

COMPLETION REPORT

Application of Flood Warning System and Disaster Management in Malaysia: How Japan Manages Emergency Communication System

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The past flood location is visited at Kemaman from 17 July 2016 until 23 July 2016 and 30 October 2016 until 5 November 2016. The locations were including several villages; Kampung Padang Kubu, Kampung Felda Seberang Tayor, Kampung Bukit Kuang and Kampung Mak Cili. Meanwhile, the industrial visit in Japan was held on 27 November 2016 until 2 December 2016 where agencies such as The University of Electro-Communications (UEC), Japan Meteorological Agency (JMA), and National Institute of Information and Communications Technology (NICT) were visited. Technical briefing and presentations were conducted by representatives of these agencies regarding the subject matter.

In Malaysia, most of the victim was a repeated victim of the flood. Therefore, the victim usually already prepared for evacuation during the monsoon. This can be seen in the overall preparedness level score where 68 percent of Kemaman resident said yes to support their preparation towards flood. Besides that, it is confirmed that the victim also aware of what action they have to make to face the flood which including the awareness of the location and saves path for relief centres also the safety of their belonging.

In Japan, the telecommunication system and monitoring are the best approaches that are being applied in the country to lessen the effect of disasters especially flood disasters as well as to enhance the society preparedness level. Basically, The Japan Meteorological Agency (JMA) has been providing services to protect people and their property from disasters by monitoring and predicting natural events while National Institute of Information and Communications Technology conducts cutting-edge Research and Development (R&D) and strives to implement the outcome to society. In Japan Meteorological Agency (JMA), there are three approaches that cater the society in facing natural disasters especially flood disasters which are an emergency warning system, observation networks, weather analysis and prediction, Unmanned Aircraft Systems (UAS) and TVWS Systems.

The Japanese approaches are more onto enhanced the telecommunication system and wireless system to cater the society with advanced telecommunication services although there are natural disasters happening. By implementing these kinds of approaches, the society preparedness can be promptly prepared and a little earlier than it supposed to. In the other hand, this kind of the application can also be applied in Malaysia since there are still lacking in telecommunication system during natural disasters and still using the traditional approach which is the siren and manual announcement. The phone connection is always disconnected during natural disaster which can distort the communication between the affected areas and the help centres. Thus, Unmanned Aircraft System (UAS) is one of the approaches that can be implemented in Malaysia to avoid interferences and disconnection of the telephone, especially at the affected area. Hence, there is no more disconnection in telephone and any mobile phone devices if this can be applied here. The hope is that Malaysia will implement what Japan has done in flood disaster preparedness in order to save lives and minimal the destruction effect should the flood occurs.

Publication of the Results of Research Project:

Verbal Presentation (Date, Venue, Name of Conference, Title of Presentation, Presenter, etc.)
Thesis (Name of Journal and its Date, Title and Author of Thesis, etc.) Muhammad Iqram Bin Marshita. 2017. Case Study On Flood Preparedness And Emergency Management In Kemaman And The Application Of Japan Approaches Based On Recent Event In Joso, Ibaraki Prefecture.
Book (Publisher and Date of the Book, Title and Author of the Book, etc.)