

# GAO Highlights

Highlights of [GAO-18-206](#), a report to congressional requesters

## Why GAO Did This Study

According to DOD, climate change will have serious implications on the ability to maintain infrastructure and ensure military readiness. DOD has identified risks posed by climate change and begun to integrate adaptation in guidance. GAO was asked to assess DOD's actions to adapt overseas infrastructure to the expected challenges of climate change.

GAO examined the extent to which DOD (1) identified operational and budgetary risks posed by weather effects associated with climate change on overseas infrastructure; (2) collected data to effectively manage risks to infrastructure; (3) integrated climate change adaptation into planning and design efforts; and (4) collaborated with host nations on adapting infrastructure and sharing costs. GAO reviewed DOD data and documents on climate change, planning, and cost-sharing and visited or contacted a nongeneralizable sample of 45 overseas installations reporting climate change impacts.

## What GAO Recommends

GAO is making six recommendations, including that DOD require overseas installations to systematically track costs associated with climate impacts; re-administer its vulnerability assessment survey to include all relevant sites; integrate climate change adaptation into relevant standards; and include climate change adaptation in host-nation agreements. DOD non-concurred with two recommendations and partially concurred with four. GAO recognizes DOD's efforts to review its climate-related policies, but continues to believe its recommendations are valid, as discussed in this report.

View [GAO-18-206](#). For more information, contact Brian J. Lepore at (202) 512-4523 or [leporeb@gao.gov](mailto:leporeb@gao.gov).

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## CLIMATE CHANGE ADAPTATION

### DOD Needs to Better Incorporate Adaptation into Planning and Collaboration at Overseas Installations

## What GAO Found

The expected impacts of weather effects associated with climate change pose operational and budgetary risks to overseas infrastructure according to the Department of Defense (DOD), but DOD does not consistently track the impacts' estimated costs. Operational risks (including interruptions to training, testing, and missions) and budgetary risks (including costs of repairing damages) are linked to these impacts. However, installations inconsistently track these costs because there is no requirement for such tracking. Without a requirement to systematically track such costs, DOD will not have the information it needs to integrate climate-related impact resource considerations into future budgets.

#### Severe Erosion at a Department of Defense (DOD) Munitions Storage Complex in the Pacific



Source: DOD. | GAO-18-206

According to installation officials, this munitions complex is threatened by erosion and flooding caused by increasingly frequent and intense rain events. In previous work examining climate change impacts on DOD infrastructure, GAO found that it is not possible to link any individual weather event to climate change. However, these events provide insight into the potential climate-related vulnerabilities faced by DOD.

DOD surveyed overseas installations on their vulnerability to the operational and budgetary risks of weather effects associated with climate change, but the approach used to gather survey data on the impacts that cause these risks was incomplete and not comprehensive. Specifically, DOD exempted dozens of overseas sites from completing the vulnerability assessment, and did not include key national security sites. As a result, DOD did not obtain information on risks posed by weather effects associated with climate change at many key overseas installations, which is critical for managing such risks at these locations.

While the military services have begun to integrate climate change adaptation into installations' plans and project designs, this integration has been limited. For example, only about one-third of the plans that GAO reviewed addressed climate change adaptation. Similarly, projects GAO discussed with DOD officials were rarely designed to include climate change adaptation. This is due to the inconsistent inclusion of climate change adaptation in training and design standards for installation planners and engineers. As a result, planners and engineers do not have the information needed to ensure that climate change-related risks are addressed in installation plans and project designs.

DOD collaborates with host nations at both the national and installation level, but cost sharing agreements and other collaboration efforts generally do not include climate change adaptation. Without more fully including adaptation into its agreements with host nations, DOD may miss opportunities to increase the resilience of host-nation-built infrastructure at overseas installations to risks posed by the weather effects associated with climate change.