

IPL Project Annual Report Form 2021

1 January 2019 to 31 December 2021

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)

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 - the project is ongoing

6. Report

1) Progress in the project

Since the beginning of this project our activities have been described in two IPL manuscripts published in the journal *Landslides* (Blahůt et al., 2018; Blahůt et al., 2019). These manuscripts have been read widely by the landslide research community, with the SpringerLink website indicating 600 accesses and 13 citations for the former and 853 accesses and 23 citations for the latter. The second of these manuscripts outlines the basic structure of the final global database of giant landslides on oceanic island volcanoes. However, we continue to maintain the database and update its contents as more data on giant landslides are published in the scientific literature (IRSM, 2022).

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

Our objectives for the next twelve months are threefold:

- The global database of giant landslides on oceanic island volcanoes will continue to be reviewed and updated as more information about such events is published in the scientific literature.
- A new database layer will be created to provide information about the long term monitoring of such landslides, irrespective of whether undertaken through direct instrumental measurements or remote sensing approaches.
- The core members of the project hope to be able to add a link to the database from the website of the International Program on Landslides. Indeed, a webpage linking to all databases constructed from ICL/IPL activities might be beneficial to all parties.

3) Results

Our results are presented in two manuscripts and one online database:

Blahůt, J., Balek, J., Klimeš, J., Rowberry, M., Kusák, M., Kalina, J., 2019. A comprehensive global database of giant landslides on volcanic islands. *Landslides*, v. 16, p. 2045-2052.

<https://doi.org/10.1007/s10346-019-01275-8>

Blahůt, J., Klimeš, J., Rowberry, M., Kusák, M., 2018. Database of giant landslides on volcanic islands - first results from the Atlantic Ocean. *Landslides*, v. 15, p. 823-827.

<https://doi.org/10.1007/s10346-018-0967-3>

IRSM, 2022. Database of Giant Landslides on Volcanic Islands. Institute of Rock Structure & Mechanics, Czech Academy of Sciences.

https://www.irms.cas.cz/ext/giantlandslides/index.php?page=giantlandslides_db. Last accessed 18 January 2022

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 2019** to ICL Network <icl-network@iclhq.org>