



# “INCLUSION OF RESULTS IN THE PROCESS OF PREPAREDNESS THE DISASTER RISK MANAGEMENT IN PERU”.

## RESOURCES INFORMATION SYSTEM FOR DISASTER RELIEF (SIRAD)

### SERVER MAPPING TOOLS

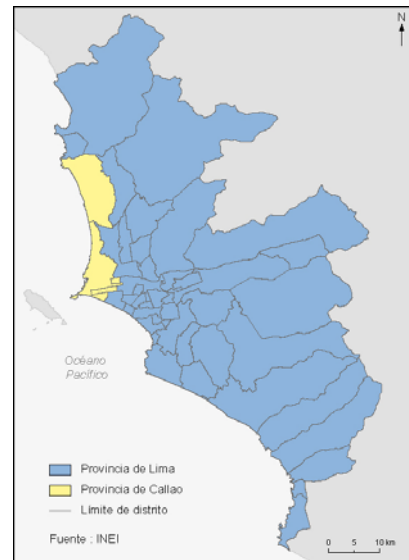


## Proyect SIRAD

Project SIRAD is an Resources Information System for Disaster Relief in which basically it identifies the essential resources that are the most important components of the urban system, in particular the services and the vital infrastructures that support the operation and the supplying the city and its population in case of occurrence of a disaster of big magnitude.

Analyzing the vulnerability of these essential resources for the preparation, rehabilitation and response to disaster.

Contribute to the strengthening of institutional capacities in the areas of preparedness, rehabilitation and response for an adequate and timely decision.



**Environment of the project**  
**Lima Metropolitana y Callao**





# Stages of construction of the Information

## STAGE 1: Identifying Information



## STAGE 2: Base Construction

**UBICACIÓN DE SUBESTACIONES ATIMT EXISTENTES Y PROYECTADAS**

**Asociación de Energía Refinería La Pampilla**

**homogenization**

**Capas de Información  
Con descripción de los  
mismos - tabla  
atributos**

## STAGE 3

## Metadata Construction

Metadata describes the information data (name, date, source, etc.).

Establecimientos de salud			
Nombre del archivo	estable_salud.shp		Lima y Callao" (Proyecto SIRAD Convocatoria PNUD/SDP-052/2009 / 22 de abril - 15 febrero 2011).
Palabras clave temáticas	Establecimientos de salud, atención médica, salud, hospitales	Número de objetos	529
Palabras clave geográficas	Lima / Callao	Número de atributos	51
Resumen	Localización y caracterización de los establecimientos de salud de Lima / Callao en 2010. Panorama actualizado de la oferta de atención médica en el área urbana de Lima / Callao.  Agrupa información de diferentes instituciones: - <del>Mi</del> (Ministerio de Salud); - <del>Es</del> (Seguro Social); - Sanidades (FAP, Naval, Militar, PNP); - Clínicas privadas (solamente con capacidad de hospitalización)	Fecha de la información	2009 / 2010 (salvo excepción)
Marco en el cual se ha creado la información	- Tesis de doctorado de Jeremy Robert (IFEA, <del>Un</del> de Savoie) realizada en el marco del Programa Andino de Capacitación e Información sobre Vulnerabilidad y Riesgos en medio urbano (PACIVUR) del IRD ( <del>In</del> de <del>Re</del> pour le Développement)  - Proyecto "Elaboración de un Sistema de Información Geográfico y Análisis de Recursos Esenciales para la Respuesta y Recuperación Temprana ante la Ocurrencia	Última fecha de actualización de la capa de información	2010 - 10 - 14
		Fuentes	- <del>Mi</del> : Oficina de estadística y de información del <del>Mi</del> , OGDN, DISAS II, IV y V, DIRESA Callao, página web MINSA, página web DISA V y DISA IV, páginas web de Hospitales, Registro Nacional de establecimientos de salud RENAES 2010, encuestas;  - <del>Es</del> : Oficina de Defensa Nacional, página web;  - Sanidades (corresponde a los <del>es</del> , de las Fuerzas armadas y de las Fuerzas de la PNP): Dirección de Sanidad de la PNP, encuestas con los hospitales (Hospital Militar, Naval, de la Fuerza Aérea del <del>Peru</del> (FAP))  - Privados: página web de la Superintendencia de Empresas Prestadoras de Salud (SEPS);  - Municipales: llamadas telefónicas, encuestas;

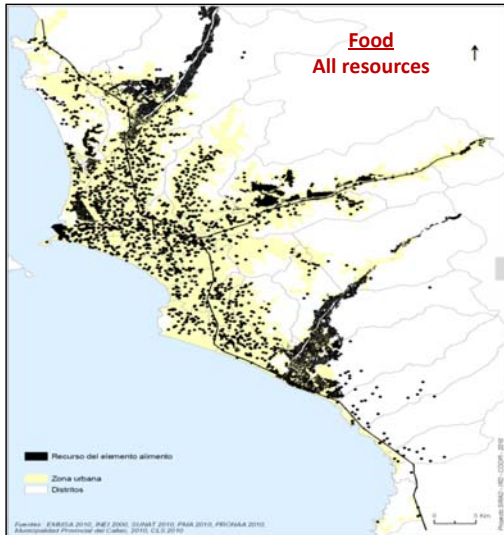


## STAGE 4

### Cartographic analysis

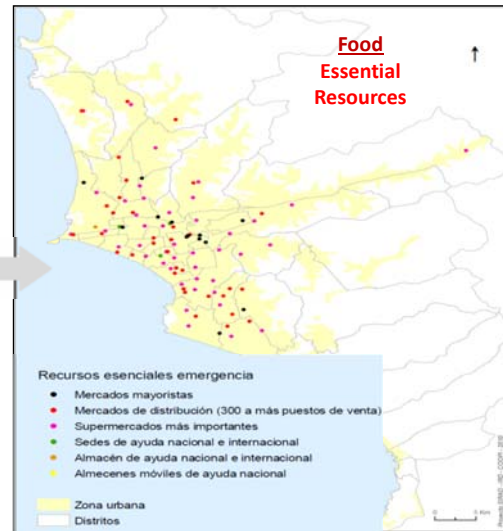
Of all the information identified that permits normal operation of the city, is selected essential resources, which are those that must remain partially or totally upon the occurrence of a disaster.

#### Need for Reflection by Subject



=

#### Essential Resources



## Project Organization

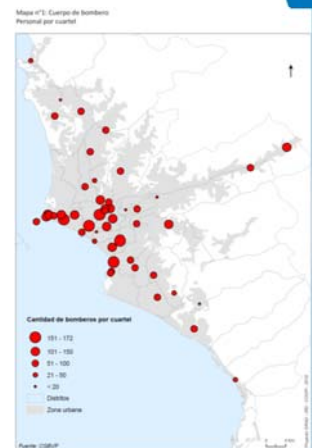
The project was designed to evaluate 14 subjects, which was generated:

120 layers,

614.072 objects

2.352 attributes

To finally design or develop 392 maps



**THEMES (14)**

PELIGROS (SÍSMICO Y TSUNAMI) 1, / 2	AGUA 3	ATENCIÓN DE SALUD 4	ENERGÍA 5	VIALIDAD Y TRANSPORTE 6 / 7	ALBERGUES 8	ESCOMBRERAS 9	CENTROS DE DECISIÓN / INTERVENCIÓN 10 / 11	ALIMENTOS 12	TELECOMUNICACIÓN 13	ÁREAS ECONÓMICAS 14
Seismic hazard Tsunami hazard	Water	Health	Energy	Viability Transport	Shelters	Rubble deposit	Decision centers Intervention centers	Foods	Telecommunications	Economic areas



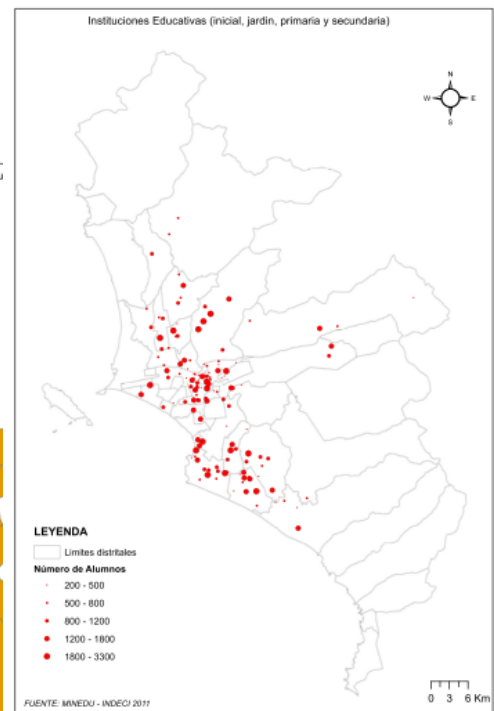
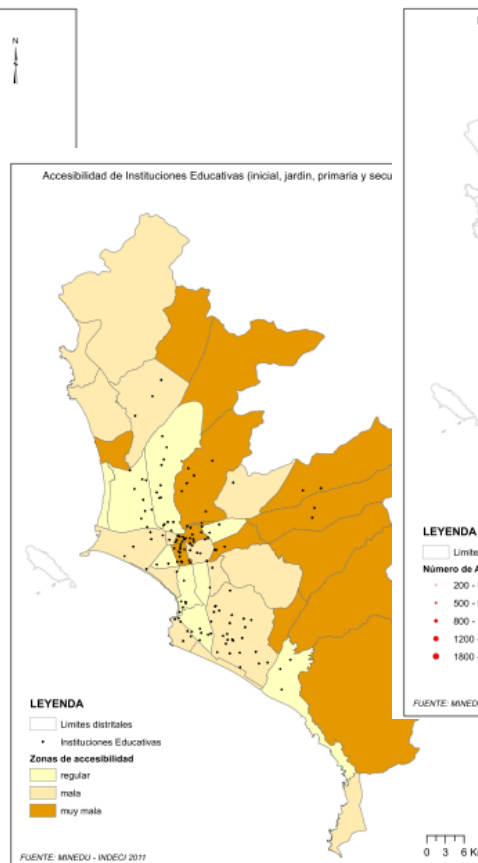
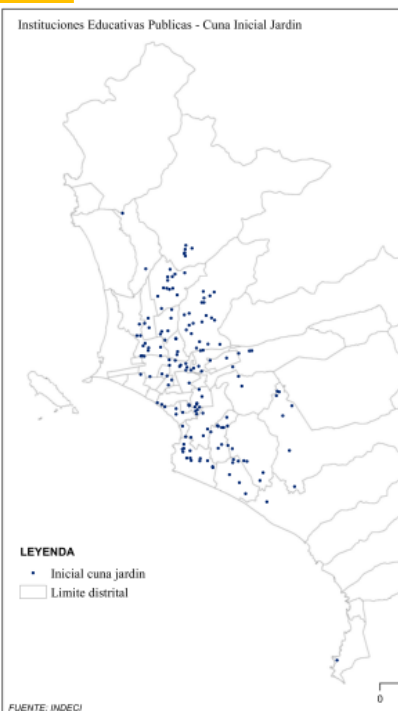
# New Subject Education

## Information layers (6)

- Educative institutions of special education (young with special problems)
- Educative institutions of basic alternative education (young work)
- Educative institution with initial levels
- Educative institution with initial levels and garden
- Educative institution with only primary level
- Educative institution with only secondary level



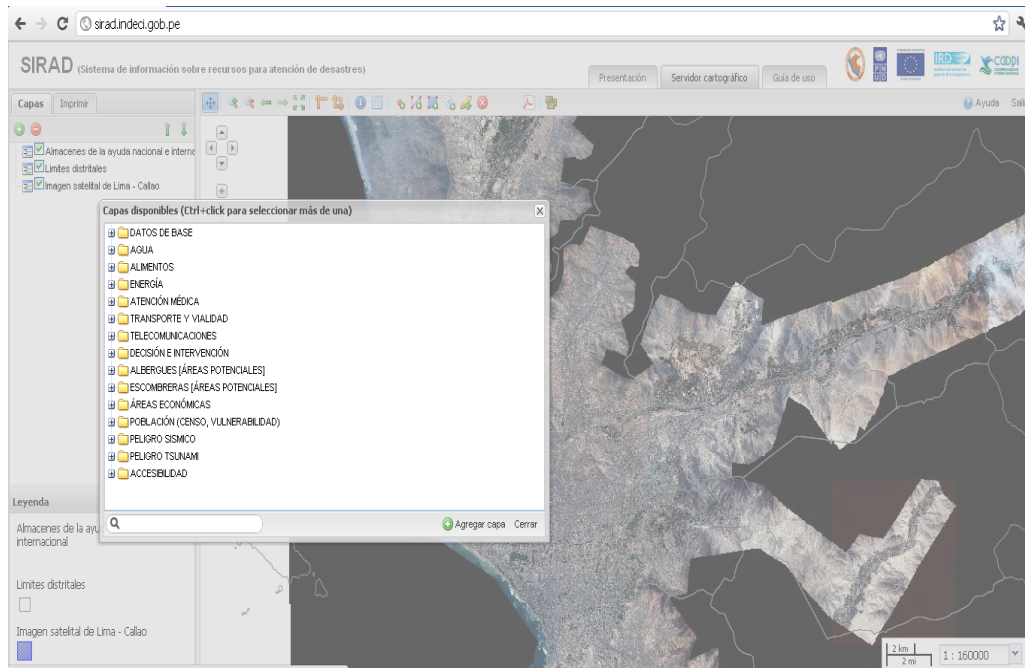
# Educative institutions



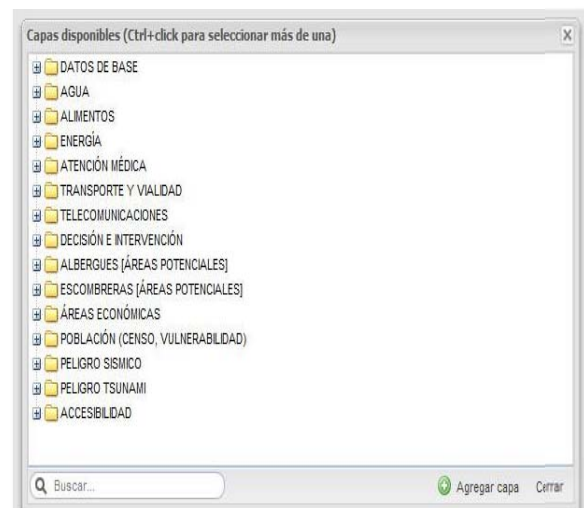


# Mapping server

It allows viewing and querying mapping information for decision making, facilitating the development of plans, protocols, and other projects linked to the issue of preparedness in case of occurrence of an event and / or disaster.

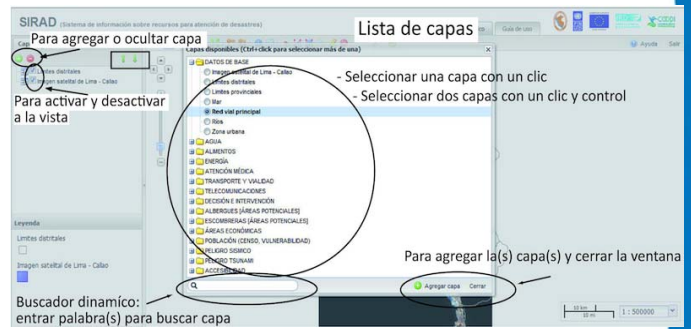
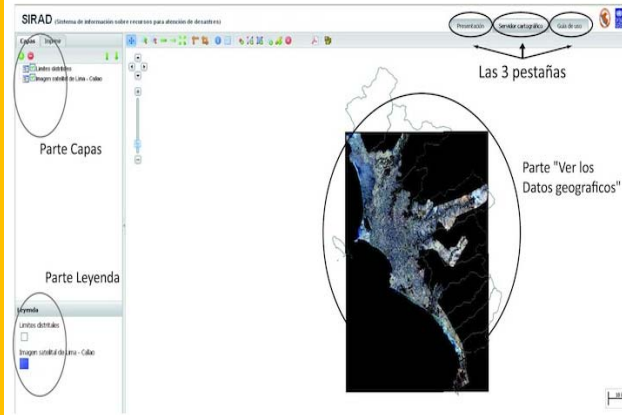


## SERVER MAPPING TOOLS



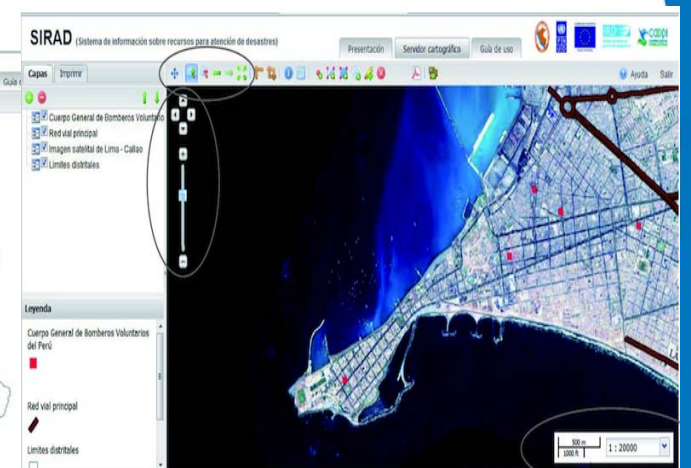
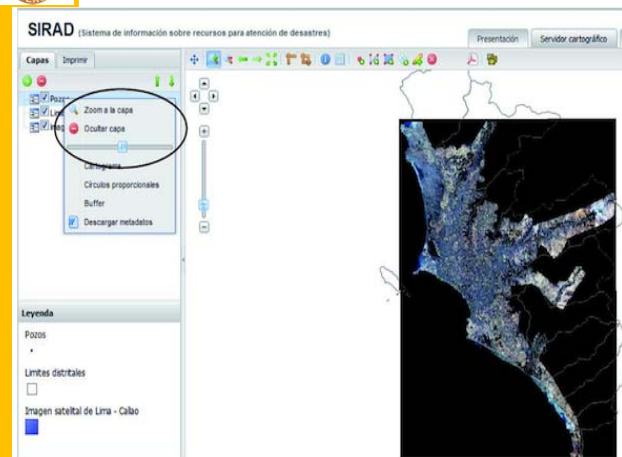
1. Access w/ password, each institution will receive a password.

2. A window appears showing the default of 14 topics, containing geographical data available on the server.



- It has 3 tabs (Presentation, map server and user guide).  
In the left pane of the screen shows the layers that are being used (above) and the legend of the layers (below).

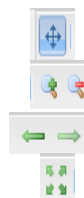
- In the image describes the functions performed by each of the icons. These ↑ ↓ arrows let you raise or lower the selected layer between all layers.



- When you right click on one of the layers, a window with icons that allows us to zoom or hide the selected layer.

A slider lets you change the transparency of the layer to see what's underneath.

- we have:  
Three zoom tools  
To move the map  
Zoom (increase, decrease)  
To view before and last view.  
To visualize the layers present.





**SIRAD** (Sistema de información sobre recursos para atención de desastres)

Presentación Servidor cartográfico Guía de uso

Capas: Establecimientos de salud, Red vial, Límites distritales, Imagen satelital de Lima

Número total de médicos asignados: 1 : 160000

14. Dirección de Salud	15. Red	16. Micro Red	18. Personal médico	22. Camas total	24.
Dia II	Barraanco-Chonillos	Urbana			0
Dia II	Barraanco-Chonillos	Urbana			0
Dia II	Barraanco-Chonillos	Urbana			0
Dia II	Barraanco-Chonillos	Surco			0
Dia II	Barraanco-Chonillos	Surco	2	0	0
Dia II	Barraanco-Chonillos	Surco	0	0	0
Dia II	Barraanco-Chonillos	Surco	0	0	0
Dia II	Barraanco-Chonillos	Villa	10	4	0
Dia II	Barraanco-Chonillos	Villa	8	3	0
Dia II	Barraanco-Chonillos	Villa	2	0	0

Mostrar tabla 201 - 400 de 529

### 7. Lets see alphanumeric data



Lets you view the data table of a layer

Download metadata record

View information of each object individually



**SIRAD** (Sistema de información sobre recursos para atención de desastres)

Presentación Servidor cartográfico Guía de uso

Capas: Red vial, Establecimientos de salud, Imagen satelital de Lima - Cusco, Límites distritales

Establecimientos de salud

Filtrar para mostrar solo lo que cumple con:

Todas estas condiciones

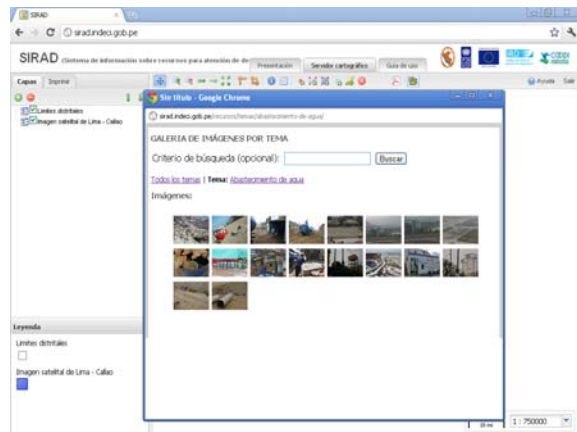
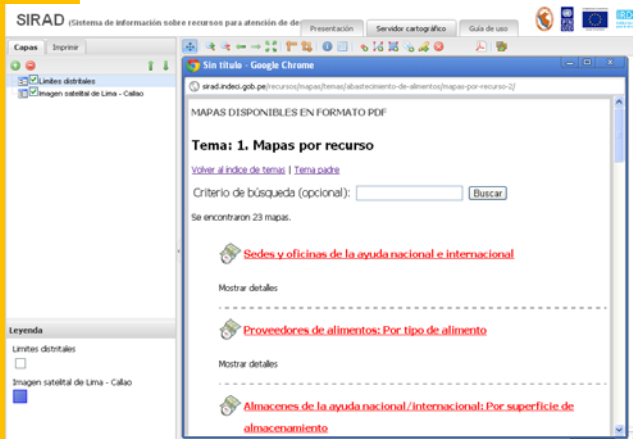
6. Distrito: LIMA


8. Nivel: II-1

2. codigo RENAMES	3. Nombre establecimiento	4. Institución	4. Distrito	5. Nivel	6. Tipo	11. Rol en emergencia	13.
6206	H 2 DE MAYO	Minsa	LIMA	III-1	Hospital	Principal	24h
6207	H ARZOBISPO LOAYZA	Minsa	LIMA	III-1	Hospital	Principal	24h
6208	H MATERNIDAD PERUNATA	Minsa	LIMA	III-2	Instituto	Principal	24h
6209	H CIENCIAS NEUROLOGICAS OSCAR TRELLES	Minsa	LIMA	III-2	Instituto	Apoyo específico	24h
6215	H MASSE AYO SAN BARTOLOME	Minsa	LIMA	III-1	Hospital	Principal	24h
6217	H OPTOMETROLOGIA	Minsa	LIMA	III-2	Instituto	Principal	24h
0.	H DE EMERGENCIAS GRAU	Es salud	LIMA	III-1	H - III	Principal	24h


Mostrar tabla 1 - 7 de 7

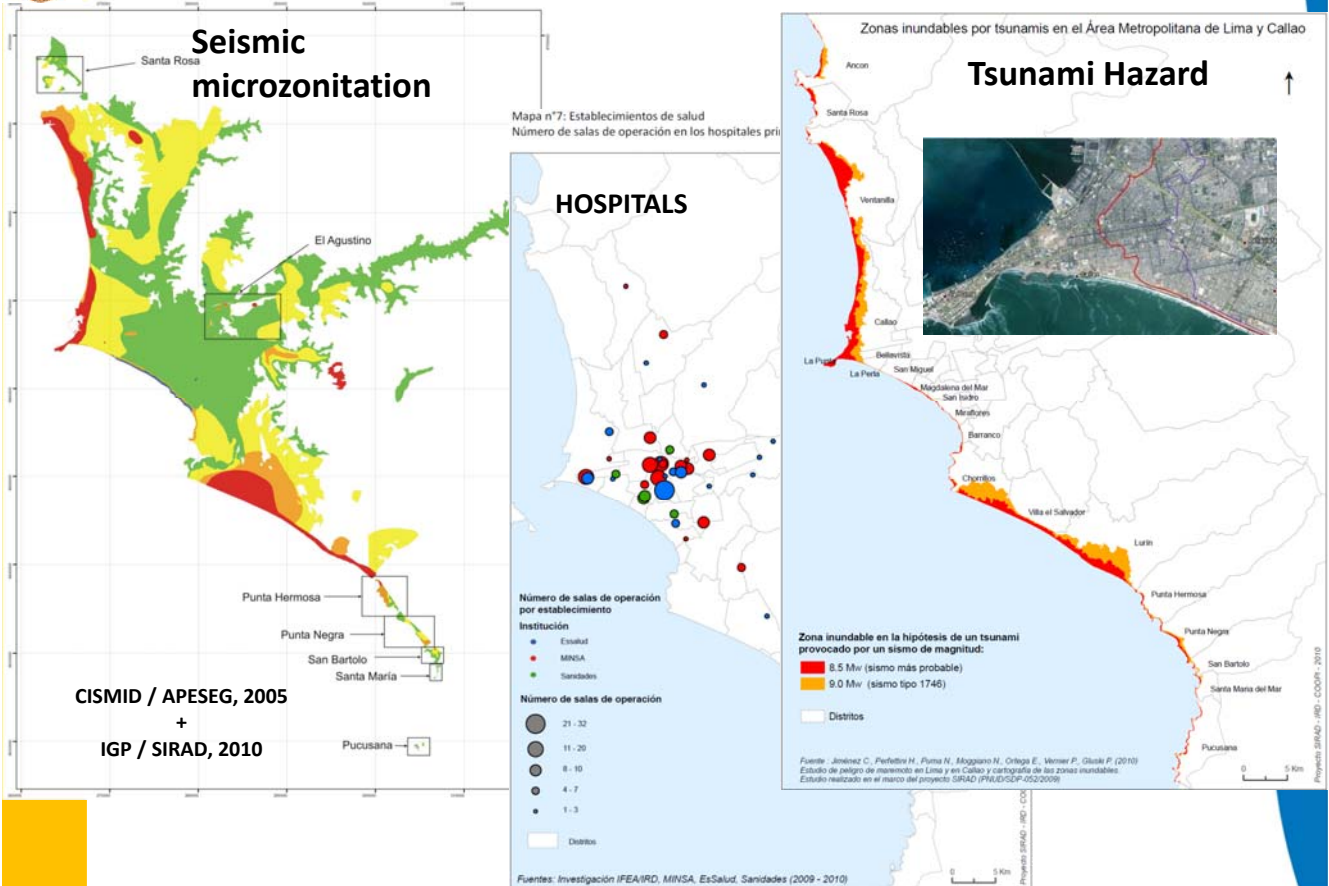
8. You can add conditions to find information. For example, to select a hospital, the first condition we are interested in the district, the second condition that must be level, etc. Enables a filter that meets our criteria.



9. The icon  allows access to the gallery of the maps generated in pdf format, we have:

- \* Resource Maps
- \* Maps essential and Support Resources
- \* Vulnerability Map Resources

10. The icon  allows access to the gallery, where you can see the list of photos.







Link to access the map server

<http://sirad.indeci.gob.pe>

USER: bisbal  
PASSWORD : dnp01



IMAGEN  
WordView2 DE  
TACNA OVER  
GOOGLE  
EARTH

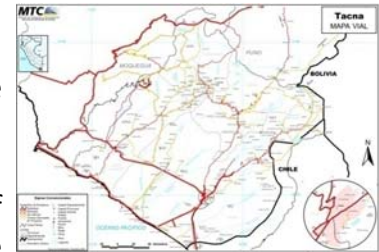




**Proposal:** To implement an Information system of Resources for the Attention of Disasters , in the city of Tacna before the occurrence of disasters of great magnitude.

## Objectives

- ❖ Create a GIS database that incorporate all essential resources (infrastructure and basic services) wich enable the normal functioning of the urban area.
- ❖ Generate a map library of essential resources and exposure to seismic hazard, accessibility, transmission of vulnerabilities (interdependencies between them and the territory), it is updated constantly.

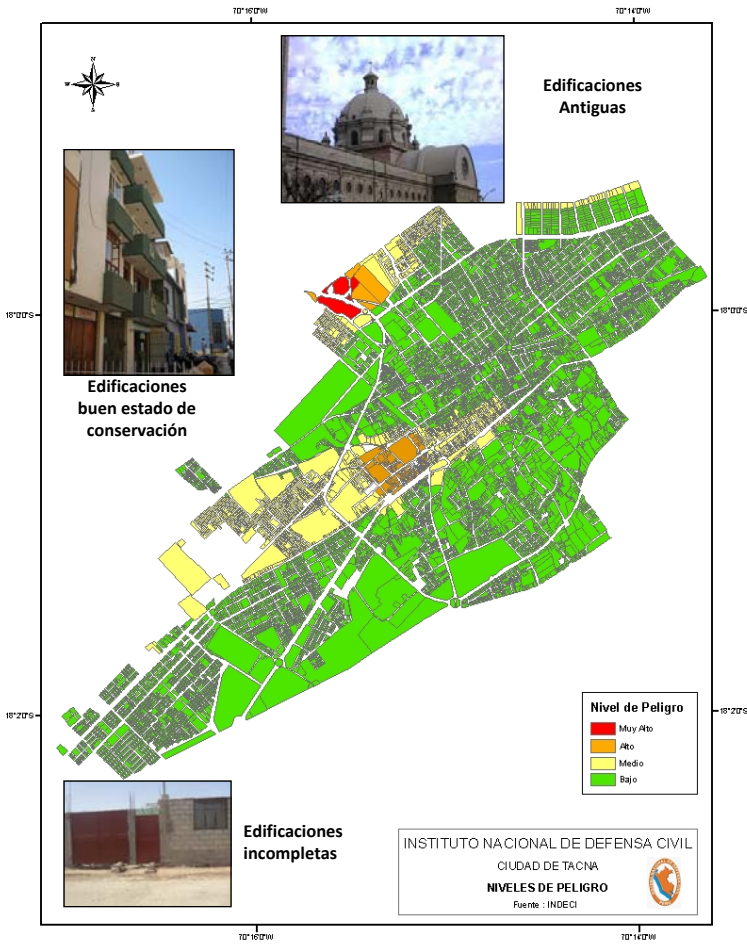


**Proposal:** To implement an Information system of Resources for the Attention of Disasters , in the city of Tacna before the occurrence of disasters of great magnitude.

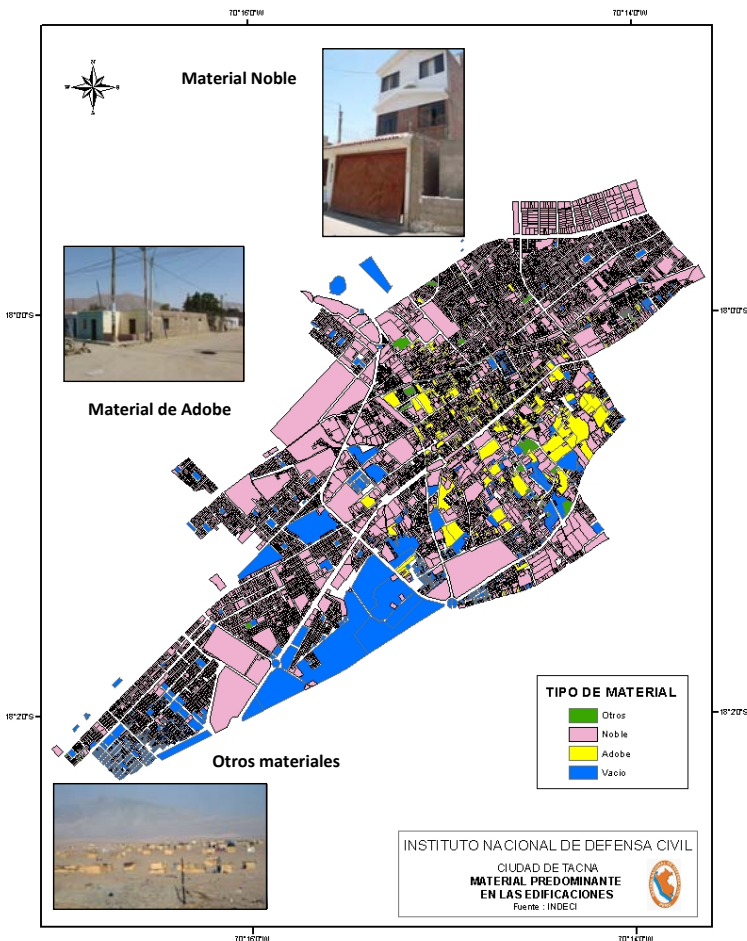
## Objectives

- ❖ Implement a map server technology as a tool for adequate decision-making by the authorities in preparedness actions.
- ❖ Strengthen the capacities of professionals by conducting training and / or workshops in the use and management of map server.





## Levels of Danger in the City of Tacna



## Predominant building materials in Tacna City

**THANK YOU**