

The Chilean experience implementing the Integrated Geospatial Information Framework (IGIF)

Ministry of National Assets – SDI Chile



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Priority axes according to IGIF pathways

Geospatial Information
Policy in progress

Increase data availability in
different formats.

Strengthen coordination
instances



**Governance
and
Institutions**



**Policy and
Legal**



Financial

Coordinated usage and purchase of
geospatial information
(e.g imagery)

Data
standardization

Strategic data and
publication formats

Data accessible from
the cloud



Data

**Predictive / Deductive
Analytics Models**

Dashboards

Innovation



Standards

System and data
interoperability

Citizen
participation

Academy
participation



Partnerships



**Capacity and
Education**



**Communication
and Engagement**

Increase awareness
regarding the use and
benefits of geospatial
information

Public and
Private alliances

Strengthening of skills
and capabilities

Contents

1. National Geospatial Information Policy

**2. IGIF UN-GGIM Americas Working
Group Questionnaire**

3. SDG Data Alliance

1. National Geospatial Information Policy

- A National Policy is required in order to have a frame of reference that defines the guidelines and orientations of the State's work in the area of geospatial information.



- **Key benefits:**

Establish specific governance responsibilities.

Establish minimum principles

Strengthening of the Institutionalality

Minimum of data that the State must generate, make available and maintain

Currently we are in the Citizen Consultation to identify other key elements of the Policy

2. IGIF UN-GGIM: Americas Working Group Questionnaire

- The UN-IGIF Survey was elaborated and reviewed between the Chilean SDI (Executive Secretariat), ECLAC (Technical Secretariat) and Central America Vocal.
- Survey prepared with the objective of understanding the current state of countries regarding the implementation of the 9 strategic pathways.
- This will allow us to have a diagnosis, know the gap and focus our management with the institutions.

STRATEGIC PATHWAY 1: Governance and Institutions

5. 1. Is there an institution leading the national geospatial initiative? *

Marca solo un óvalo.

Yes

No

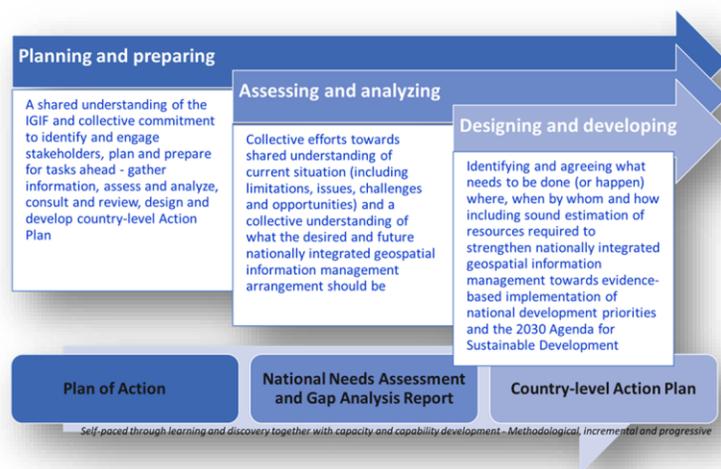
6. If your answer is affirmative, please indicate the name of the institution. *

7. 2. What is the main mandate of the institution leading the national initiative? *

8. 3. Describe the organizational structure and what are the functions (This refers * to the functions and roles of the different levels of the organizational structure).

3. SDG Data Alliance participation

- SDG Data Alliance Guidance for integrating geospatial information.
- With the support of the advisors, we have made progress in the development of activities, completing activity 9 and advancing in activity 10.



UN GGIM Country-led approach to development of Country Action Plan

Componente Uno – Planificación y preparación
Component One – Planning and preparing

- 1) Inicio de proyectos y evaluación previa a las necesidades. Project Initiation and Pre-needs Assessment
- 2) 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: Evaluation and Analysis

- 4) Evaluación de la situación actual y deseada (o futura)
- 5) Encuesta de línea de base
- 6) Escaneo y análisis ambiental (comprensión de la situación nacional)
- 7) Taller de participación de las partes interesadas
- 8) Ejercicio de alineación estratégica (y beneficios)
- 9) Visión, Misión y Objetivos
- 10) Matriz de análisis de brechas
- 11) Informe de evaluación de necesidades y análisis de brechas

Componente tres – Diseño y desarrollo
Component Three – Design and Development

- 12) Acciones y suboficinas de la vía estratégica
- 13) Cronograma de implementación
- 14) Estimaciones presupuestarias
- 15) Indicadores de éxito
- 16) Plan de Acción a nivel de país (Plantilla)

Final Objective: Action Plan

SDG Data Alliance progress

Task 2: Stakeholder identification

Task 3: Action Plan

Task 4: Evaluation of actual and desired situation

Task 5: Baseline Survey

Task 6: Environmental scanning

Task 7: Stakeholder Engagement Workshop

Task 8: Strategic Alignment

Task 9: Vision, Mission and Goals

Task 10: Gap Analysis Matrix

Tarea Recomendada N°2: Planeación y Preparación - "Identificación y Análisis de Partes Interesadas" - Matrix de Análisis de Partes Interesadas

Partes interesadas individuales y/o grupos	Parte Interesada	Persona de Contacto	Impacto	Influencia	Importancia	Potencial Colaboración	Obstáculos potenciales	Método de Comunicación
	Nombres	Teléfono, Correo Electrónico, Dirección Página Web	En qué medida les afecta un sistema geoespacial (bajo, medio, alto)	Cuánta influencia tienen (Baja, Media, Alta)	Cuál es la importancia de la parte interesada	¿Cómo puede contribuir la parte interesada a reforzar la gestión de la información geoespacial?	¿Cómo podría la parte interesada bloquear el progreso ?	Estrategia de compromiso con las partes interesadas
Instituto Geográfico Militar (IGM)	Lautaro Rivas	direccion@igm.cl	Alto	Alta	Generador de Información geoespacial fundamental	Generar, mantener y disponer la información geoespacial de la institución		

Servicio Aerofotogramétrico (SAF)	Instituto Geográfico Militar (IGM)
	Servicio Hidrográfico y Oceanográfico (SHOA)
Servicio Hidrográfico y Oceanográfico (SHOA)	Centro de Información de Recursos Naturales (CIREN)
	Servicio Nacional de Geología y Minería (SERNAGEOMIN)
Centro de Información	Instituto Nacional de Estadísticas (INE)
	Servicio de Impuestos Internos (SII)
	Ministerio de Obras Públicas (MOP)
	Dirección de Fronteras y Límites del Estado
	Ministerio de Vivienda y Urbanismos
	Ministerio de Medio Ambiente
	Ministerio de Energía
	Ministerio de Salud

Que info mar	Ministerio Educación
Accu	Ministerio de Transporte y Telecomunicaciones
facu	Ministerio de Interior y Seguridad Pública
pro	Ministerio de Hacienda
Que	Ministerio de Economía, Fomento y Turismo
Que	Ministerio de Justicia y Derechos Humanos
Que	Ministerio de Minería
Que	Ministerio de la Mujer y Equidad de Género
Que	Ministerio de Relaciones Exteriores
Que	Ministerio Secretaría General de la Presidencia
Que	Ministerio del Trabajo y Previsión Social
Que	Ministerio de Las Culturas, las Artes y el Patrimonio
Que	Ministerio de Defensa Nacional
Que	Ministerio Secretaría General de Gobierno

SDG Data Alliance progress



Task 2:
Stakeholder
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*Task 4: Evalu
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*Task 5: Ba
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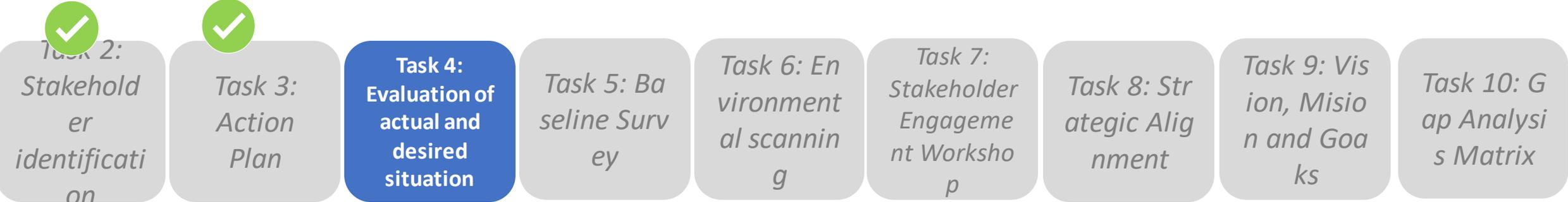
- Project management

COMPONENTE UNO: PLANEACIÓN Y PREPARACIÓN				
Tareas recomendadas	Fecha	Recursos/ Material de Referencia	Trabajo estimado (Días/lapso de tiempo)	Estado
1. Reunión de inicio del proyecto y evaluación de las necesidades previas	Mayo, 2022	NA	1/1	Realizado
2. Identificación y análisis de las partes interesadas	Junio, 2022	NA	5/5	Realizado
3. Componente dos del plan de acción: Evaluación y análisis	Junio, 2022	NA	1/1	Realizado

Componente dos: Evaluación y análisis					
4. Evaluación de la situación actual y deseada (o futura)	Julio, 2022	*	2/2	Realizado	
5. Encuesta de referencia	Diciembre 2022	*	30/30	Realizado	
6. Escaneo y análisis ambiental	Noviembre 2022	*	3/15	Realizado:	Ajustes pendientes se finalizarán antes del 19/06/2023
7. Taller de participación de las partes interesadas	Noviembre, 2022	*	1/15	Realizado	
8. Alineación estratégica y beneficios	Diciembre, 2022 Marzo 2023	*	5/10	En curso.	Se finalizará antes del 30/06/2023
9. Visión, misión y metas	Enero, 2023 Marzo 2023	NA	1/1	Ajustes pendientes se finalizarán el	19/06/2023
10. Matriz de análisis de brechas	Agosto 23	*	5/10	Fecha estimada de cierre	25/08/2023
11. Evaluación de necesidades e informe de análisis de brecha	Septiembre 23	*	5/10	Fecha estimada de cierre	22/09/2023

Componente tres: Diseño y desarrollo (plan de acción a nivel de país)					
12. Plan de acción a nivel de país (formato)	Septiembre 23 25/09/2023	*	20/30	Fecha Estimada de cierre	20/10/2023
13. Acciones y sub-tareas de la vía estratégica	Octubre 23 23/10/2023	*	20/30	Fecha Estimada de cierre	17/11/2023
14. Cronograma de ejecución	Noviembre 23 20/11/2023	*	5/10	Fecha Estimada de cierre	24/11/2023
15. Proyección del presupuesto	Noviembre 23 20/11/2023	*	5/10	Fecha Estimada de cierre	24/11/2023
16. Indicadores de éxito	Noviembre 23 20/11/2023	*	5/10	Fecha Estimada de cierre	24/11/2023

SDG Data Alliance progress



- Allowed to identify needs, challenges, strenghts.

GOAL 1: Effective Geospatial Information Management		
Enabling geospatial information governance, policy and institutional arrangements that ensure effective geospatial information management, accommodate individual organizational requirements and arrangements, and that are aligned to national and global policy frameworks		
Current Performance Progress	Statement	Desired Performance Priority
1 = Not started; 2 = Minimal; 3 = Moderate; 4 = Extensive; 5 = Achieved	<i>Our technologies and procedures enable geospatial information to be easily shared with the broader community of users.</i>	1 = Low and 5 = High
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GOAL 5: Sustainable Education and Training Programs		
Education and training programs are established to grow the number if professionals in the fields of geography, data science and geospatial information technology, and to develop specialist skills related to geospatial financial systems, policy and law, and project management		
Current Performance Progress	Statement	Desired Performance Priority
1 = Not started; 2 = Minimal; 3 = Moderate; 4 = Extensive; 5 = Achieved	<i>The extent to which our institutions have the capacity and professional expertise to strengthen geospatial information management.</i>	1 = Low and 5 = High
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GOAL 3: Integrated Geospatial Information Systems and Services		
Geospatial information, including community information, is integrated across the government sector and maximized for evidence-based policy and decision-making.		
Current Performance Progress	Statement	Desired Performance Priority
1 = Not started; 2 = Minimal; 3 = Moderate; 4 = Extensive; 5 = Achieved	<i>The extent to which our geospatial information is easy to find, view and use.</i>	1 = Low and 5 = High
<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Current Performance Progress	Statement	Desired Performance Priority
1 = Not started; 2 = Minimal; 3 = Moderate; 4 = Extensive; 5 = Achieved	<i>The extent to which our geospatial data is able to be used to analyze complex relationships, trends and patterns across a broad spectrum of applications.</i>	1 = Low and 5 = High
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SDG Data Alliance progress



Task 2: Stakeholder identification



Task 3: Action Plan



Task 4: Evaluation of actual and desired situation

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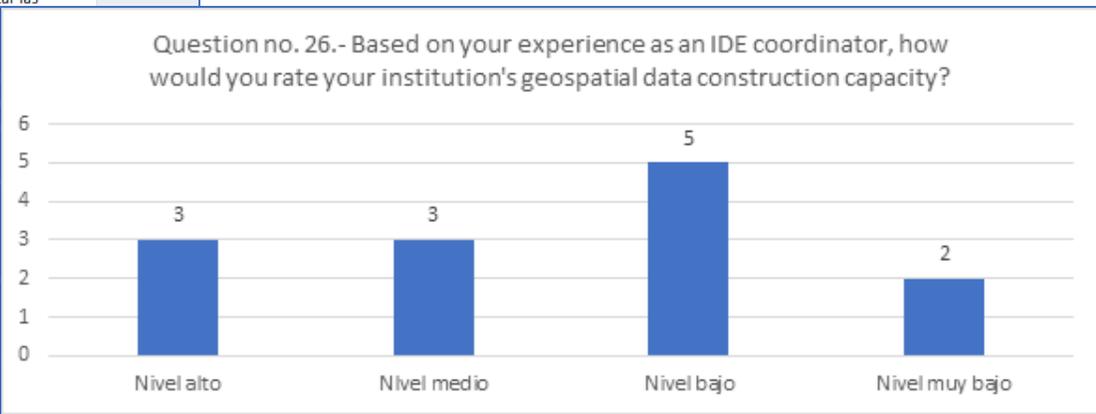
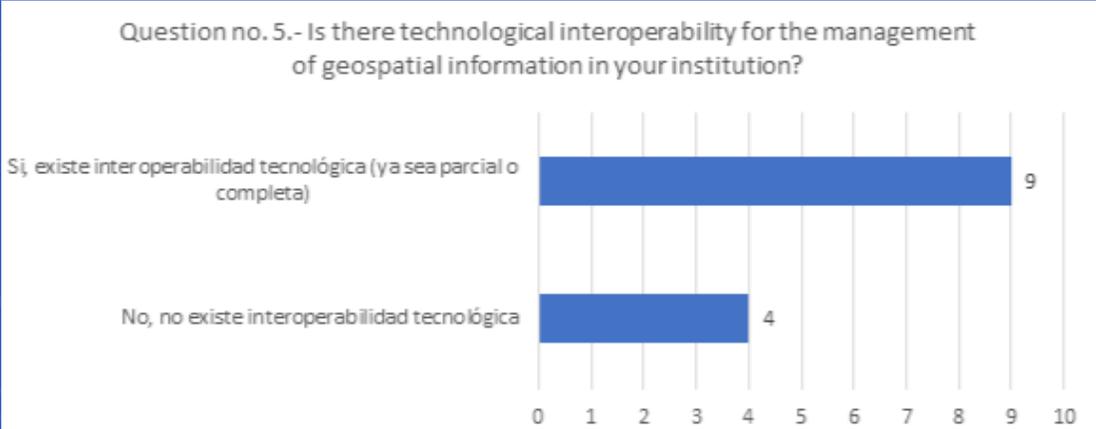
Task 7: Stakeholder Engagement Workshop

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- A list of 57 questions was prepared over several months, IGIF together with questions from the Chile SDI survey from previous years
- The survey was sent to 16 regions and answered by 13.



SDG Data Alliance participation



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Strengths

- Institutional stability.
- Existence of IDE CHILE: geospatial coordination and community.
- International representation and participation in geospatial matters
- Progress in policies, laws, and institutional frameworks related to geospatial data.
- Existence of support and infrastructure for implementation: Geonodo, SNSAT, Geoportal, among others.

Weaknesses

- Geospatial knowledge limited to specialized professionals.
- Lack of developer teams.
- Low budgets.
- Unfamiliarity with the Integrated Framework of the IGIF.
- Absence of a National Geospatial Information Policy.
- Supreme Decree does not cover all key actors: Municipalities.

Opportunities

- Chile with strong international representation: Achieving agreements.
- Consolidating coordination among institutions: Improving public policies.
- Development and growth at all levels --> Geospatial data management.
 - Empowering innovative data management approaches: Cloud, Opensource, Data Science.

Threats

- Political instability (Change of Authorities, Wars).
- Economic crisis (Inflation, Adjustments, Change of priorities).
- Social tension (Protests and constitutional change process).
- Other threats (Pandemic, Climate Change).

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Workshop with stakeholders (15 public institutions and related services)

What strengths and opportunities has Chile to implement the IGIF?



Active coordination Institucional Stability Professional with skills and willingness Good quality data

What weaknesses and threats has Chile to implement the IGIF?



Lack of resources Low awareness about use/benefits of geo Low availability of "geo ITs"

SDG Data Alliance participation



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Four strategic meetings were arranged, to better understand their current situation and challenges:

- Ministry of Agriculture,
- National Service of Migration Issues.
- Crime prevention office.
- Ministry of the Environment.

All the information from the meetings was systematized in a table with the main findings.

The fields addressed were: **Housing, Migration, Environment and Climate Change, Public Safety, Indigenous People.**

Field	Government priority	Geospatial theme	Benefit of geographic information
Housing	<p>Government Program No. 30: Build 260,000 decent homes to reduce the housing deficit.</p> <p>Government Program No. 20: Plan to decrease the housing prices.</p>	<ul style="list-style-type: none"> • Administrative Political Division • Demographic information: where more housing is needed. • Land use: This can help identify suitable areas for new housing construction. • Infrastructure information: The availability of public services such as water, electricity, and public transportation can impact the location and viability of housing projects. • Climate information. • Existing building information: Information about the condition and age of existing housing. • Socioeconomic information: Information about income levels and housing tenure. • SII information: appraisal prices, assessments 	<p>In these two strategic lines, both the creation of decent housing and the reduction of housing costs, with the implementation of IGIF, direct benefits can be observed in identifying specific areas where there is a greater need for decent housing and where house improvements would have a greater impact.</p>

SDG Data Alliance participation



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Visión

“Reconocimiento nacional e internacional de Chile por su liderazgo en la gestión de información geoespacial para alcanzar el desarrollo sostenible al 2030”

Misión:

“Fortalecer el ecosistema geoespacial de Chile para asegurar que el Marco Integrado de Información Geoespacial permita a Chile cumplir con su agenda 2030, sin dejar a nadie atrás”

Objectives:

1. To establish within 2 years a national geospatial information infrastructure, fully developed in all its components, with an updated institutional framework and a technological architecture that ensures interoperability among the geospatial information systems of the State.
2. Establish a strategic plan within 1 year to incentivize and promote the effective use of geospatial information in decision-making, ensuring its efficient and responsible utilization, aiming to increase its usage by 10% annually.

SDG Data Alliance participation

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Elements	Current situation	Desired or future situation	Gap	Strategy
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