Committee (PSC) with representatives of committed stakeholders inside and outside the region.

Some of the expected results of this initiative include the creation of an active community of producers and users of spatial data, the improvement of GIS and data management capabilities throughout the region, the funds available for the creation and updating of sets of fundamental data, the broadest exchange and open geospatial data in the Caribbean, institute collaboration and cooperation agreements on the use of geoinformation, achieve positive regional and national economic impacts as a result of the geospatial industry, etc.



In June, formal letters will be sent to national agencies responsible for geospatial information management and national statistical organizations across the Caribbean, inviting them to participate in CARIGEO.

The PSC will develop a program of specific projects that it will share with a group of potential sponsors interested in participating in the Initiative.

4.7. Diffusion

In January 2020, work began on a new design for the website <http://www.un-ggim-americas.org/> administered by INEGI, Mexico, in order to make the search for information more user-friendly and effective. It is important to mention that on the page you will be able to consult: the interactive platform on the status of the region's SDI; the repository of base documents for work themes designed by the coordinator of the WG-SDI; the platform of MEGA; the annual newsletters of the Committee and its main activities and projects; the geospatial platforms of the Central America project and the CARIGEO initiative, among others, as well as the presentations, programs, resolutions and photos of the Committee's meetings.

4.8. Financial and management support for the achievement and monitoring of the Groups and Lines of Work of the Committee

To fulfill its mission, the Regional Committee has partnered with organizations to finance and support its activities.

- a) Kellogg Foundation financed 11 countries in the Caribbean region to attend a training workshop in Mexico City, under the framework of the Geospatial Forum of the Americas and the Sixth Session of UN-GGIM: Americas, from October 7 to 11, 2019. The workshop was taught by ESRI company and provided an overview of how GIS is leveraged by Mapping, Statistics and Land Organizations and allow participants to better understand the use of GIS in the overall processes related to: planning, data collection, field operations, dissemination, production mapping and geospatial analysis. Some of the outcomes of the workshop were to identify and prioritize gaps in each county, agree on what training is needed and next steps for improving capacity in the region.
- b) Pan American Technical Assistance Program of PAIGH 2019: Who approved the project on Integration of Statistical and Geospatial Information in Central America

and the resources will be used to finance some deliverables of the technical workshops.

4.9. Participation of the Regional Committee in conferences and meetings

The Regional Committee participated in the following forums:

- a) X Meeting of the Statistical Conference of the Americas of the Economic Commission for Latin America and the Caribbean - in Santiago de Chile from November 19 to 21, 2019. During the event, a joint session was held with members of the Regional Committee. It was attended by some members of the Board of Directors of the Committee, among them, Paloma Merodio (president), Macarena Pérez (vice president), Gabriela García (executive secretary), Sergio Cimbaro (vocal South America), Keith Francis (vocal of the Caribbean), as well as the representative of Colombia, Sandra Moreno. Paloma Merodio presented the global guidelines and regional advances in geospatial information management and spoke about the Global Statistical and Geospatial Information Framework (GSGF) that enables geospatial statistics and administrative data so that they can be analyzed more ease. Sandra presented the progress of the Statistical and Geospatial Framework for the Americas (MEGA) project, which fosters the comparability of the region's statistics and strengthens decision-making, and Álvaro Monett presented the Integrated Geospatial Information Framework, stressing that it is a resource for paving statistical and geospatial information processes.
- b) High Level Virtual Forum events - organized by UN-GGIM and the British Ordnance and Survey. The first event on “The Geospatial Landscape, an Overview of the Integrated Geospatial Information Framework and Future Trends in Geospatial Information Management” was held on May 26, 2020. The second event on “Integrated Geospatial Information Framework , the nine strategic pathways and action plans at the country level” was held on June 2, 2020 and the third event on “Future trends in geospatial information management: five to ten years vision, relevance and application to National Priorities and Action Plans” was held on June 9, 2020. In this last event, the president of the Committee, Ms. Paloma Merodio, presented “Facing Future Trends in the Americas” in which she noted that each of the 5 drivers of the future trends represent different challenges but also opportunities for the countries in the region. She mentioned some examples of projects in the Americas that use future trends technologies, such as the data cube or the vulnerability index developed by Colombia. Ms. Merodio highlighted as a key to enhance progress towards sustainability, the promotion of communication and engagement through the region. All Member States were invited to attend the sessions.
- c) Jamaica 2020 Virtual Geospatial Forum COVID-19 - organized by the Jamaican Ministry of Economic Growth and Job Creation through the National Spatial Data Management Division and the Jamaica Land Information Council in collaboration with the Task Force United Nations Global Geospatial Information Management (UN-GGIM) on Geospatial Information and Services for Disasters, on May 28, 2020. The president of UN-GGIM: Americas, Paloma Merodio, participated in the opening session with a few words welcome and participated as speakers, Valrie Grant from the Private Sector Network of the Americas, Macarena Pérez, Vice-President of UN-GGIM: Americas and Simone Lloyd from Jamaica. The central theme of the Forum was “Mapping COVID-19, opportunities for the future”.

5. Challenges

Due to the COVID-19 pandemic, the main challenge of the Regional Committee of the Americas this year has been to maintain communication with Member States to follow up on the established projects and continue with the pace of activities that are being carried out and were already scheduled. Some colleagues have been limited in their technological capacity and unable to send required information or connect to virtual meetings scheduled because they are outside their institutions.

Another important challenge has been keeping the contact information updated for the 36 Member States, since sometimes the designated focal point before the Committee does not give

notice of the end of his work period as director of his institution or leaves no instructions on international commitments, losing all relationship and progress in the work.

Lastly, it should be noted that improving communication among the Member States of the Committee is another challenge to achieve optimal progress in the proposed activities.

6. Perspectives and Future Plans

The short-term plans of the Regional Committee contemplate the activities that will be carried out around the Tenth Session of UN-GGIM, which this time will take place virtually in late August and early September 2020.

The Seventh Virtual Session of UN-GGIM: Americas will be held within the framework of the Virtual Week AmeriGEO 2020 from September 7 to 11, 2020. As part of the events of that week, a Virtual Symposium will be held (7 and 8 September) with the theme "Better together: geospatial information for decision-making in the Americas" and a joint session AmeriGEO/UN-GGIM: Americas (September 9) in order to foster an environment of cooperation between both communities that stimulate research and exchange of knowledge and experiences.

The Seventh Virtual Session of UN-GGIM: Americas (September 10 and 11) will be attended by the Member States of the Committee and national, regional and international organizations, such as: the UN-GGIM Secretariat; the United Nations Economic Commission for Latin America and the Caribbean (ECLAC); the National Institute of Statistics and Geography (INEGI); SIRGAS; the Pan American Institute of Geography and History (PAIGH); the Association of Urban and Regional Information Systems (URISA), Caribbean Chapter; the National Autonomous University of Mexico, AmeriGEO Caucus, the Academic Network and Private Sector Network for the Americas. Topics will be included, such as geospatial information and disaster risk reduction, implementation of the Geospatial Information Integration Framework - IGIF, implementation of the Global Statistical Geospatial Framework - GSGF, among others. In addition, the preliminary program of the session will include the presentation of projects and the progress made by some of the groups of the Committee.

7. Conclusions

During the last period of work, the United Nations Regional Committee on Global Geospatial Information Management for the Americas participated in the creation of the Initiative for Geospatial Development in the Caribbean (CARIGEO). Within the Terms of Reference drawn up, it was established that the presidency of the Regional Committee would also preside over this initiative. It will be presented during the 7th Session of the Committee in September 2020 for approval. A program proposal is currently being developed with specific projects to be carried out over a period of three years.

Thanks to the active participation of Member States, during 2020 progress has continued in the activities of the different projects, such as: 1) MEGA project version 1.0, which can be consulted on the Internet as of June and work has already begun in the specifications for version 2.0. 2) Project for the Integration of Statistical and Geospatial Information in Central America that this year will focus on preparing a vulnerability index for COVID-19 and pandemic indices. 3) Interactive SDI Dashboard 2020 and 4) Chile-Mexico Project to strengthen the open platforms of GEONODO and MxSIG that will benefit the countries of Latin America and the Caribbean. The Regional Committee, together with SIRGAS, is preparing the Terms of Reference to convert the action line "Geodetic Reference Framework" into a new working group of the Committee that will be presented at the 7th Session for approval.

In addition to active regional cooperation with GeoSUR, SIRGAS, PAIGH and ECLAC, this year, the Regional Committee organizes with AmeriGEO a joint session and a symposium as part of the activities of the AmeriGEO Week, which will take place in September 2020 virtually, in order to create collaborative synergies between the two communities.

Despite the difficulties posed by the contingency due to COVID-19, alternative ways have been found to carry out the work that is scheduled.

A sincere thanks to the Member States of the Regional Committee of UN-GGIM: Americas, and the regional and international organizations, which have shown that they are committed to strengthening geospatial information, considering it a key element in strategic planning for decision-making and the UN-GGIM Secretariat for its unconditional support in the work of UN-GGIM: Americas.