

April 2024

Management of geospatial data and cadastral data in Chile, a pending challenge.

Spatial Data Infrastructure from the Ministry of National Assets (IDE MBN)

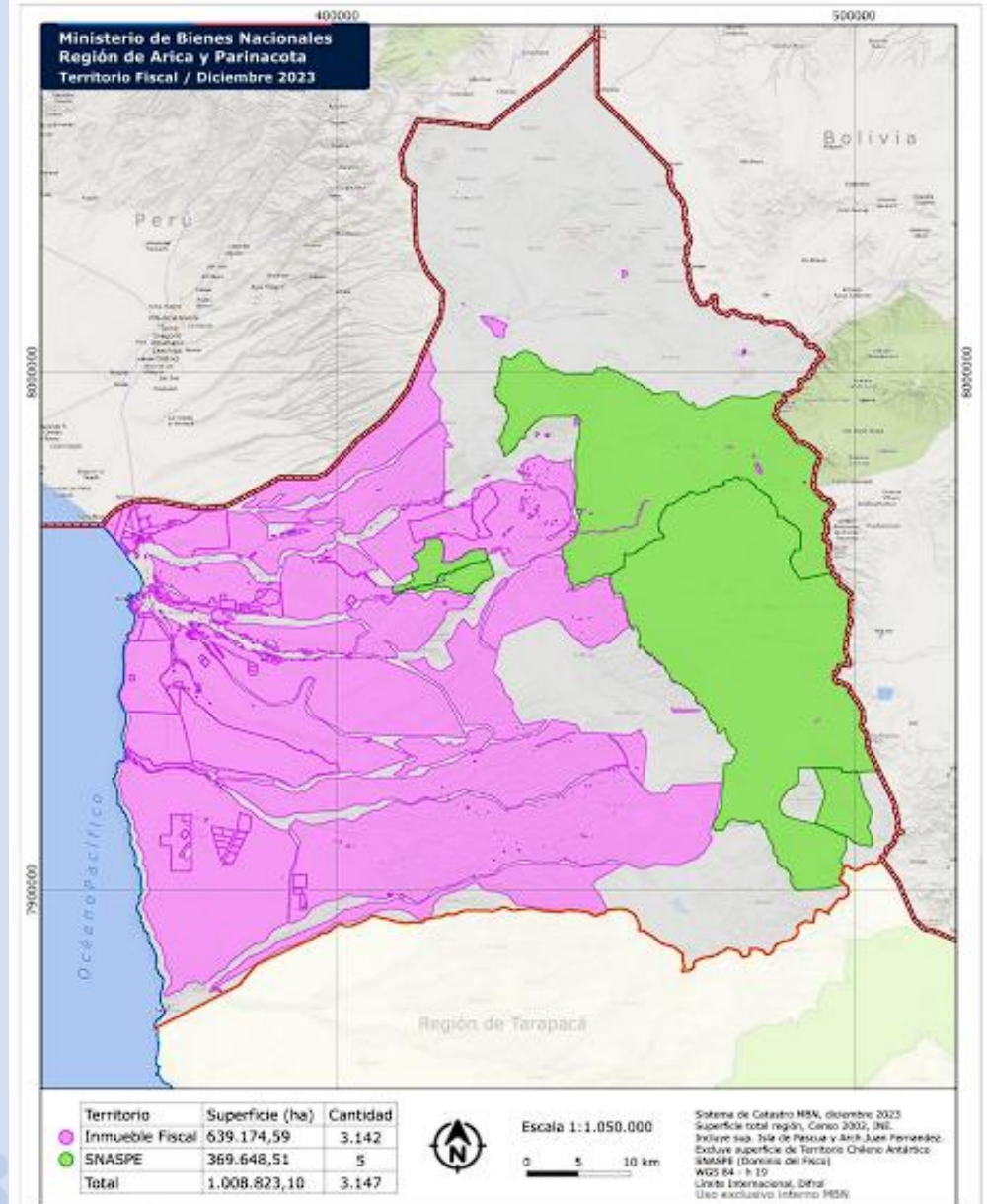
Raffaella Anilio Olguín, ranilio@mbienes.cl



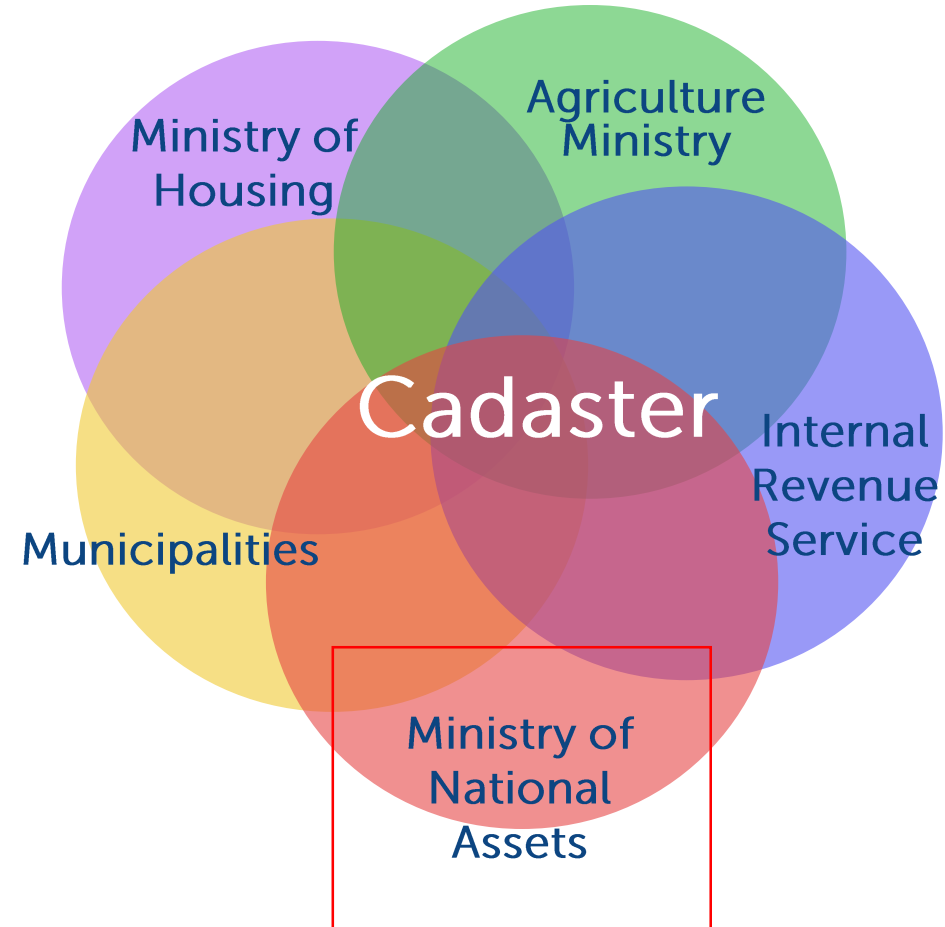
Current situation in Cadaster in Chile

Ministerio de Bienes Nacionales

Mapa – Territorio Regional



Current situation

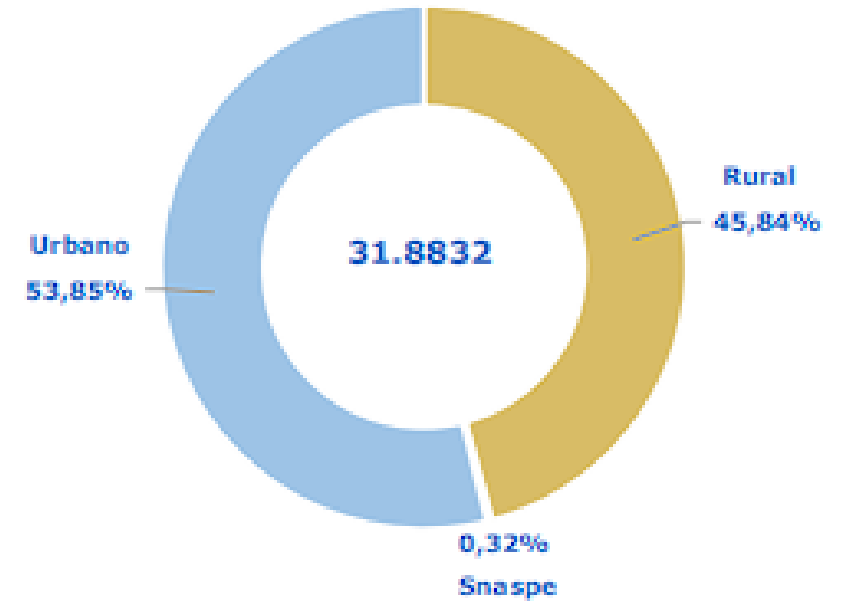
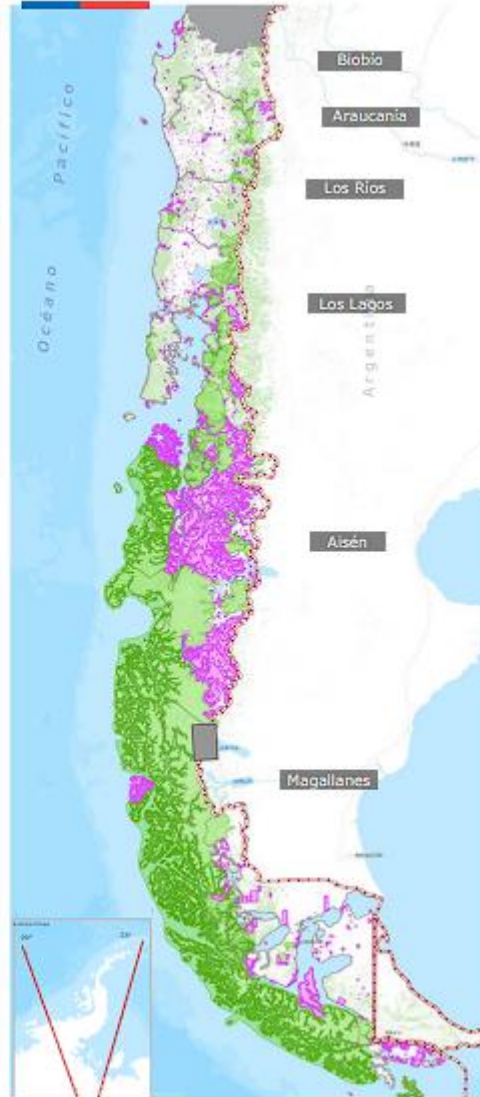


- Multiple institutions feed the national cadaster.
- There is no protocol, methodology or platform to share the cadaster gathered from each one.
- Challenge of data completeness.
- Challenge of data interoperability and accessibility of data and registry systems.
- Challenge of integrating data from multiple sources generating cadastral and property records.
- Challenge of opening cadastral data.
- Multipurpose Cadastre Challenge.
- Cadastre Law Challenge: defining a single entity responsible for the national multipurpose cadaster or established mechanisms to gather the data



Ministry of National Assets

- It is responsible for the generation of the fiscal property cadaster (54% of the national territory).



54% urban fiscal property
46% urban fiscal property



Ministry of National Assets

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NATIONAL ASSETS

Acquisition, management, and disposal of public assets. (beaches, rivers, streets, bridges, etc)

CADASTER UNIT

Conservation, and updating of the National Cadastre of fiscal property, as well as in surveying and geodesy works.

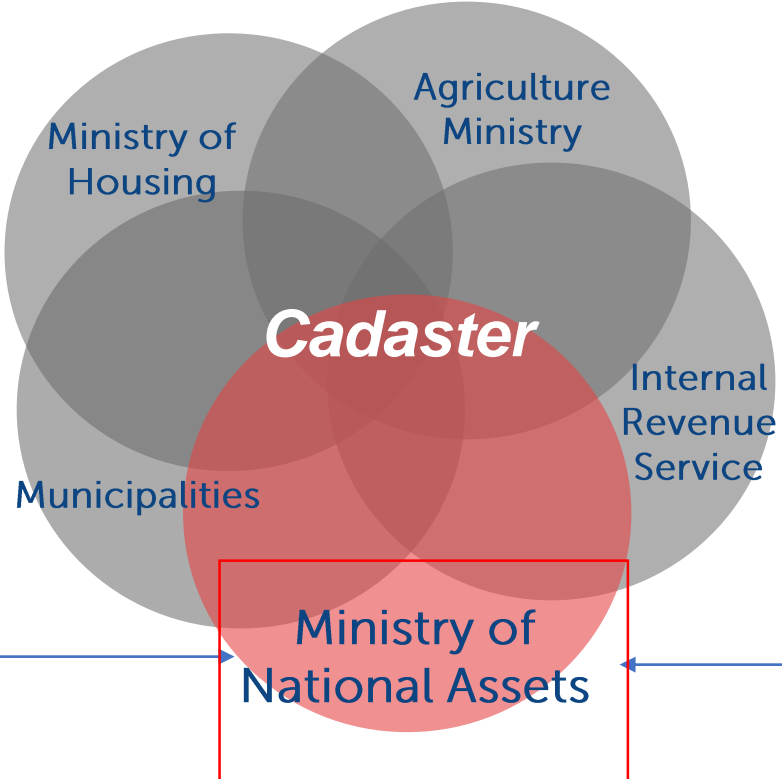
SMALL PROPERTY REGULARIZATION

Bring properties into compliance, to grant titles to citizens so they become owners and improve their quality of life.

This main 3 areas produce around **36 procedures** relevant for the citizens, but most of the data generated by this units do not follow standards and it is not interoperable, digitalized or geospatially enabled.



Advantages of our Ministry



(National SDI)
Ministerio de Bienes Nacionales
IDE CHILE
Infraestructura de Datos Geoespaciales

- Funded in 2006
- Aims to coordinate data access with other 107 public and private institutions

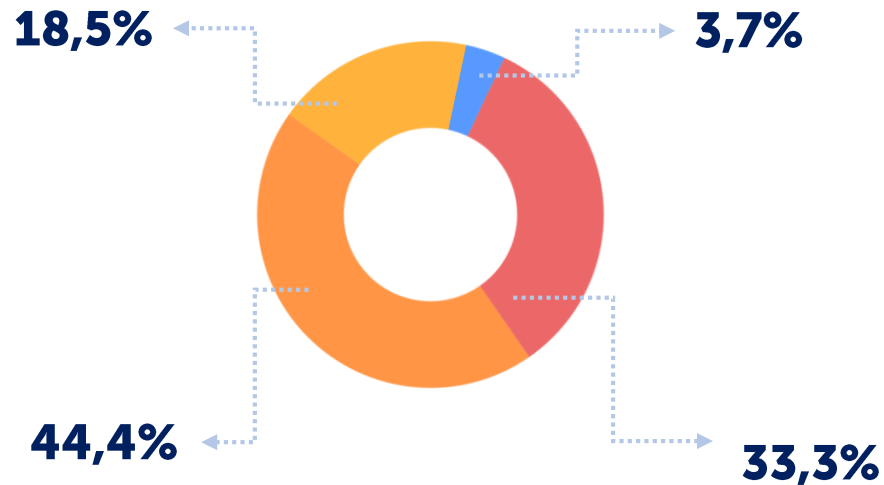
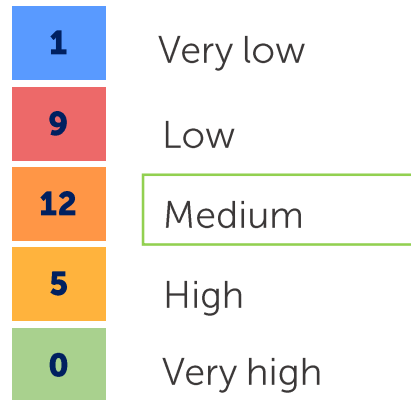


(Ministry SDI)
IDEMBN

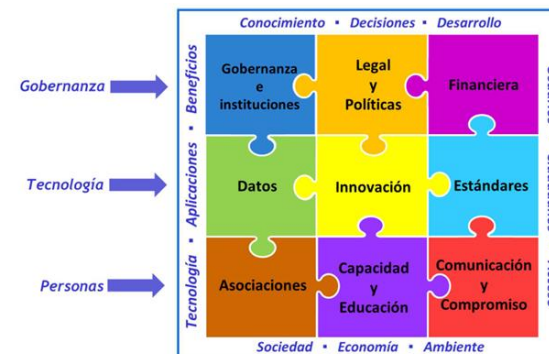
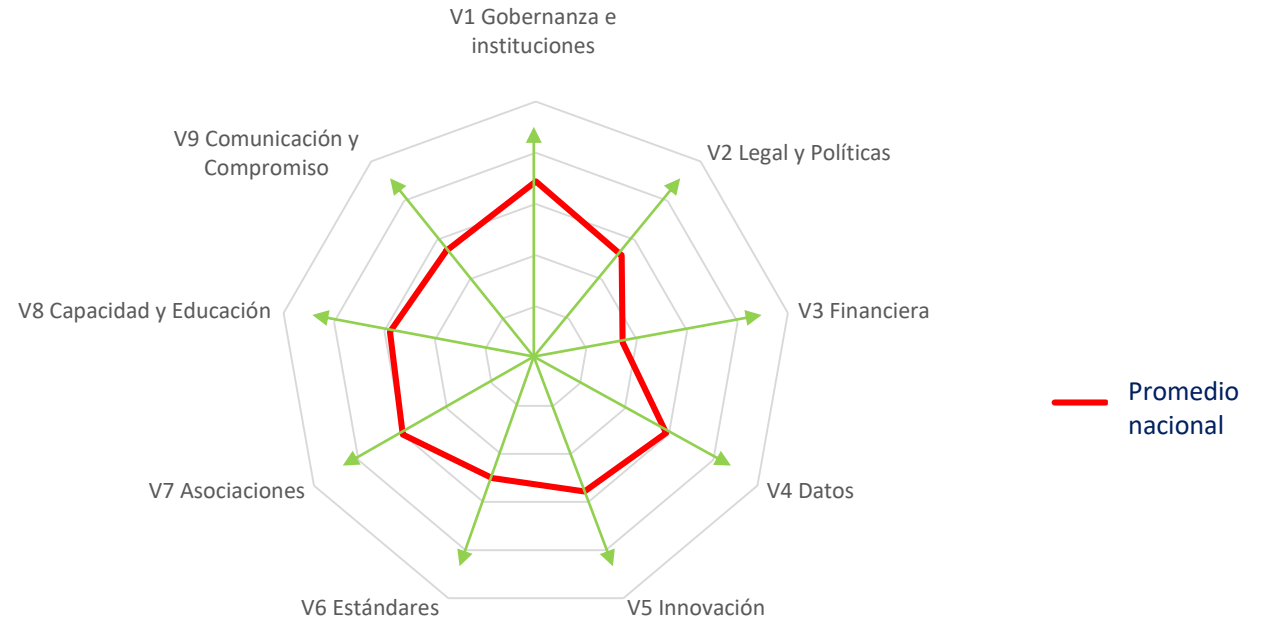
- Funded in 2018, formalized in 2022.
- Aims to support the data management of the Ministry, (interoperability, quality, completeness, readability, between others)

Chile SDI / IDE Chile UN-IGIF Diagnosis

Level of ministries and regional governments managing geospatial information



Evaluación IGIF – IDE Chile



Advantages of our Ministry: Chile SDI

National Geospatial Information Policy



MARCO INTEGRADO DE
INFORMACIÓN GEOESPACIAL

Strategic Axis 1: "Generation of Geospatial Information":

- Definition of strategic data
- Governance model
- Ensuring high-quality information
- Strengthening coordination
- Having reliable information
- Interinstitutional cooperation and interoperable platforms.

Strategic Axis 2: "Access, Management, and Use of Geospatial Information":

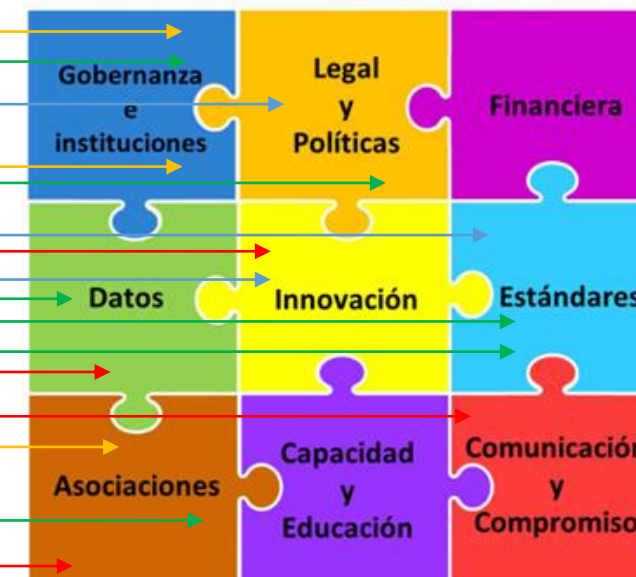
- Access to reliable and transparent data
- Promoting technological tools
- Strengthening links with academia and citizens
- Communication plan reinforces cooperation and participation.

Strategic Axis 3: "Interoperability of Data and Systems":

- Data interoperability through standards and technical norms.
- Innovative tools
- Executive Secretariat of the Chilean IDE leadership

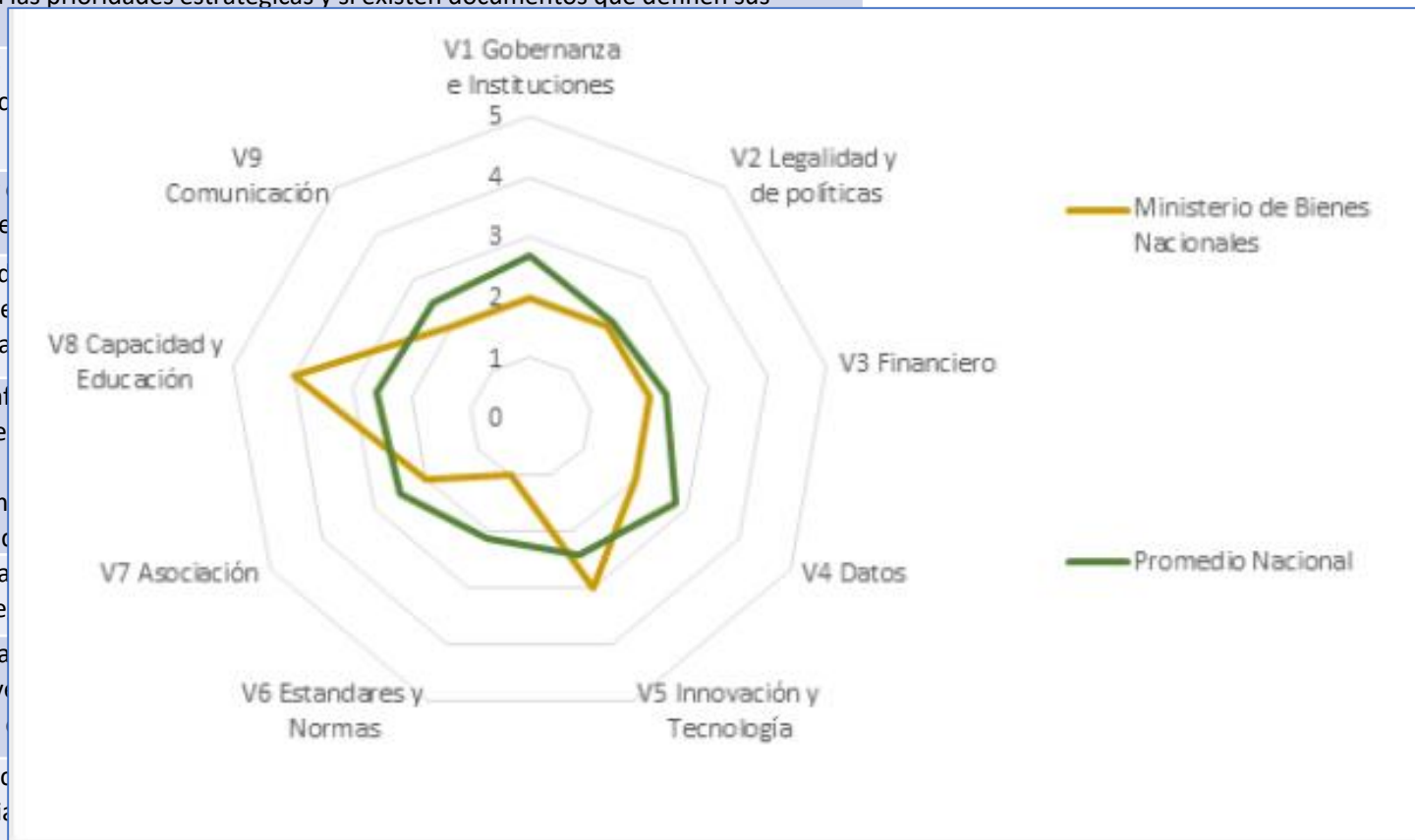
Strategic Axis 4: "Institutional Framework":

- Solid framework of responsibilities and governance,
- Strengthening leadership
- Seeks to align national and international regulatory frameworks.



¿How is the Ministry of National Assets achieving the implementation of the UN-IGIF?

	Vía Estratégica	Nivel reportado	Details
1	Gobernanza e instituciones	Low	Esto se debe principalmente a la falta de nombramiento oficial en la coordinación, y a la propia evaluación que la representante le otorga a su IDE. De Todas maneras, IDE MBN da soporte a las prioridades estratégicas y si existen documentos que definen sus funciones y roles de coordinación.
2	Legal y Políticas	Low	De acuerdo con lo informado, existe una formalización de además recién se está trabajando en alguna norma, política la IDE MBN esta nombrada por resolución.
3	Financiera	Low	Si bien existe un presupuesto asignado, se podría avanzar este aspecto, y también generar acuerdos o coordinaciones.
4	Data	Low	Los datos están identificados (Propiedad fiscal administrativa) objetivos estratégicos, y se han logrado identificar las necesidades esta vía aun se encuentra en nivel bajo, y hay mucho trabajo.
5	Innovación y Tecnología	Medium	La institución cuenta con software no licenciado para la integración almacenamiento y visualización de datos e información geoespacial operatividad de los datos. Se ha estimado en el presupuesto 2024 desarrollos informáticos integración software de gobierno digital. La interoperabilidad.
6	Estándares	Very Low	Es necesario activar este parámetro con acciones concretas de gestión. Se está trabajando en el primer Manual que regula.
7	Asociaciones	Low	Es necesario activar este parámetro con acciones concretas recientemente se está trabajando en avanzar con un convenio Comité Técnico de la IDE Chile y en la Conferencia, donde se.
8	Capacidad y Educación	High	Desde la coordinación se ha manifestado la necesidad de cubrir necesidades específicas de perfiles de trabajo como especializaciones capacitaciones geoespaciales hacia los funcionarios. Existe una valoración positiva en los funcionarios participantes de la IDE MBN.
9	Comunicación y Compromiso	Low	Comunicación geoespacial vía correo electrónico, además no existe una estrategia de difusión, tampoco hay instancia para acercar a la ciudadanía al quehacer geoespacial institucional. Desde la IDE Chile, se detectaron los portales de https://ide.bienes.cl/ donde se dispone de información estratégica para la gestión de geoespacial.



Challenges – Recent experience

Wildfires in Viña del Mar, February 2024

Ministerio de Bienes Nacionales



Challenges – Recent experience

Wildfires in Viña del Mar, February 2024



Fuente: Ministerio de Vivienda y Urbanismo



Affectation

- 11.349,2 hectares
- 8.188 households
- 21.229 persons



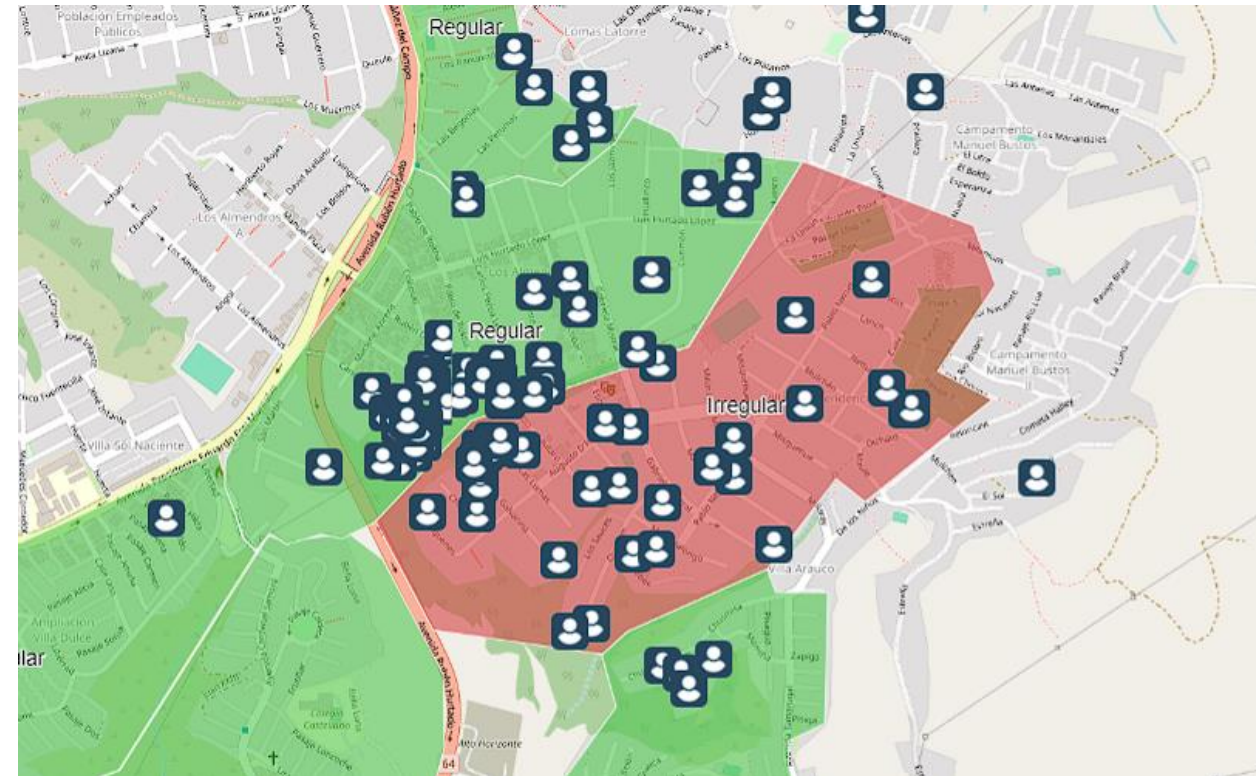
Challenges – Recent experience

1. Dissagregated cadaster

Some common authority questions:

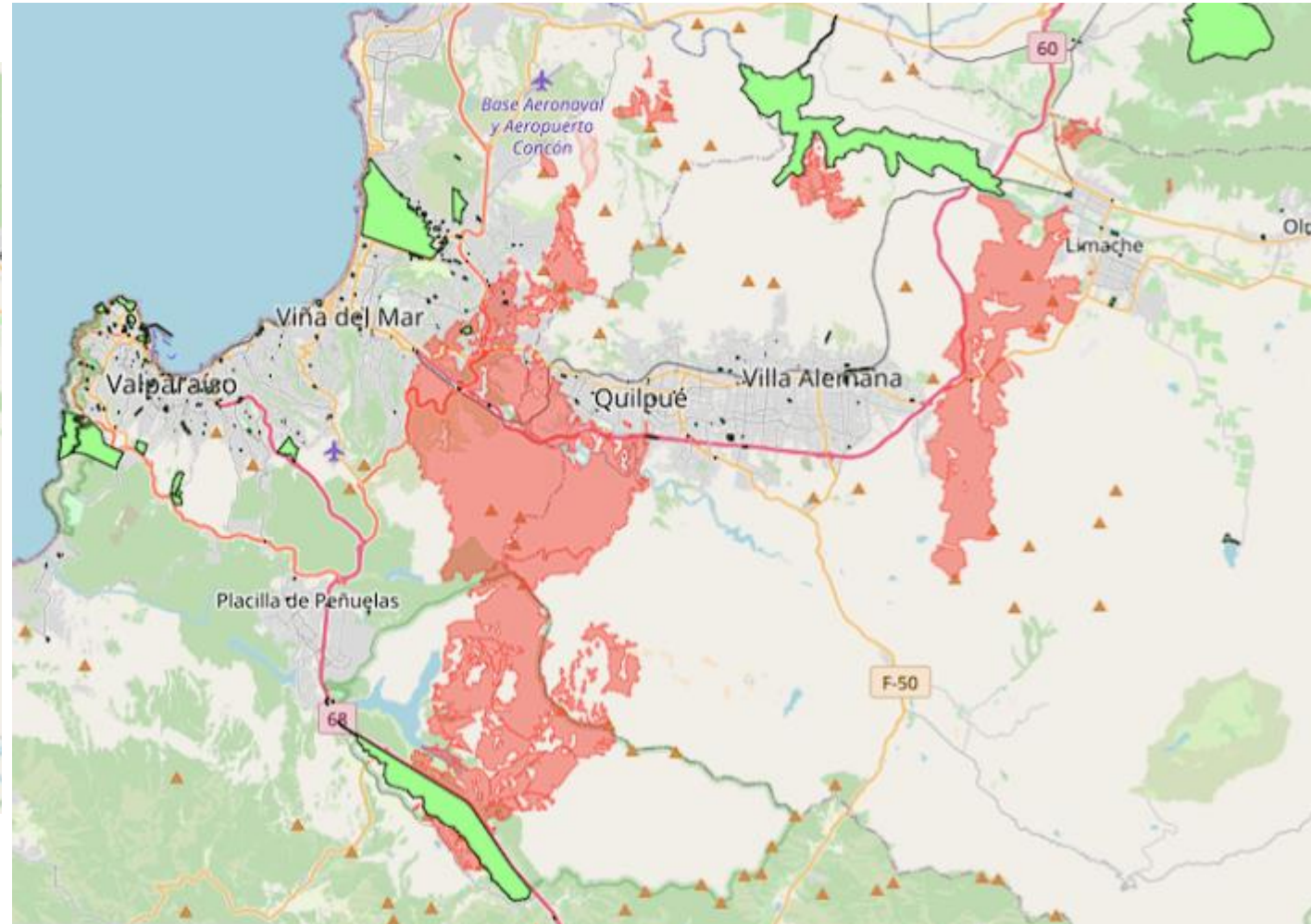
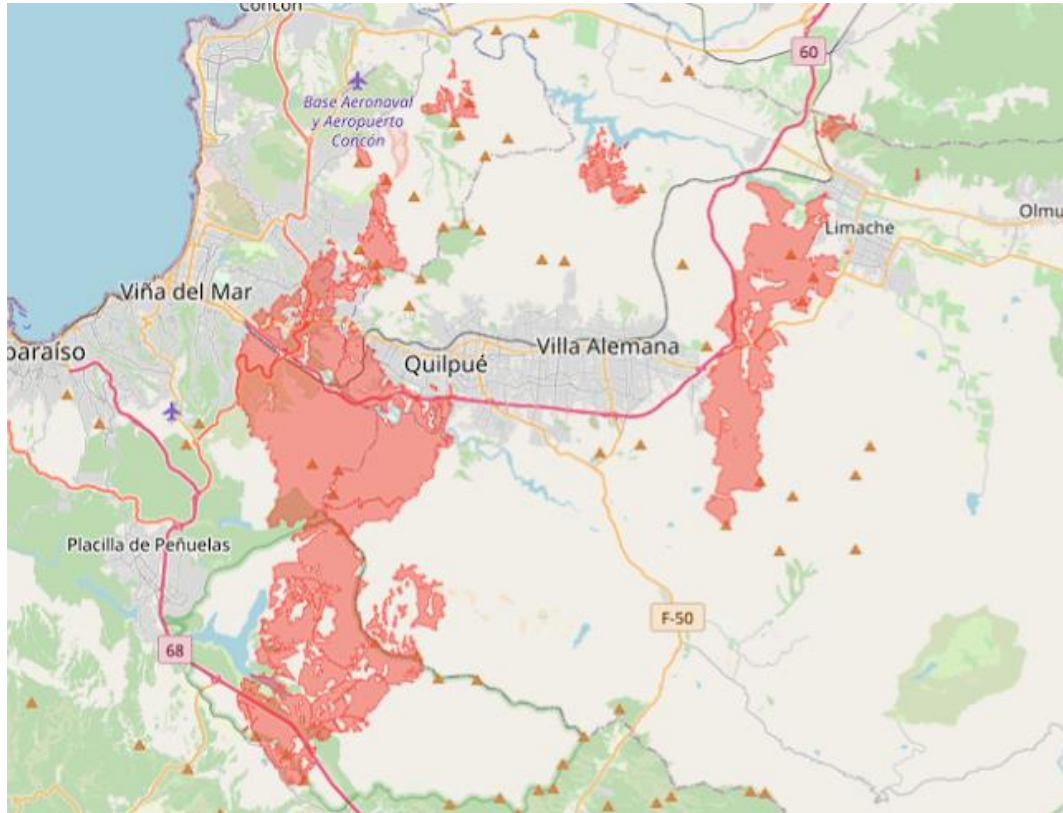
- ¿How many households with domain titles were affected?
- ¿How many parcels affected that were going through procedure of regularization?
- ¿How many domain titles are we going to make effective?
- ¿How it will be defined what domain titles to be successfully approved?

2. Lack of fundamental data



Challenges – Recent experience

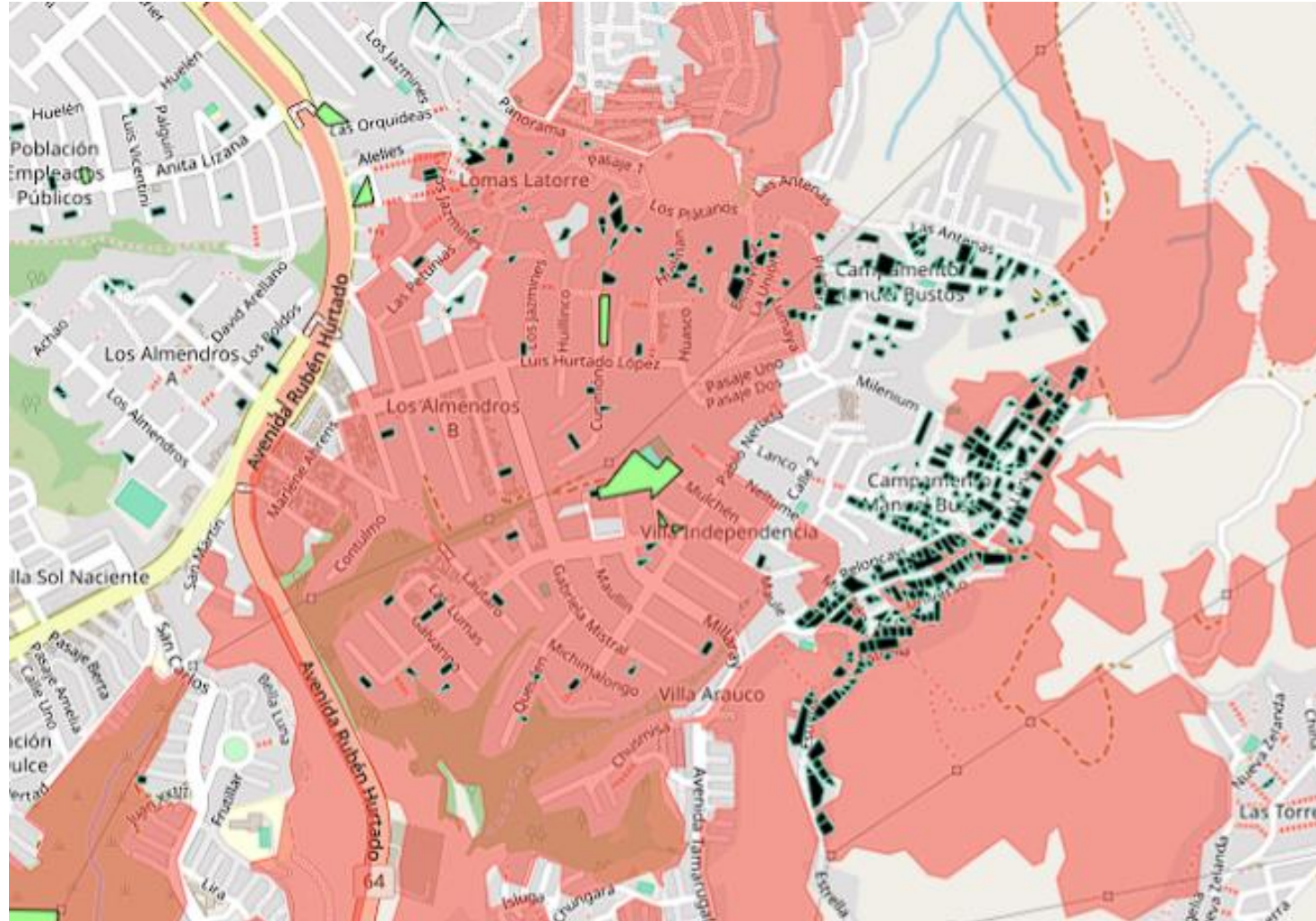
Wildfires in Viña del Mar, February 2024



State Owned Property

Challenges – Recent experience

Wildfires in Viña del Mar, February 2024

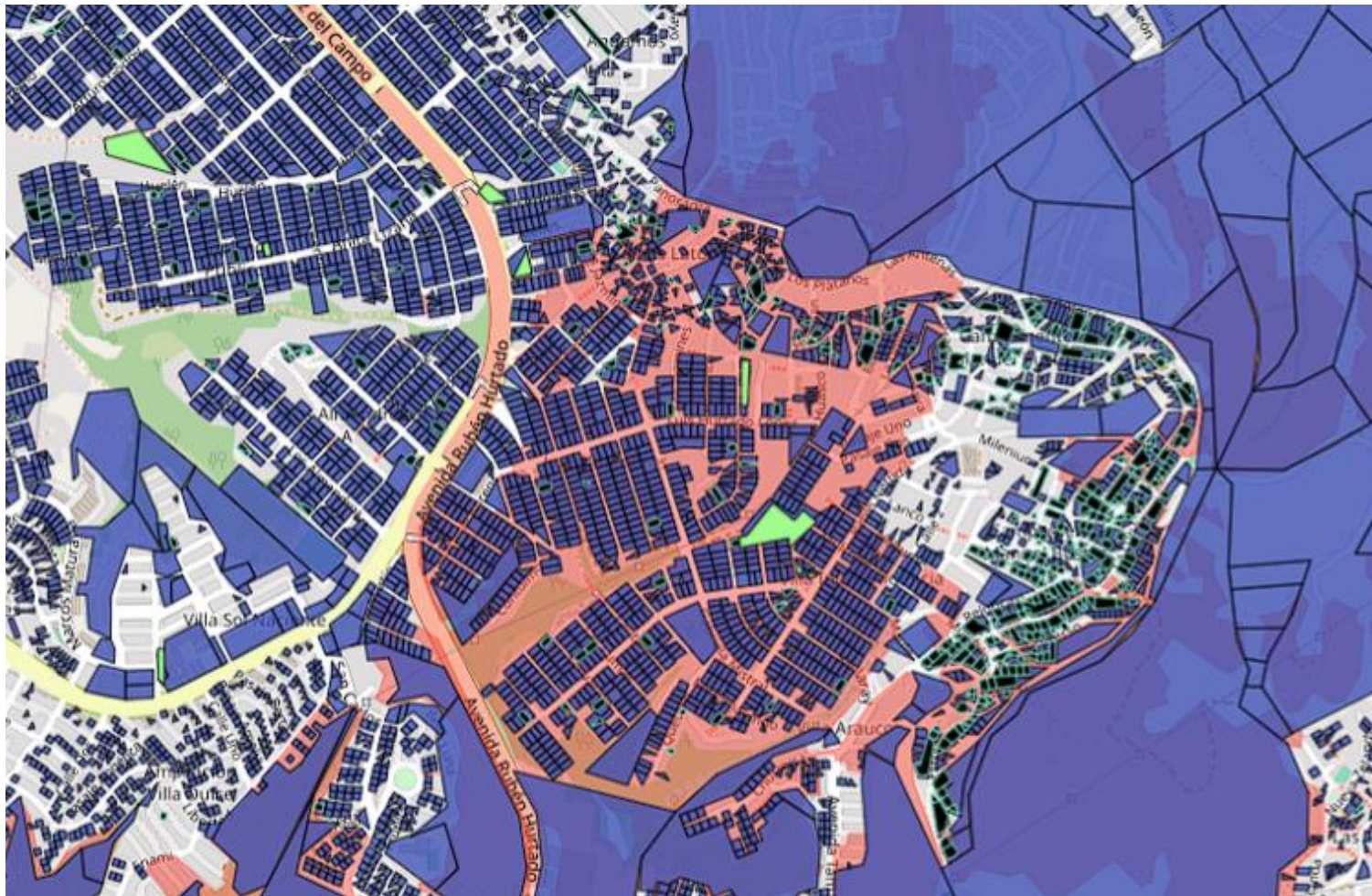


Domain title procedures requests



Challenges – Recent experience

Wildfires in Viña del Mar, February 2024



Private property parcels

- **Data that we could not officially obtain.**
- **Difficulty to estimate accurate numbers**
- **Our incomplete data could be benefited by these polygons.**



FELA / MBN

N	FELA suggests land administration must:	Chilean current situation
1	Develop confidence and trust, promote security, safety, peace and peace building;	1939/1977 Decree Law. 2695/1979 Decree Law
2	Accelerate the proportion of population with tenure security;	1939/1977 Decree Law. 2695/1979 Decree Law
3	Allow economic development by supporting land value capture revenue systems that are equitable and transparent.	Managed by other institution. Establish a permanent committee with all cadaster institutions
4	Strengthen multi-disciplinary and multi-sectoral participation to achieve integrated geospatial information;	Chile SDI with over 100+institutions MBN SDI integrated data inside the Ministry
5	Contribute to smart and resilient rural and urban societies, with equitable spatial/land-useplanning, and land development;	The rural land and its cadaster is managed by Agriculture Ministry.
6	Ensure participatory and inclusive land use, and land use planning;	MBN promotes the data collection by the community.
7	Promote the recognition of the inherent rights of indigenous and vulnerable peoples to their lands, territories and resources, and recognise collective traditions, customs and customary tenures, consistent with existing obligations under national and international law;	MBN has a specific Unit for this matter.

Ministry of Natonal Assets

Internal Revenue Service

Agriculture Ministry

FELA / MBN

N	FELA suggests land administration must:	Chilean current situation
8	Encourage efficient, sustainable and fair land markets, where appropriate, that take into account land tenure, value, use and land development aspects;	Managed by other institution. Establish a permanent committee with all cadaster institutions
9	Cater to all circumstances, situations and people – in times of peace and prosperity, in times of stress and hardship (including disaster and conflicts, forced migration and human displacement, poverty, food and water scarcity);	One of the MBN objectives is to provide land for different needs of society.
10	Enable partnerships, bringing and building together knowledge, skills and experiences on land tenure, land value, land use and land development; and	Opportunity to improve
11	Promote preparedness and resilience on climate change issues, and support biodiversity, conservation, and ecosystem sustainability.	MBN created a internal emergency committee.

Ministry of Natonal Assets

Internal Revenue Service

Agriculture Ministry



Next steps



The Strategic Plan 2024, approved on November 2023, established actions in the field of technological innovation, with a particular emphasis on:

1

Data

- Generate de "Data Map" of the Ministry.
- Assist the 16 regions to manage their local data.

2

Interoperability

- Implement architecture tools that allow the interoperability of data between different systems and databases of the Ministry.



Challenges

Implementing conscious management of geospatial data in the MBN. Standardization and normalization.

Establish and maintain coordination of geospatial information.

Train in concepts and tools for handling geospatial data related to land registers.

Implement tools for data interoperability within the MBN.

Improvements

The procedure of regularization of small property now is requiring the input of coordinates

Opportunity

Get to know cases of other countries implementing the FELA framework, in order to analyze if those solutions can be implemented in our Ministry institutionalidad

Thank you

Gracias

Spatial Data Infrastructure from the Ministry of National Assets (IDE MBN)

