

## Stakeholder Engagement and Capacity Building in Dioxin Remediation in Vietnam

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**Background/Objectives.** The Danang Airport (Airport) has been referred to as dioxin "hotspot" by the United States (U.S.) and Vietnamese governments due to investigations revealing high dioxin concentrations, decades after large volumes of Agent Orange and other defoliants were handled at the site. In 2011, USAID in partnership with the Air Defense Air Force Command (ADAFC) of the Vietnam Ministry of National Defense (MND) launched the Environmental Remediation of Dioxin Contamination at Danang Airport Project (the Project). A Stakeholder Engagement & Capacity Building Plan<sup>5</sup> implemented by USAID's Construction Management Contractor on the Project provides guidance for effective facilitation of this critical component of the Project.

**Approach/Activities.** The Stakeholder Engagement & Capacity Building Plan provides methods for both stakeholder engagement to promote and educate various audiences about the Project and for capacity building activities for site workers and Vietnamese government officials to build relevant remediation competency in Vietnam. Methods of outreach/ engagement were defined for three stakeholder categories: government partners, concerned citizens/community, and others (e.g. academia, media, non-government organizations, etc.). Methods of stakeholder engagement included, but were not limited to, community outreach events, site visits, stakeholder engagement events, progress meetings, media outreach, informational materials, and a project website to communicate Project information and progress. Capacity building activities for on-site workers focused on construction best practices and health and safety; methods included site-specific health and safety training, requirements for use of personal protective equipment, medical monitoring, and education and awareness activities. Capacity building activities for government officials /Vietnamese scientists focused on the following areas: standard operating procedures, dioxin sampling, data evaluation and interpretation, and selection and review of dioxin remediation alternatives; methods included a combination of field and classroom training.

**Results/Lessons Learned.** Indicators used to measure the success of stakeholder engagement and capacity building activities included the number of meetings/events held, the number of materials developed for community outreach and stakeholder engagement, the number of person hours of training, and the number of participants reporting an increase of knowledge. Methods to measure success included pre- and post-activity surveys, counting attendance, evaluation interviews, and Google analytics. Thirty-three site visits and engagement events were conducted between November 2012 and August 2016 for representatives from various government, media, and non-governmental organizations. Monthly progress meetings were also held with MND. Information materials produced included a Project poster and brochure, a 3-dimensional simulation video of the remediation technology, a public service announcement for television, and stakeholder progress reports. Between 2013 and 2016, a total of 20,334 person-hours of health and safety training were delivered. As of September 2016, 31 Vietnamese staff had been actively involved in the construction/remediation team and received on-the-job training (representing 47% of the 66-person staff complement). GVN partners have

demonstrated a notable increase in understanding of hazardous waste remediation implementation, including overall project management, community engagement, and environmental sampling and analysis, as a result of the Project training and through engagement with USAID and its contractors. A total of 2,441.5 person-hours of formal environmental assessment and remediation training has been delivered to date, and an average of 82% of participants reported an increase of knowledge following the training and capacity building activities. Capacity building activities to be delivered in 2017 and 2018 include: formalization of previous training through creation of an Environmental Assessment and Remediation Process Manual, scientific writing skills training, and human health risk assessment training using classroom training and e-learning tools.