

Abstract

SESSION 1:

A Decade of Partnerships in Sustainable Development of the Seas of East Asia: Synergies and Achievements

WORKSHOP 1.1:

Managing Risks in Climate Change and Disasters in the Seas of East Asia

Post-Tsunami Recovery of Port and Harbor Areas in Japan from the 2011 Great East Japan Earthquake Tsunami



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The 2011 off the Pacific coast of Tohoku Earthquake (Mw 9.0), which is the largest ever recorded in Japan, occurred at 14:46 JST (05:46 UTC) on March 11, 2011. The massive tsunami generated by the great earthquake struck the extensive coastal areas in the Pacific region of Japan and caused huge devastation in those areas including ports and harbors.

The earthquake and tsunami caused severe damage to port facilities, and the amount of damage to public port facilities was 412.6 million yen. Out of the front-line breakwaters 4815m long in Hachinohe Port, approximately 70% of those were damaged. The efforts of the relevant organizations made those damaged breakwaters completely reconstructed two and a half years after the disaster. Damaged breakwaters in other ports are under reconstruction at a fast pace.

None of 299 public berths with more than 4.5m depth in the disaster-affected ports were available immediately after the earthquake and tsunami, because of not only the damage of quay walls and cargo handling facilities but also sedimentation and obstacles due to the tsunami, such as sunken containers, cars and debris, at the sea bottom in those ports. In order to recover port function immediately, the relevant organizations made efforts to remove obstacles, and then 71 berths (24%) were operational 20 days after the disaster, including temporary available ones: 86% after a year, and 97% at the end of 2014. Private companies in the affected ports gradually resumed their business with the rate of available berths; at the end of May 2014, 90% of those had recovered to the same operations before the disaster.

The Lessons learnt from the Great East Japan Earthquake Tsunami as well as the detail of recovery process of port facilities and port function will be reported in my presentation at the EAS Congress 2015.



THE EAST ASIAN SEAS CONGRESS 2015
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Global Targets Local Benefits

Setting the Sustainable Development Agenda for
the Seas of East Asia beyond 2015

About Kazuhiko Honda:

Mr. Kazuhiko Honda has continuously worked in the field of coastal disaster prevention since 2004, and his main major is to estimate damage due to tsunamis and storm surges in coastal areas with numerical simulation. He has a Master of Engineering from the Department of Civil Engineering in Kyoto University. He began his career in 2004 as a researcher at the Tsunami Research Center, Port and Airport Research Institute where he stayed until 2009. From 2009 to 2011, he was the Director of the Engineering Development Division at the Nagoya Research and Engineering Office for Port and Airport, Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Japan. He then became the Senior Researcher for the Marine Information and Tsunami Division of the Port and Airport Research Institute from 2012 to 2015. He currently works as the Senior Researcher at the Coastal, Marine and Disaster Prevention Department in the National Institute for Land and Infrastructure Management, MLIT, Japan.