



Geospatial information supporting disaster management

Technical Assistance of ECLAC to the Management Institute for Land Registration and Land Information System - MI-GLIS

Paramaribo, Suriname, 04 to 07 December, 2018

Outline

✓ Background

- Why a framework for geospatial information and services to support disaster management
- UN-GGIM response: Strategic Framework on Geospatial Information and Services for Disasters
- Converging to global policies on sustainable development and disaster risk reduction
- Disaster risk reduction within the Agenda 2030

✓ Strategic Framework on Geospatial Information and Services for Disasters

✓ Priorities for action

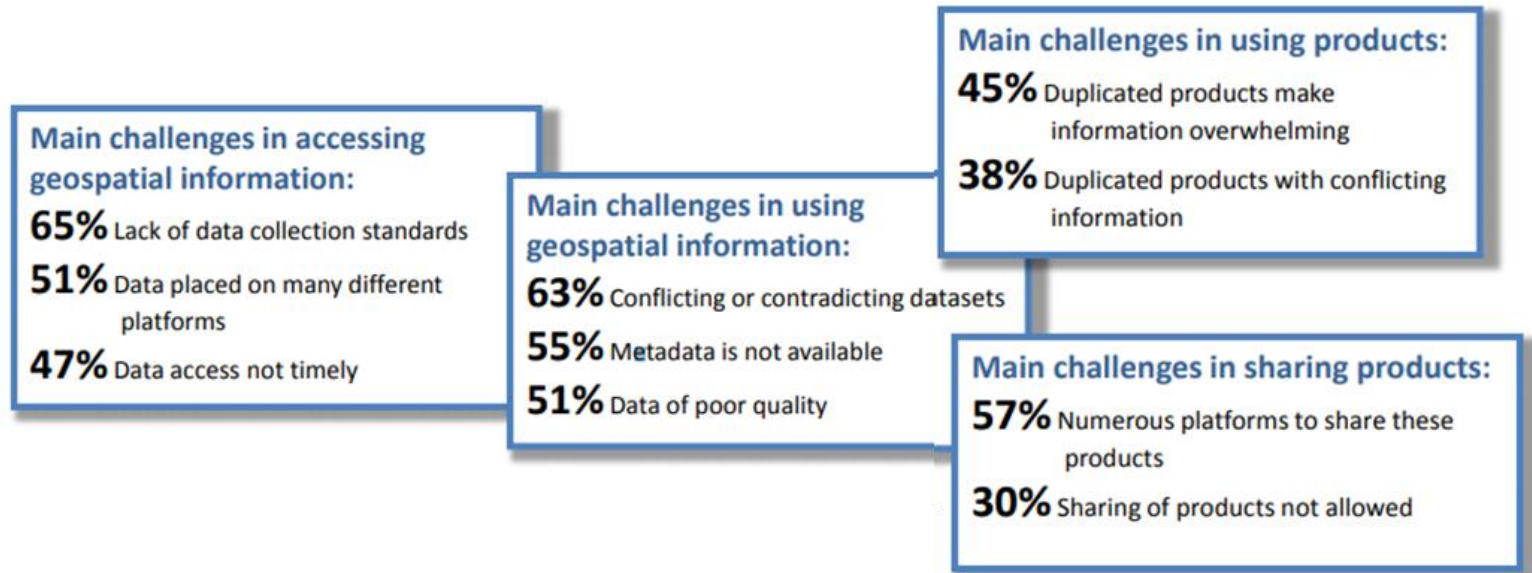
- Governance and policies
- Awareness raising and capacity building
- Data management
- Common infrastructure
- Mobilization of resources

Why a framework for geospatial information and services to support disaster management

Mechanisms and **resources are generally not in place** before a crisis happens. As a result, the many actors simultaneously engaged in the response are:

- Generating an important volume of **concurrent and frequently overlapping** geospatial information initiatives;
- Adding to the burden of the local institutions which already have to deal with limited resources and this because of their competing priorities, combined with a lack of coordination and collaboration

Why a framework for geospatial information and services to support disaster management



UN-GGIM response: Strategic Framework on Geospatial Information and Services for Disasters



UN-GGIM > Working Group on Geospatial Information and Services for Disasters

A. Chair



Mr. Peter Tiangco
Administrator
National Mapping & Resource Information Agency
Philippines

B. Vision and Scope

1. **Vision:** Accurate, timely and reliable geospatial information and services are available, in a coordinated way, to decision makers and operational leads prior to, during and post disasters.
2. **Scope:** Develop a strategic framework that brings all stakeholders and partners involved in Disaster Risk Reduction and/or Emergency Management together to ensure for the necessary geospatial information and services to be available, of quality and accessible in a coordinated way to decision making and operations prior to, during and post disasters.

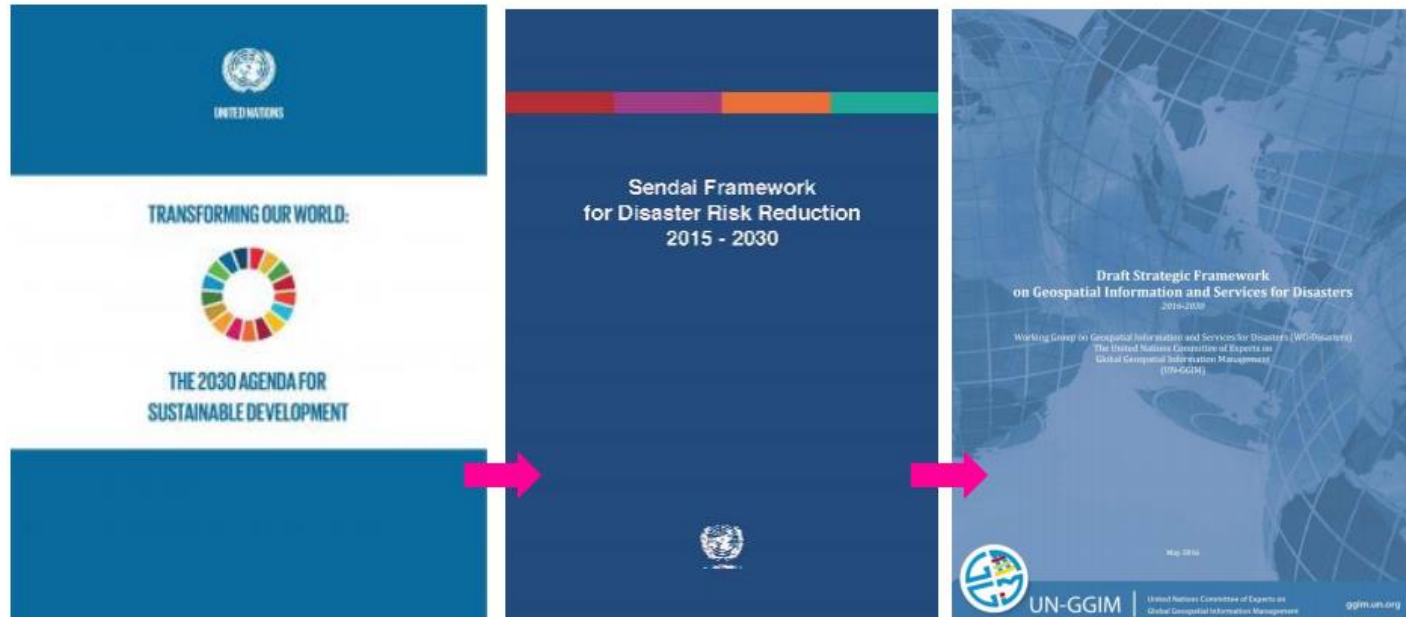
UN-GGIM response: Strategic Framework on Geospatial Information and Services for Disasters

Formulated by the WG-Disasters to further the contribution of geospatial information and services in DRRM

Defined as 'UN-GGIM's **guiding policy document** that brings all stakeholders and partners involved in DRRM together to ensure that the **necessary quality geospatial information and services are available and accessible** in a coordinated way to decision-making and operations before, during and after disasters'



Converging to global policies on sustainable development and disaster risk reduction



Source: UN-GEI Working Group on Geospatial Information and Services for Disasters

Disaster risk reduction within the Agenda 2030



25 targets directly and indirectly to disaster risk reduction and management (DRRM) in 10 of the 17 SDGs, firmly establishing the role of **DRRM as a core development strategy**

Strategic Framework on Geospatial Information and Services for Disasters

Expected Outcome

The human, economic and environmental risks and impacts of disasters are **prevented** and **reduced** through the use of geospatial information and services

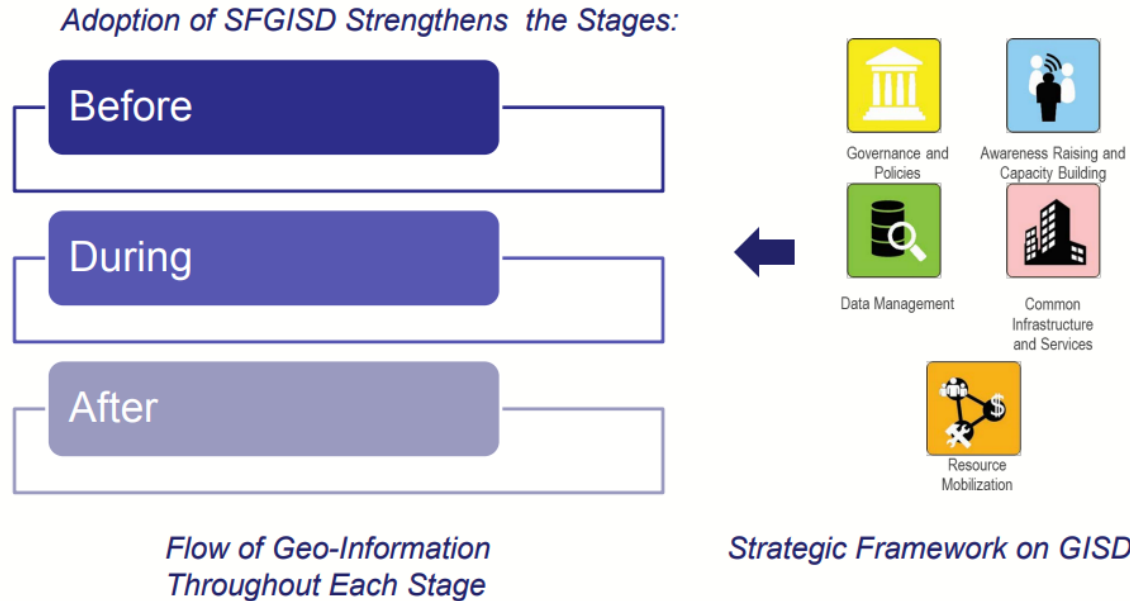
Goal

Quality geospatial information and services are **available and accessible in a timely and coordinated way** to support decision making and operations within and across all sectors and phases of the emergency cycle

Strategic Framework on Geospatial Information and Services for Disasters



Strategic Framework on Geospatial Information and Services for Disasters



Strategic Framework on Geospatial Information and Services for Disasters



implementing the framework will result in the achievement of all GIM-related initiatives cited in the Sendai Framework



all these interventions contribute to the SDGs of the 2030 Agenda.



potential areas for collaboration between and among the three instruments.

Priorities for action: Governance and policies



Governance and Policies

- refers to the framing, implementing and monitoring decisions to make available and accessible all quality geospatial information and services across all phases of the emergency cycle
- specific activities:
 - Assessment and Planning;
 - Institutional Arrangements, Collaboration and Coordination; *and*
 - Monitoring and Evaluation

Priorities for action: Governance and policies

- ✓ Ensure **political and financial support** at the highest level for the successful implementation of the five priorities for action.
- ✓ **Identify the national entity** that will oversee the implementation of the five priorities for action and ensure an inclusive participation of all stakeholders.
- ✓ Establish and maintain **open channels of communication** with the objective of improving coordination, collaboration and exchange of information.
- ✓ Conduct **situational assessment** and analysis of the **availability, accessibility and usage** of quality geospatial information and services.

Priorities for action: Governance and policies

- ✓ Develop and implement plans and programs aimed at **establishing or strengthening the availability, accessibility and usage of quality geospatial information** and services across all phases of DRM
- ✓ Develop and implement **laws and policies** to bind all efforts in a systematic and consensus-based roadmap.

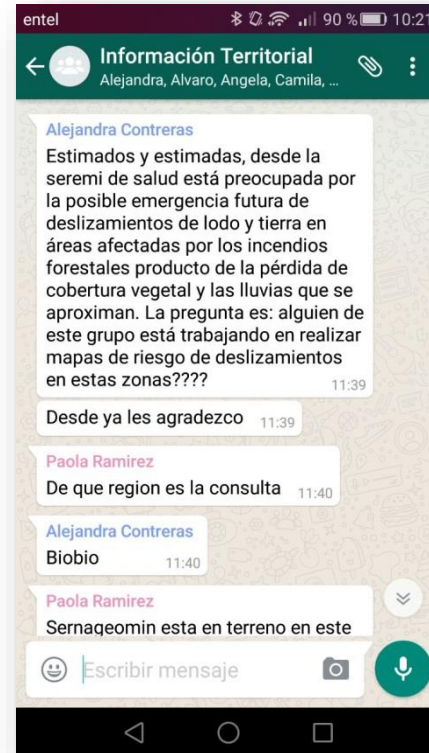
Priorities for action: Governance and policies



Priorities for action: Governance and policies

Communication means

Whatsapp for the working group on geospatial information for disasters



Priorities for action: awareness raising and capacity building



**Awareness
Raising and
Capacity Building**

- refers to the improved understanding and appreciation of geospatial data and information as a vital element of DRRM

Priorities for action: awareness raising and capacity building

- ✓ To translate geospatial information and services into components that can **easily be understood** by a wider audience.
- ✓ Examine the capacities of entities to provide training and match them with **inventories of existing skills** among stakeholders and other key partners.
- ✓ Promote the inclusion of geospatial information management as applied to DRM in **academic programs**.
- ✓ Strengthen competencies in establishing **spatial data infrastructures** and **open data platforms** for geospatial information and services.
- ✓ Identify and assess **laws, policies and institutional gaps** for all awareness raising and capacity building initiatives.

Priorities for action: awareness raising and capacity building

Noticias

2018 2017 2016 2015 2014 2013 2012 2011 2010 2009 2008 2007 Anteriores

Consejo de Ministros de la Información Territorial resuelve paso adelante en materia de emergencias y desastres

Por: IDE Chile - Jueves, 23 Junio 2016


4.0/5 Rating (2 votos)

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 Me gusta 0

Una exitosa sesión del Consejo de Ministros de la Información Territorial se realizó hoy en las dependencias del Ministerio de Bienes Nacionales, oportunidad en la que se resolvió dar soporte institucional a los grupos multisectoriales para el manejo de información territorial en situación de emergencias y desastres, elaboración de cartografía única de ejes de calles, e integración de datos e información de aguas oceánicas.

Priorities for action: data management



**Data
Management**

- refers to the comprehensive methods of collecting and managing geospatial data and information
- specific activities:
 - Data Development;
 - Data Standards and Protocols; *and*
 - Data Use Guidelines.

Priorities for action: data management

- ✓ Use geospatial information for disaster management as a **major driver for the establishment of the NSDI**.
- ✓ Develop a **common and accessible database system** of minimum/baseline geospatial information and services requirements.
- ✓ Develop **data management policies**: collection, sharing, classification, custodianship, stewardship, metadata; backup and other
- ✓ Develop **hazard, vulnerability and disaster risk assessment maps** and other information products as crucial inputs to national and local DRM plans

Priorities for action: data management

- ✓ Promote the importance of **integrating geospatial data and statistics** in DRM plans and programs.
- ✓ Identify and assess laws, policies and institutional gaps for all data management initiatives.
- ✓ Encourage the **Open Data community** and **government institutions** to engage more actively with each other for complementation and alignment of their respective datasets.
- ✓ To develop **use cases** and data/information product templates to answer high level process needs for geospatial information in DRM.

Priorities for action: data management

Protocolo para la generación, traspaso,
análisis y publicación de información
geoespacial durante emergencias
producidas por desastres.

Grupo de Trabajo Multisectorial para la Información del Territorio
en la Gestión de Emergencias y Desastres (GTM)

Y
Secretaría Ejecutiva del Sistema Nacional de Coordinación de
Información Territorial

Junio 2016

- **Annex 1** - Institutions that participate by type of disaster
- **Annex 2** - Process diagram
- **Annex 3** - Layers of territorial information sheets
- **Annex 4** - Use of file repositories and map viewer
- **Annex 5** - Glossary of terms
- **Annex 6** - Steps to include attributes in layers
- **Annex 7** - Unique Geo/Admin Code

Priorities for action: data management

[illegible]

Unidad 2)	Química y Biología II			
Evento (Cronológico)	200000			
Sistema de Referencia	1955-1999 - Cronología Geológica			
Código de Sistema de Referencia (SP 3)	1955-1999 - Cronología Geológica	4000		
Descripción principal de la actividad o evento de referencia, incluido el año correspondiente)	1955-1999 - Cronología Geológica	4010		
	1955-1999 - Cronología Geológica	4020		
	1955-1999 - Cronología Geológica	4030		
	1955-2000 - Cronología Geológica	4070		

	9/04/15 - Día 1711 más 15	2017	
	10/05/1994 - 1711 más 15	2017	
	10/05/1994 (más 15 meses) (Año: 1994, Mes: 5, Día: 10)	2017	
Fecha de último publicación (AAAA-MM-DD) en el Año, mes, día, hora, minutos (segundo)	2015-12-01		
Tiempo estimado de actualización	Actual.		
Atributos (Número de columna)	Descripción:		

CDU/DUA	Capítulo
FUNCIÓN_BAS	Función de información
FICD_CORDA	Función de conexión
FICD_FACT	Función de facturación
SEMIOT	Control del sistema
SEMIOT_EMIOT	Existencia de elementos antes de ejecutarlos operados, no operados o no operados.
SEMIOT_APOT	Activación de elementos, no de operados en: -Términos de Información -Términos de Operación -No Suministro de Información -No Suministro de Operación

Name

Description

Attributes

Update frequency

Resolution

Priorities for action: common infrastructure and services



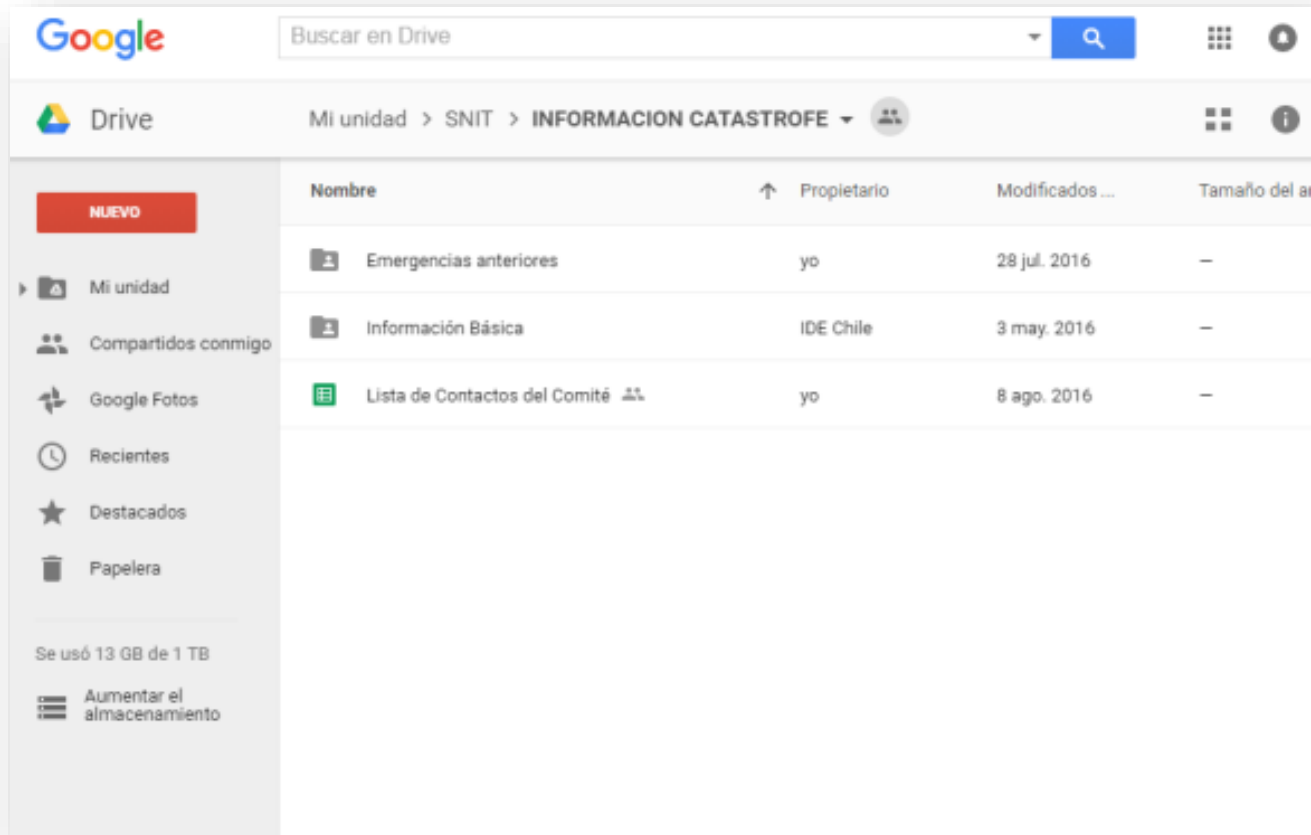
Common Infrastructure and Services

- refers to the hardware, software, network and manpower capacities needed to process and further improve geospatial information and services, as well as the common operations center to be established by national governments
- focused on interoperability of systems and processes to allow geospatial data and information sharing among all actors

Priorities for action: common infrastructure and services

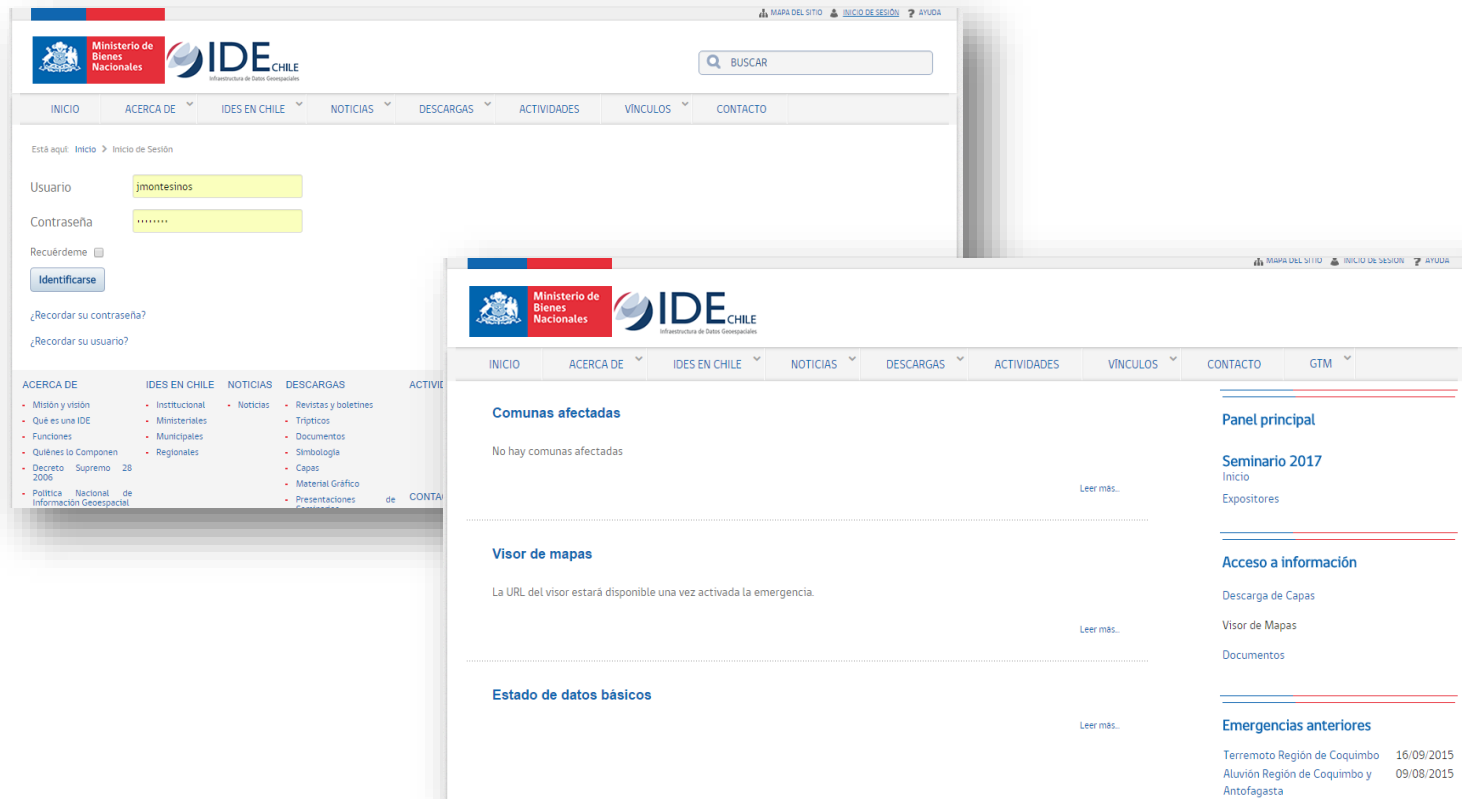
- ✓ **Build on existing systems** to develop a common infrastructure and facility, particularly an operations center supported by a maintenance program.
- ✓ Ensure the interoperability of all systems, processes and skills among and within by adhering to **data management guidelines** and other **geospatial information management standards**.
- ✓ Maintain the integrity of established common infrastructures and services by regularly conducting disaster simulation exercises.
- ✓ Pursue the **application of new geospatial information management technologies**.

Priorities for action: common infrastructure and services



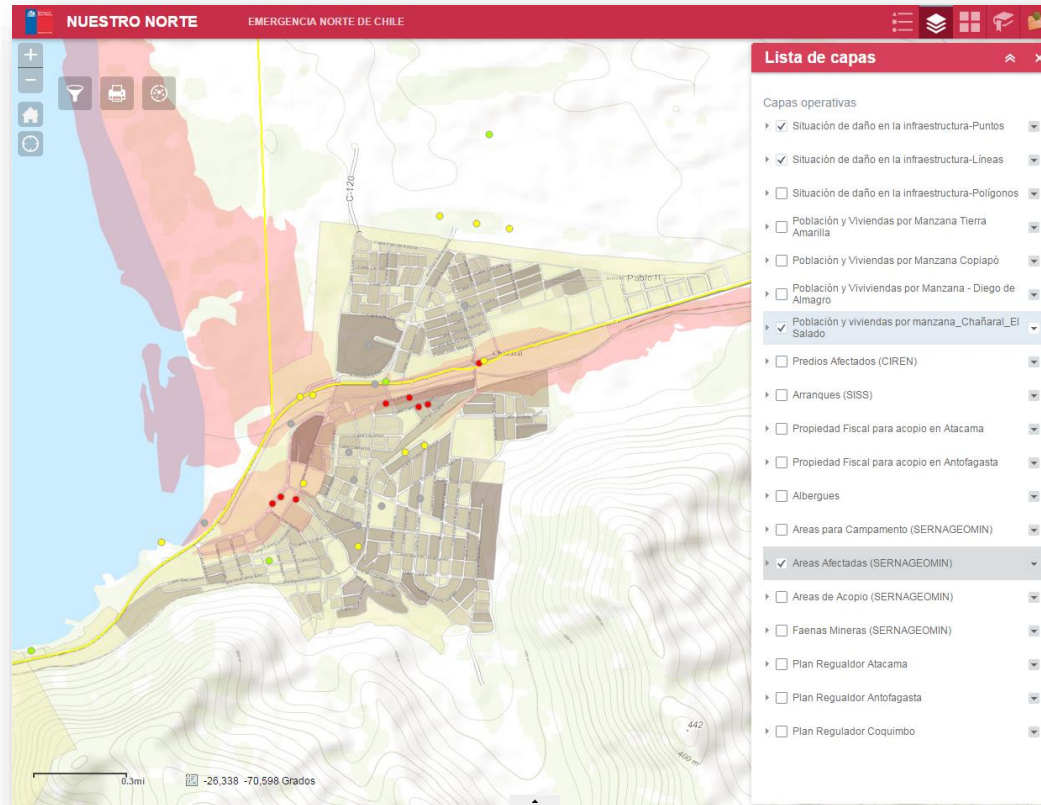
Source: SNIT Chile Executive Secretariat

Priorities for action: common infrastructure and services



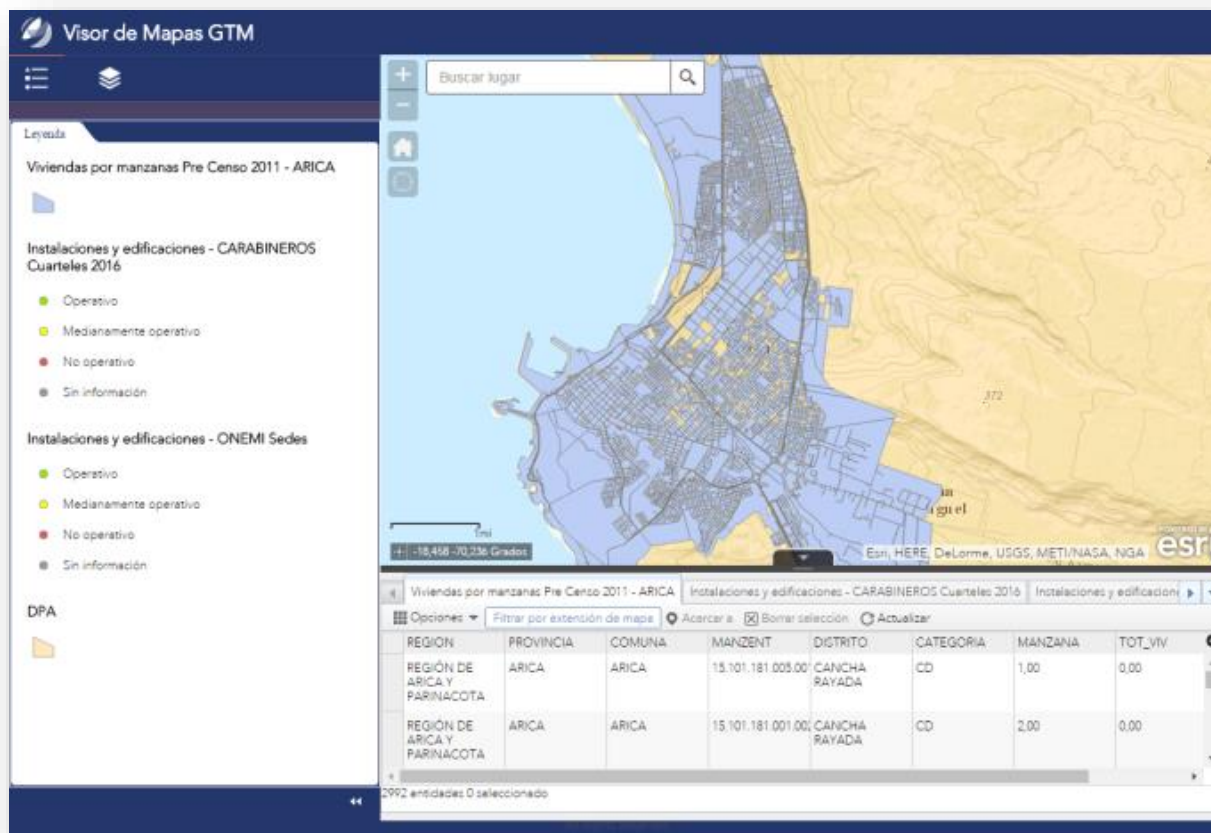
Source: SNIT Chile Executive Secretariat

Priorities for action: common infrastructure and services



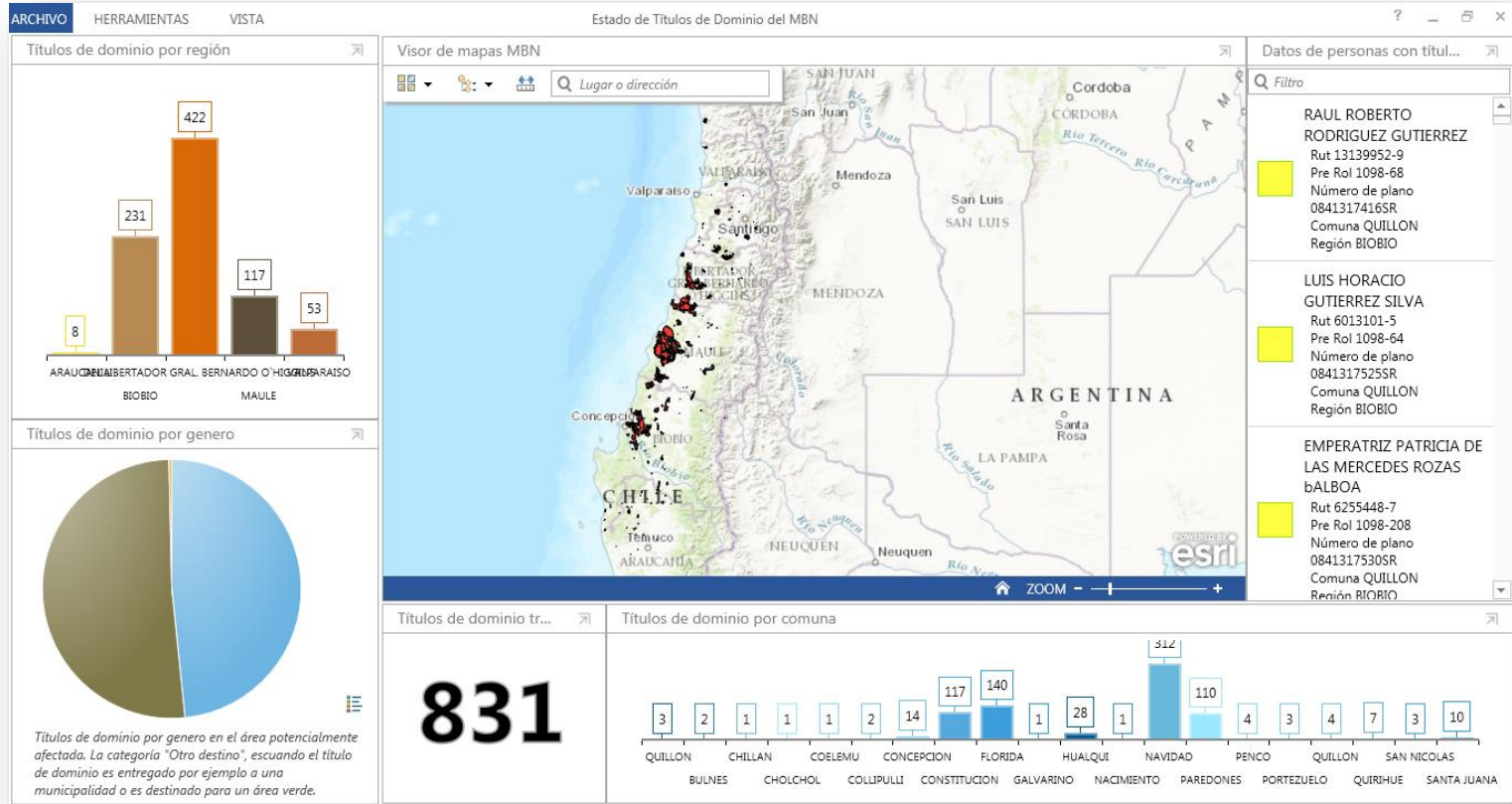
Source: SNIT Chile Executive Secretariat

Priorities for action: common infrastructure and services



Source: SNIT Chile Executive Secretariat

Priorities for action: common infrastructure and services



Priorities for action: resource mobilization



**Resource
Mobilization**

- refers to human resources, as well as technical, financial and other forms of logistical and administrative support required for the creation, improvement and maintenance of all geospatial information and services in order to sustain all DRRM activities.

Priorities for action: resource mobilization

- ✓ Sensitize the authorities on the necessity of funding the **acquisition, maintenance** and **updating** of geospatial information.
- ✓ National Mapping Agencies should play a key role in the **implementation of a NSDI** that supports the availability and accessibility of quality geospatial information and services across all phases of DRM
- ✓ Encourage the academe to prioritize funding for the conduct of **research, development** and **extension activities** related to the strategic framework
- ✓ Encourage the private sectors to invest in the provision of geospatial information and related services for DRM.

Considerations for implementation

- ❑ Member States and other stakeholders should **commit themselves to the full implementation of the priorities for action** by improving their current capacities in providing geospatial information and services across all phases of DRM.
- ❑ Member States should actively **promote the goals of the five priorities for action**, and translate the same into **national implementation plans**.
- ❑ A **participatory and inclusive approach** in generating, improving and managing geospatial information should be employed by all entities involved in DRM efforts.



Thank you !

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