

THE DAMAGE INDUCED BY SUMATRA EARTHQUAKE
AND ASSOCIATED TSUNAMI OF DECEMBER 26, 2004

A REPORT OF THE RECONNAISSANCE TEAM OF
JAPAN SOCIETY OF CIVIL ENGINEERS

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INTRODUCTION

At 08:07 a.m. local time on December 26, 2004, a great earthquake whose epicenter was located off the western coast of northern Sumatra Island with a magnitude of 9.0 occurred. The intensity of the earthquake at Banda Aceh, which is the closest city, was estimated five upper or so on the intensity scale of the Japan Meteorological Agency. The causative fault plane was more than 1,000 km long and extended from off the coast of northwestern Sumatra Island to the neighborhood of the Andaman Nicobar Islands, and it generated a great tsunami with waves exceeding 20 meters in height. The damage caused by the tsunami affected the whole area neighboring Indian Ocean and it turned out to be one of the deadliest natural disasters in human history with more than 200,000 people with missing and dead combined.

Japan Society of Civil Engineers (JSCE) established the Special Investigation Committee on the Sumatra Offshore Earthquake and the Indian Ocean Tsunami on January 5, 2005 (Chairman; Prof. Fumihiko IMAMURA, Tohoku University), collected the information and decided to dispatch JSCE's own reconnaissance team at the end of January. The information such as the wave height at each affected place around Indian Ocean had been compiled and reported from the earlier reconnaissance teams dispatched by the Ministry of Education, Culture, Sports, Science and Technology, and others. The JSCE put an emphasis on the investigation of the impacts that the tsunami on the infrastructure facilities and dispatched a team consisting of eleven members to the northern Sumatra Island which received the most serious damage by the earthquake and the induced tsunami.

This report has been compiled with the sole purpose of feeding back the team's observations, findings, recommendations and proposals to the authorities of Aceh Province and Indonesia as well as informing the members of JSCE.

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- The Institution of Engineers, Indonesia (PII)
- United Nations OCHA
- International Aceh Support Center
- Japanese Embassy in Jakarta
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