

Aceh Archive for Disaster Risk Reduction

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The Indian Ocean tsunami 2004 was estimated to cause more than 250,000 deaths and countless casualties. Although Aceh, which is in the most western part of Indonesia, has experienced numerous destructive tsunamis in recent history, when the 2004 tsunami struck, it led to devastating damage and human casualties. It seems, then, that 2004 tsunami happened regardless of any lesson learnt from past similar events. Information is the most important issue in Disaster Risk Reduction (DRR). The purpose of this study; to collecting data to pre and post tsunami 2004; to displaying attractively multimedia data for young generation; to build local community for continuing DRR activities and sharing global information.

The study areas of this study are sixth districts disaster affected area along the western coastal of Aceh. The method of this study: The first method is anthropological approach to collecting data by primary data collection from questionnaires and in-depth interviews and secondary data from previous research: The second method is technological approach to display multimedia data including making film and into develop digital archive to visualizing digital earth contents and linked it to SNS: The third method is social approach to build community base DRR for sustainability disaster prevention education.

We develop a pluralistic digital archive by data collection of scientific - geological records, historical manuscripts related to earthquake - tsunami and interviews related local knowledge from past disasters. Developing method is mash-uping whole digitalized data into a digital earth interface for to display all materials at glance and to facilitate the cross referencing with landscape. Film can media for DRR education, which is needed to fill in the gap information from past disasters. Film is an effective medium to transfer knowledge of past disaster.

Using virtual disaster heritage seems to be important to sustainable disaster education for global community. Data collections of tsunami survivor' s testimonies are important to preserve the heritage of disaster and it serve as a Dark Tourism attraction. We visualized the data into the archive shows the place of historical context of testimonies. To shows the other benefit of disaster heritage, we conducted survey in the disaster site, the heritage of disaster does not only include sorrow, but disaster education and improved the economics of communities surrounding historical sites. Its serve as a lesson for other disaster areas such as Japan, where many disaster relics has removed.

As lesson to learn of Aceh reg¥habilitation and recontruaction, visualize data of German Red Cross Housing Project is a interesting display for young generation. Data collection of tsunami victims and housing' s photos are important to compare the landscape area of the housing location and its effects on damages and significant changes of housing condition. We analyse the data using this visualization and revealed the fact that building structures increased community disaster preparedness and enhancing economic growth. Base on the visualization data on the housing reconstruction process proved to be an effective way to document the lessons learned and disaster risk reduction for future.

We establish an online/offline community for to understand the threats within their territories, make

efforts to share experiences, and mitigation strategies by-from-for the community for sharing global information of DRR. To achieve this purpose, we hold an annual workshop series and create social networks to engage, sharing, and spreading the knowledge. The community has cited publications in online and printed media of local to international scale. And according to analysis of users' behaviour, it is proved that the community has had a positive impact and attracted positive attention from audiences, 1,765 people the information. As a results, we evaluate that the community is continuously growing up.

Keywords: attractive multimedia, digital archive, disaster risk reduction

