

Validation of Training Land Climate Change Assessments for Integrated Natural Resource Plans

PROJECT OVERVIEW

Numerous EO and DoD mandates (e.g. EO 14008, DoD Directive 4715.21, DoD Manual 4715.03) require DoD installations to incorporate climate change into policy, guidance, plans, and operations. These mandates present a daunting challenge for DoD personnel as they attempt to navigate the wide variety of assessment tools available. Our objective is to 1) validate and demonstrate existing Threatened Endangered Species and Training Land Climate Change vulnerability assessment tools for Integrated Natural Resource Management Plan implementation and 2) develop a web-based tool for adoption across the DoD.

BENEFITS

The tools developed through this effort will improve efficiency (cost and time benefits) for incorporating climate change assessments into INRMP and installation planning, thereby enabling regulatory compliance and minimizing impacts of climate change on military training. A web-based tool will facilitate adoption and utilization across DoD.

PATH FORWARD

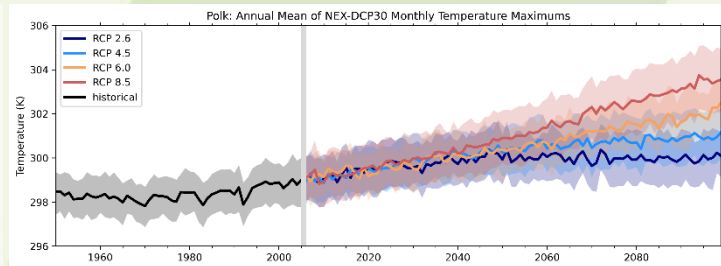
Tasks include: 1) Evaluate and compare existing vulnerability tools for military application; 2) Modification of existing tools to improve applicability to all DoD services; 3) Development of web-based application or GIS extensions; 4) Demonstrations of the tool for three DoD installations representing diverse climate regions and military missions; and 5) Produce guidance documents to include INRMP language and scenario build protocols.

DoD Executive Agent

Office of the Assistant Secretary of the Army for Installations, Energy, and Environment

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Revised 11.2023



Downscaled climate data for use in vulnerability assessments. Figure shows change in temperature over time at Fort Johnson, based on climate projects and various emission scenarios.



Example species included in climate change vulnerability assessments. Left to right Black-capped Vireo, Spotted Turtle, and Monarch Butterfly.

Pilot web-hosted application for assessing species climate change vulnerability. Background analyses based on NatureServe CCVI (version 3.01, 2016).

FOR FURTHER INFORMATION

National Defense Center for Energy and Environment (NDCEE)

<http://www.denix.osd.mil/ndcee/home>

Construction Engineering Research Laboratory (CERL)

<https://www.erd.usace.army.mil/Locations/CERL/About-CERL/>