

# Proposal of North East Asia ICL Network

## 1. Name of Network

North East Asia ICL Network (NEA-ICL)

## 2. Name of Proposers

Dr. Hiroshi Fukuoka and Dr. Fawu Wang

### Affiliation: Position

Dr. Hiroshi Fukuoka

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### Core members of the activities

Prof. Yueping Yin

Dr. Byung-Gon Chae,)

Prof. Kaoru Takara

Prof. Hideaki Marui

Prof. Keizo Ugai

### Names/Affiliations

Prof. Yueping Yin, Engineer-in-Chief, China Institute for Geo-Environmental Monitoring, China Geological Survey

Dr. Byung-Gon Chae, Senior Researcher, Geologic Hazards Department, Korea Institute of Geoscience and Mineral Resources (KIGAM)

Prof. Kaoru Takara, Disaster Prevention research Institute, Kyoto University

Prof. Hideaki Marui, Director of Research Institute for Natural Hazards and Disaster Recovery, Niigata University, Japan

Prof. Keizo Ugai, President of Japan Landslide Society (Professor of Gunma University, Japan)

### 3. ICL member organizations (representatives) involved in the Network.

- China Geological Survey (Prof. Yueping Yin)
- Northeast Forestry University, China (Prof. Wei Shan)
- Institute of Mountain Hazards and Environment, China Academy of Science (Prof. Peng Cui)
- Bureau of Land and Resources of Xi'an, China (Mr. Shiyuan Wu)
- DPRI, Kyoto University (Prof. Kaoru Takara)
- Institute of Industrial Science and Department of Civil Engineering, University of Tokyo, Japan (Prof. Kazuo Konagai, Prof. Ikuo Towhata)
- Research Center for Natural Hazards and Disaster Recovery, Niigata University, Japan (Prof. Hideaki Marui)
- Faculty of Engineering, Ehime University, Japan (Prof. Ryuichi Yatabe)
- Forestry and Forest Product Research Institute, Japan (Prof. Kazuo Suzuki, Dr. Hiroataka Ochiai)
- Japan Landslide Society (Prof. Keizo Ugai)

- Korea Institute of Geoscience and Mineral Resources (KIGAM)(Dr. Byung-Gon Chae)

**Write those organizations (representatives) if further ICL members are expected to join the planned network.**

- Dept. of Geoscience, Shimane University, Japan (Dr. Fawu Wang)
- School of Geology Engineering and Geomatics, Chang'an University, China (Prof. Tonglu Li)
- Dept. of Construction Engineering, Jilin University, China (Prof. Lei Nie)
- Some organizations in Korea

**4. Objectives for the initial 3 years: (5 lines maximum; what you expect to accomplish?)**

The general objective of the 'North East Asia Network on Landslides' is to promote the research on landslides triggered by earthquake, rainfall and their combination. Specific objectives are: (1) promote international cooperation on landslide research triggered by earthquake, rainfall and their combination. (2) supply training course for landslide disaster mitigation. (3) Capacity building for areas and regions facing landslide problems.

**5. Background Justification: (10 lines maximum)**

In the region of North East Asia, including Japan, China and Korea, landslide problems are so severe. As the strongest earthquakes in the world occurred in this area, lots of landslides were triggered by earthquake. Also, affected by Monsoon climates, lots of landslides were triggered by Typhoon and intense rainfall. Large number of landslide in the world is located in this area. Besides of that, the economic developing activities in the three countries are very active and in large scale, and this results in significant economic loss and social impacts. Until now, a number of IPL projects were proposed to the ICL, and most of them have been well completed.

Because landslide problem is the one of the main geo-hazards in this region, lots of national research institutes and universities support the landslide research. Because the research level in this region is quite high, we hope the establishment of the regional network can supply an integrated platform for landslide research cooperation and information dissemination.

**6. Resources available for Network activities**

**(Personnel, Facilities, Budgets, and Contribution to ICL/IPL)**

**Personnel** available for Network activities

ICL member	Personnel
China Geological Survey	More than 50 senior researchers, more than 500 young researchers
Northeast Forestry University, China	2 senior researchers, 5 young researchers
Institute of Mountain Hazards and Environment, China Academy of Science	5 senior researchers, 10 young researchers
Bureau of Land and Resources of Xi'an, China	1 senior researchers, 5 young researchers
DPRI, Kyoto University	6 senior researchers, 20 young researchers
Institute of Industrial Science and Department of Civil Engineering, University of Tokyo, Japan	5 senior researchers, 20 young researchers
Research Center for Natural Hazards and Disaster Recovery, Niigata University, Japan	5 senior researchers, 15 young researchers
Faculty of Engineering, Ehime University, Japan	3 senior researchers, 10 young researchers
Forestry and Forest Product Research Institute, Japan	5 senior researchers, 10 young researchers
Japan Landslide Society	more than 50 senior researchers, more than 200 young researchers
Korea Institute of Geoscience and Mineral Resources (KIGAM)	5 senior researchers, 20 young researchers

**Facilities** available for Network activities

ICL member	Personnel
China Geological Survey	conference room, field site for monitoring system, geotechnical laboratory
Northeast Forestry University, China	geotechnical laboratory, field site for landslide investigation
Institute of Mountain Hazards and Environment, China Academy of Science	conference room, geotechnical laboratory, field observatory with monitoring system
Bureau of Land and Resources of Xi'an, China	field site with landslide monitoring system
DPRI, Kyoto University	conference room, ring shear apparatus
Institute of Industrial Science and Department of Civil Engineering, University of Tokyo, Japan	conference room, geotechnical laboratory
Research Center for Natural Hazards and Disaster Recovery, Niigata University, Japan	conference room, geotechnical laboratory
Faculty of Engineering, Ehime University, Japan	conference room, geotechnical laboratory
Forestry and Forest Product Research Institute, Japan	conference room, geotechnical laboratory, field site with landslide monitoring system
Japan Landslide Society	conference room
Korea Institute of Geoscience and Mineral Resources (KIGAM)	conference room, geotechnical laboratory, field site with landslide monitoring system

**Budgets** available for Network activities

	Regional network activities and contributions to ICL/IPL	Budget
1 <sup>st</sup> phase	Summarizing and overview of the current research level and landslide problems within the region including Japan, China and Korea.	budgets for scientific research at regional institutions (existing)
	Information exchanging among the ICL members in this region for capacity building plan and action plan	
	Forming of regional action plan	
2 <sup>nd</sup> phase	Joint research on landsliding mechanism by different triggering factors for disaster prediction and mitigation.	multiple bilateral projects between regional institutions (planned)
	Capacity building activities in Japan, China and Korea.	
3 <sup>rd</sup> phase	Forming of regional network for effective communication and information dissemination	

**Contributions to ICL/IPL**

The region of North East Asia is facing the largest problem caused by landslides. This network will contribute to the landslide disaster mitigation through the activity of ICL/IPL.

**7. Description of past activities related to proposed network (30 lines maximum).**

- 1) In 2006, East Asia landslide Symposium has been organized by Korea Institute of Geoscience and Mineral Resource (KIGAM). Landslide experts from Japan and China attended the symposium.
- 2) In 2007, the first China-Japan-Korea joint symposium on landslide disaster mitigation in Three Gorges Dam reservoir has been organized by China Geological Survey. About 10 participants from Japan, 10 participants from Korea and 50 participants from China participated the joint symposium and field trip.
- 3) In 2008, after the 2008 Wenchuan earthquake, Institute of Mountain Hazards and Environment, China Academy of Science organized a regional symposium on "landslides triggered by Earthquake" in Chengdu, China. Landslide experts from Japan, China Taipei attended.
- 4) In 2009, Northeast Forestry University, China organized the Seventh International Symposium on Mitigation of Geo-disasters in Asia. Landslide experts from Japan, Russia attended the symposium and field trip.

- 5) In 2009, China Geological Survey invited landslide experts from Japan, and conducted a training course for the young researchers on landslide in Kunming, China.
- 6) In 2011, China Geological Survey invited landslide experts from Japan, Indonesia, Norway, USA, and conducted an international seminar on landslide in Xi'an, China

**8. Planned future activities /Expected Results: (20 lines maximum)**

The Following activities are planned. Modification will be made based on the progress situation.

- 1) On November 7-9, 2012, International Symposium on Earthquake-induced Landslides will be organized by Japan landslide Society in Kiryu, Japan.
- 2) In October 2012, the 10<sup>th</sup> International Symposium on Mitigation of Geo-disasters in Asia will be organized in Shimane University and Kyoto University.
- 3) In June 2014, the 3<sup>rd</sup> World Landslide Forum will be organized by China Geological Survey.
- 4) Regional Symposium, seminar and field trip.
- 5) Research Committees on landslides triggered by earthquake, landslides triggered by rainfall, and landslide dam.

**Expected results:**

- 1) A strong regional network on landslide disaster mitigation, and landslide science.
- 2) Mechanism clarification of the regional landslide problems triggered by different factors and their combination.
- 3) Applicable countermeasure method in this region.
- 4) Capacity building.