

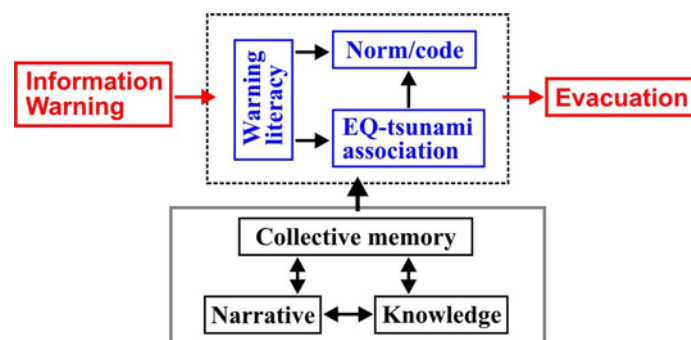
Disaster subculture and the community-based disaster preparedness mechanism

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On December 26, 2004, the super-giant earthquake and tsunami off the Sumatra Island of Indonesia devastated many cities and regions across the Indian Ocean, losing over 250 thousand people, in particular Banda Aceh and Nanggroe Aceh Darussalam with approximately 170 thousand victims. This event is obviously one of the largest-scale earthquakes in the world history,

estimated Mw 9.1-9.3, and in fact caused the most serious human damage at least since the twentieth century. Despite a lot of scientists' efforts, as of now no one knows exactly when such a magnitude natural hazard occurs. It is a big problem, therefore, how to prepare such an infrequent natural hazard, which brings about enormous damages once it occurs. What increased human losses in Aceh is no governmental responding mechanism and no anti-hazard infrastructure including early warning system (EWS) as well as the densely inhabited area geographically prone to natural hazards, in addition to the magnitude of the tsunami itself. According to our five-year field researches in/around Banda Aceh, more seriously, it is the lack of knowledge about a tsunami, in particular an earthquake-tsunami association, that delayed escape activities, a situation being life-or-death for local people. Currently, in the post-tsunami reconstruction processes in many affected countries including Indonesia, the governments' efforts to improve a future tsunami disaster response concentrate on introduction of the EWS, as well as modernizing infrastructure like escape building and sea embankments, and improving knowledge level through community programs for education and evacuation drills, most if not all of which are initiated in the top-down style. However, it is doubtful for this kind of disaster countermeasure centered on the EWS to function well. It is dependent too much on the modern sciences and/or technologies, and on the centered decision-making process, further being costly and taking much time to be furnished. Above all, as evidenced by the recent tendency in the Japanese people's emergency responses, even if people receive warning, they would not necessarily start in evacuation activities. Warning leads to evacuation, not directly, but through a kind of complicated knowledge-behavior system that the disaster subculture underlies, and which is contingent upon it, a process being underestimated by many if not most disaster studies. In this paper, therefore, we first conceptualize the process of tsunami evacuation, focusing on increasingly important roles of the disaster subculture (see the figure above), and then point to the tendency of risk awareness to be less embedded in the local society, by analyzing the questionnaire data that we conducted in 2006 in Banda Aceh, and the victims' narratives about their four-year experiences from the tsunami onward, in particular paying attention to what they have felt about the tsunami, and how they have responded to a variety of difficulties. After discussing how to cultivate the disaster subculture at the grassroots level in the context of Acehese culture and society, as concluding



remarks, we argue that, for preparing such an infrequent catastrophe as a tsunami, a critical point is the role of local community mechanism to localize, embody, and reproduce the collective knowledge about natural environment including awareness of natural hazards and their concerned risks.

Keywords: disaster subculture, community-based disaster preparedness, grassroots mechanism, localized knowledge, the 2004 Indian Ocean Tsunami