

Assessing Response Behaviour of Debris-flow Affected Communities in Kaohsiung, Taiwan

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1. Purpose and Background of the Study

During Typhoon Morakot which hit Taiwan from 6-9 August, 2009, Kaohsiung, an area located in the south of the country, was highly affected by intense rainfall which subsequently triggered devastating debris-flows and flooding. The consequences of numerous typhoon-related disasters totaled in 571 deaths and 474 damaged homes mostly in the mountainous areas of Kaohsiung. Due to a largely malfunctioning or absent early-warning system, residents in mountainous villages were required to rely on individual and/or community-based capacities to evacuate and respond to debris-flow-related disasters. Hence, this study investigates the response behavior of debris-flow affected communities in eight selected villages which were among those mostly damaged in the hilly areas of Kaohsiung.

2. Research Methodology and Findings

A questionnaire survey was conducted among 246 households who experienced debris-flow-related disasters during Typhoon Morakot and were living in one of the selected eight villages during the disaster and also two years after when the survey was conducted. The aim of the survey was to understand people’s pre-disaster preparedness ability, their general awareness to disasters, response mechanism during Typhoon Morakot and to what extent they were affected in socio-economic terms. The content of the questionnaire was structured following a Preparedness, Awareness, Action and Affect (PAAA) model. Respondents were analyzed among three different groups: respondents who received previous disaster education, respondents with previous disaster experience and respondents with neither disaster education nor having disaster experience. The method of collection was through individual house visit. Results from the survey highlight that only 13.8% of the households received formal (institutional) early-warning whereas, 86.2% or 212 households had to rely on their intrinsic senses and indigenous knowledge to recognise the on-set of debris-flows in their villages during Typhoon Morakot. Among those households (212) who did not receive formal early-warning, 10% of the households received previous disaster education, 17% had previous disaster experience and 73% did not have either disaster education nor disaster experience. Patterns throughout the analysis of the survey highlight that households with disaster education were among those who were best prepared and knew best how to evacuate and respond to debris-flow-related disasters followed by households with disaster experiences.

3. Implications of Findings

Following the findings from the survey, selected key informants interviews and literature reviews, the response behavior of communities should be enhanced through the following measures: firstly, hydro-meteorological-related disaster education should involve all residents not just the village leader; secondly, sharing of risk information should become participatory instead of following top-down steps of dissemination; thirdly, communities ought to be recognised as vital actors during a disaster to provide local knowledge, capacities to provide response and relief operations.

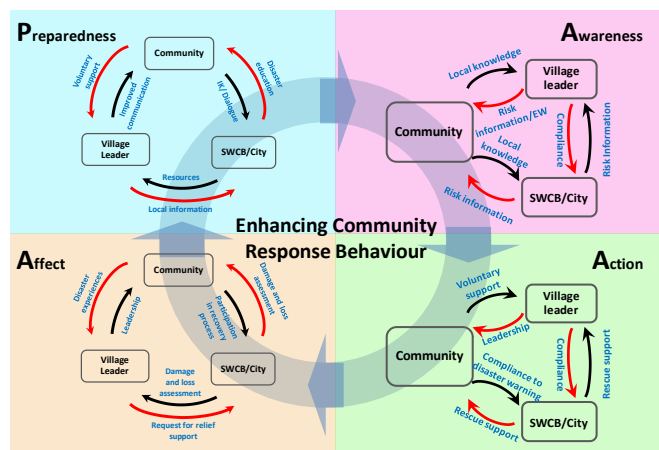


Figure 1 Enhancing Community Response Behavior