

Project for Capacity Strengthening on Development of Non-Structural Measures for Landslide Risk Reduction (Project SABO)

National Building Research Organization (NBRO) & Japan International Cooperation Agency (JICA)

Workshop on Landslide Inventory Sheet (WG1) October 23-24, 2019

Past disaster records are essential information for any kind of countermeasures. NBRO has been collecting and managing a number of landslide records in the past. Since those have been stored in paper basis and in different formats, it is difficult to utilize for risk assessment and designing countermeasures. NBRO works for improvement of the record sheet and the management in the Project.

A workshop was held at NICD in Kandy district on October 23rd to 24th in order to discuss the landslide inventory sheet modified in the Project. About 50 NBRO officials from Colombo and District Offices gathered to discuss the contents of the inventory sheet, and conduct field inspection at the sites of landslide, rock fall and debris flow.

Currently, NBRO is developing an on-line landslide database system based on the developed inventory format.



Field inspection at the sites

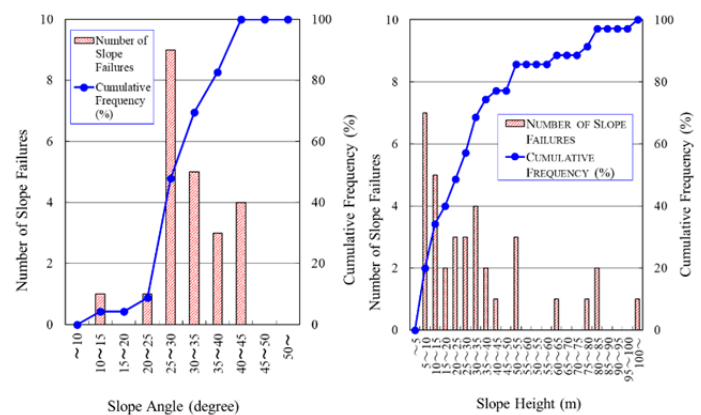


Filling developed inventory sheet



Discussion on the inventory sheet

Out of 3,144 landslide records collected by NBRO, the landslides where the scale and topographic character can be identified were selected and studied in the Project. For instance, most of slope failures occurred when the slope is 25 degree or more (left in the figure below). Nearly 80% of slope failures occurred at the slope height 5 to 40m (right in the figure). Based on these trends, landslide hazard maps will be prepared considering the characteristics in Sri Lanka.



2nd Joint Coordination Committee October 29, 2019

The 2nd Joint Coordination Committee (JCC) was held on October 29, about nine months after the Project started.

The committee was chaired by DG NBRO. Ministry of Disaster Management, DMC, UDA and other relevant central agencies, as well as pilot Local Authorities shared the progress of Project activities. Moreover, the participants in training in Japan presented their experiences as well.

In discussion, Local Authorities recommended necessity of legal arrangement and awareness raising activities to promote land use regulation in the local level. JICA side replied that permeation of the idea of risk-based land use regulation always needs time over a long period based on experience in Japan.



Discussion in 2nd JCC

Short-term Expert for Early Warning (WG2)

October 27 – November 1, 2019

In order to introduce and utilize Japanese landslide early warning system, Mr. Nomura, Senior Researcher of National Institute for Land and Infrastructure Management (NILIM), visited NBRO from October 27 to November 1. He has been working for landslide early warning in Japan, especially in Critical Line (CL) setting based on Soil Water Index (SWI). He gave advises for the Project to apply the early warning technology and system in Sri Lanka.



Courtesy call on DG NBRO

Workshop on Hazard Area Setting (WG1)

November 14, 2019

In addition to 3 pilot sites in the Project, NBRO has started to prepare sediment disaster risk area (Yellow/Red zone) for Kegalle district, centered on Aranayake area where was severely damaged by a large-scale landslide in 2016.

Prior to this, the Project organized an intensive technical lecture on Yellow/Red zone setting for the member of landslide mapping team of NBRO. The lecture was held at November 14th at NBRO Kagalle district.



Technical lecture for Yellow/Red zone setting

Verification of Landslide Occurrences (WG2)

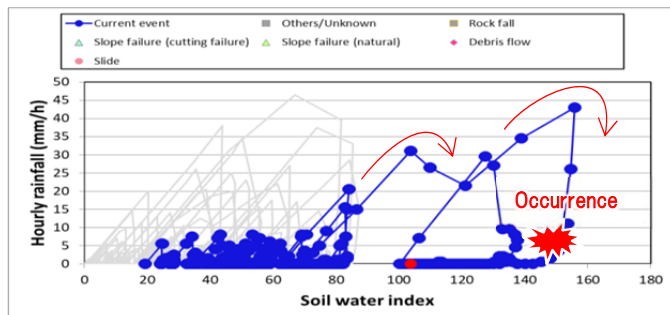
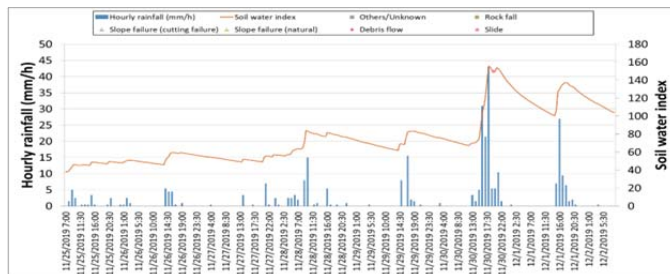
November 30, 2019

On November 30, heavy rains hit the central mountain area, especially in Nuwara Eliya district. The heavy rains have caused many road and residential cutting slope failures.

WG2 members have been verifying relationship between rainfall and landslide occurrence by using “Snake Curve”, which indicates hourly rainfall in vertical axis and SWI in horizontal axis. The Snake Curves are drawn by WG2 at representative rainfall stations every morning.



Cutting failure in November 30



During this rainfall event, the rainfall station at Munwatta records maximum hourly rainfall of 43mm, 24-hour rainfall of 130mm and SWI of 155. The slope failure occurred when the rainfall lulled. In other words, even after the peak rainfall, the SWI was still high, and landslide potential was also still high. We are accumulating such data and use it for improvement landslide warning criteria in future.

Project Introduction at NBRO Symposium

December 17-18, 2019

The Project members participated in 10th NBRO Annual Symposium on December 17–18. Outline of the Project and activities of each Working Group were presented.



Secretary of Ministry of Defense

Speech from Team Leader

Presentation by WG1

Presentation by WG2

Source: NBRO facebook

Project facebook page

April, 2019 ~

We have a facebook page, in which project activities by Working Group members are updated. Please click “Like” !

<https://www.facebook.com/Project.SABO/>

Contact: – Project Manager: Dr. Gamini Jayathissa
 – JICA Team Leader: Mr. Toru Koike
 National Building Research Organization (NBRO)
 99/1, Jawatta Road, Colombo 05
 +94-112-588-946/+94-112-501-834/+94-112-500-354