

International Research (Project No.: 28W-02)

Project name: INTERA-NATECH : **INTER**-Asian Initiative on Joint **NA**tural and **TECH**nological (Natech) Risk Reduction at Industrial Estates

Principal Investigator: Shin-Ichi AOKI

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Name of DPRI collaborative researcher: Ana Maria Cruz and Hirokazu Tatano

Research period: April 1, 2016 ~ March 31, 2017

Research location: Osaka University, Kyoto University, Maritime Academy of Asia and the Pacific (MAAP), Bataan, Philippines

Number of participants in the collaborative research: 9 (DPRI staff: 3 , non-DPRI staff: 6)

- Number of graduate students: 2 (Master student: 1; Doctoral student: 1)

- Participation role of graduate students [Researchers]

Implementation status in FY2016

One of the main achievements of the project in Fiscal year 2016 included a 6-day field trip to Manila and Bataan in the Philippines to meet with several public and private organizations with the aim of raising awareness, establishing a network for Natech risk reduction, and gauging interest and willingness to participate in the project. Our visit was organized and hosted by Dr. Angelica Baylon of MAAP. We visited the Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) which is an intergovernmental organization operating in East Asia to foster & sustain healthy & resilient oceans, coasts, communities & economies across the region. PEMSEA was very interested and open to collaborate on the Natech project initiative and provided contacts at the Industrial Estates in Cavite and Batangas. Furthermore, we held a half-day workshop on Natechs with the Provincial Heads on Behalf of Gov. Abet Garcia in Capitol Hall, Balanga Bataan. Meetings with the private sector included attendance to the monthly meeting of the Bataan Coastal Care Foundation for chemical accident prevention, and a visit to the oil terminal of Total. We had several meetings at MAAP, which included a tour of their training facilities such as ship navigation simulators, fire fighting training facilities, LNG tanker navigation and emergency simulators, and so on.

Another important achievement of the project was the organization of an International Workshop on Tools for Natech Risk Management and the 3rd Natech Symposium held at DPRI and Osaka University on 13 and 14 March, respectively. Invited speakers included Dr. Baylon from the Philippines and Prof. Sandhya Babel from Thailand. Other Natech experts invited included Dr. Matsuoka JGC Corporation, who gave a presentation concerning damages and losses suffered by LNG terminals in the affected areas following the Great East Japan Earthquake and tsunami in 2011; and Prof. Valerio Cozzani, a Natech expert in probabilistic risk assessment from University of Bologna, Italy.

Implementation plan in FY20yy (Not yet applicable)