ABSTRACT

The tsunami of December 2004 was one of the most devastating tragedies ever occurred. Approximately 250,000 lives perished, millions injured and suffered. The destructions to property could not be accurately estimated. The impact of the tsunami on the environment shows that damage was inflicted on natural resources such as coral reefs. mangroves and other coastal ecosystems that acted as wave defence barriers. Moreover, inlands, wetlands and agricultural land were salinated and natural resources for livelihood were badly affected especially for coastal communities. This situation worsened as basic facilities were also destroyed. Thus, this research focuses on the impacts of the tsunami on the affected community. The objectives of the research are to identify the impacts of the tsunami on the community in terms of the physical infrastructure, environment and livelihood; examine the changes on the existing coastal site due to the tsunami; investigate the extent of the awareness level of the disaster and management among the community; recommend suitable measures in order to minimize the devastation on the community. Survey was conducted on 211 coastal residents as well as site observation in the coastal area. The result indicates that the tsunami disrupted energy during its drawdown period. Floating debris, carried back and forth by the extreme drawdown of the water level when the waves receded, forcefully carrying people and destroying structures in its path. Damage included lives that were lost or severely injured, structural damage, severe coastal erosion, destructions of the coastal ecosystem and immediate coastline changes. Indirect impacts or secondary damage followed the primary damage. The secondary damage was caused by floating debris, sewage, and chemical pollution that followed the destruction. The impacts also included human dimensions in the coastal areas which had psychological and emotional impacts on the people from sudden losses, disease and sanitation problems from the destroyed sewage systems and potable water. The damage towards the basic utilities and amenities such as the road networks and electrical supply also had serious impacts on the business community. Findings also indicates that the tool that can minimize the impact of tsunami on the community is by increasing the hazard and disaster awareness alarm among the community. The information gained from this study can be used to help the community as well as the agencies involved in order to minimize the impacts of the tsunami on the community and to develop a more effective mitigation measures for disasters such as the tsunami.