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Study of Landslide Disaster Prevention System in Malaysia as a Disaster Mitigation Prototype for South East Asia Countries

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Every year, hundreds of landslides occur in Malaysia and other tropical monsoon South East Asia countries. Therefore, prevention casualties and economical losses, by rain induced slope failure, are those countries government most important agenda. In Malaysia, millions of Malaysian Ringgit are allocated for slope monitoring and mitigation in every year budget.

Besides monitoring the slopes, here, we propose the IT system which provides hazard map information, landslide historical information, slope failure prediction, knowledge on natural hazard, and information on evacuation centres via internet for user to understand the risk of landslides as well as flood. Moreover, the user can obtain information on rainfall intensity in the monitoring sites to predict the occurrence of the slope failure. Furthermore, we are working with PWD, Malaysia to set the threshold value for the landslide prediction system which will alert the officer if there is a risk of the slope failure in the monitoring sites by calculating rainfall intensity.

Although the IT plays a significant role in information dissemination, education is also important in disaster prevention by educating school students to be more alert in natural hazard, and there will be bottom up approach to alert parents on what is natural hazard, by conversion among family members, as most of the parents are busy and may not have time to attend natural hazard workshop.

There are many races living in Malaysia as well in most of South East Asia countries. It is not easy to educate them in single education method as the level of living and education are different. We started landslides education workshops in primary schools in rural and urban area, in Malaysia. We found out that we have to use their mother tongue language while conducting natural hazard education for better understanding. We took questionnaires from the students before and after the education workshop. Learning from the questionnaire result, the students are more alert on natural disaster then before, after attending the workshop.