

## Chapter 1

### Purpose, Members and Itinerary of the Reconnaissance

The purpose of the reconnaissance was to investigate damage to civil engineering structures caused by the earthquake shaking as well as by tsunami, for the progress of disaster mitigation and earthquake as well as tsunami resistant design and construction.

The reconnaissance team consists of eleven members from distinguished universities, research institutes and construction companies. The experts' background cover a broad areas of science and engineering such as geology, geotechnics, earthquake resistant design, tsunami, infrastructures, risk management.

The members of the reconnaissance team composed as listed below:

Leader: Yozo GOTO (National Research Institute for Earth Science and Disaster Prevention)

Co-leader: Masanori HAMADA (Waseda University)

Members: Ömer AYDAN (Tokai University)

Shigeki UNJOH (Public Works Research Institute)

Takahiro SUGANO (Port and Airport Research Institute)

Hidetoshi NAKAJIMA (Geographical Survey Institute)

Takashi TOMITA (Port and Airport Research Institute)

Mikio TAKEUCHI (Nihon Suido Consultants Co., Ltd.)

Naoki FURUKAWA (Kajima Corporation)

S.F. Wong (Penta-Ocean Construction Co., Ltd.)

Hiroyuki YANAGAWA (JSCE International Affair Division)

The reconnaissance team visited the Aceh province of Indonesia from March 1 till March 5 to investigate and to assess the damage inflicted by the earthquake and by the induced tsunami. The team arrived at Banda Aceh together with the Sumatra Island Reconnaissance Team of the “Urgent Survey Research on the Northern Sumatra Offshore Earthquake/Indian Ocean Tsunami Disaster”, which is a national technical investigation team dispatched by the Japan Science and Technology Agency (Prof. H. IEMURA, Kyoto University, and other 14 members) and conducted the investigation in cooperation with them.

It should also be noted that four researchers from Syiah Kuala University located in Banda Aceh and three researchers recommended by the Ministry of Research and Technology,

Indonesia joined with us in the reconnaissance.

The topics of investigation of the reconnaissance team were specifically designated as follows:

- Transportation systems (bridges, road embankments, the new alignment between Aceh and Meulaboh)
- Port and Harbor Facilities (quaywalls, breakwaters)
- Lifeline systems (water, sewage and electricity)
- Geotechnical Damage (river banks, liquefaction and slope sliding)
- Buildings (RC structures, wooden houses, masonry houses)
- Education for Disaster Mitigation

Most of investigations were carried out by sub-groups through the following means:

- Land surveys through chartered vehicles
- Aerial survey through helicopters between Banda Aceh and Meulaboh
- Off-shore surveys through a chartered boat
- Documents (maps, reports etc.)

The UN helicopter flight was organized on the request of the vice-governor of Aceh province of Indonesia for the reconnaissance team of the JSCE to investigate new road alignment during the stay of the team in Banda Aceh. This flight was realized on March 4 with the collaboration of the chief and staff of UN-OCHA for the region.

At the same time, the Japan Self Defense Forces took care of us to be on board their helicopter to observe the situation of the western coast which was very difficult to access by road.

**(Author of this chapter: Y. Goto)**