



National System of Civil Protection
National Center for Disaster Prevention

**Mexican Strategy on Landslide
Risk Mitigation (MILADERA)**

L. Domínguez

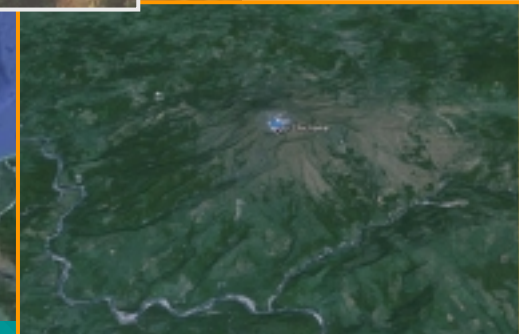
Under Director of Soil Dynamics and Gravitational Processes

E-mail: ldm@cenapred.unam.mx

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Mean referenced events on the Civil Protection in Mexico

1. Eruption of the Chichonal Volcano in Chiapas State 1982
2. Michoacan earthquake of Magnitud 8.1 and 7.6 1985
3. Puebla Landslides due to rain storms on the Gulf of Mexico 1999



Landslides effects in Mexico

The Landslide phenomenon plays a very important role on the loss of lives, material damages and millions of dollars in reconstruction



Impact of the Landslides

Mexico not yet have an official statistical over landslide impacts, nevertheless, recent documents show that in the last 70 years have lost more than 3 thousands of lives and millions of dollars



Teziutlán 1999, 110 lives



Tijuana 2003, destruction of 77 houses



Eloxochitlan 2007, 32 lives



Necaxa 2006, 4 lives



Juan de Grijalva 2007, 19 lives

1999: The Landslides in Teziutlan, Puebla



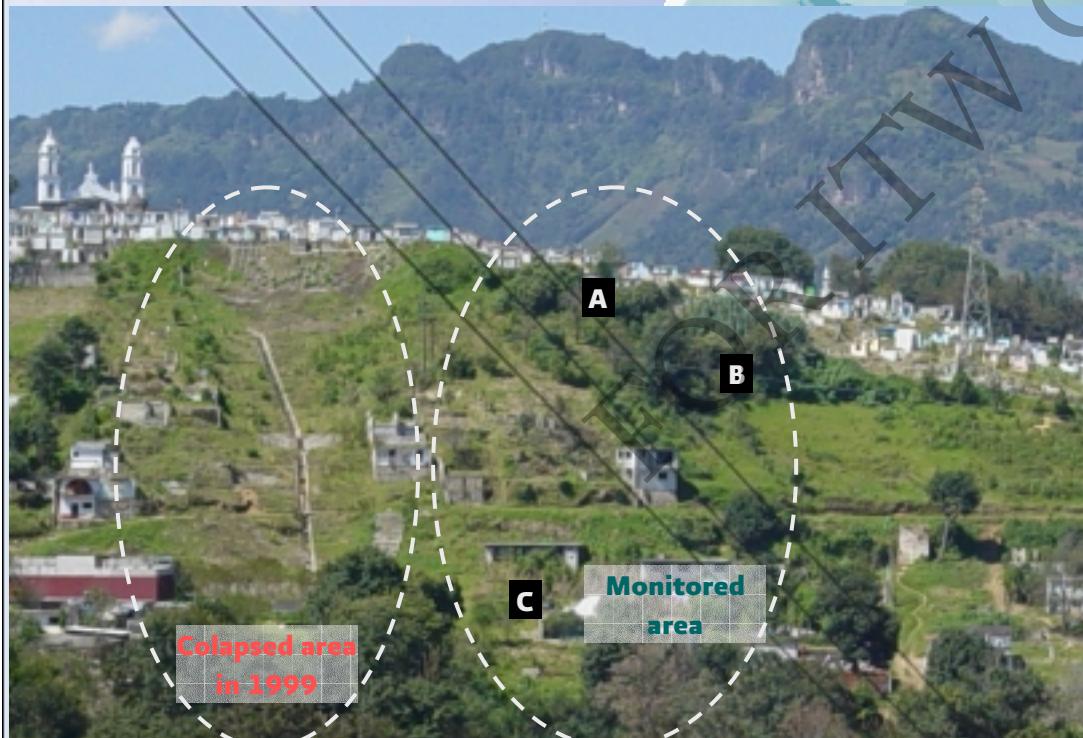
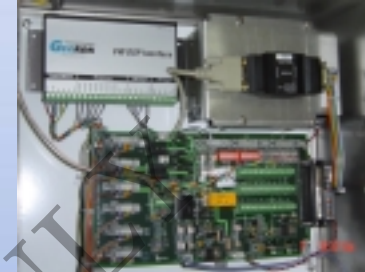
National Strategy on Landslide Risk Mitigation

This Strategy was created due to the great impact of the Teziutlan landslides occurring in 1999. In 2001 was formally integrated and began its activities immediatly.

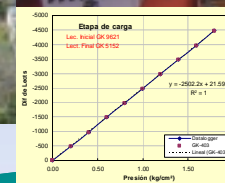
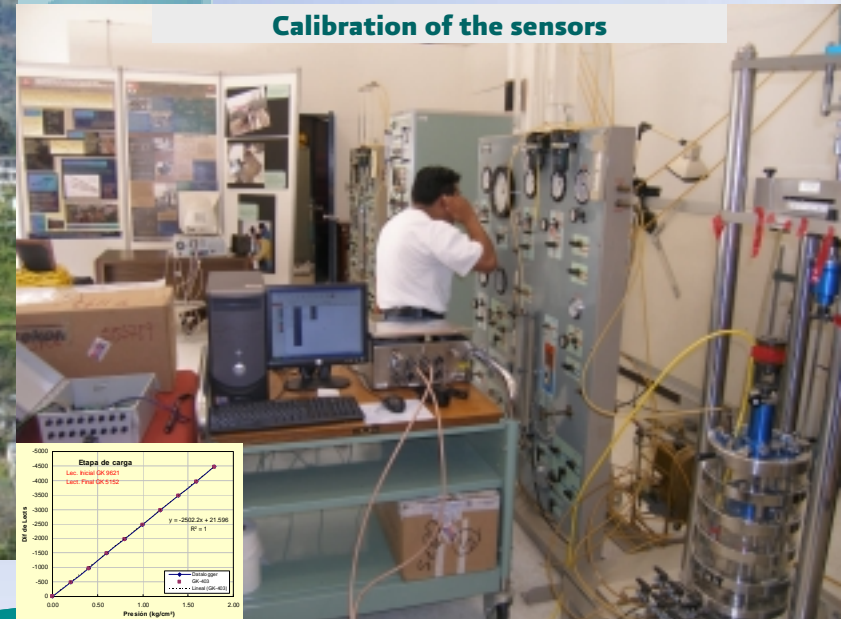


Geotechnical instrumentation project on a hill slope area in Teziutlán Puebla

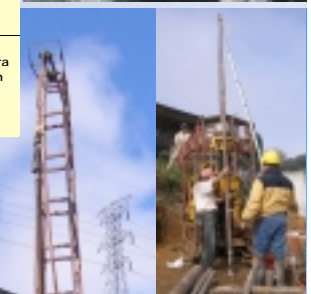
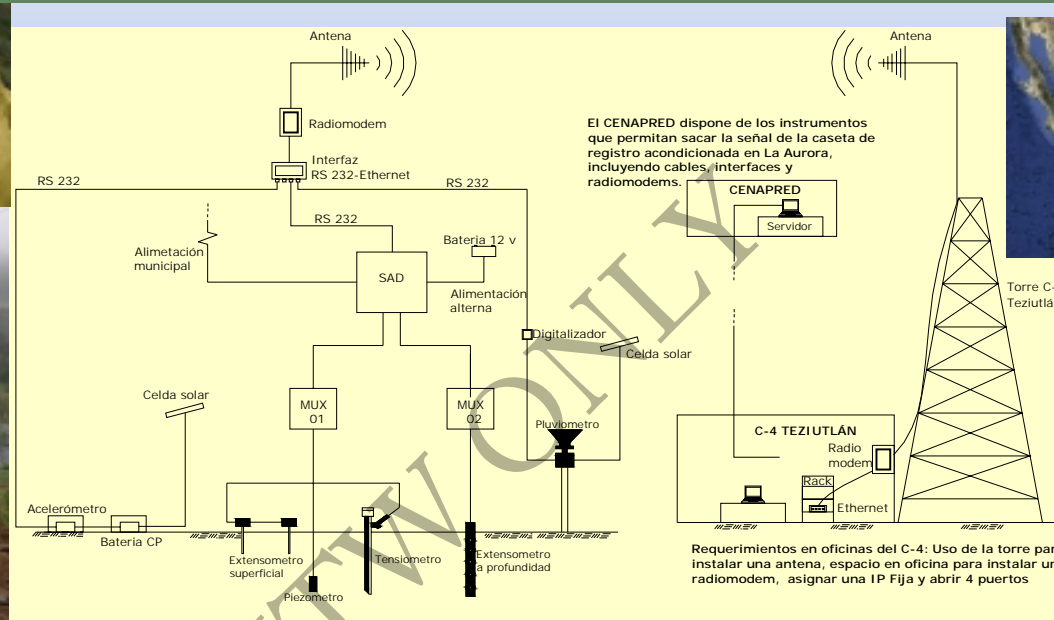
Due to the high landslide hazard in Teziutlán, Puebla, the CENAPRED began an instrumentation project in order to know the changes on mechanical properties which produces instability, especially under the water effect by rain storms.



Calibration of the sensors



Instrument installation and communication system



Eso es todo amigos...

