Date of Submission	30 March 2017

IPL Project Annual Report Form 2017

1 January 2016 to 31 December 2016

Project Title:

The construction of a global database of giant landslides on oceanic island volcanoes

1. Main Project Fields

Select the suitable topics. If no suitable one, you may add new field.

(1) Technology Development

B. Hazard Mapping, Vulnerability and Risk Assessment

(2) Targeted Landslides: Mechanisms and Impacts

A. Catastrophic Landslides

(3) Capacity Building

B. Collating and Disseminating Information/ Knowledge

(4) Mitigation, Preparedness and Recovery

A. Preparedness

2. Name of Project Leader

Dr. Matt Rowberry, Ph.D.

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Core members of the Project:

Jan Blahůt, Ph.D. (IRSM CAS)

Jan Klimeš, Ph.D. (IRSM CAS)

Xavi Martí, Ph.D. (IRSM CAS)

Michal Kusák, MSc. (IRSM CAS)

3. Objectives

The fundamental objectives of the proposed project are:

- To construct the first global database of giant landslides on oceanic island volcanoes
- To investigate spatial and temporal patterns of landsliding and landslide reactivation
- To assess the hazard and potential risks posed by these giant landslides

4. Study Area

The database will include information about giant landslides from across the globe.

5. Project Duration

2016-2018

6. Report

1) Progress in the project

During the first year of the project we have compiled information about giant landslides in the Atlantic Ocean (e.g. the Azores, the Canary Islands, and the Lesser Antilles). This information includes data obtained from the published literature along with completely new data obtained from our own observations of bathymetric models of offshore areas and digital elevation models of onshore areas. The inventory itself incorporates a diverse range of categories: megalandslide name; type of megalandslide according to the literature; type of megalandslide according to our classification; megalandslide trigger; megalandslide preparatory factors; megalandslide age and the determination method; evidence for preceding megalandslides; number of preceding megalandslides; age of the oldest megalandslide; presence of defined sliding surfaces and their geometries; historical or recent reactivations of the sliding surfaces; main triggers of the historical or recent reactivations; displacements recorded during historical or recent reactivations; secondary landslides / rockfalls / debris flows within the onshore body of the megalandslide; tsunamis related to the megalandslide; fatalities or damage related to the megalandslide; total volume (km^3); total area (km^2); subaerial volume (km^3); subaerial area (km^2); submarine volume (km^3); submarine area (km^2); means of mapping the submarine part; general dip (subaerial); general dip (submarine); maximum subaerial length (km); maximum subaerial width (km); highest subaerial point of the megalandslide (m asl); lowest subaerial point of the megalandslide (m asl); maximum submarine length (km); maximum submarine width (km); highest submarine point of the megalandslide (m bsl); lowest submarine point of the megalandslide (m bsl); height of island above sea floor (m); type of volcanic activity; rate of island uplift; and the presence of rift zones on the island.

2) Planned future activities or statement of completion of the Project

We will submit an IPL/ICL Activities paper during the second year of the project as outlined in the original project proposal. This manuscript will, first, outline the rationale for the database and, second, present a comprehensive analysis of the information collated during the first year of the project, i.e. regarding giant landslides in the Atlantic Ocean. This will first, allow us to investigate the spatial and temporal patterns of giant landslides and their subsequent reactivations and, second, it will allow us to assess the hazard posed by giant landslides on the oceanic islands under study.

3) Beneficiaries of the project for science, education and/or society

The greatest beneficiaries of this research are likely to be represented by the geoscientific community and the civil protection agencies responsible for the islands incorporated into the database. In the case of the Canary Islands, we are directly in contact with the local stakeholders who may benefit from the newly collected knowledge.

4) Results

No publications were planned for the first year of the project according to the original project proposal.

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 2017 to ICL Network <icl-network@iclhq.org>