



STATE CLIMATE POLICY AND NATURE-BASED SOLUTIONS: A MATCH THAT PROVIDES MULTIPLE BENEFITS FOR CLIMATE, WATER, AND MORE

Nature-based solutions, such as ecological forest management, meadow restoration, and water- and climate-friendly agriculture, can reduce emissions, augment water supply, and provide water quality benefits

Background

Significant opportunities exist to combine climate policy and nature-based solutions (NBS). These opportunities have the potential to yield multiple societal and environmental benefits — including water benefits — but need focused attention to realize their potential. Ecologically-based forest restoration, wet or mountain meadow restoration, “healthy soils,” and other agricultural practices can yield these multiple benefits. The upper Colorado River Basin, with its iconic forests and an abundance of vast, high-mountain meadows and grazing lands, offers significant potential to deploy NBS at scale.

While each state presents unique considerations, meeting the climate challenge requires that all states develop climate policies with complementary energy and NBS strategies. This is a “both/and” issue, not an “either/or” choice. Many states already have climate policies, most of which also have complementary clean energy and/or energy efficiency policies. Fewer have complementary NBS policies linked to climate, or to climate and water together. California has advanced furthest in developing and implementing regulatory and complementary energy and NBS policies. Colorado and New Mexico are also developing programs to add nature-based solutions to their climate and complementary energy policies.

To understand the ongoing development of international, national, and state climate policies incorporating nature-based solutions, Stanford researchers reviewed state-level policies that address or have clear synergies with climate, water and NBS, with particular focus on the Colorado River Basin states. The resulting report identifies policies and practices that states can adopt to gain multiple benefits for climate and water resilience through their climate policies and programs. The report examines opportunities to integrate nature-based solutions that provide water benefits, as well as the barriers to this integration. Recommendations follow for state climate policymakers and for non-state actors who can overcome at least some of these barriers. Those recommendations include developing complementary state NBS climate strategies and funding, the development of better quantification and mapping of opportunities, support for multiple-benefit quantification, and developing a “community of practice” in the basin to overcome silos of discipline and geography.

Points for Policy Makers

Potential synergies exist between state climate policy within the Colorado River Basin and nature-based solutions (NBS) that provide multiple benefits, including enhanced water supply and improved water quality.

Adding NBS to a state’s climate portfolio is important to achieve a truly comprehensive and effective climate policy. States should also consider streamlining permitting and undertaking landscape-scale assessments for restoration projects to speed them from vision to implementation.

The most promising area of NBS focus is forest management geared toward the multiple benefits of avoiding catastrophic wildfire, protecting life and property, and improving water supply and quality.

One specific synergy deserving of special attention is the opportunity to integrate mountain or wet meadow restoration into forest restoration planning and programs. Doing so offers the potential to realize benefits that address water and ecological concerns while creating natural firebreaks. Deploying beavers — nature’s mega-charismatic engineers — is an example of a multi-benefit, nature-based solution.

Elevating multiple-benefit thinking and policymaking at every opportunity can develop awareness and provide a framework for policymakers to integrate NBS and water into their climate policies.

Enhanced financing opportunities and other policy vehicles can incentivize and assist private and public partners to accelerate implementation of NBS with climate and water benefits.

Creating a “Community of Practice” in this field across the Colorado River Basin can provide greater visibility, traction, and experience in planning for and implementing NBS.

Regulatory carbon offset or cap and trade programs (most robust in California) will not yield enormous funding for nature-based solutions outside of California because of political, legislative, and quantification limitations in California and beyond. Direct investment and voluntary carbon offsets or net-zero pledges for carbon and/or water may have more promise.

About the Author

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This brief is based on the report: *State Climate Policies and Nature-based Solutions: A Match that Provides Multiple Benefits for Climate, Water, and More.*