

Date of Submission	
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IPL Project (IPL -167) Annual Report Form 2017

1 January 2016 to 31 December 2016

1. Project Title

Landslides Mechanism and the Subgrade Stability Controlling Measures in Island Permafrost Area (IPL 167)

2. Main Project Fields

Mitigation, Preparedness and Recovery

3. Name of Project leader

Wei Shan: Institute of Cold Regions Science and Engineering Northeast Forestry University, Harbin 150040 China, Contact: Tel/Fax: +86 (0)451 8219 1477, E-mail: shanwei456@163.com

Core members of the Project:

Dr. Ying Guo, Institute of Cold Regions Science and Engineering Northeast Forestry University, China

Dr. Hua Jiang, Institute of Cold Regions Science and Engineering Northeast Forestry University, China

Dr. Chunjiao Wang, Institute of Cold Regions Science and Engineering Northeast Forestry University, China

Dr. Zhaoguang Hu, Institute of Cold Regions Science and Engineering Northeast Forestry University, China

4. Objectives: (5 lines maximum)

Under the permafrost, landslides and other complex geological conditions investigation, design, construction and monitoring technical of express way expansion project.

5. Study Area: (2 lines maximum)

Beian - Heihe Expressway Extension Project K160~K182 Section

6. Project Duration (1 line maximum)

2009.08-

7. Report

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

We maintain and replenish the pore water pressure and ground temperature monitoring points, timing records and wireless transmission monitoring data in the study area for more in-depth and more comprehensive analysis of the relationship between ground temperature changes and landslide movement.

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

On the basis of the mechanism research, we will pay more attention to the improvement of engineering measures

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

Climate change has become a hot issue of global concern, melting permafrost caused by climate change led to many landslide, which have a dramatic impact on the regional environment, ecology and construction project. It has important scientific and engineering significance to carry out long-term monitoring and analysis for this hot issue.

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

1. Zhaoguang Hu and Wei Shan, Landslide investigations in the northwest section of the lesser Khingan range in China using combined HDR and GPR methods. *Bull Eng Geol Environ* (2016) 75:591–603 DOI 10.1007/s10064-015-0805-y.
2. Wei Shan, Ying Guo, Zhaoguang Hu *et al.*, Landslides Caused by Climate Change and Groundwater Movement in Permafrost Mountain, "*River Basin Management*", book edited by Daniel Bucur, Chapter 1, ISBN 978-953-51-2605-8, Print ISBN 978-953-51-2604-1, Published: August 10, 2016 under CC BY 3.0 license. DOI: 10.5772/63068.

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>