

Level of Resident Participation and the Process of Implementing the “Act on Sediment Disaster Countermeasures” in Asaminami, Hiroshima City

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1. BACKGROUND AND OBJECTIVES

Since the enactment of the “Act on Sediment Disaster Countermeasures” in 2000, areas that is prone to sediment disasters were designated “sediment disaster hazard area” (yellow zone) and “special sediment disaster hazard area” (red zone), which aims to promote disaster warning and evacuation systems appropriate to the respective risk areas. Previous studies indicated effectiveness of evacuation drills is greatly influenced by the local residents’ interest towards DRR as well as participation to community DRR activities. In 1999, severe rain in Hiroshima city resulted in serious sediment disaster at Asaminami ward. Due to the event, the ward was designated as a sediment disaster risk area and local residents were notified accordingly. Disaster evacuation drills are conducted regularly. This research aims to find out the disaster awareness among the residents and their participation at community DRR activities so as to develop effective DRR measures suitable at the local-context.

2. METHODOLOGY

The methodologies used in this research are: i) interview with key informants at the Asaminami ward office and fire department and ii) questionnaire survey of the 1,037 household at target site. Due to the severe rain in 1999, Asaminami ward was designated as sediment risk area. To enhance the disaster awareness among local residents, the ward office distributed hazard maps, developed evacuation manuals and conducts regular evacuation drills. Questionnaire survey consists of a total of 47 questions relating to past disaster experiences (17), Act on Sediment Disaster Countermeasures (22) and awareness and behavior issues (8). The completed questionnaires were returned via post and analyzed using Chi square analysis.

3. FINDINGS

385 completed questionnaires were returned (37% of total sample). Percentage of male and female respondents was 45% and 55% respectively. In addition, 59% of respondents were aged above 60 years old. 91% of the respondents knew of the disaster in 1999. 68% of the respondents were aware that the area is designated as sediment disaster risk area and 43% holds a copy of the evacuation manual provided by the ward office. In 2004, evacuation warning was given when typhoon 10 hit, however only 11% of the respondents replied that they evacuated following the warning. Majority of them who did not evacuate replied that there was no flooding, followed by houses were safe. Although 89% replied being interested in disaster and weather forecast information, only 48% uses the rainfall information services provided by the ward office.

Results showed that actions have been taken to promote DRR interest and disseminate risk information. However, there is a gap in involving the residents to participate in the community DRR activities. Chi square analysis showed that participation in community activities varied depending on the housing ownership status. Moreover, there were positive correlation with the participation in resident association activities with participation in drills and other DRR activities.

4. CONCLUSIONS

Since the implementation of the “Act on Sediment Disaster Countermeasures”, local residents have been notified of the risk and DRR measures have been developed. The level of participation depends on the level of resident’s participation in daily social activities in the community. However due to the increase of double income households, aging population and people living alone, it is difficult for them to participate in community activities. In order to implement sediment DRR measures, it is important to consider effective information dissemination and risk communication approaches.