



INTEGRATION OF STATISTICAL AND GEOSPATIAL INFORMATION IN CENTRAL AMERICA

A 2019 PAIGH TECHNICAL ASSISTANCE PROJECT



**QUARTERLY REPORT
MARCH 30, 2019**

Table of Contents

Table of Contents.....	1
Background	2
Key Date and Decisions	2
Project Phases and Schedule	3
Phase 1 Summary.....	3
Phase 2 Tasks	4
Authorizing Officials.....	4
Appendix A: Participation Letters	5
Appendix B: Questionnaire	11
Appendix C: Crosswalk	17
Appendix D: Meeting Agendas	19

Background

The Integration of Statistical and Geospatial Information in Central America is a project funded by the Pan American Institute of Geography and History (PAIGH) for 2018-2019. Executed by Mexico and the United States, the project aims to build the knowledge base for the integration of statistical and geospatial information in Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama. This project is part of a variety of initiatives at the global and regional levels such as the United Nations 2030 Agenda for Sustainable Development and the Pan American Agenda from the PAIGH, that identify the need for relevant statistical data to be integrated with geospatial information in order to assist in decision-making and achieve agenda goals.

Statistical and geospatial communities have started discussions, work focused on integrating statistical, and geospatial information. To this end, at its forty-first session in 2010, the United Nations Statistics Commission (UNSD) expressed the importance of the integration of geospatial information and statistics, and of the opportunities provided given the rapid development of information technologies, highlighting that national statistical offices are playing a stronger role in this integration, especially in the area of management of censuses. This project will be completed in collaboration by the National Institute of Statistics and Geography of Mexico (INEGI), Regional Committee of the United Nations on Global Geospatial Information Management for the Americas (UN-GGIM:Americas), Geocentric Reference System for the Americas (SIRGAS), United Nations Economic Commission for Latin America and the Caribbean (ECLAC), National Geographic Institute of Spain, U.S. National Section of PAIGH and the U.S. Census Bureau.

The overall purpose of this project is to conduct a series of workshops focused on building on the geospatial work completed. This project complements the efforts made by PAIGH on the Integrated Map of the Americas, the regional efforts of the UN-GGIM Americas and ECLAC on the MEGA, and the national efforts of the UN-GGIM, United Nations Statistics Division (UNSD), and the Expert Group on the Integration of Statistical and Geospatial Information (UN EG-ISGI). This project adds value and further the knowledge on the integration of statistical and geospatial information.

This report will focus on the first phase of the project.

Key Date and Decisions

Date	Decision
October 23, 2018	Project approved and funded for \$13,205
October 23, 2018	Integrated Map of the Americas (MIAC) will be used as the basis for integration of statistical data
November 13, 2018	National Geographic Institute of Spain joins project
November 16, 2018	INEGI/UN-GGIM: Americas will manage the project logistics and PAIGH will manage the project budget.

Project Phases and Schedule

Timeline	Phase	Milestone
January – March 2019	1	Identify the statistical and geospatial agencies and their capacity within each country in Central America
April – June 2019	2	Conduct an informational workshop to share the results of Phase 1 and demonstrate the importance and value of integrating statistical and geospatial data
July – September 2019	3	Conduct a technical workshop to identify innovative ways to display and analyze integrated statistical and geospatial data that will be used in decision making across Central America
October – December 2019	4	Publish the results of the project and identify next steps (this would include actual integration)

Phase 1 Summary

Potential representatives from statistical, geospatial and academic organizations from each Central American country were identified. A letter that detailed the project and requested support and participation was sent to each representative on January 10, 2019. Each representative was asked to participate in the project or to nominate a delegate to participate. As of March 30, 2019, we have received responses from 22 of the 33 recipients. Copies of the letters in English and Spanish can be found in Appendix A.

A questionnaire was created to send to the representatives who will be participating in the project. It will be provided to participants in both Spanish and English. The responses to this questionnaire will assist in the planning of the workshops of phases 2 and 3. This information includes dates and locations of potential workshops as well as current statistical and geospatial capabilities. A copy of the questionnaire can be found in Appendix B. A summary of responses will be included in the second quarterly report of June 30.

A crosswalk of geographies has been developed to compare geographic levels between countries. This crosswalk was provided to INEGI for review and completion. The crosswalk can be found in Appendix C.

Two formal meetings with INEGI were held on November 30, 2018 and February 15, 2019. The agendas from these meetings can be found in Appendix D.

Templates for project meeting minutes, reports and presentations have been created to allow for a uniform presentation of information related to all project activities.

Phase 2 Tasks

- The questionnaire will be sent to participants
- Questionnaire results will be analyzed and summarized for the phase 2 report
- Date of informational meeting will be set
 - This will be a virtual meeting to introduce the project and participants
 - Provide quarterly report/status and results of questionnaire (if available) to participants
 - Discuss project/workshop schedule
- Results of crosswalk with INEGI will be analyzed and crosswalk will be modified for use with Central American countries
- Project members will contact Esri Latin American representative to discuss potential technical assistance

Authorizing Officials

Paloma Merodio Gómez
President
UN-GGIM: America

Date

Deirdre Dalpiaz Bishop
President
PAIGH National Section
United States of America

Date

Appendix A: Participation Letters



Integration of Statistical and Geospatial Information in Central America
A PAIGH Funded Technical Project



January 10, 2019

Dear Colleague,

On behalf of the Americas Regional Committee of the United Nations Expert Group on Global Geospatial Information Management (UN-GGIM: Americas) and the Pan American Institute of Geography and History (PAIGH), in collaboration with the Economic Commission for Latin America and the Caribbean (ECLAC), we are writing to invite your country to participate in the 2019 Integration of Statistical and Geospatial Information in Central America Project. This technical assistance project received approval during the 48th Directing Council Meeting of the PAIGH, which occurred in Santa Cruz, Bolivia, from October 22-26, 2018.

This Project:

- Proposes to work with the seven Central American countries together with Mexico, United States and Spain, as partner countries, to generate knowledge on the integration of geospatial and statistical information in Central America;
- Is based on the work and efforts underway with PAIGH, UN-GGIM: Americas, ECLAC, United Nations Statistics Division (UNSD), Committee of Experts of United Nations on Global Geospatial Information Management (UN-GGIM), the United Nations Expert Group on the Integration of Statistical and Geospatial Information (EG-ISGI), the National Administrative Department of Statistics (DANE) and the Geospatial Network of Latin America and the Caribbean (GeoSUR);
- Will build on the work within PAIGH on the Integrated Map of Central America (MIAC); and
- Supports and is based upon the 2016-2020 Joint Action Plan to accelerate the development of the infrastructure of spatial data of the Geocentric Reference System of the Americas (SIRGAS), UN-GGIM: Americas, Development Bank of Latin America (CAF), PAIGH, GeoSUR), and directly helps achieve the Pan-American Agenda 2010-2020.

The objectives of this project are to:

- Assess statistical and geospatial capacity of each country in Central America;
- Increase knowledge of the national and regional efforts of the UNSD, UN-GGIM, EG-ISGI, UN-GGIM: Americas, ECLAC and PAIGH;
- Understand the work currently underway to integrate geospatial and statistical information;
- Raise awareness about the importance of integrating geospatial and statistical information in the preparation of the round of 2020 censuses;



Integration of Statistical and Geospatial Information in Central America
A PAIGH Funded Technical Project



UN-GGIM:Américas
COMITÉ REGIONAL DE LAS
NACIONES UNIDAS SOBRE
LA GESTIÓN GLOBAL
DE INFORMACIÓN GEOESPACIAL
PARA LAS AMÉRICAS

- Comply with the objectives of the Agenda 2030 of United Nations for sustainable development and the Pan-American Agenda, and how this can be used in decision making in Central America;
- Identify problems and priorities of the Central American countries;
- Identify innovative ways to display and analyze integrated statistical and geospatial data;
- Develop a plan for the integration of geospatial and statistical information and create products; and
- Develop reports to share knowledge and results with the UNSD, UN-GGIM, EG-ISGI, UN-GGIM: Americas, ECLAC and PAIGH.

This project will begin in January 2019 and end December 2019 and will comprise of four initial phases:

- Phase 1: Gathering information: identify statistical capacity and geospatial within each country in Central America;
- Phase 2: Informative workshop: to share the results of phase 1 and demonstrate the importance and the value of integrating geospatial and statistical information;
- Phase 3: Technical workshop: conduct a workshop to identify innovative ways to display and analyze integrated geospatial and statistical information to be used in decision making in Central America; and
- Phase 4: Publish results: publish the results of the project and identify the next steps, including integration activities and products.

Taking into account your interest and expertise in this field of work, your participation in this project will be key to its' success. We are excited to work with you on this project and ask that you provide us with the name, title, telephone number, and email address of those you designate to work on this project.

Please send this information to Paul Riley at paul.l.riley@census.gov and please do not hesitate to reach to him or me with any questions.

Best regards,

Paloma Merodio Gómez
Presidente
UN-GGIM: Américas
paloma.merodio@inegi.org.mx
(52) 5278.1000 ext. 1557

Deirdre Dalpiaz Bishop
Presidente
Sección Nacional IPGH
Estados Unidos de América
deirdre.dalpiaz.bishop@census.gov
(301) 763.1696



10 de enero de 2019

Estimado Colega,

En nombre del Comité Regional de las Naciones Unidas sobre la Gestión Global de la Información Geoespacial para las Américas (UN-GGIM: Américas) y del Instituto Panamericano de Geografía e Historia (IPGH), en colaboración con la Comisión Económica para América Latina y el Caribe (CEPAL), nos dirigimos a usted para invitar a su país a participar en el *Proyecto 2019 para la Integración de Información Estadística y Geoespacial en América Central*. Este proyecto de asistencia técnica fue aprobado durante la 48a reunión del Consejo Directivo del IPGH, que se llevó a cabo en Santa Cruz, Bolivia, del 22 al 26 de octubre de 2018.

El proyecto:

- Propone trabajar con los siete países centroamericanos junto a México, Estados Unidos y España, como países colaboradores, para generar conocimiento en torno a la integración de la información estadística y geoespacial en América Central;
- Se basa en el trabajo y los esfuerzos en marcha del IPGH, UN-GGIM: Américas, CEPAL, División de Estadísticas de las Naciones Unidas (UNSD, por sus siglas en inglés), Comité de Expertos de las Naciones Unidas sobre la Gestión Mundial de la Información Geoespacial (UN-GGIM, por sus siglas en inglés), Grupo de Expertos de las Naciones Unidas sobre la Integración de Información Estadística y Geoespacial (UN-EG-ISGI, por sus siglas en inglés), Departamento Administrativo Nacional de Estadística (DANE) y la Red Geoespacial de América Latina y el Caribe (GeoSUR);
- Se fundamentará en el trabajo realizado para el Mapa Integrado de Centroamérica (MIAC) en el IPGH; y
- Apoya y se basa en el Plan de Acción Conjunto de 2016-2020 para acelerar el desarrollo de la infraestructura de datos espaciales de las Américas, integrado por el Sistema de Referencia Geocéntrico para las Américas (SIRGAS), UN-GGIM: Américas, el programa GeoSUR del Banco de Desarrollo de América Latina (CAF) y el IPGH. El proyecto también contribuye directamente a lograr la Agenda Panamericana 2010-2020.



Los objetivos de este proyecto son:

- Evaluar la capacidad estadística y geoespacial de cada país de América Central;
- Aumentar el conocimiento de los esfuerzos nacionales y regionales de la UNSD, UN-GGIM, UN EG-ISGI, UN-GGIM: Américas, CEPAL e IPGH;
- Comprender el trabajo actualmente en curso para integrar información estadística y geoespacial;
- Crear conciencia sobre la importancia de integrar información estadística y geoespacial en la preparación de la Ronda de Censos de 2020;
- Contribuir al cumplimiento de los objetivos de la Agenda 2030 de las Naciones Unidas para el Desarrollo Sostenible y la Agenda Panamericana como soporte a la toma de decisiones en América Central;
- Identificar problemas y prioridades de los países centroamericanos en la integración de la información;
- Identificar formas innovadoras para mostrar y analizar datos estadísticos y geoespaciales integrados;
- Desarrollar un plan para la integración de información estadística y geoespacial y creación de productos; y
- Desarrollar informes para compartir conocimientos y resultados con el IPGH, UN-GGIM: Américas, CEPAL, UNSD, UN-GGIM y UN EG-ISGI.

Este proyecto comenzará en enero de 2019 y terminará en diciembre de 2019 y abarcará cuatro fases:

- Fase 1: Recopilación de información: identificar la capacidad estadística y geoespacial dentro de cada país en América Central;
- Fase 2: Taller informativo: compartir los resultados de la fase 1 y demostrar la importancia y el valor de la integración de información estadística y geoespacial;
- Fase 3: Taller técnico: realizar un taller para identificar formas innovadoras de visualización y análisis de información estadística y geoespacial integrada que se utilizará en la toma de decisiones en Centroamérica; y



*Integration of Statistical and Geospatial Information in Central America
A PAIGH Funded Technical Project*



UN-GGIM:Américas
COMITÉ REGIONAL DE LAS
NACIONES UNIDAS SOBRE
LA GESTIÓN GLOBAL
DE INFORMACIÓN GEOESPACIAL
PARA LAS AMÉRICAS

- Fase 4: Publicación de resultados: publicación de los resultados del proyecto e identificar los próximos pasos, incluyendo actividades de integración y productos.

Teniendo en cuenta su interés y experiencia en este campo de trabajo, su participación en dicho proyecto será clave para el éxito del mismo. Estamos encantados de trabajar con usted en este proyecto y le solicitamos que nos proporcione el nombre, título, número de teléfono y correo electrónico de las personas que usted designe como punto focal.

Por favor enviar esta información a Paul Riley en paul.l.riley@census.gov a más tardar el 31 de enero de 2019 y por favor no dude en consultar con él o conmigo para cualquier pregunta.

Saludos,

Paloma Merodio Gómez
Presidente
UN-GGIM: Américas
paloma.merodio@inegi.org.mx
(52) 5278.1000 ext. 1557

Deirdre Dalpiaz Bishop
Presidente
Sección Nacional IPGH
Estados Unidos de América
deirdre.dalpiaz.bishop@census.gov
(301) 763.1696

Appendix B: Questionnaire

PAIGH 2019 Technical Assistance Program

Questionnaire

This year PAIGH will be coordinating a project on the integration of statistical and geospatial data in Central America. We want the results of this project to be meaningful to you, your organization, and all of Central America. As part of the first phase of the project, we would like to gather some fundamental information from all participants through this questionnaire.

* Required

1. Name *

2. Country *

Mark only one oval.

- ☐ Argentina *After the last question in this section, skip to question 22.*
- ☐ Brazil *After the last question in this section, skip to question 22.*
- ☐ Belize
- ☐ Columbia *After the last question in this section, skip to question 22.*
- ☐ Costa Rica
- ☐ El Salvador
- ☐ Guatemala
- ☐ Honduras
- ☐ Mexico *After the last question in this section, skip to question 22.*
- ☐ Nicaragua
- ☐ Panama
- ☐ Spain *After the last question in this section, skip to question 22.*
- ☐ Uruguay *After the last question in this section, skip to question 22.*
- ☐ United States *After the last question in this section, skip to question 22.*
- ☐ Venezuela *After the last question in this section, skip to question 22.*

3. Organization *

4. We plan to have a kick-off meeting in the near future. Would you prefer this meeting to be virtual or in-person? *

Check all that apply.

- ☐ Virtual meeting
- ☐ In-person meeting in Miami, Florida USA
- ☐ In-person meeting in San José, Costa Rica
- ☐ In-person meeting in Guatemala City, Guatemala
- ☐ In-person meeting in Panama City, Panama
- ☐ Other:

5. What dates would be best for you to attend this kick-off meeting? *

Check all that apply.

- ☐ Fourth week of May (5/27 - 5/31)
- ☐ First week of June (6/3 - 6/7)
- ☐ Second week of June (6/10 - 6/14)
- ☐ Third week of June (6/17 - 6/21)
- ☐ Fourth week of June (6/24 - 6/28)
- ☐ First week of July (7/1 - 7/5)
- ☐ Other: _____

6. How much notice would you require in order to attend an in-person meeting? *

Check all that apply.

- ☐ 2 - 4 weeks
- ☐ 1 - 2 months
- ☐ More than 2 months
- ☐ Other: _____

7. Information about Internet speed will assist preparations for virtual meetings. What is the average Internet download speed at your organization? (One option available is <https://speedof.me> which allows users to test their Internet connection.)

Check all that apply.

- ☐ I prefer not to participate/answer
- ☐ Less than 1 Mbps
- ☐ 1 - 5 Mbps
- ☐ Greater than 5 Mbps

8. Do you plan to attend the ESRI User Conference in San Diego, California July 8-12, 2019?

Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ Maybe

9. Do you plan to attend the Ninth Session of UN-GGIM at UN Headquarters in New York August 7-9, 2019? *

Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ Maybe

10. Do you plan to attend the UN-GGIM meeting scheduled to be in Mexico City in October? *

Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ Maybe

11. Do you plan to attend URISA's Caribbean GIS Conference in Port of Spain, Trinidad November 18-21, 2019?

Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ Maybe

12. What types of data does your organization currently collect? *

Check all that apply.

- ☐ Population
- ☐ Housing
- ☐ Economic
- ☐ Geospatial
- ☐ Other: _____

13. How are the data collected?

Check all that apply.

- ☐ Official Census
- ☐ Survey
- ☐ Other: _____

14. How often are the data collected?

Mark only one oval.

- ☐ Annually
- ☐ Every 2 - 5 years
- ☐ Every 10 years
- ☐ Other: _____

15. What mandates does your organization have for data collection?

16. When it comes to making data available to the public, what restrictions does your organization have in place?

17. Is your organization currently integrating geospatial and statistical data? *

Mark only one oval.

☐ Yes Skip to question 18.

☐ No Skip to question 20.

18. In what ways is your organization currently integrating geospatial and statistical data? What tools or software are used in the integration process? *

19. What principles of the Global Statistical and Geospatial Framework (GSGF) does your organization adhere to? (<http://ggim.un.org/meetings/GGIM-committee/8th-Session/documents/Global-Statistical-Geospatial-Framework-July-2018.pdf>)

Check all that apply.

- ☐ Principle 1: Use of fundamental geospatial infrastructure and geocoding.
- ☐ Principle 2: Geocoded unit record data in a data management environment.
- ☐ Principle 3: Common geographies for dissemination of statistics.
- ☐ Principle 4: Statistical and geospatial interoperability – Data, Standards and Processes.
- ☐ Principle 5: Accessible and usable geospatially enabled statistics.
- ☐ None of the above

20. What GIS software is used at your organization? *

Check all that apply.

- ☐ ArcGIS
- ☐ QGIS
- ☐ MapInfo
- ☐ N/A
- ☐ Other: _____

21. What version(s) does your organization currently use?

Check all that apply.

- ☐ ArcGIS v10
- ☐ ArcGIS v10.1
- ☐ ArcGIS v10.2
- ☐ ArcGIS v10.3
- ☐ ArcGIS v10.4
- ☐ ArcGIS v10.5
- ☐ ArcGIS v10.6
- ☐ QGIS 3.0
- ☐ QGIS 3.2
- ☐ QGIS 3.4
- ☐ QGIS 3.6
- ☐ MapInfo v15
- ☐ MapInfo v16
- ☐ MapInfo v17.0
- ☐ Other: _____

22. The ultimate goal of this project is to analyze and display integrated geospatial and statistical data to inform decision making regarding an issue faced by the countries of Central America. What is one problem/issue that your organization would like to see addressed as part of this project? *

Powered by



Appendix C: Crosswalk

	United States			Mexico		
	Geography Name	Geography Type	Statistical Data Available	Geography Name	Geography Type	Statistical Data Available
1	Nation	Administrative	Housing/Population			
1.1	Urban Areas	Statistical	Housing/Population			
2	Region	Statistical	Housing/Population			
3	Division	Statistical	Housing/Population			
4	State	Administrative	Housing/Population			
4.1	Place	Administrative/Statistical	Housing/Population			
5	County	Administrative	Housing/Population			
5.1	County Subdivision	Administrative/Statistical	Housing/Population			
6	Tract	Statistical	Housing/Population			
7	Block Group	Statistical	Housing/Population			
8	Block*	Statistical	For collection only			

Appendix D: Meeting Agendas

Agenda and Meeting Notes	Meeting:	PAIGH 2019 Technical Project Meeting
	Date:	Friday, November 30, 2018
	Time:	1:00pm – 2:00pm
	Location:	Phone: (1-866-692-3158) Participant Code: 1208700#

Agenda	Facilitator
1) Introductions	Deirdre Bishop
2) General discussion on the status of the PAIGH technical project	Deirdre Bishop

Meeting Minutes/New Action Items

Agenda and Meeting Notes	Meeting:	PAIGH 2019 Technical Project Meeting
	Date:	Tuesday, February 19, 2018
	Time:	10:00am – 11:00am (EST)
	Location:	Phone: (1-866-692-3158) Participant Code: 1208700#

Agenda	Facilitator
1) Introductions	Everyone
2) Review of action items from last meeting –see action items below	Paul Riley
3) Status of participation	Paul Riley
4) Technical project budget	PAIGH
5) César Rodríguez letter	Paloma Merodio Gómez
6) MEGA	Paloma Merodio Gómez
7) Next steps a. Continue to reach out to invitees b. Development of a questionnaire c. Esri support d. Potential workshop locations	Paul Riley

Action Items
Action Item: INEGI will follow up with Macarena to remind her to send the information to Census. Paloma will consider if there is any other diagnostic research we would want to include as background for Phase 1. Complete Action Item: Census and INEGI provide a list of administrative and statistical geographies with their nesting relationships and then work together to crosswalk comparable geographies. In progress Action Item: INEGI will check with INEGI’s International Department for a list of international events that can be shared and we can discuss potential opportunities. Complete Action Item: INEGI will reach out to Alvaro and begin the conversation and explore the opportunity. Complete Action Item: Census will develop a letterhead for the invitation letter, formalize the letter and send to INEGI for signature, signed letter will be scanned and returned to Census for distribution. Complete