



PHOTO CREDIT: USAID

DIOXIN REMEDIATION AT BIEN HOA AIR BASE AREA

2019 - 2030 | CURRENT IMPLEMENTERS: TETRA TECH, INC.; VINA E&C; NELSON ENVIRONMENTAL REMEDIATION USA LTD | CURRENT BUDGET: \$218,255,000

Bien Hoa Air Base was the primary Agent Orange storage and handling site during the U.S.-Vietnam War and is the largest remaining dioxin hotspot in Vietnam. In 2016, USAID conducted an assessment at Bien Hoa and identified nearly 500,000 cubic meters of dioxin contaminated soil in need of clean-up. Launched in 2019, USAID's Dioxin Remediation at Bien Hoa Air Base Area Project is remediating dioxin-contaminated soil to reduce the risk of exposure to people on the air base as well as in the communities that border it, and to restore the land for full use. This project is a critical effort for the U.S. and Vietnam's shared priority of overcoming the legacies of war and expanding and deepening our partnership for the future.

APPROACH

Throughout 2020, USAID and Vietnam's Ministry of National Defense collaborated on collecting and analyzing data on topography, baseline environmental conditions, and soil contamination to direct excavation and treatment design work. Guided by these analyses, USAID began excavation work in December 2020 in areas where contamination posed heightened health and environmental risks because of its proximity to the surrounding community. USAID is safely containing excavated soil with low levels of contamination in a long-term storage facility and securing highly contaminated soil in short-term storage until it

is treated. In December 2022, USAID awarded a five-year contract for the design, construction, and operation of a facility to treat an initial 111,170 cubic meters of highly contaminated soil.

IMPACT

In 2021, USAID completed remediation of an off-base lake (Gate 2 Lake) and returned it to the community for use as a recreational area. In 2022, USAID completed remediation of the first on-base area (Southwest area), commemorated this milestone with a U.S. Government-funded park on the site, and completed the construction of the long-term storage facility.

The work at Bien Hoa Air Base follows USAID's successful collaborative effort to remediate contaminated soil at Danang Airport, enabling its expansion. The Bien Hoa clean-up is nearly four times the volume of the Danang Airport clean-up and represents the largest dioxin remediation project of its kind ever conducted.

USAID and the Government of Vietnam's strong partnership on dioxin remediation, forged over 10 years at Danang, is translating into refined communications, information sharing, and joint decision-making for project planning and implementation at Bien Hoa. In addition, local partners have acquired advanced knowledge and experience in how to work safely in highly contaminated environments, including sampling techniques.

TIMELINE

The Bien Hoa clean-up project is expected to take 10 years to complete and cost up to \$450 million. The U.S. government's contribution to-date is \$218.25 million, including \$90 million from the U.S. Department of Defense, in addition to contributions from the Government of Vietnam.