



PERÚ

Ministerio
de Vivienda, Construcción
y Saneamiento

ROLE OF THE CENTRAL GOVERNMENT IN DISASTER RISK REDUCTION IN THE BUILT ENVIROMENT

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DISASTER RISK MANAGEMENT

Process of adopting policies, strategies and practices aimed at reducing the risks associated with hazards and/or minimizing their effects.

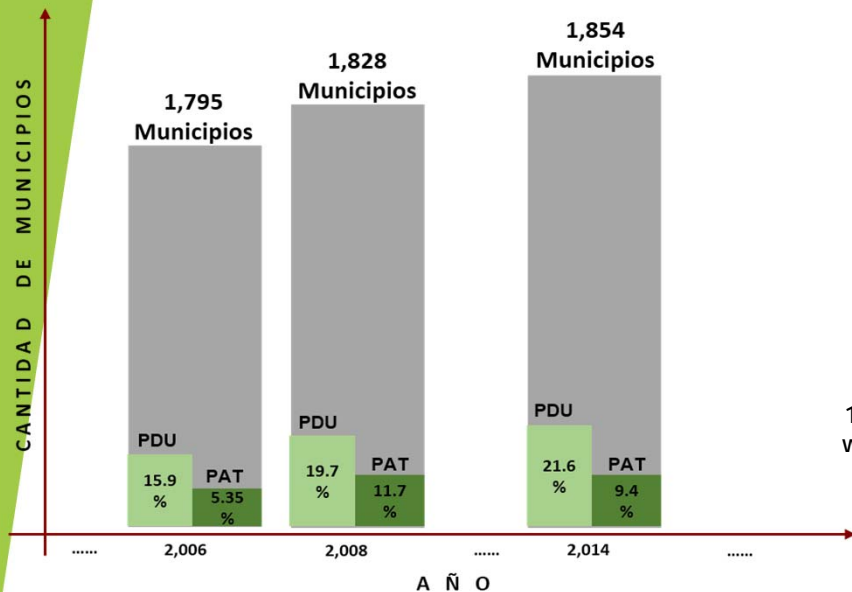
Involves interventions in the processes of **development planning and territorial occupancy** to reduce the causes that generate vulnerabilities (existing risk) or avoid the creation of new risk.

KEY CHALLENGES

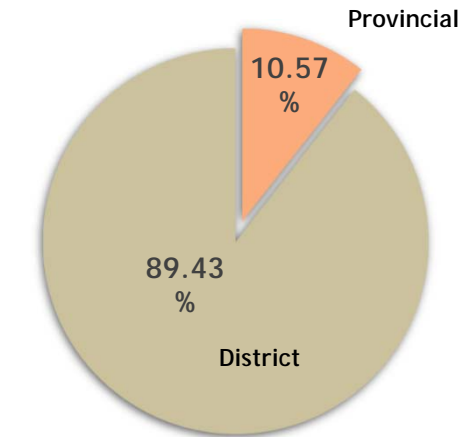
- Developing and implementing Urban Planning
- Implementing Building Codes Regulations - Informality and insecurity in building – in Peru up to 80% of the buildings are informal
- Creating risk awareness in public organizations and the general population

URBAN PLANNING - 2 issues

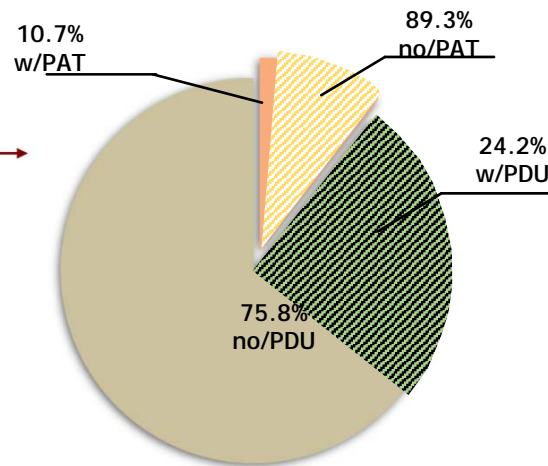
1. SLOW AND DEFICIENT PROCESS OF MUNICIPAL URBAN PLANNING



PAT is the planning instrument that allows the sustainable use of natural resources, the balanced distribution of the population and the development of public and private investment in cities



Of 196 Provincial Municipalities only 19 have a Territorial Conditioning Plan (PAT)



Of 1658 District Municipalities only 448 have a Urban Development Plan

OCUPATION PROCESS

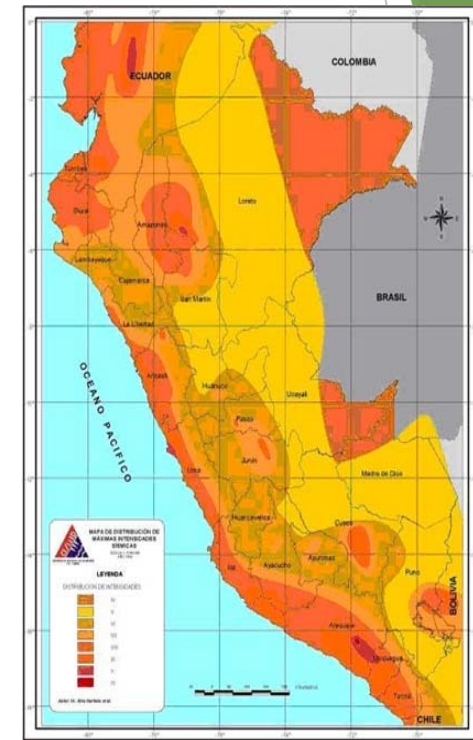
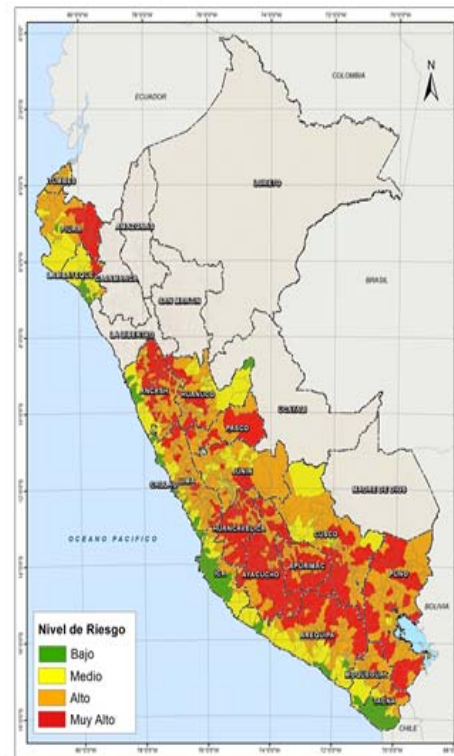
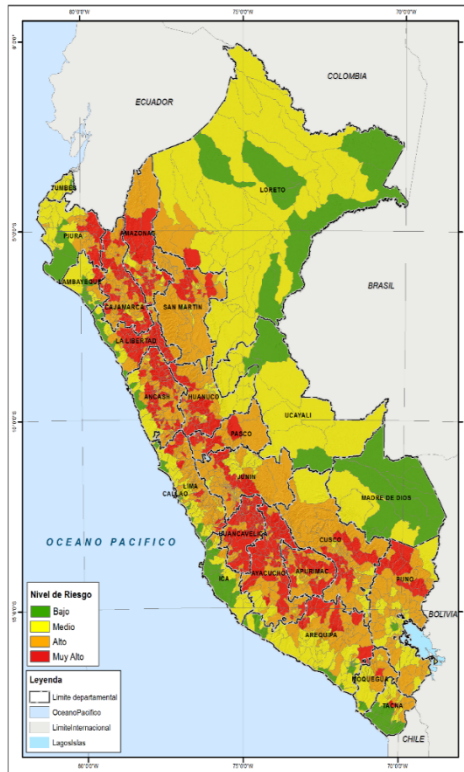


NO URBAN PLANNING OR NO
ENFORCEMENT OF THOSE PLANS

2. Lack of technical information -

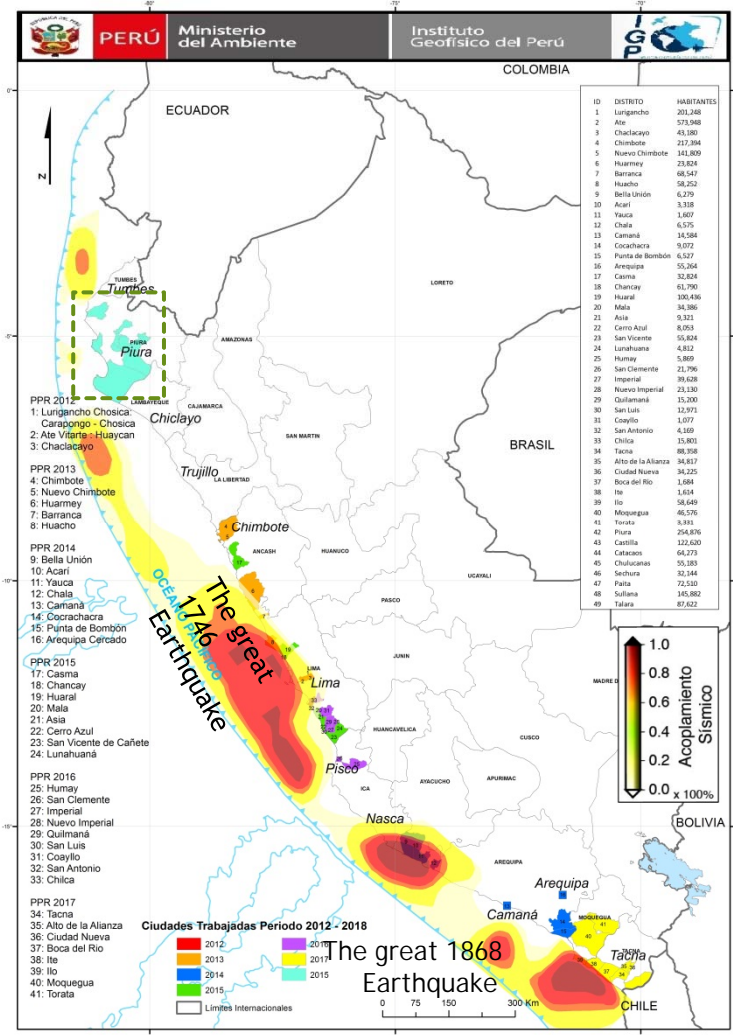
- How risk mapping (in particular seismic risk mapping) is reflected in land use and building standards?

- The Risk and Hazard Maps developed have macro scale.



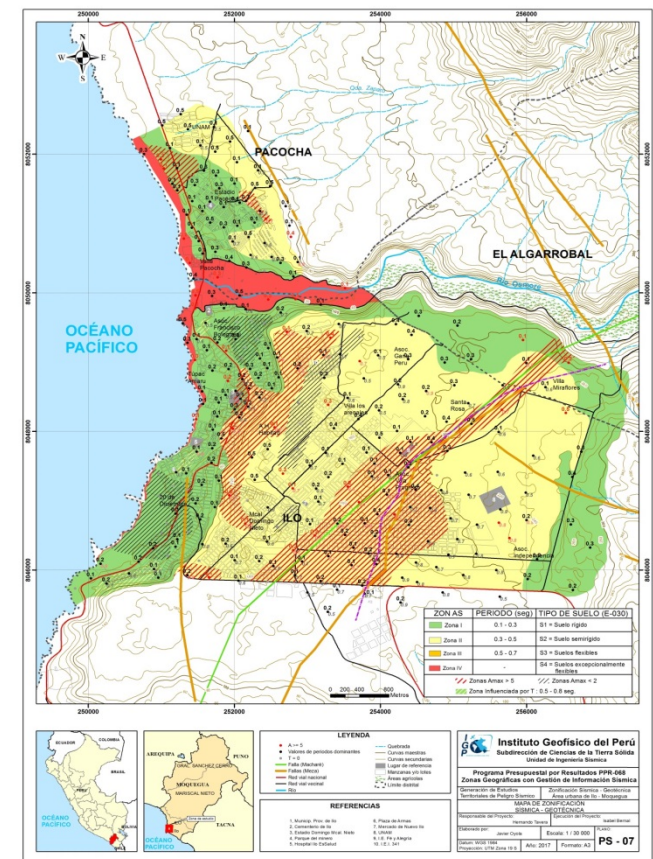
- Studies (different hazards) are needed in more detailed scales : 1/1,000- 10,000
- This information is critical to include Risk Management into Urban Planning

Areas where seismic-geotechnic zoning studies were conducted (2012-2018)



by inversion of GPS displacements, indicate that at least 3 zones along the Peruvian margin present a high *seismic coupling and could generate an earthquake of great magnitude.

Flooded area, due to effects of the Niño Phenomenon Climate change.



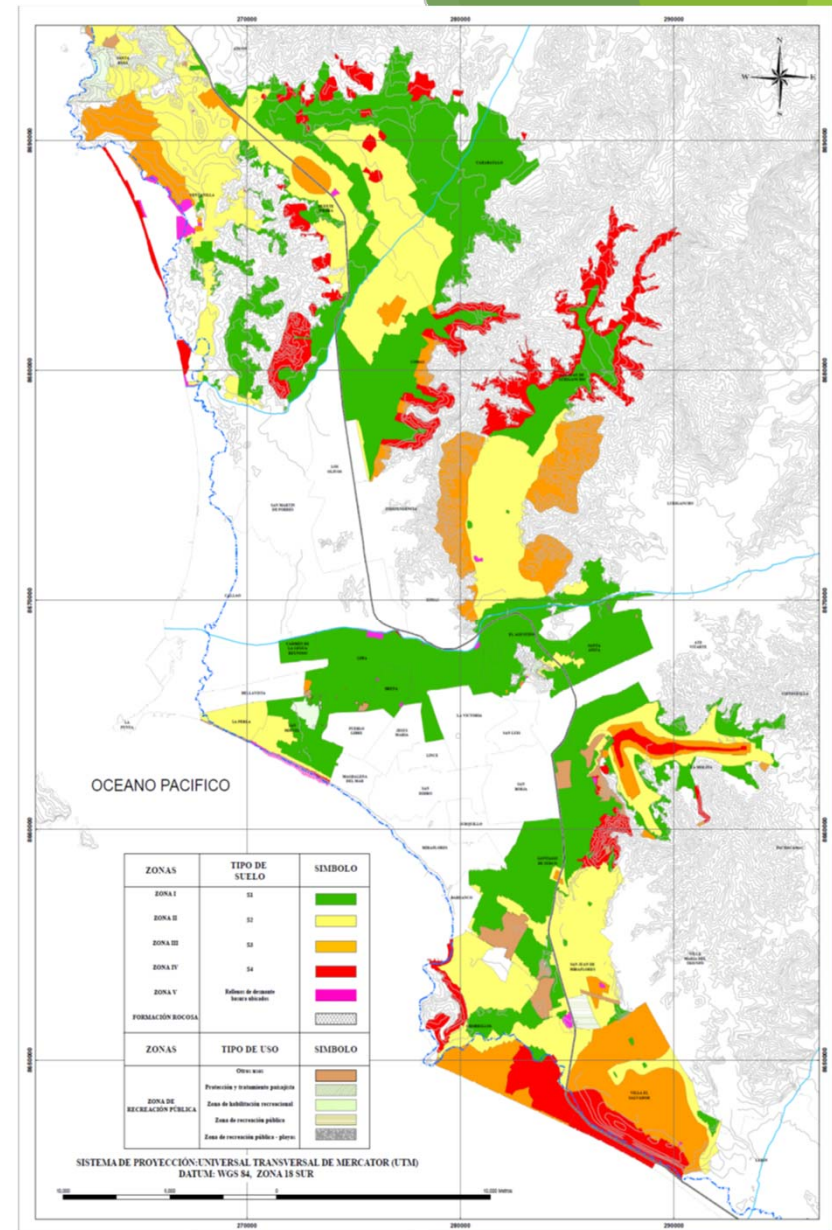
Intervened districts, (2017): 41
Districts in Peru: 1874 (5 years...)

Map of Seismic Microzoning of the City of Lima and Callao Metropolitan Area

Identifies the zones that present different dynamic soil behavior in the event of an earthquake, depending on the mechanical and dynamic characteristics of the different terrain materials.

Likewise, areas that may be affected by Tsunamis, soil liquefaction or landslides of diverse materials in areas of steep slopes are incorporated into the map.

TYPE I: Apt for building
TYPE II: Apt for building
TYPE III: Soil not recommended (special construction)
TYPE IV: Soil not recommended (stronger structures)
TYPE V: not apt for building



BUILDING REGULATIONS FOR RESILIENCE



In 2006 Ministry of Housing, Construction and Sanitation updated the National Building Regulations

It included a simplified process for continuous update of the regulations involving not only the central government but also the civil society and the universities.

In 2011 a revised version was published and again in 2016. This last version included the modification of seismic design requirements.

This Standard establishes the minimum conditions so that the buildings designed according to their requirements have a seismic behavior in accordance with the principles:

- Avoid loss of life
- Ensure the continuity of basic services
- Minimize property damage

It is applied to the design of all new buildings, to the reinforcement of existing ones and to the repair of those that will be damaged by the action of earthquakes.

DEVELOPING AND IMPLEMENTING URBAN PLANNING AND BUILDING REGULATIONS – role of Local Government



KEY CHALLENGES FOR URBAN PLANNING AND BUILDING REGULATIONS IMPLEMENTATION

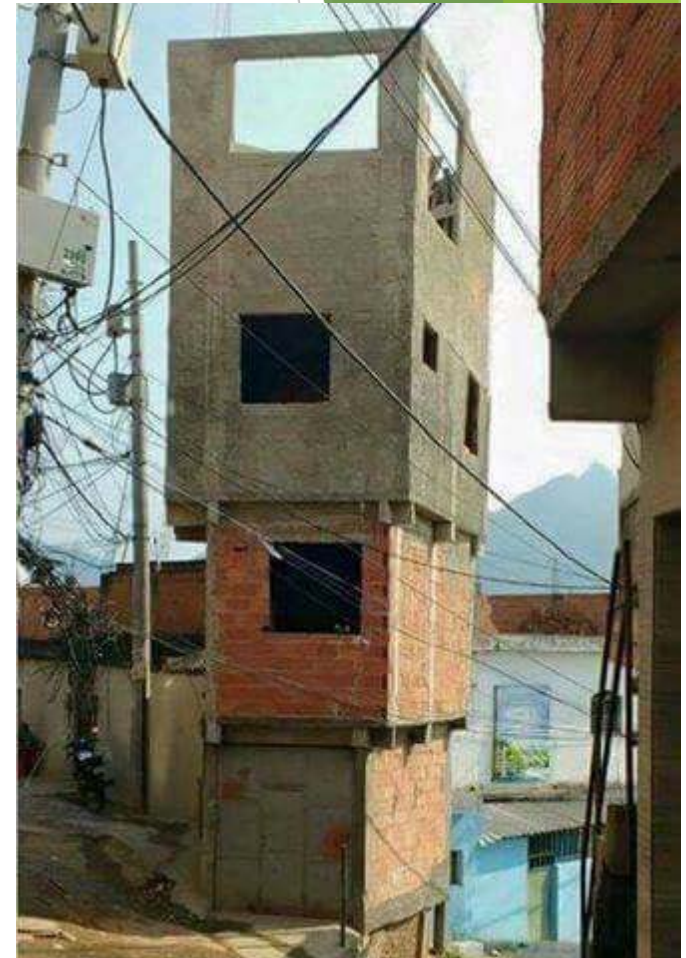
Local Government face multiple issues regarding their role in the development of urban planning as well as enforcement of building regulations. 2 main problems:

- Budget problems – large part of their budget depends on tax payments. Tax payments depends in land ownership formalization
- Lack of technical capabilities including HR

IRREGULAR BUILDINGS



City of Lima: Av. Abancay



City of Ayacucho

BUILDINGS with high seismic risk



Residential buildings
Waterfront - Miraflores



Houses near to the bank of the river

BUILDINGS WITH HIGH SEISMIC RISK



Structures considered
as a cultural heritage
of humanity



CENTRAL GOVERNMENT ROLE

Ministry of Housing, Construction and Sanitation is taking a more proactive role in helping local governments

- stop continuous growth of cities without planning - Invest in developing and implementing Urban Planning for 8 regions in the next 12 months – including Risk Disaster Management. 56 urban plans – territorial development plan, metropolitan development plan and urban development plan
- Assume the responsibility to define high risk areas
- Focus in reducing qualitative housing deficit – because of informality, poverty and lack of building regulations enforcement – social housing subsidies for new houses, retrofitting and improving existing homes
- Implementation of Urban Revisors for local government with no technical capabilities for the evaluation of license permits

CENTRAL GOVERNMENT ROLE

- Developing urban cadastre – not only in the formalization of land ownership but including build area, economic use of the land, etc – these is important for TAXES purposes
- Increase in the strengthening of the capacities of officials and professionals of local government
- Budget incentive programs for local government with the Ministry of Finance – indicators that includes 5 activities related to:
 - the Improvement of territorial planning
 - designate technical team and responsible team training,
 - generate information report regarding the planning of land use,
 - submit urban management instruments and the laws that approve them,
 - report urban indicators and report of local urban investment

PROGRESSIVE HOUSING PROTOTYPES

Developed more than 80 Progressive housing prototypes including Architecture, structure, Sanitary and Electrical specifications



**Prototipos de
Vivienda Progresiva**

HOUSING PROJECTS BANK

Automatic Building License

CENTRAL GOVERNMENT ROLE

What are we NOT doing?

- Raising public awareness to the risk involved in:
 - Informal construction
 - Living in high risk areas



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GRACIAS!

