
5-2. Investigation on Tsunami Disaster at South Jawa coast of Indonesia

The ADRC, the United Nations International Strategy for Disaster Reduction (UN/ISDR), and the National Coordination Board for Disaster Management (BAKORNAS), Indonesia, conducted a joint field survey from July 27-30 on the earthquake and resulting tsunami that struck the south Java coast of Indonesia. The survey was carried out at Pangandaran, West Java, and Cilacap, Central Java, two of the worst-hit areas. It included damage assessments of the areas affected by the tsunami and interviews with local residents on the tsunami early warning system, their response measures, and evacuation procedures during the tsunami.

The 7.7 magnitude earthquake occurred more than 200 km south of Java Island on 17 July 2006, and triggered a far-reaching tsunami along the south Java coast. The highest waves measured up to around 7m at the west beach of Pangandaran. The tsunami destroyed a large number of wooden and brick houses, and caused 645 fatalities as of July 28, 2006, according to BAKORNAS.

More than 20 people who experienced the tsunami were interviewed and asked to answer about 20 questions, including: “Did you feel an earthquake before the tsunami?”, “Did you receive any warning of the tsunami?”, “How did you become aware of the tsunami?”, “How did you respond to the tsunami?”, “Have you been informed about what action to take when faced with the risk of a tsunami?”, and “How far away and for how long were you evacuated?”. All of the interviewees answered that they had received no warning of the tsunami from either the central or local government, and that they began evacuating only



Fig.5-2 Scenery of the survey

after they heard a loud noise and saw a big wave, or heard somebody shouting that a tsunami was coming. Most did not feel the quake. Even those who did, thought that it was too weak to produce a tsunami. The interviews suggest that delayed evacuation was the main reason for the majority of the fatalities. Given the lack of tsunami education and evacuation drills before the disaster, people did not know how or where to evacuate when the tsunami hit. Some of those interviewed evacuated as far as 20 km from their homes for about 10 days.

A tsunami early warning system has been in place in Indonesia since the 2004 Indian Ocean Tsunami. Unfortunately, however, no tsunami warning was conveyed to residents before this tsunami struck. After the tsunami, the Indonesian government decided to issue tsunami warnings automatically after any earthquake with a magnitude of 6.3 or higher. The mass media is obligated to broadcast such warnings. One problem, however, is ensuring that the public receives tsunami warnings in time. It is particularly challenging to warn those in coastal regions far from villages, like the Cilacap community. On the other hand, priority should be placed on the establishment of community disaster prevention plans and the implementation of evacuation drills for all tsunami hazard areas.