

TIEOS INITIATIVES

TIEOS FORUM June 9, 2009 Taipei, Taiwan, R.O.C.

Taiwan is a subtropical island situated in the western Pacific within the plate-boundary zone between the Eurasia plate and the Philippine Sea plate. The island frequently experiences natural disasters, such as typhoons and earthquakes.



Over the past decade, Taiwan not only has collected abundant observation data and developed related innovative technologies, but also has devoted significant resources to mitigating natural disasters, improving weather prediction capabilities and monitoring climate change.

The National Applied Research Laboratories (NARL) consists of eleven national laboratories that conduct research in a broad

spectrum of areas, including outer space, earthquake engineering, typhoons, floods and disaster reduction. By integrating the complementary resources and capabilities of its laboratories, NARL is promoting the establishment of a platform for observing the environment and reducing the effects of natural disasters.

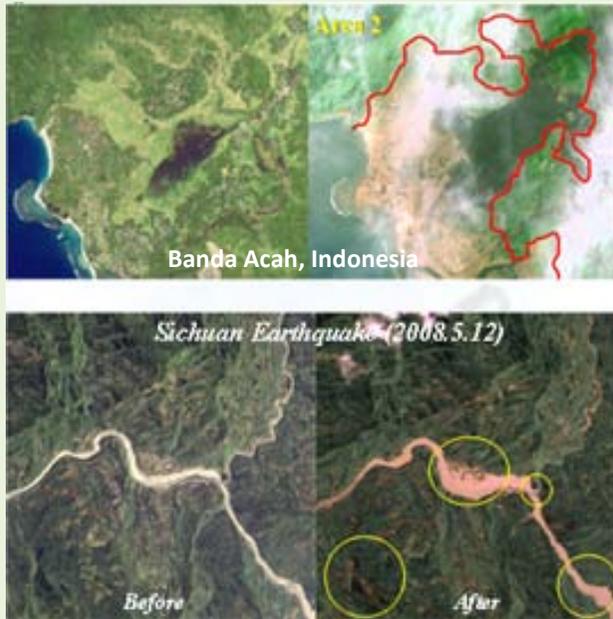


All available resources should be put together so as to create an integrated earth observation system. Taiwan launched a high-resolution earth observation satellite, FORMOSAT-2, in May 2004. With a unique daily revisit capability, FORMOSAT-2 has quick access to disaster areas and can provide continuous monitoring services during rescue



efforts. In April 2006, Taiwan launched FORMOSAT-3 (COSMIC), a constellation system of six micro-satellites designed to collect atmospheric data for monitoring the weather and conducting research on the climate, ionosphere and gravity.

In addition, NARL synergized the capabilities of affiliated research centers and completed the first development phase of the High Resolution 3D GIS Taiwan platform. The platform integrates satellite observation data from FORMOSAT-2 with 2m resolution and 5m DEM GIS data, as well as 15-50cm resolution data from airborne images of local sites. By so doing, it significantly contributes to the



demonstrates the pivotal role of earth observation in this era of global cooperation. In the meantime, Taiwan hopes to contribute even more to the pool of resources available to the international community wherever and whenever possible. The upcoming *TIEOS Forum* in June 2009 will be the first step to promoting Taiwan's Integrated Earth Observation System and contributions to related international efforts.

monitoring of the environment and natural disasters.

International cooperation in sharing data on earth observations is imperative, as policy and management decisions must be based on the monitoring of the entire planet. Since 2004, Taiwan has provided to foreign countries free of charge FORMOSAT-2 images of major natural disasters, including the tsunami in South Asia (December 2004), an earthquake in northern Pakistan (October 2005), an earthquake in Indonesia (May 2006), wildfires in California (October 2007), and the earthquake in Sichuan (May 2008). This



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Taiwan Integrated Earth Observation System

