

PARTNER SPOTLIGHT: LARA BULUC

Addressing the Complexities of Climate Adaptation in Forests

Evaluating Climate Risk Made Easy

Lara's research shows that the uptake of available climate-change related tools and publications are most effective when presented as a guide. As such, the USFS Region 5, in collaboration with the Western Wildland Environmental Threats Assessment Center and the USDA Northwest Climate Hub created a [vulnerability assessment guide](#) and an accompanying [user-friendly story map](#) to **facilitate the integration of climate change considerations into forest plan revision**. By cross walking information from these two tools, interdisciplinary teams working on land management plans **can more easily determine what is needed to address climate change in their area**.

The beauty of this guide is that, while it highlights the Sierra Nevada, its **structure can be adapted to other landscapes throughout the country**. This transferability is an essential pillar in the USFS Region 5 effort to **move from readiness, to action, in addressing climate change**.

Lara Buluc is the Ecosystem Services and Climate Change Program Lead for the USDA Forest Service Region 5, State & Private Forestry.

Since beginning with the Forest Service in 2009, Lara Buluc has worked to integrate climate change adaptation and mitigation into agency projects, planning, and policy decisions.

During her career at the Forest Service, she held many short term and permanent positions at multiple organizational levels across the National Forest System, Business Operations, and State & Private Forestry Deputy Areas. She believes the breadth of her experience with the Forest Service has prepared her to strategically address the interdisciplinary climate change challenges and opportunities facing the state.



Climate Change: A Global Issue with Local Solutions

Tackling climate change is no easy feat, especially when working with diverse populations and ecosystems. Such complexities make championing adaptation projects within both the National Forests and the agency's state and private partners in California challenging.

While there can be many hurdles in planning for adaptation, Lara notes that the "interconnected and complex decision-making around climate-smart management" is particularly challenging; specifically, there is no one-size-fits-all approach to effective climate adaptation. Lara's hard work balancing the needs of state and local partners is a necessity to coordinate the best adaptation approach for all.

Lara explains that hands-on support such as integrating climate change vulnerability assessments and adaptation strategies into on-the-ground projects can be an effective and transformative approach for adaptation planning. For example, she recently collaborated with the USDA California Climate Hub, Northern Climate Hub, Northern Institute of applied Climate Science, and others to hold workshops for nine Region 5 National Forests with the goal of understanding what adaptation practices would and would not work best for forest managers.

However, hands-on support is not always scalable. As such, Lara signifies the importance of hands-off initiatives such as climate adaptation trainings. She says these trainings help land managers increase their confidence and competence when navigating climate-smart decision making.

Through platforms such as workshops and educational trainings, Lara and her colleagues in the USFS Region 5 can better work with partners to address the complex and interconnected dynamics of climate adaptation for California's forests.



Above: *The Craggy Vegetation Management Project was funded through the CAL FIRE Forest Health Climate Change Investments Program and implemented as a partnership among CAL FIRE, the National Fish & Wildlife Foundation, and USFS Region 5.*

Funding Forest Health

Since 2015, the USFS has received over \$200 million in CAL FIRE Climate Change Investment Forest Health and Fire Prevention grants for work on National Forest lands. This funding has allowed USFS Region 5 to increase both the pace and scale of their ecological restoration work.

For example, this funding has given USFS Region 5 the resources needed to implement projects such as the *Craggy Vegetation Management Project*. Lara states that the ground-level conservation work funded between 2018-2020 dramatically slowed the spread of the 2020 Badger fire in Yreka, as it allowed bulldozers enough time to safely build fire lines and contain the fire from spreading further. Find out more about this conservation project and more, [here](#).

United Under a Changing Climate

All countries, regions, and ecosystems will have to adapt to the effects of climate change, each with their own adaptation needs and capacity for change. Lara explains that a combination of "ecological, social, and economic sciences" integrated into climate change decision management tools and publications is required for feasible, holistic solutions to climate change, and that is what USFS Region 5 aims to do.

Find out more about USFS Region 5 projects!

- Check out the USFS Region 5 Climate Change page [here](#)
- Listen to Lara speak on the Forest Focus Podcast, discussing CAL FIRE California Climate Investments Grant Award Projects concerning USFS Region 5 [here](#)

The California Climate Hub will occasionally spotlight our collaborators or impactful research projects relevant to California agriculture, forestry, and rangelands. If you know of a researcher, resource manager, producer, or project that should be highlighted, please let us know. For recommendations or more information, contact Devon Johnson at desjohnson@ucdavis.edu