

# Risk Assessment as an integral part of decision making

- UNDP's support to DRA solutions at country level -

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UNDP-GRIP

- Risk assessment as part of the DRM process
- UNDP-GRIP country support
- Application examples

# The Issues in DRM/R

Understanding of the problem  
Risk Assessment



Proper Planning  
Evidence-based decision making



Disaster Risk Reduction + Safe  
Development Processes  
Effective Actions

# Issues in Risk Assessment

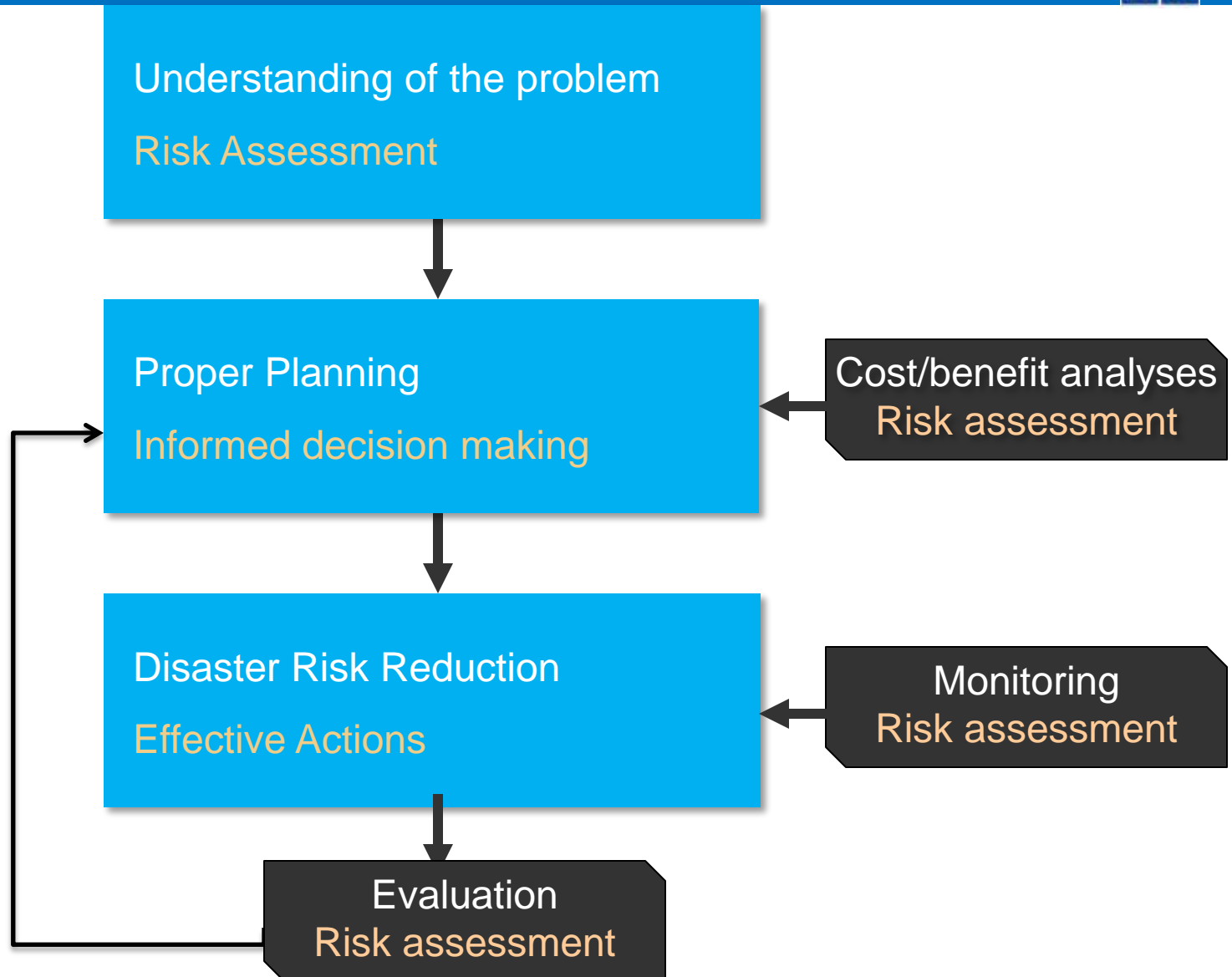
## **Issue 1:** Risk assessment is not always being utilized in decision making processes

- Many activities implemented and resources utilized
- Without even knowing whether they are solving the problem
- They may be even worsening the situation

## **Issue 2:** End-users, the people and institutions that would actually be implementing DRR actions, are not involved in the risk assessment process

- They do not provide inputs in the diagnosis/solutions development
- No opportunity to understand the problem and the effectiveness of the risk reduction options
- No utilization of the risk assessment studies.

# Role of Risk Assessment



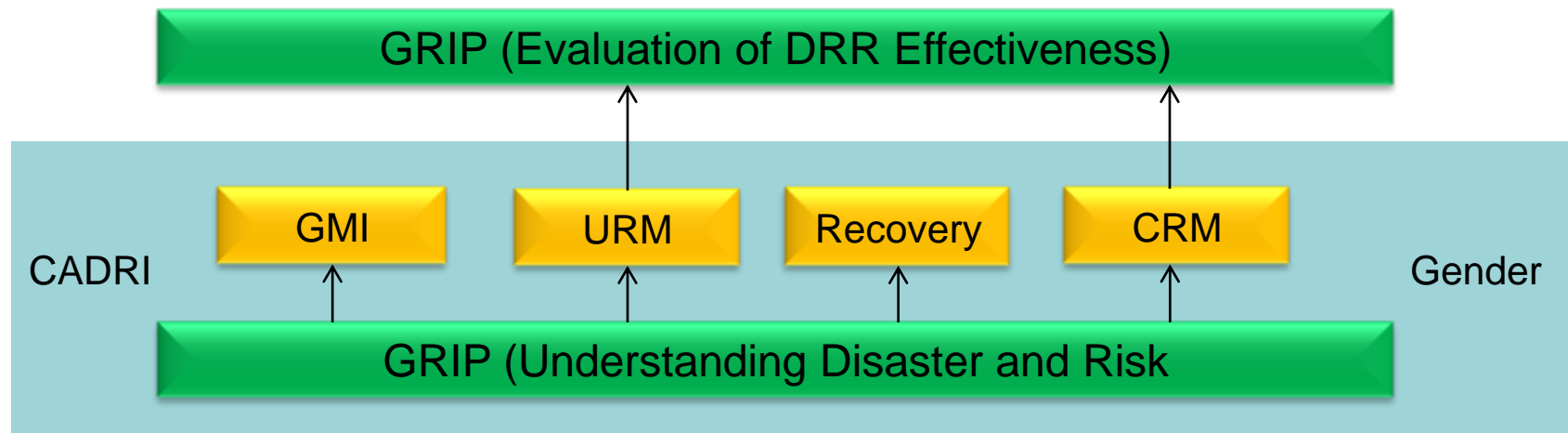
# How Risk Assessment should be done

- Risk is dynamic and changing over time, due to:
  - Climate change
  - Environmental degradation
  - Urbanization
- Risk Assessment is a continuous process
  - Periodic → Monitoring and evaluation
  - Sustainable
  - Multi-stakeholder engagement
  - Capable of being improved → New information
- Not a one-time effort
- Local capacity is the only way to guarantee sustainability
- Produces solutions (no numbers or nice-looking maps)

# UNDP Approach – The Comprehensive DRM

## Disaster Risk Reduction and Recovery Team (DRRRT), BCPR/UNDP

- Risk Assessment – GRIP
- Disaster Recovery - IRP
- Governance and Mainstreaming – GMI
- Urban Risk Management - URM
- Climate Risk Management – CRM
- Gender
- Capacity Development – CADRI (UNDP, OCHA, ISDR)



- UNDP's Mandate to lead DRM at country level
- Country Offices in 134 countries
- USD 170 million per year in DRM
- Works directly with government on Governance, Economic Development, Environment



## **Mission:**

“Better risk information for sound decision making”

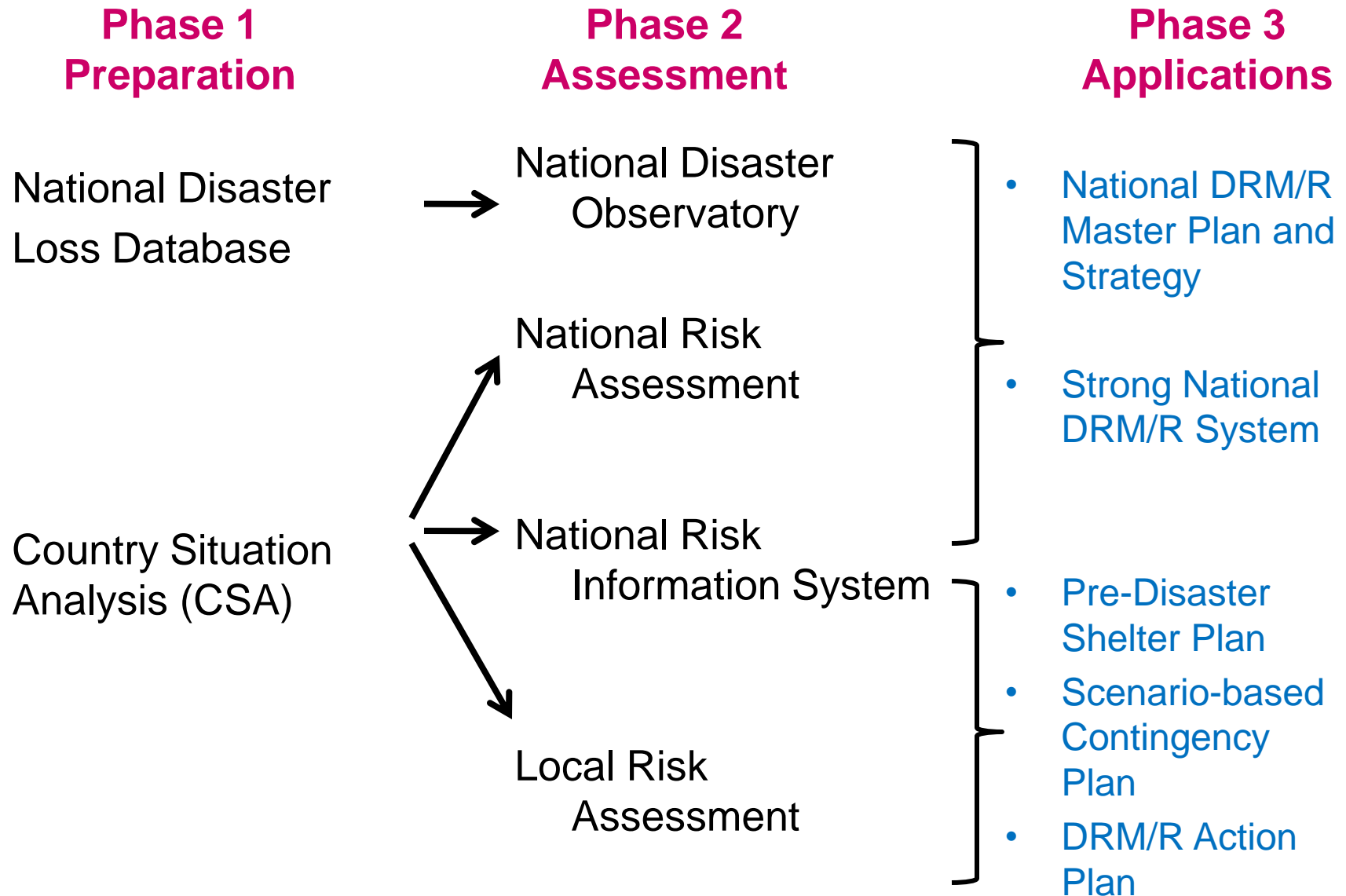
## **Objectives:**

- To improve the quality of disaster and risk information
- To ensure its use in disaster risk management and development planning

- **Learning from the past:** to understand their vulnerabilities, high-affected areas, and recovery capacities, etc.
- **Basic risk information for setting up DRR baselines:** to set up measurable goals and prepare evidence-based DRR strategies
- **Monitoring and evaluation mechanisms:** to measure progress and revise strategies
- **Local Capacity:** To produce realistic and locally supported solutions and ensure sustainability

- **Baseline for Risk Assessment (CSA):** Assessment of what already exists and identification of gaps and needs
- **National Disaster Observatories:** sustainable institutions for systematic collection, analysis and interpretation of disaster info
- **National Risk Assessments:** multi-hazard risk evaluations to delineate national DRM strategies, policies, programmes, budget allocation
- **Local Risk Assessments:** assessments to support urban risk reduction policies and actions
- **Capacity Development:** all the work is done by local institutions, authorities and experts

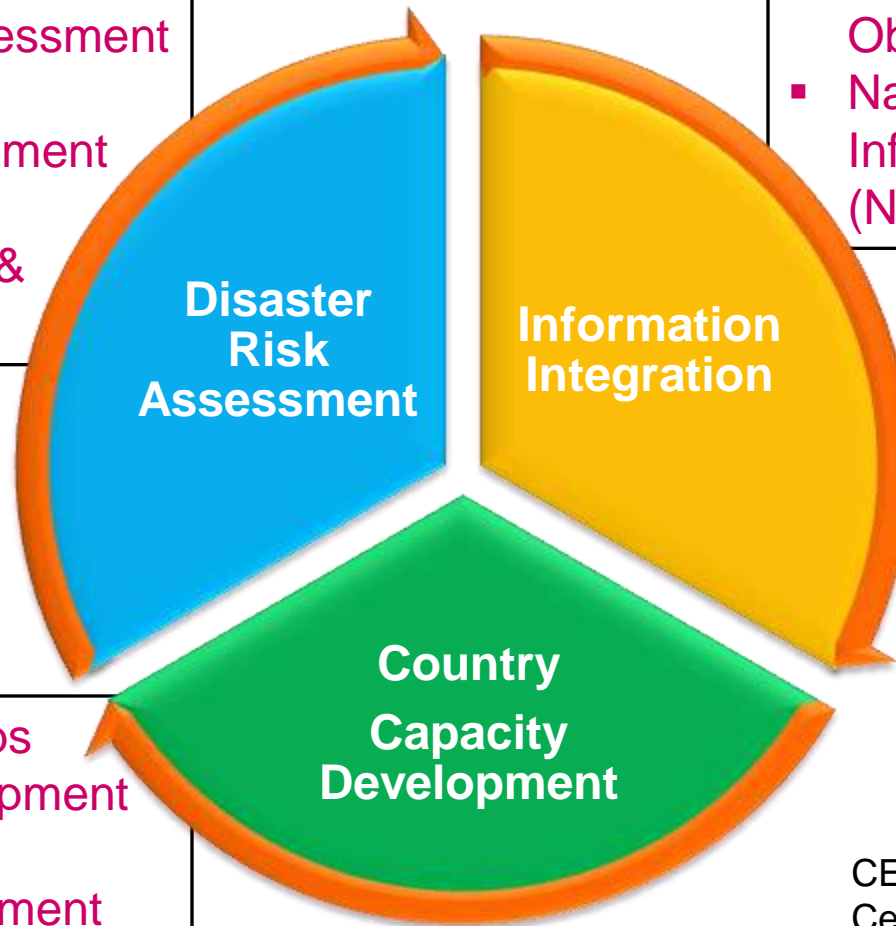
# DRA in Countries – A Road Map



# DRA in Countries: The Total Solution

- Country Situation Analysis (CSA)
- National Risk Assessment (NRA)
- Local Risk Assessment (LRA)
- Disaster Analysis & Mapping (DAM)

- National e-Library
- National Disaster Observatory (NDO)
- National Risk Information System (NRIS)



- National workshops
- Readiness development
- DRA Programme
- CERAM Establishment

CERAM =  
Centre of Excellence for Risk  
Assessment and Management

# Assistance provided by UNDP-GRIP



- Methodologies and tools
- Training
- Technical advice: technical, policy making
- Coordination and overview
- Interaction with other countries
- Access to financial support

# Methodologies and training



- Methodologies
- Guidelines
- Standards
- Training modules

## South Asia - Colombo

- March- 2009
- 60 participants
- 7 countries





# Tools: Disaster Risk E-libraries



The image displays several overlapping screenshots of the GRIP website interface. The top navigation bar is consistent across all screenshots, featuring the GRIP logo and the tagline 'Better Risk Information for Sound Decision Making'. The main content area shows the website's structure for different countries, including Nepal, Mozambique, Armenia, and Mexico - Baja California. The Mexico page is the most prominent, showing a map of Baja California and a video player for 'Introduction to Disaster Risk Assessment in Baja California'. The bottom right of the collage shows a 'Content Navigator Menu' with a map of Mexico.



# Sustainable Capacity for DRA



## Centers of Excellence for Risk Assessment and Management - CERAMs

GRIP CERAM Shanghai  
Baja California, Mexico  
UEM, Mozambique  
NSET, Nepal



# Implementation - Support activities

15 aspects of support within the typical UNDP project cycle:

- **Project conception**
  - Overall vision on DRR based on risk assessment
  - Preparation of concept notes
- **Project definition**
  - Scoping workshop
  - Proposal development
  - Review and evaluation of technical proposals
- **Project initiation**
  - Project document finalization
  - Access to financial support
  - Interaction with other countries,
- **Project implementation**
  - coordination and overview
  - Provision of appropriate methodologies and tools
  - hands-on trainings
  - technical support and advice
  - monitoring and review,
- **Project closing**
  - result review and evaluation, closing workshop.

# Country Support and Services

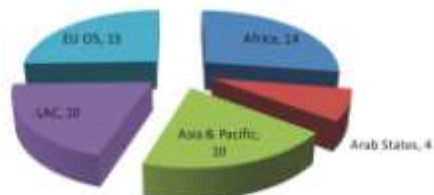


## GRIP Country Support Portfolio

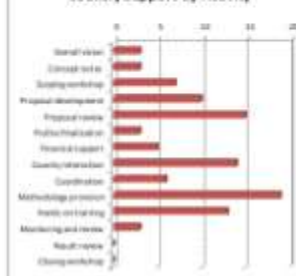
As of 01/2012



Country Support by Region



Country Support by Activity



### Legend

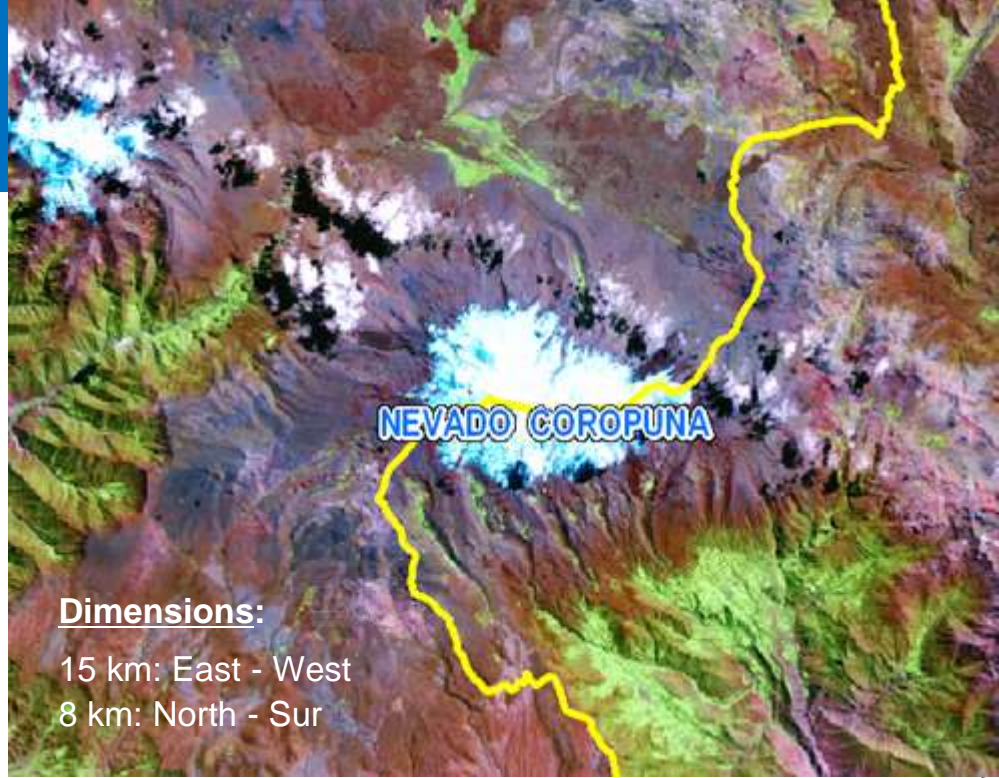
- Country Situation Analysis
- National Disaster Observatory
- National Risk Assessment
- Local Risk Assessment
- ⊕ Component unclear

# Applications of Risk Assessment

- Risk assessment for Climate Change Adaptation
- Support to humanitarian activities –Pre-Disaster Shelter Planning



# Climate change adaptation Arequipa-Peru



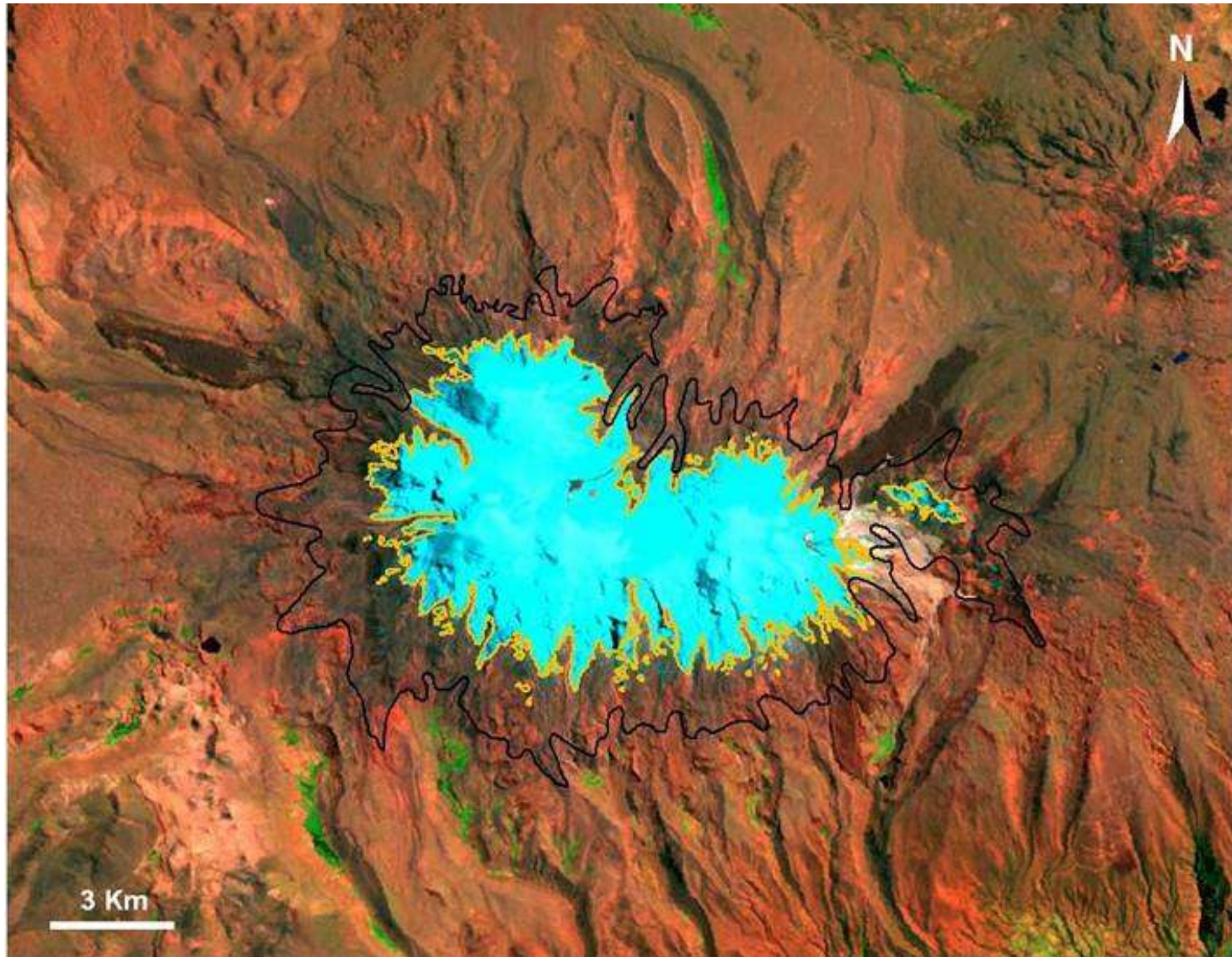
Dimensions:  
15 km: East - West  
8 km: North - Sur



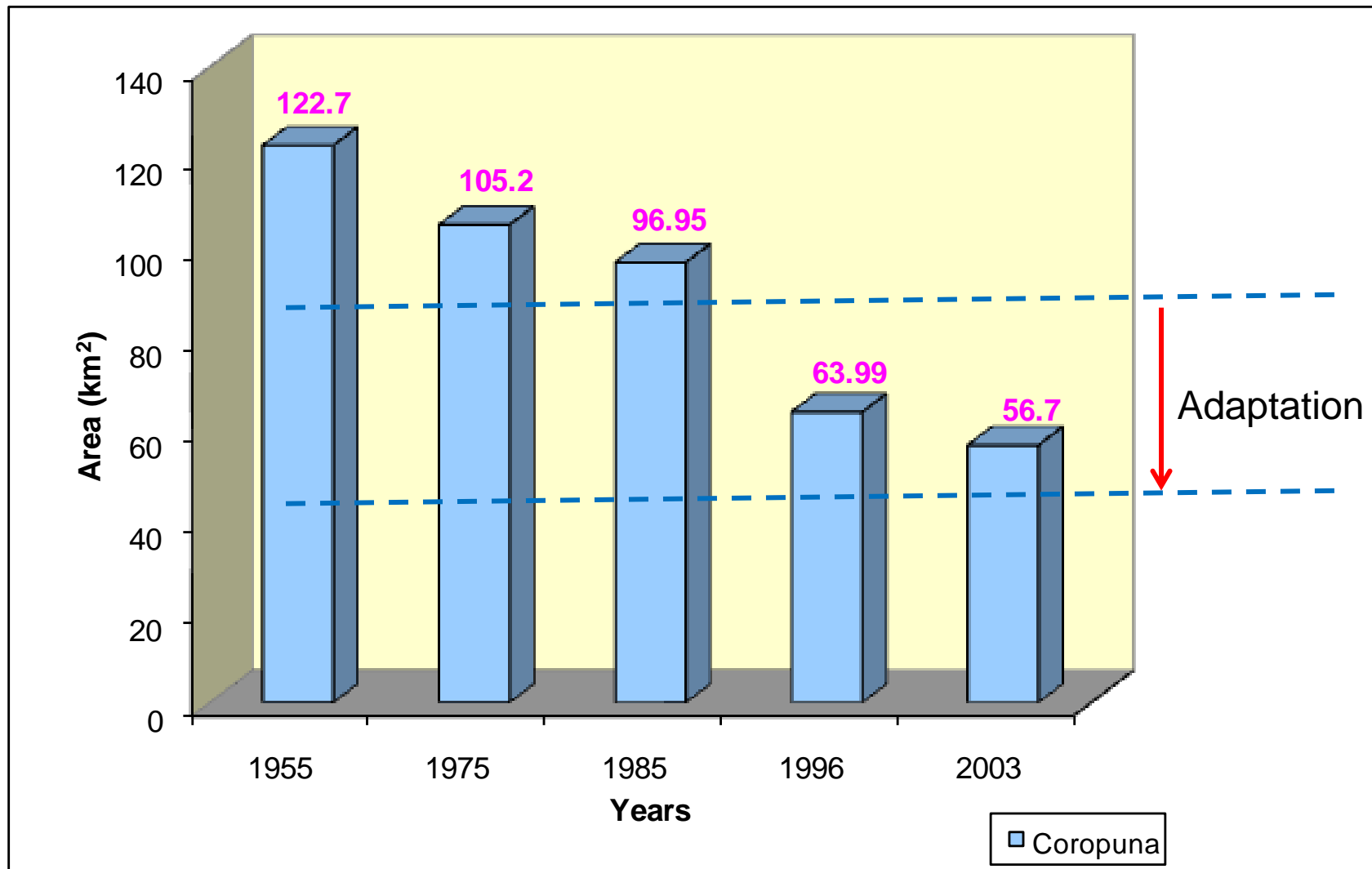


# The problem

Nevado  
Coropuna  
glacier  
coverage for  
1955 (outline in  
black) and  
2003 (in orange  
outer  
boundary).



# Glacial retreat – Nevado Coropuna



# Tangible results



Guidelines for CC adaptation in agricultural production



Incorporation of adaptation in development plans





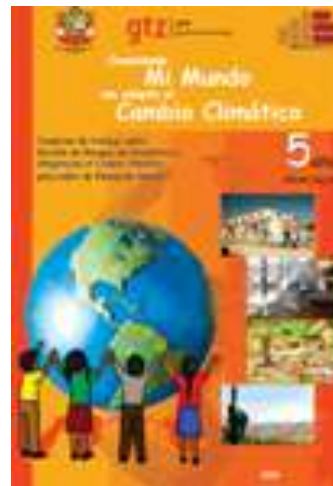
# Concrete measures implemented

- ✓ 3 water and irrigation systems that optimize water usage
- ✓ 15 community silos to store food
- ✓ 5 mini-reservoirs



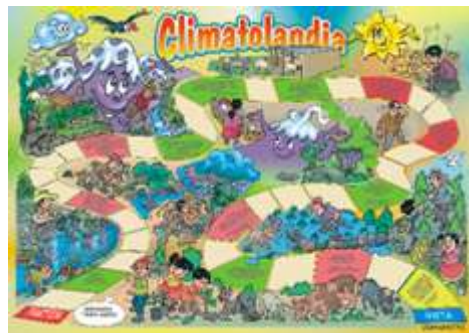
# Introduction of CCA in education

- ✓ 4 textbooks “Knowing my world to adapt myself to climate change”.
- ✓ Implementation by Official resolution of climate change in all the public educational institutions (pre-school and elementary school)



# Mainstreaming CCA in daily life

- 1 climatolandia board game.
- 1 climate ludo game
- 3 brochures “The Coropuna and climate change”
- Climate change “Takiy Kausaypaq” Songbook
- 2 radio stations engaged: Radio Ispacas “The Coropuna time” y Radio Pampacolca (radio spots).



# State strategy for CCA



# Replication in other areas of Peru

Estrategias aprobadas	3	Junín, Amazonas y Lambayeque
Estrategias en aprobación	3	Tumbes y Lima
Estrategias en formulación	5	Arequipa, Ayacucho, Callao, La Libertad y Apurímac, Cusco
Estrategias en etapa inicial	4	Loreto, Piura, San Martín y Cajamarca



- Mozambique
  - Mortality reduced to 25%
- Indonesia
  - January 2012 – EQ and Tsunami in Sumatra
- Malawi
  - Last couple of flood seasons did not require international assistance

- **Objective:**
  - Review progress
  - Identify what has worked and what can be done better
  - Chart direction for future
- **Time frame**
  - Mid-May until End of August
- **Consultant:**
  - Mr. Loy Rego

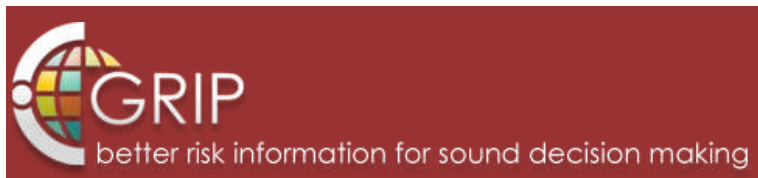
# THANK YOU!

[www.undp.org](http://www.undp.org)

[www.gripweb.org](http://www.gripweb.org)



# Support to humanitarian activities



## Risk Mapping for Strategic Planning of Shelter Response in Tijuana, Baja California, México.



H. AYUNTAMIENTO  
TIJUANA B.C.

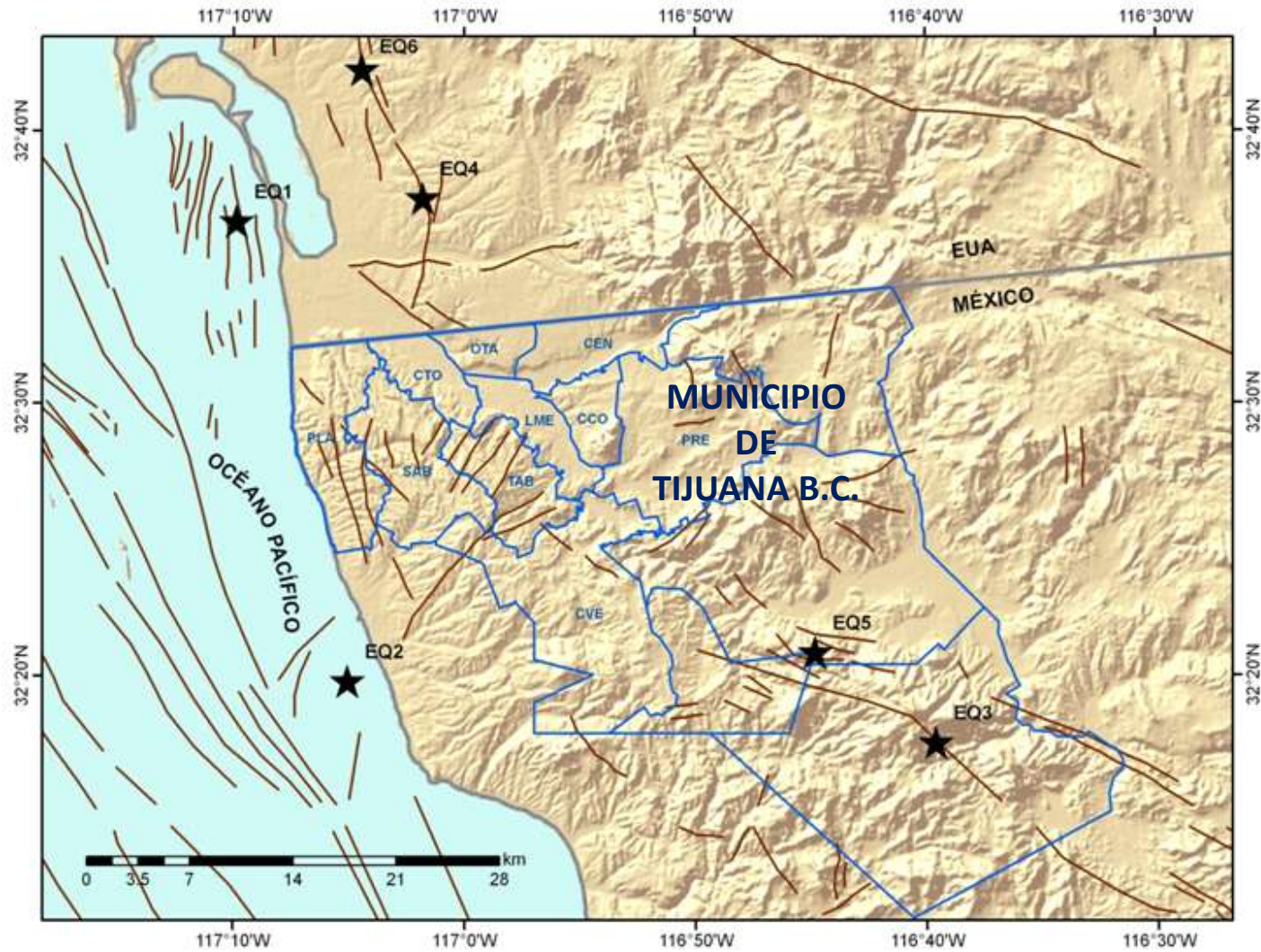
AGREEMENT OF COOPERATION  
between  
UNITED NATIONS HUMAN SETTLEMENTS PROGRAMME

**Antonio Rosquillas and Luis  
Moreno**  
Municipio de Tijuana



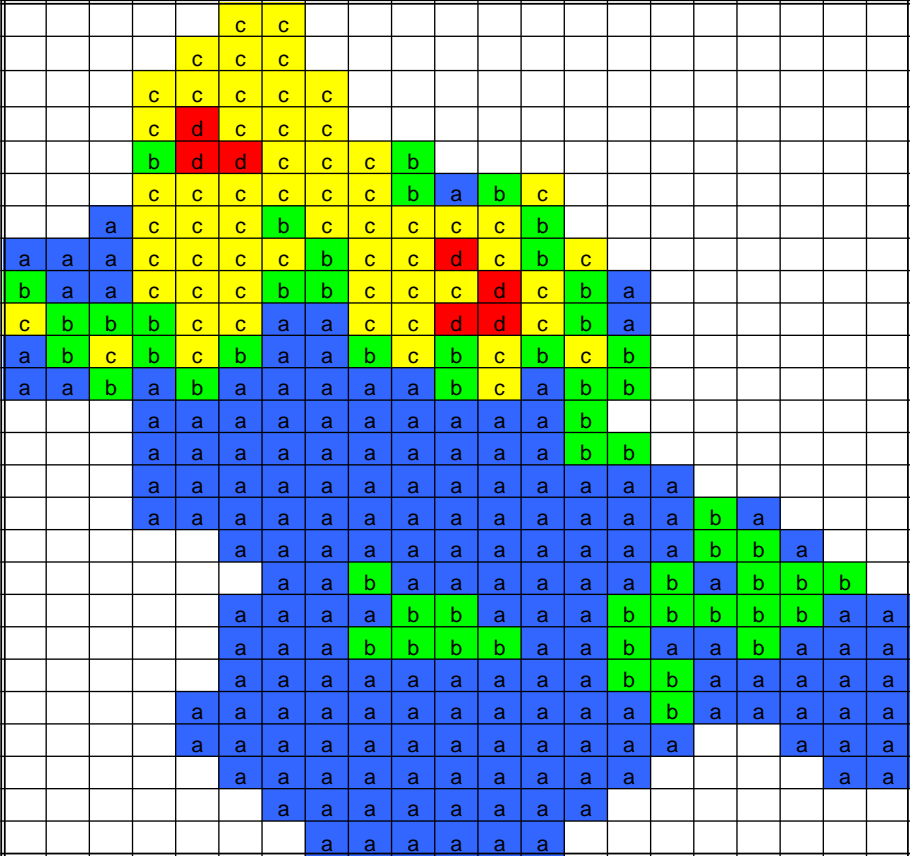
CENTRO DE INVESTIGACIÓN  
CIENTÍFICA Y DE EDUCACIÓN  
SUPERIOR DE ENSENADA.

# 6 possible earthquakes



# Damage Evaluation

## Estimated distribution of buildings damage



Color ID	Automatic Range		Manual Range	
	From	To	From	To
a	0	18	0	18
b	18	35	18	35
c	35	53	35	53
d	53	70	53	70

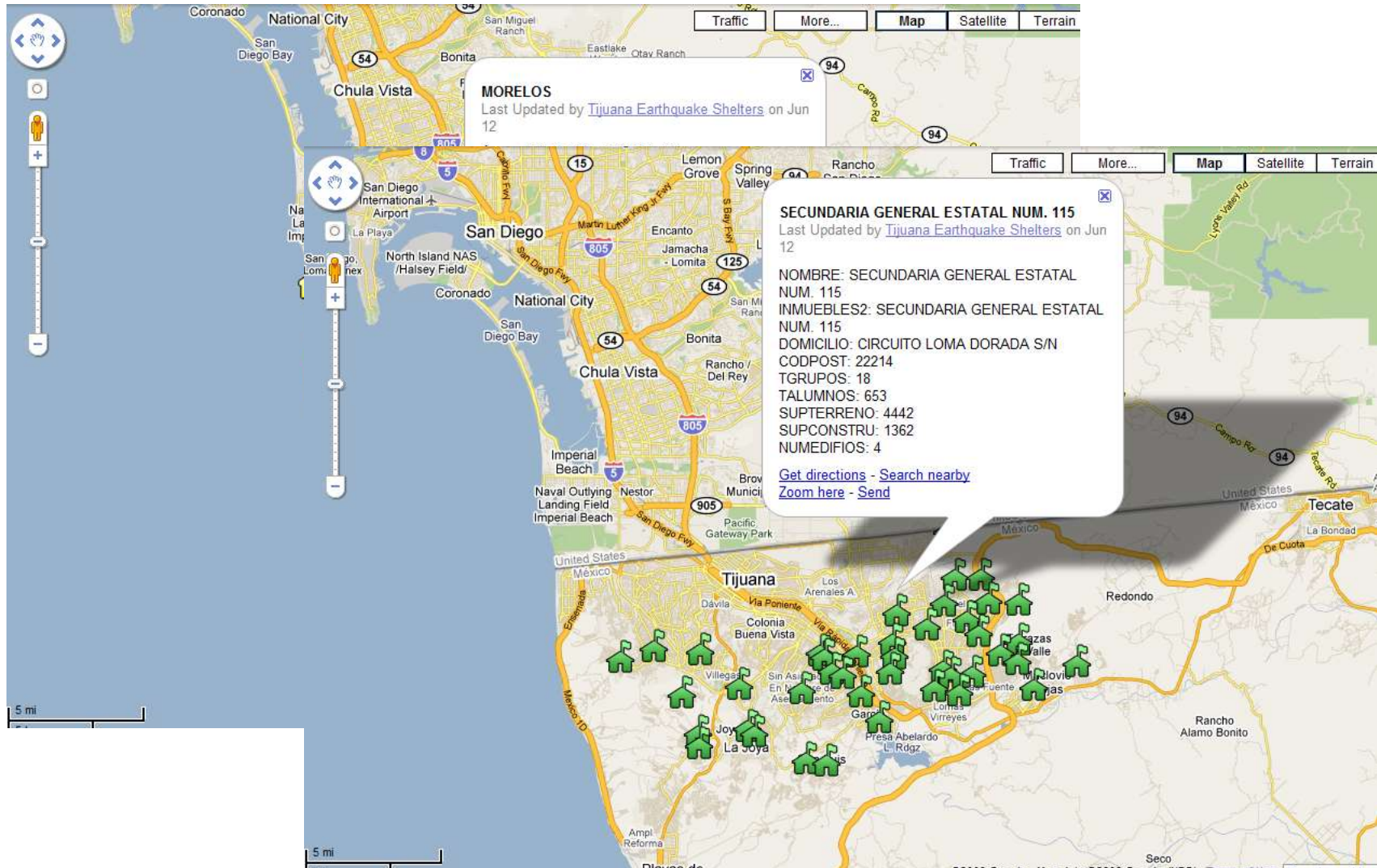


	SAB	CEN	CTO	CCO	CVE	LME	PRE	OTA	PLA	TAB	Total
<b>EQ1</b>	10,000	4,622	8,917	3,282	1,226	5,839	7,276	4,497	6,372	6,246	<b>58,277</b>
<b>EQ2</b>	12,392	4,593	6,853	3,661	3,184	7,012	8,576	3,341	5,335	9,503	<b>64,449</b>
<b>EQ3</b>	3,025	2,792	1,942	2,400	1,360	2,751	8,457	1,266	947	3,648	<b>28,588</b>
<b>EQ4</b>	12,465	10,140	11,085	6,676	1,703	9,942	15,133	7,984	6,019	10,169	<b>91,316</b>
<b>EQ5</b>	4,986	4,504	2,900	4,289	2,581	5,317	16,561	1,993	1,456	6,338	<b>50,925</b>
<b>EQ6</b>	6,411	6,063	5,761	3,581	1,032	4,979	8,437	3,985	3,216	4,979	<b>48,444</b>

Number of persons with shelter needs estimated  
for the six earthquake scenarios



# Shelter plan uploaded on Google Map



# Simulation exercise with all sectors of society

18 – September – 2009

