

Date of Submission	February 18, 2020
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IPL Project (IPL - 208) Annual Report Form 2018

1 January 2018 to 31 December 2018

1. Project Number (approved year) and Title,

208 (2016) Landslide disaster risk communication in mountain areas

2. Main Project Fields

Enhancing Human and Institutional Capacities

Collating and Disseminating Information/ Knowledge

Preparedness

3. Name of Project leader: Irasema Alcántara-Ayala

Affiliation: Institute of Geography, National Autonomous University of Mexico (UNAM), Full Professor

Core members of the Project:

Ricardo Garnica-Peña, Institute of Geography, National Autonomous University of Mexico (UNAM)

Ana Rosa Moreno, Faculty of Medicine, National Autonomous University of Mexico (UNAM)
(expert on risk communication)

4. Objectives: (5 lines maximum)

- Developing a landslide risk communication strategy that can be applied at local level.
- Helping to induce landslide capacity building in the municipality of Teziutlán by incorporating landslide risk awareness and preparedness.
- Merging the efforts and capabilities of Civil Protection authorities and the community to implement a successful strategy of landslide risk communication.

5. Study Area: (2 lines maximum)

The municipality of Teziutlán, Puebla, México.

6. Project Duration (1 line maximum)

2 years

Report

1) Progress in the project: (30 lines maximum)

Our investigations focused on the understanding of the spatial-temporal distribution of landslides in Teziutlán, Puebla, where landslide occurrence has triggered disasters in the last decades. During the year 2018 several activities were organised in collaboration with Civil Protection authorities of Teziutlán, Puebla, at municipal and local levels, in both rural, and urban communities. These included visits to primary and secondary schools to share information about landslide disaster risk.

Landslide mapping was conducted in the neighborhoods of La Gloria, and Ayotzingo by using UAVs. Landslide disaster risk perception surveys were also undertaken in such places, and community workshops to raise landslide disaster risk awareness were organized for different sectors of the community, including children.

Based on the analysis of aerial photographs, satellite images and UAVs images, analysis of land use changes were performed to identify the increase of exposed elements to landslide risk in the urban areas of Teziutlán.

A video filmed in Teziutlán, that included the factors determining landslide susceptibility, as well as conditions generating exposure and vulnerability was prepared and shared with the community. The video lasts 25 min and aimed at contributing to raise landslide disaster risk awareness in the communities.

Planned future activities or Statement of completion of the Project (15 lines maximum)

Activities will continue in other small localities of Teziutlán as they lack information regarding disaster risk reduction. We are planning to prepare publications with the corresponding results, as well as some thesis. In addition to the municipality of Teziutlán, we will work in the municipality of Tlatlauquitepec, an area also historically affected by rainfall induced landslides.

2) Beneficiaries of Project for Science, Education and/or Society (15 lines maximum)

The authorities of Civil Protection of the municipalities of Teziutlán and Tlatlauquitepec, and their inhabitants, particularly those living in rural and small localities.

3) Results: (15-line maximum, e.g. publications)

The elaboration of a video to raise landslide disaster risk awareness, which was filmed in the municipality of Teziutlán.

Publications:

Alcántara-Ayala I. (2018) TXT-tool 4.052-1.1: Landslide Risk Perception. In: Sassa K., Tiwari B., Liu KF., McSaveney M., Strom A., Setiawan H. (eds) *Landslide Dynamics: ISDR-ICL Landslide*

Interactive Teaching Tools, 555-568, Springer, Cham, DOI https://doi.org/10.1007/978-3-319-57777-7_33, Print ISBN 978-3-319-57776-0, Online ISBN 978-3-319-57777-7.

Alcántara-Ayala I. (2018) TXT-tool 4.052-1.2: Landslide Risk Communication. In: Sassa K., Tiwari B., Liu KF., McSaveney M., Strom A., Setiawan H. (eds) *Landslide Dynamics: ISDR-ICL Landslide Interactive Teaching Tools*, 731-742, Springer, Cham, DOI https://doi.org/10.1007/978-3-319-57777-7_47, Print ISBN 978-3-319-57776-0, Online ISBN 978-3-319-57777-7.

Alcántara Ayala, I., Garnica-Peña, R.J., Murillo-García, F.G., Salazar-Oropeza, M.O., Méndez-Martínez A., Coll-Hurtado, A., (2018) Landslide disaster risk awareness in Mexico: community access to mapping at local scale, *Landslides*, 15, 8, 1691–1704 <https://doi.org/10.1007/s10346-018-1010-4>.

Satake, K., McLean, C., Alcántara-Ayala, I. (2018), Understanding Disaster Risk: The Role of Science and Technology, *Journal of Disaster Research*, 13, 7, 1168-1176 doi: 10.20965/jdr.2018.p1168.

Wu, C., Cui, P., Li, Y., Alcántara-Ayala, I., Huang C., Yi, S. (2018). Seismogenic fault and topography control on the spatial patterns of landslides triggered by the 2017 Jiuzhaigou earthquake, *Journal of Mountain Science*, 15(4): 793-807 <https://doi.org/10.1007/s11629-017-4761-9>.

Note:

- 1) If you will change items 1)-6) from the proposal, please write the revised content **in Red**.
- 2) Please fill and submit this form by **30 March 2018** to ICL Network <icl-network@iclhq.org>