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### **Project Profile: Thailand**

On December 26, 2004, Thailand's west coast suffered catastrophic damages as a result of the Indian Ocean Tsunami. The disaster claimed more than 5,000 lives in Thailand's coastal areas and caused significant economic impacts. The event was the first destructive tsunami to strike Thailand in about 600 years, and the nation was ill-equipped to deal with the disaster.

Following the tsunami, Thai officials moved to create the National Disaster Warning Center (NDWC), focusing on tsunami warnings and earthquake notifications. Subsequently, NDWC reached out to Pacific Disaster Center (PDC) for technical assistance in the establishment of a world-class disaster management system.

The primary goal of the activity, funded by the U.S. Trade and Development Agency, was to build Thailand's early warning capacity as part of the U.S. Government's support for the broader, multi-national Indian Ocean Tsunami Warning System (IOTWS).

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Fostering disaster-resilient communities through information, science, technology, and exchange

# CREATING A CUSTOMIZED **DECISION SUPPORT SOLUTION**

PDC worked with government officials, academics, and other stakeholders to understand Thailand's specific needs and to define the concept of operations. Based on these findings, PDC designed and implemented a customized version of its decision support platform, DisasterAWARE, to help Thailand receive and disseminate timely, actionable earthquake and tsunami bulletins. This process included:

- Incorporating national and international hazard information and warnings, as well as information from designated agencies in Thailand
- Capturing data to characterize Thailand's infrastructure, population, and environment
- Establishing criteria for warning decisions based on guidance from national authorities
- Creating decision-matrix algorithms to filter out events of little or no consequence to Thailand



PDC's Software Development Lead Steve Kunitzer facilitates a training session at Thailand's National Disaster Warning Center.

#### HOW CAN PDC HELP YOU?

PDC will listen to your needs, help identify gaps, and assist in crafting right-sized disaster management solutions.

#### We Offer:

- Early warning, risk assessment, and modeling and visualization solutions
- Training and strategic advisory services
- Assistance in identifying funding sources or support partners

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Online technologies to efficiently deliver services and support sustainability



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PDC is an applied science, information and technology center, established by the U.S. Government in 1996, currently managed by the University of Hawaii.



Ceremonies to commemorate the anniversary of the 2004 Indian Ocean Tsunami were held in Phuket, Thailand, in December 2005.

## Knowledge Transfer, Training, and Capacity Building

PDC experts worked with NDWC staff to ensure knowledge transfer, providing extensive training on the operational use and maintenance of the newly established early warning system. The system deployment was followed by six months of remote support.

Training was reinforced by local and countrywide scenario-based exercises that simulated warning message receipt, the decision-making process, triggering of warning sirens, and evacuation procedures. Since the project's completion in 2007, NDWC has been independently maintaining the system.

