



Coping with Seismic and Hydrological Hazards in Rural Indonesia

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This research aims at identifying factors that contributes to the creation of vulnerable condition in Yogyakarta province of Indonesia and comparing strategies its rural inhabitants develop in coping with natural hazards. Two districts are opted as example: Bantul, the district most seriously devastated by earthquake event of 2006 and Gunung Kidul, a hilly area, the district most acutely affected by water scarcity occurring almost every year. Due to its distinct characteristic, the sudden and unpredictable earthquake is responded differently from the slow, creeping, and predictable event of water scarcity. Historical data has shown that the vulnerable condition of both districts is the result of long social, political, and economic dynamics creating stratified social structure, paternalistic political system, and unequal access and distribution of land resources among the villagers. The further consequence of that dynamic includes rapid population growth, the landholding disparity, poverty, unemployment, rampant land conversion, and housing densification. The major damage of most housing and the high death tolls due to the earthquake event of 2006 were obvious indicators that the people were less prepared to disaster. In Gunung Kidul's case deforestation and land clearing are two main factors contributing to water crisis.

Now that people have learned from past events, they develop certain strategies to minimize the impact of possible upcoming crisis induced by natural hazards. This research has come up to the conclusion that villagers of Gunung Kidul are better prepared to the future crisis than that of Bantul. To the former, water scarcity is experienced as an annual cycle the coping strategy of which is integrated into the local integrated farming practice so-called wana. Available resources are allocated in such a way that households are capable of meeting the immediate, mid-term, long-term, and accidental needs. In Bantul's case, the disparity in livelihood condition and the declined employment opportunity have prevented the middle- income group and that of the poor from fortifying the house building, obtaining sufficient credits from formal bank, accessing insurance service, and improving the financial condition. There is a tendency that social tie, solidarity, and mutual-help practice are strengthening during the aftermath of disaster, but they are all in decline as time goes by.

Key words: earthquake, water scarcity, vulnerability, crisis, coping strategies.