# COMMUNITY-BASED PRACTICES TO COPE WITH COASTAL AND RIVER FLOODS IN SEMARANG CITY, INDONESIA

## Aprillia FINDAYANI

## 1. BACKGROUND AND OBJECTIVES

Flood disaster, by number and economic losses, account for about a third of all natural catastrophes throughout the world. Semarang, as a waterfront city has been suffering from floods since historic time. Flooding within the city is still a major problem for the local government of Semarang City. Many areas in Semarang City, especially along the rivers and along the shore, are suffering from flooding.

This research aims to capture people's perception and response to two different kind of flood. The study focused on two objectives: the first main objective is to identify and analyze community response and its relation to their knowledge, preparedness and action level. The second objective is to propose a framework of community based-disaster education to enhance the resilience to flood.

## 2. METHODOLOGY

This is an exploratory case study based on primary and secondary data. The primary data were collected through observational study, questionnaires, semi structured interviews, and focus group discussions. Literature review and contextual data from the Semarang city government were used as a secondary data. A sample size of 128 was chosen with 87 questionnaires administered to the respondents in coastal area, and 41 questionnaires administered to the respondents in riverside. The selection of respondents was based on purposive sampling methods. Semi structured interviews were conducted to Semarang Water Management Agency, Semarang Planning and Development Board, Semarang City Planning Agency, Head of District and Sub District Offices in research areas.

## 3. FINDINGS

The findings of the study indicated that people in the coastal areas have a high level of knowledge about floods (64%). This knowledge is comparatively high on amount of their past experiences of floods; however they lack in preparedness (43%) because most of the residents are fishermen who have low income so they could not must much effort to adapt their building to flood.

On the other hand, people in the inland, they lack in knowledge (18%) because flood is comparatively recent in their area; but they have a good level of preparedness (24%) because they belong to high and middle level income strata. Furthermore, both communities in the coastal area and inland have a high level of action because of a high knowledge and experience for coastal residents and a good preparedness for inland residents.

## 4. CONCLUSION

This research leads to recommendation to improve the adaptive capacity of the people to cope with the floods. The recommendation is to develop Community-based Disaster Education (CBDE) Framework with the main purpose is to increase community knowledge about disaster and to enhance community resilience to flood. An active participation of the community, local government agency, community organization as well as schools is needed to reducing disaster risks through systematic efforts to analyze and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events as the part of Disaster Risk Reduction.
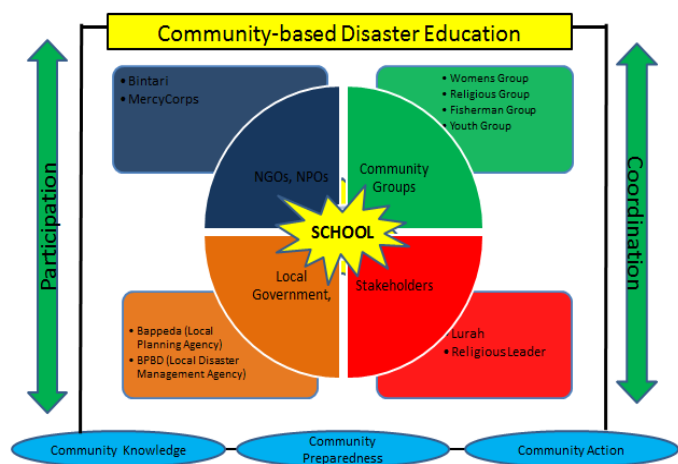


Figure 1. Community-based Disaster Education framework