



# Environmental Remediation of Dioxin Contamination at Danang Airport



Workers complete site preparation at Danang Airport.

(Photos: Richard Nyberg, USAID)

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For more information,  
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reports, visit:

<http://vietnam.usaid.gov/environmental-remediation>

Areas at Danang International Airport have been referred to as a dioxin “hotspot” due to the high dioxin concentrations in soil and sediment remaining at the airport from the U.S.-Vietnam War. Approved by the Vietnam Prime Minister in 2011, USAID and the Vietnamese Ministry of National Defense (MND) are jointly implementing the Danang Airport Remediation Project, which aims to clean up the dioxin contamination and consequently eliminate the risk of exposure to dioxin while developing Vietnamese capacity for implementing similar remediation activities at other sites in Vietnam.

## ENVIRONMENTAL REMEDIATION PROCESS

In 2010, USAID carried out an Environmental Assessment that analyzed conditions at Danang Airport and evaluated a number of possible dioxin remediation technologies. Thermal desorption treatment was determined to be the most effective and scientifically proven method for destroying dioxin and to have the lowest potential impact on human health and the environment given the specific conditions of the Danang Airport.

The estimated 73,000 cubic meters of contaminated soil and sediment at the Danang Airport will be excavated and placed in an enclosed containment structure built on the Airport grounds. Once there, it will be treated using thermal desorption technology, which involves heating the soil and sediment to a high temperature (minimum of 335°C) to destroy the dioxin. Following treatment, soil and sediment will be tested to ensure it is no longer contaminated. The treated soil and sediment will then be removed from the containment structure and used as fill material on site at the Danang Airport.

## HEALTH AND SAFETY

Ensuring the health and safety of the workers carrying out the Danang Airport Remediation Project, as well as the Airport workers and local residents, is the most important consideration of the project. International best practices will be followed and environmental monitoring will be conducted to ensure that contaminated materials (soil, sediment, dust, or wastewater) do not leave the project site. Internationally-accepted safe work practices for hazardous waste sites will be followed for all remediation activities, and all workers will be monitored and required to wear the appropriate personal protective equipment.

## GOVERNMENT COUNTERPARTS AND USAID CONTRACTORS

**MND – Air Force Command:** Project Owner; responsible for ensuring project meets all applicable Vietnamese environmental protection laws and regulations.

**USAID:** Implementing Agency; responsible for procuring contractors to perform the work.

**USAID Contractors:** CDM Smith (Construction Management Contractor), Tetra Tech, Inc. (Excavation and Construction Contractor), TerraTherm, Inc. (Thermal Desorption Contractor).

**Stakeholders/Partners:** Danang Peoples Committee; Office 33, Ministry of Natural Resources and Environment; U.S. Embassy.