

# **GEOLOGICAL SURVEY OF PERU (INGEMMET)**

## **MAIN ACTIVITIES**

**Manuel Vilchez M.**

**PERÚ  
2010**

# INTRODUCTION

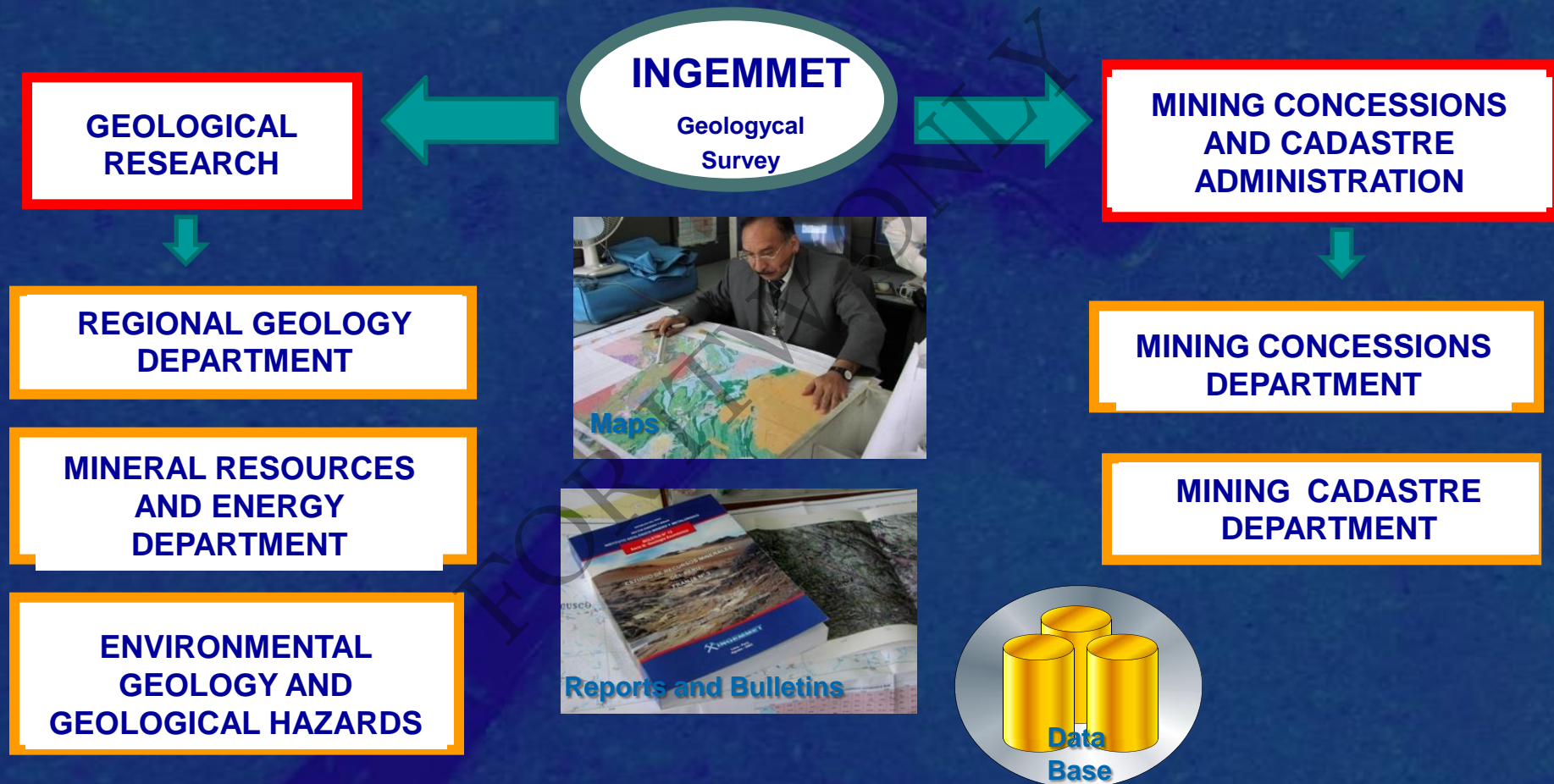


INGEMMET is a Public Institution of The Ministry of Energy and Mining whose mission is to get, keep and diffuse the geological data in order to promote the mining investment.

Other main function is to study the geological hazards.

Starting from 2007 Ingemmet is also in charge of try the mining concessions.

# MINISTRY OF ENERGY AND MINING





# REGIONAL GEOLOGY DEPARTMENT

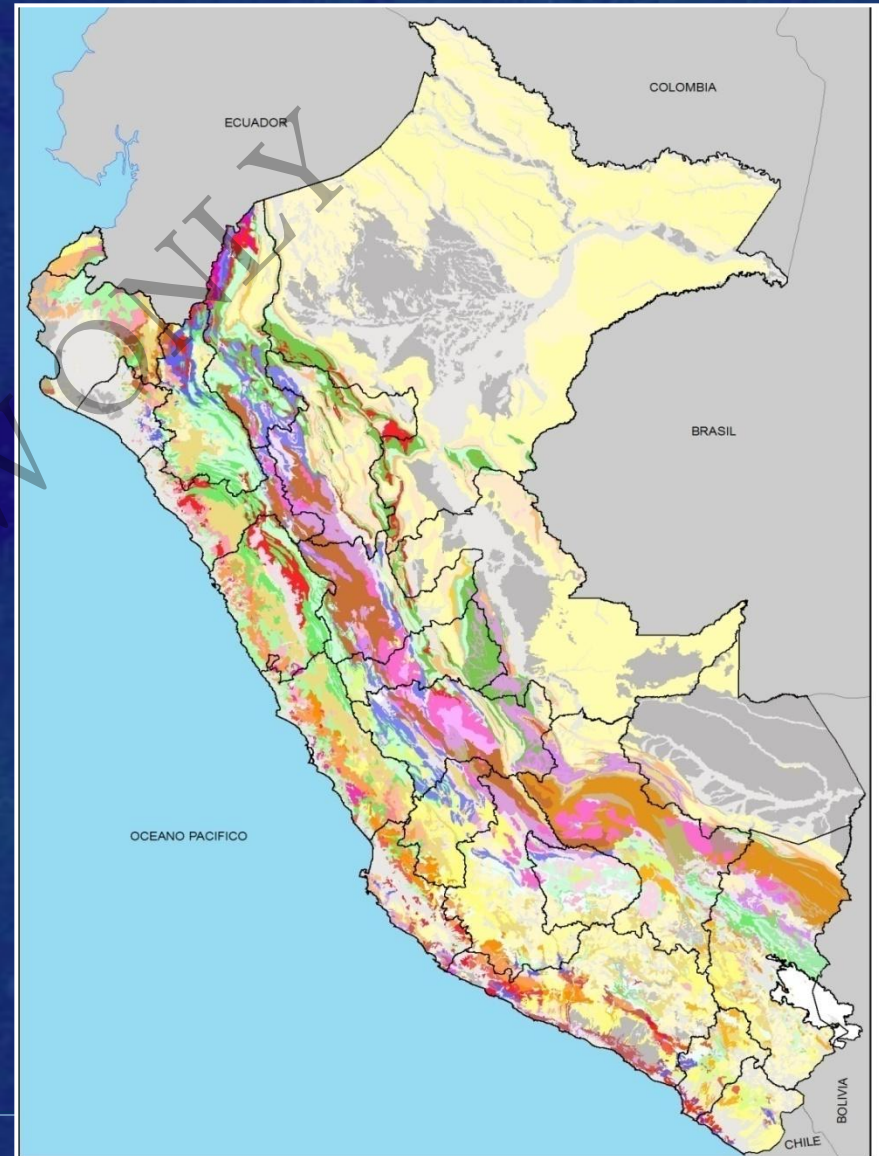
- Carrying the local and regional geological mapping, geophysics and paleontology research

## Products:

1:100 000 – 501 geological maps (100%)

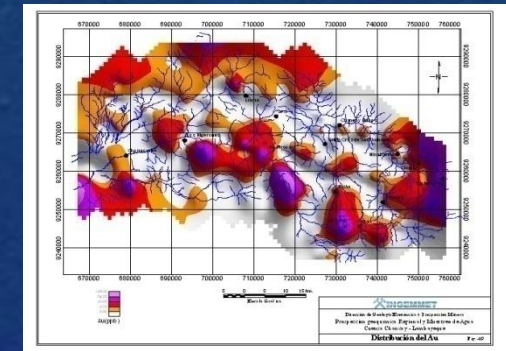
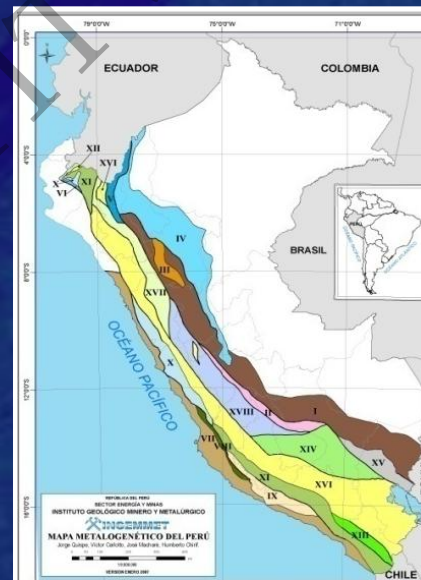
1:50 000 - 52 maps and

1:500 000 regional maps as well



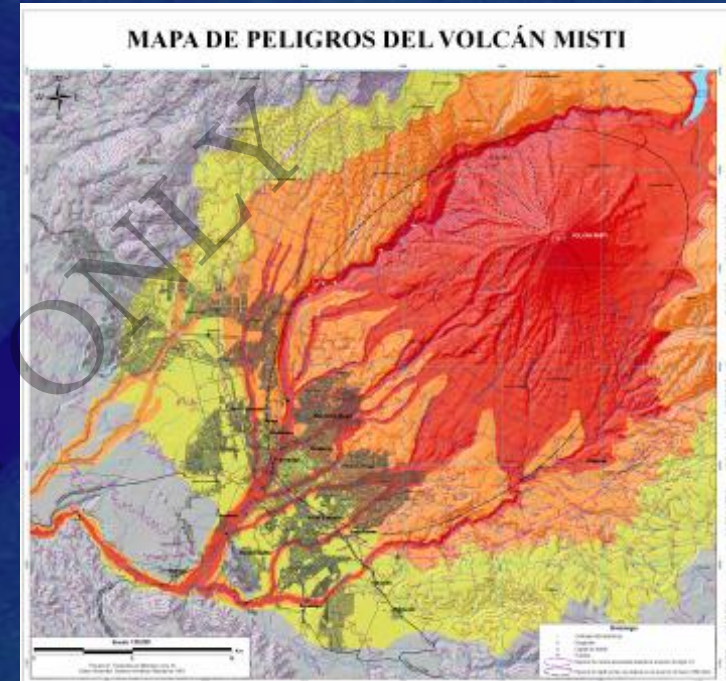
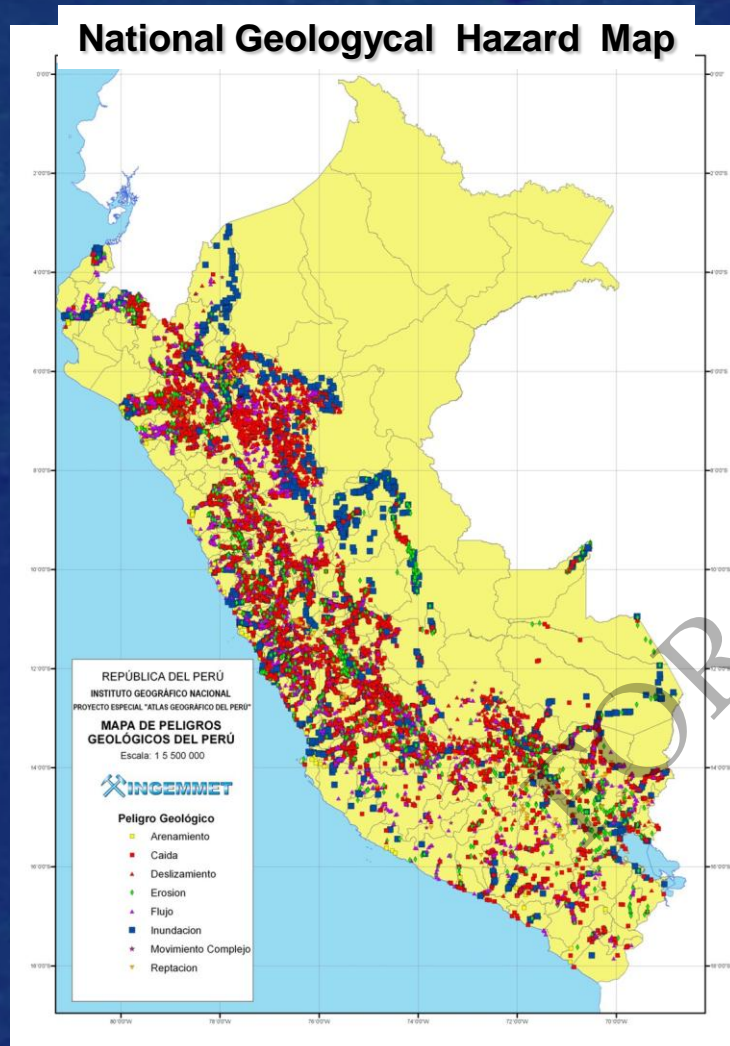
# MINERAL RESOURCES AND ENERGY DEPARTMENT

- Metallogeny
- Geochemical prospection
- Industrial rocks and minerals
- Mining and development





# ENVIRONMENTAL GEOLOGY AND GEOLOGICAL RISK

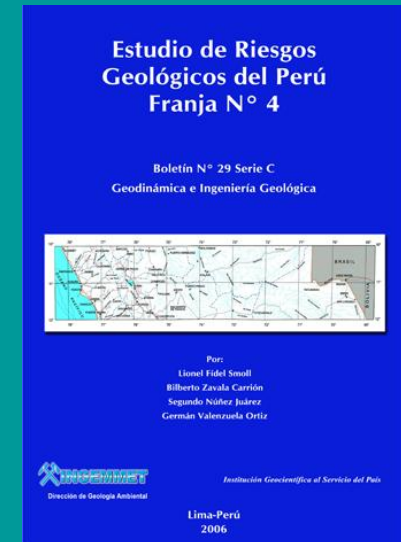
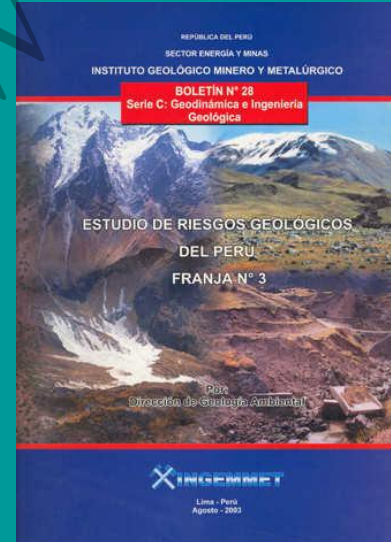
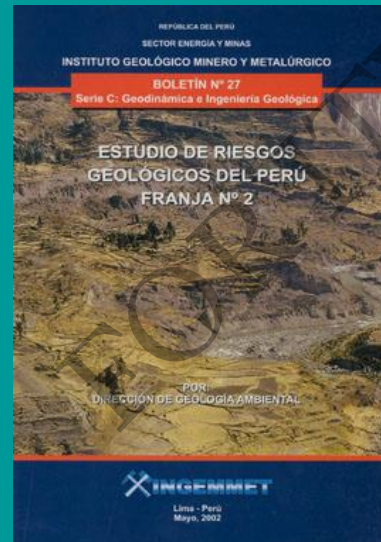
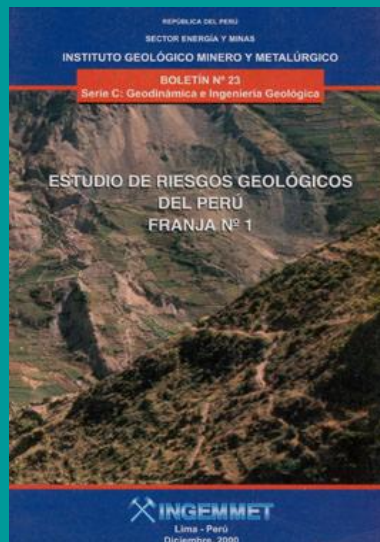


As a result, we now have the geological hazard map (1:100000) up to (95%)

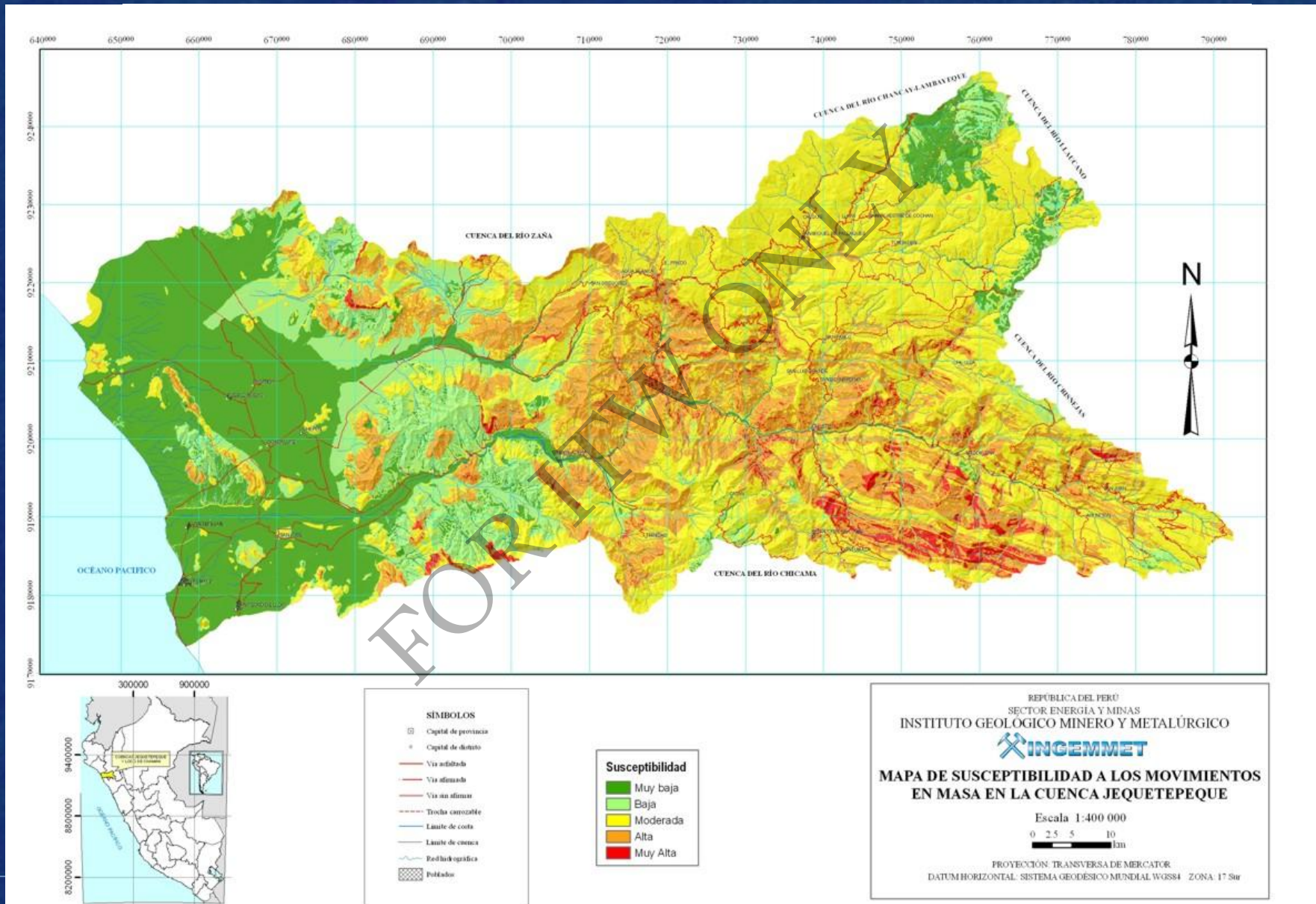


## ACTIVITIES AND PRODUCTS:

- Inventory of Geological Hazards and geo-hydrological.
- Thematic Maps: susceptibility, hazard and risk zoning.
- Dissemination of information



# EXAMPLES OF SUSCEPTIBILITY MAPS:





## PRODUCTS:

- Publications:**

**Geo-environmental studies of river: Chira - Catamayo (MAP: GAC), Puyango - Tumbes, Ramis**

**Geological Hazards in the Franja 4 (Revised: MAP: GAC)**

### Estudio Geoambiental de la Cuenca del Río Chancay-Lambayeque

Boletín N° 33 Serie C  
Geodinámica e Ingeniería Geológica



Por:  
Segundo Núñez Juárez  
Sandra Villacorta Chamblí  
Jorge Chira Fernández  
Raymond Rivera Cortijo



Institución Geocientífica al Servicio del País

Lima-Perú  
2006

### Estudio Geoambiental de la Cuenca del Río Puyango-Tumbes

Boletín N° 32 Serie C  
Geodinámica e Ingeniería Geológica



Por:  
Segundo Núñez Juárez  
Juan Zepeda Loo



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Lima-Perú  
2006

### Estudio Geoambiental de la Cuenca del Río Chira-Catamayo

Boletín N° 31 Serie C  
Geodinámica e Ingeniería Geológica



Por:  
Manuel Viquez Mata  
Segundo Núñez Juárez  
Germán Valenzuela Ortiz



Institución Geocientífica al Servicio del País

Lima-Perú  
2006

### Estudio Geoambiental de la Cuenca del Río Ramis

Boletín N° 30 Serie C  
Geodinámica e Ingeniería Geológica



Por:  
Bilberto Zavala Carrión  
Carlos Guerrero Rodríguez

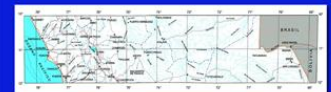


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Lima-Perú  
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### Estudio de Riesgos Geológicos del Perú Franja N° 4

Boletín N° 29 Serie C  
Geodinámica e Ingeniería Geológica



Por:  
Lionel Fidel Smoll  
Bilberto Zavala Carrión  
Segundo Núñez Juárez  
Germán Valenzuela Ortiz



Institución Geocientífica al Servicio del País

Lima-Perú  
2006

# MAIN USERS



**PROVINCIAL,  
DISTRICT AND  
REGIONAL  
GOVERNMENTS**



**Proyecto Nacional  
de Manejo de  
Cuencas  
Hidrográficas Y  
Conservación de  
Suelos**

PRONAMACHCS

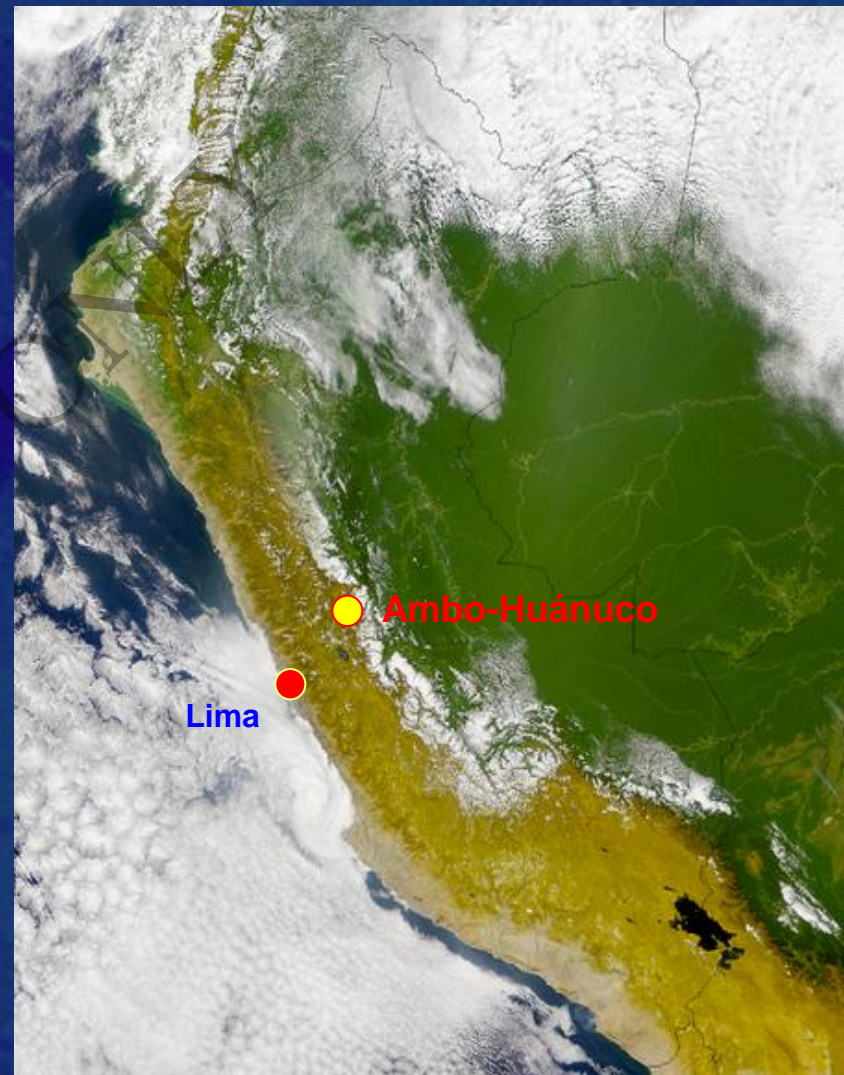


**UNIVERSITIES  
RESEARCHERS  
CONSULTANTS**

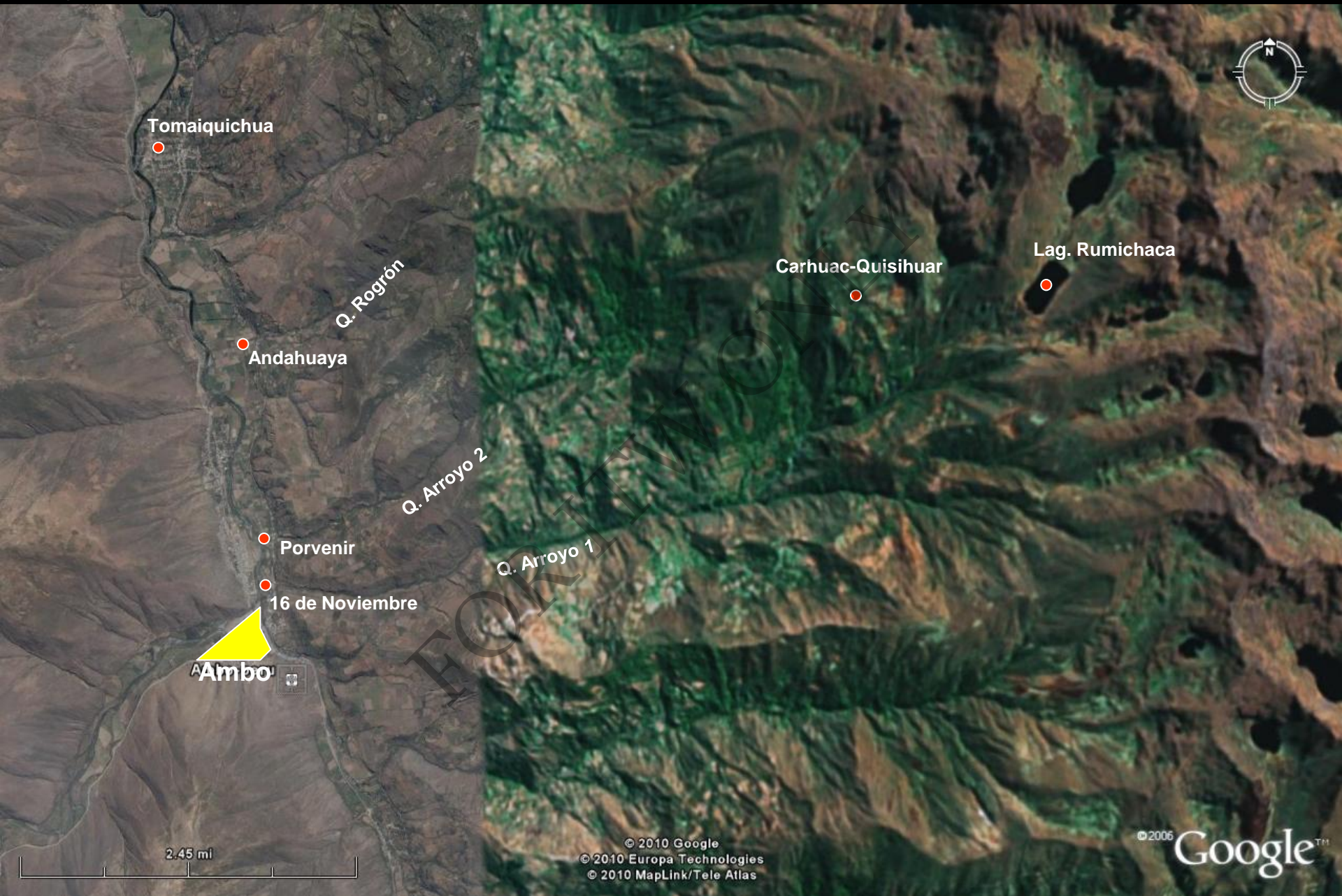


# LAST EVENT OF DISASTER

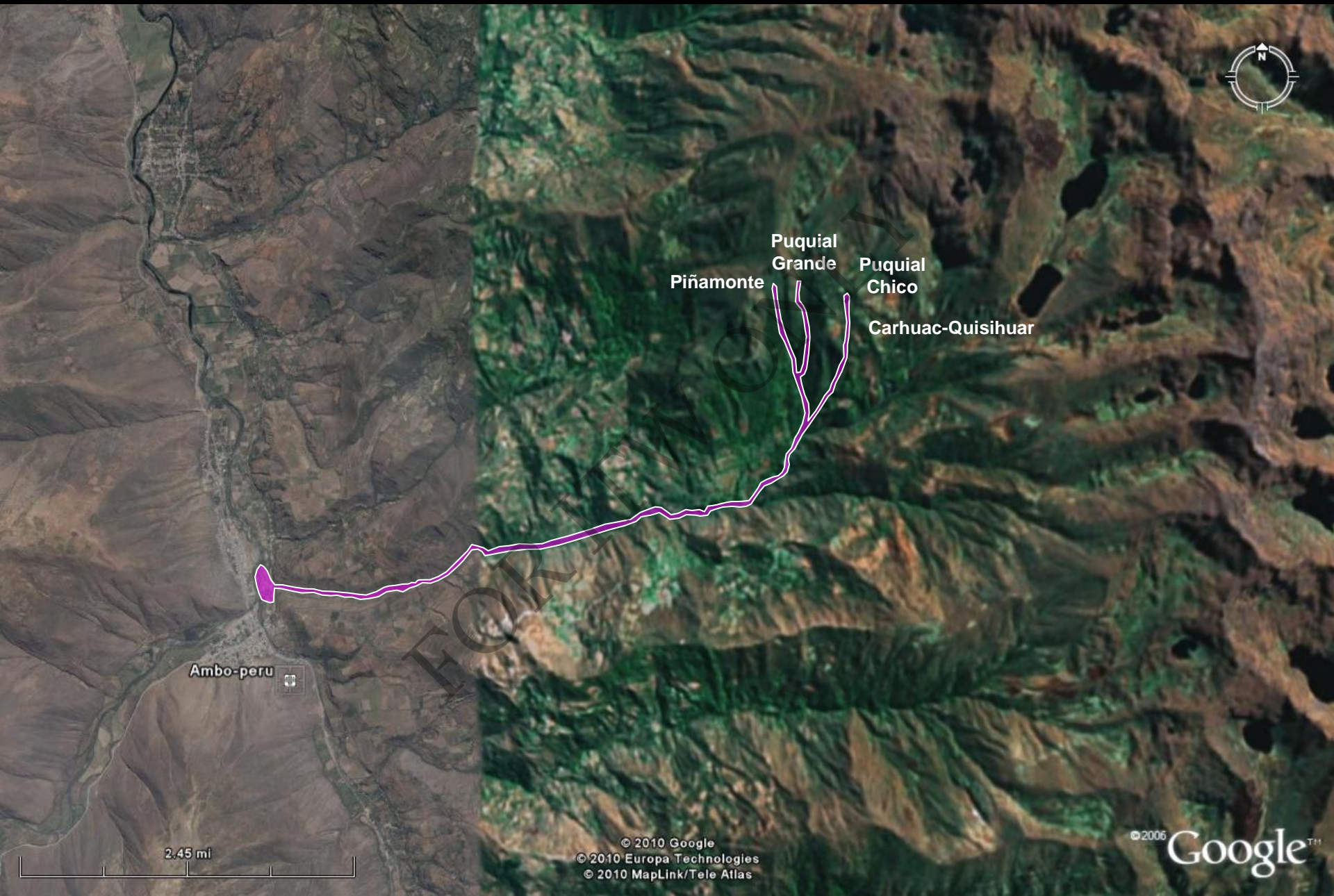
- Event type: DEBRIS FLOW
- Village: 16 de Noviembre-Ambo-Huánuco
- Location: 360 km of Lima
- Date: April 1, 2010
- Hour: 19:30
- After 3 hours of rain in the upper basin
- Rainfall data not available, because the weather station was destroyed by the event.



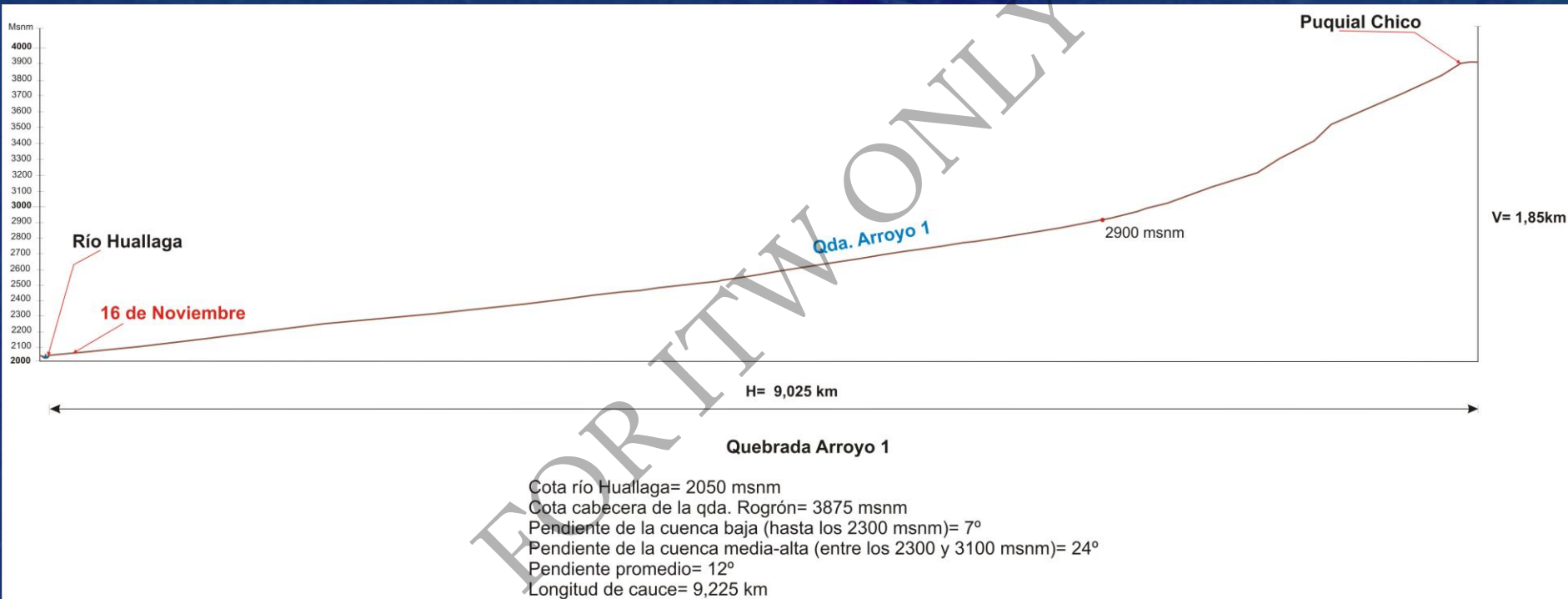




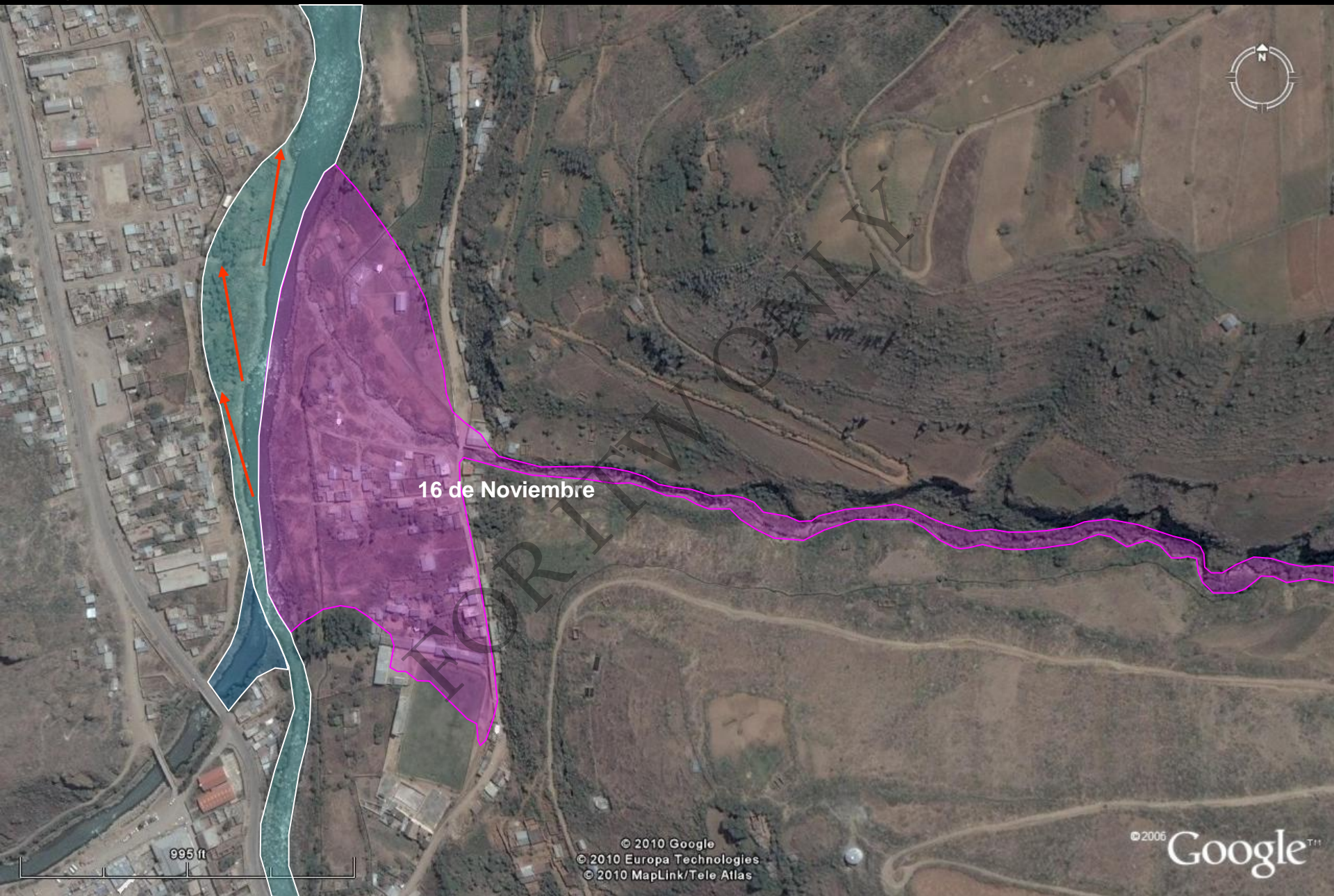




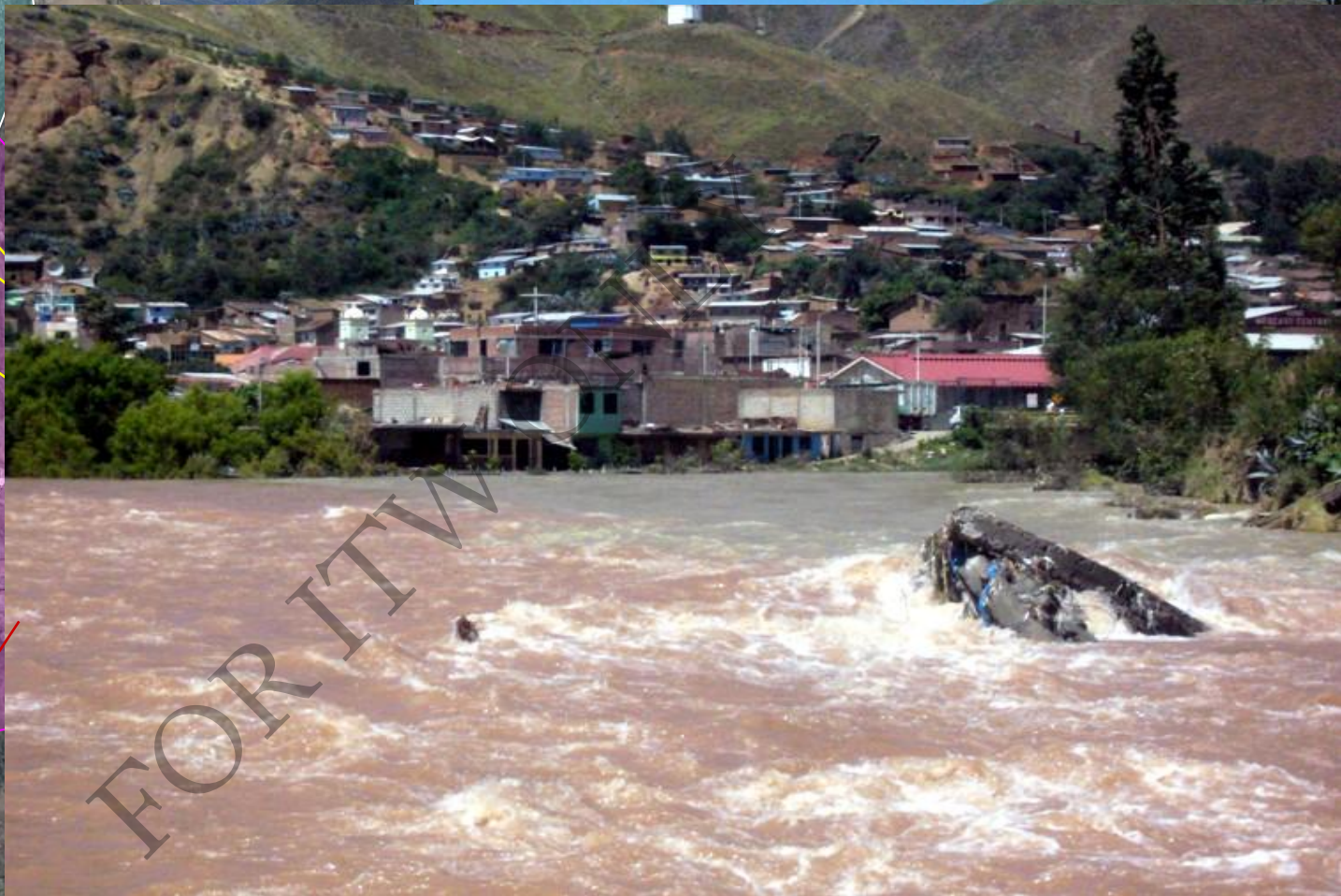
## QUEBRADA ARROYO 1











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## DAMAGE ASSESSMENT

<b>PEOPLE</b>	Victims	<b>473</b>
	Affected	<b>400</b>
	Killed	<b>30</b>
	Missing	<b>37</b>
	Injured	<b>54</b>
<b>INFRASTRUCTURE</b>	Home destroyed	<b>102</b>
	Affected house	<b>88</b>
	School	<b>2</b>
	Road	<b>150 m</b>
	Bridge	<b>2</b>
	Water service	

“Currently working on the relocation of the village”



