





# "CURRENT STATUS OF THE INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK IN PANAMA"







## AUTORIDAD NACIONAL DE ADMINISTRACIÓN DE TIERRAS Instituto Geográfico Nacional "Tommy Guardia"



### INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK THE 'SELF-PACED, LEARN AND DISCOVER' APPROACH TO IMPLEMENT AT COUNTRY-LEVEL





Panama begins its first steps for the GIF in March 2020 with the National Workshop for the implementation of the Integrated Geospatial Information Framework in the Republic of

Panama. Session #1: with authorities, decision makers.

Session #2: group work with the interinstitutional technical committee of the IPDE, specialists and managers of Geospatial Information.

Session #3: coordinators and secretaries of the 5 components of the IPDE, Technical Committee and support staff of the IGNTG.



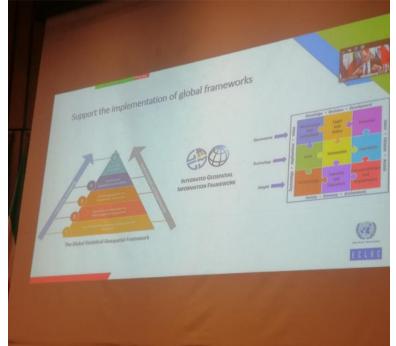


September 2022. Resolution N°002 is signed, authorising the General Administrator, in his capacity as legal representative of the National Land Administration Authority, to sign the accession to the SDG Data Alliance.

Training on the roadmap to follow for the implementation of IGIF and SDG and at the same time the implementation of processes to improve the efficiency of cartographic production.

We have at least 25 institutions committed to the implementation of the Integrated Geospatial Information Framework (IGIF).

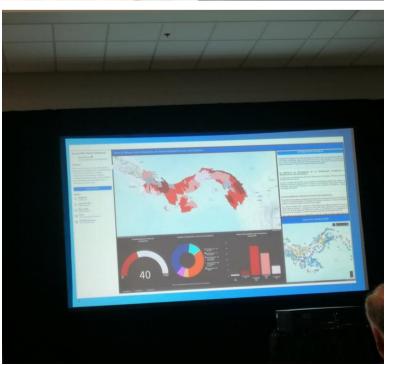










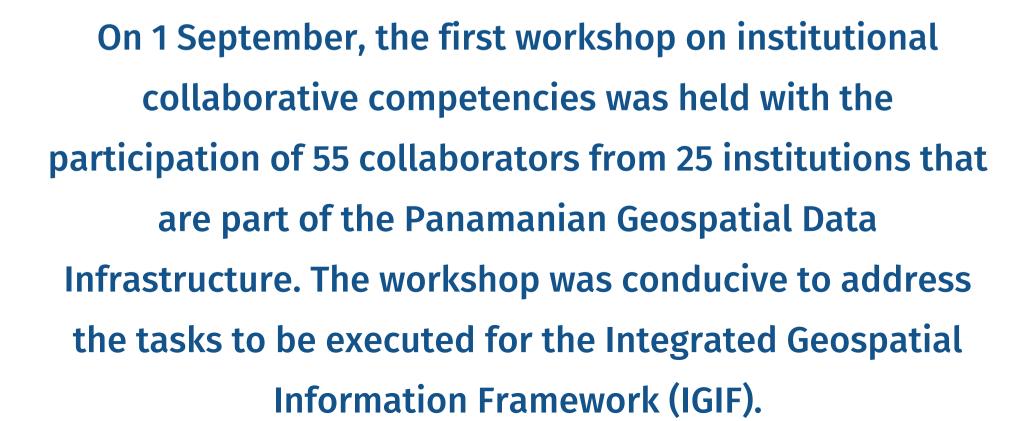


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### **ABOUT MARCO?**

**HOW TO DO?** 

16 steps to create the National Plan for Geospatial Information

### WHAT IS THE NEED?



DATA IS FUNDAMENTAL TO THE
DEVELOPMENT OF GOVERNMENT
STRATEGIES AND PLANS

PRODUCCIÓN

IPDE

PRE- PRODUCCIÓN

Provide the country with the fundamental basis for the efficient and timely development of Geospatial Information, through the implementation of the Integrated Geospatial Information Framework and the National Data Centre for Sustainable Development.

WHAT DO WE HAVE TO DO?

**LEGAL BASIS** 

Resolución N° 002

**STRATEGY AND** 

**PARTNERSHIP** 

ALIANZA DE DATOS PARA LOS ODS (SDG)

MARCO INTEGRADO DE INFORMACIÓN GEOESPACIAL (IGIF)

**RESULTS** 

**NATIONAL CENTER** 

### **EXECUTION**

Improving the management of national geospatial information, an essential element of national digital infrastructures.

Task 7

Decision-makers and high-level workshop

high-level workshop









## Enfoque de la GGIM de las Naciones Unidas dirigido por los países para el desarrollo del Plan de Acción nacional

### <u>Componente Uno –</u> Planificación y preparación

Component One – Planning and preparing

- Inicio de proyectos y evaluación previa a las necesidades. Project Initiation and Pre-needs Assessment
- Identificación y análisis de las partes interesadas Stakeholder Identification and Analysis
- 3) Plan de Acción (para diseñar y desarrollar un Plan de Acción a nivel de país) Plan of Action (to design and develop country-level Action Plan)

### Componente dos: evaluación y análisis

Component Two - Assessing and analyzing

- 4) Evaluación de la situación actual y deseada (o futura) Current and Desired (or Future) Situation Assessment
- 5) Encuesta de línea de base. Baseline Survey
- 6) Escaneo y análisis ambiental (comprensión de la situación nacional) Environmental Scanning and Analysis (understanding national situation)
- 7) Taller de participación de las partes interesadas. Stakeholder Engagement Workshop
- 8) Ejercicio de alineación estratégica (y beneficios) Strategic Alignment (and Benefits) Exercise
- 9) Visión, Misión y Objetivos Vision, Mission and Goals
- 10) Matriz de análisis de brechas Gap Analysis Matrix
- 11) Informe de evaluación de necesidades y análisis de brechas Needs Assessment and Gap Analysis Report

Informe nacional de evaluación de necesidades y análisis de brechas

### <u>Componente tres – Diseño y</u> desarrollo

- 12) Acciones y suboficinas de la vía estratégica Strategic Pathway Actions and Sub Tasks
- 13) Cronograma de implementación Implementation Schedule
- 14) Estimaciones presupuestarias Budget Estimations
- 15) Indicadores de éxito Success Indicators
- 16) Plan de Acción a nivel de país (Plantilla) Country-level Action Plan

Plan de Acción a nivel de país

Plan de Acción

In 2023

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Risk and Threats

INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK
THE 'SELF-PACED, LEARN AND DISCOVER' APPROACH TO IMPLEMENT AT COUNTRY-LEVEL

Other















### PARTICIPATORY WORKSHOPS





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### INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK THE 'SELF-PACED, LEARN AND DISCOVER' APPROACH TO IMPLEMENT AT COUNTRY-LEVEL

Statemen

The extent to which our

information is easy to fi





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INTEGRATED GEOSPATIAL INFORMATI THE 'SELF-PACED, LEARN AND DISCOVER' APPROACH TO United Nations

INTEGRATED GEOSPATIAL INFO



INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK ELF-PACED, LEARN AND DISCOVER' APPROACH TO IMPLEMENT AT COUNTRY-LEVEL



### **OBJECTIVE 1: Effective Management**

 Enable geospatial information g institutional arrangements management of geospatial info individual institutional required and are aligned with national frameworks.

### GOAL 2: Capacity building, capa

 Mechanisms are established t and use of geospatial inform capacity, and build an inventi government, industry, private

#### GOAL 3: Integrated geospatial information syst

Geospatial information, including communistic integrated across the government sector for evidence-based policy and decision management.

Desired

performance

Low

□ 2.

3.

4.

5. High

### Base line

Governance and institutions

The following questions are designed to understand the governance and institutional arrangements, and political acceptance for integrated geospatial information management.

Current	Desired		Current performance	Desired performance	
performance	performance	The extent to	☐ • Not started	□ • Low	The exte
Not started	Low	arrangemen	2. Minimum	□ 2.	encouras
2. Minimum	□ 2.	managemen	3. Moderate	□ 3.	research data cen
3. Moderate	□ 3.	institutions t	4. Extensive	□ 4.	initiative
4. Extensive	□ 4.	data.	5. Achieved	5. High	

### Comment

There are government institutions dedicated to lack of budget they cannot execute the gap in terms of development and research information. In fact, we know that it is neacademic centers in order to achieve proachieve the participation of companies to innovation in new processes and make it

Comment

Current

performance

Not started

2. Minimum

3. Moderate

4. Extensive

5. Achieved

natior
t can

	Do you have a National Geospatial Strategy or equivalent?
	Yes Name:
	(Go to question 2)
t	
	XNo
g	If the answer is no, which of the following causes applies?
n	XIt takes too long and there are no resources to develop the strategy
	X Training in strategy development is required
	It is believed that a strategy is not required
	X Others: It is necessary to raise awareness among authorities and decision makers about the need, importance and benefits of GI.
	Go to question 7)

### Comment

5. Achieved

Although the IPDE is made up of 40 institutions can manage and have their info

5. High

## High Level Session













## PETS Analysis

### **ISSUES**

### Description

Policies

### Benefit

- · Safe environments for citizens, through government security policies.
- Open data strategies in the portal, according to the National Authority for Access to Information.
- · Disaster preparedness, recovery and risk management
- There is a National Census in development that will provide information that must be available and easy to access.
- · Regulation of powers and reduction of duality of functions.
- Educational strategies for certain attention to the needs of the sector.
- · Promote copyright and credits to information
- · Improvement in application of agri-food policies

### Economic

- Savings through the implementation of the IGIF
- Revenue growth opportunity
- · Labor cost savings.
- Improving data quality
- Savings on research and development
- Decrease in the allocation of economic resources for geospatial products
- Public Private Partnership

### Social

- Access to new technologies
- Effective transmission of information to the average citizen
- Provision of statistical information on the population
- Development of new capabilities
- · Characterization of economic consumption
- Timely alerts in risky situations

### Technological

- Potential benefits of using geographic information through GIS.
- Search for mechanisms to promote the use of geospatial information
- Create and implement competencies
- Inventory of technological and personal capacity
- Updated equipment and licenses
- · Adequate communication infrastructure
- Create a legal regulation that requires all data to have metadata.

#### Obstacles

- Lack of application of climate change policies
- Bureaucracy that prevents effective and timely development.
- From the executive there is delay in determining policies.
- Education of the data consumer regarding copyright and use of sources.
- Lack of government budget for hiring GIS personnel.
- Skills shortage
- Lack of Innovation in the government and the private sector
- · Lack of funding in the geospatial area
- Rotation of personnel in charge of managing geospatial information
- Inflation in the interest rate (they play against the budget)
- Disposable income level of consumers
- Outdated educational curriculum
- Lack of training in technological issues
- Democratization of the necessary technological infrastructure
- Public health information available 24/7 to users.
- · Nutritional information available to the user
- Lack of knowledge and dissemination about geospatial data.
- Certainty of statistical data
- Lack of knowledge of the import and role of data.
- Allocating resources in areas where they are not needed.
- There must be clear rules regarding information
- Diagnosis and monitoring of the state of technology
- There is no communication between data users and technology managers.

## SWOT analysis

### SWOT



### STRENGTHS



### WEAKNESSES



### **OPPORTUNITIES**



#### THREATS

- Leadership
- Skills
- Technology
- R&D
- Community demand ...

- Data topics missing, obsolete or below standard.
- Policies.
- Collaboration between agencies.
- ROI and

Expanding data usage

- New Applications
- Community Crowdsourcing.
- brand governmental.
- community trust . \_

- The data policy \_ free , impact in the ROI.
- Change in policy .
- Behavior in he consumer.
- Technology obsolete

\_

Resources insufficient

- 1. Suitable, trained, committed personnel.
- 2. Existence of legal framework
- 3. There is the existence of quality standards and norms and metadata
- 4. Technical awareness, about the lack of data and which data is a priority to generate.
- 5. Size of our country, allows us to cover the generation of data.
- 6. Collaboration of international organizations

- 1. Data exchange occurs
- 2. Cooperation with international organizations
- 3. Data organization based on examples of good practices (other countries)
- 4. Advance as a successful country in data management and support for the Panama 2030 agenda and national priorities
- 5. Be taken into account for decision making

- 1. The free data policy does not have sustainability or financing.
- 2. Change in leadership and government policy.
- 3. Public reaction due to lack of information
- 4. Duplication of information
- 5. Data quality does not live up to consumer expectations
- 6. Technology becomes obsolete

- 1. Commitment of committee members (availability to participate)
- 2. Stagnation in the development of standards
- 3. Reinforcement of training
- 4.Interinstitutional Disclosure
- 5. Marketing Promotion
- 6. Lack of budget
- 7. Lack of commitment and vision at a hierarchical level
- 8. Lack of a national plan, which is based on solid planning. Whose relevance is found in the data as support for national priorities.



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## Integrated Geospatial Information Framework in the Republic of Panama Component Two: evaluation and analysis Task: 8 – Strategic Alignment

Strategic drivers	Evidence of government strategic priority	Geospatial theme	Geospatial Information Benefit	Current situation	Investment priority
Improve waste management management	Municipal Zero Waste Program Plan (Municipality of Panama). 2015- 2035  National waste management plan of the Urban and Home Cleaning Authority (AAUD). 2017-2027	Geospatial models to locate the most suitable sites for the deposit and management of waste. (Ex. Land use layer, water network, hydrogeology, etc.)  Georeferenced information for monitoring and controlling waste management. (For example, location of collection sites, collection routes, populated places with demographic and service data, location of informal settlements).	It allows real-time monitoring, improves waste collection processes, and reduces transportation and collection costs.  Improvement of public and environmental health.	Lack of control in management planning, lack of payments, poor urban waste management, lack of maintenance of collection equipment.  Lack of geospatial information available to achieve good waste disposal by users.  Pollution of bodies of water.	High







- Identify actors to help identify priorities
- Analysis of current and future situation
- Understand how it works with the institutions that generate data
- Understand the basic priorities contained in the country's vision 2030.
- Identify current public policies and execution





5 aspects. Grow bigger and better, Good life for everyone, Environmental, sustainability, Institutionality and governance. Starting from these elements through many workshops, guides, many discussions between actors or interested parties... The following was concluded... How Geospatial information can help solve the problems of vision 2030.

A series of strategic lines were defined as priorities... In particular Environment

Health

Administration

Security.





- Needs Assessment and Gap Analysis Report
- Increased outreach of IGIF with the country's provincial units.
- Increased outreach to academia
- Increased private sector outreach
- Design of a plan for the new authorities
- Work with the information producing units for the publication of priority data.
- Putting together the National Plan for National Information

### Thanks