

Scientists issue new climate adaptation 'scorecard'

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Beaver landscape mimicry project on Blackfeet Nation lands. Credit: Center for Large Landscape Conservation

A new study, co-authored by researchers at the Wildlife Conservation Society (WCS) and the University of British Columbia's Faculty of Forestry, offers a "scorecard" for climate adaptation projects—a set of 16 criteria that can be used to evaluate climate adaptation projects and inform their design. The scientists recently published their findings in the journal *Environmental Science & Policy*.

Climate adaptation projects are interventions that help wildlife, ecosystems, and people adapt to [climate](#) change. Examples include restoring habitat with plant species that are more likely to survive future climate conditions, reclaiming agricultural lands to create erosion-resistant ecosystems, and installing artificial nests to foster more resilient habitat for birds.

The research team interviewed and surveyed 18 climate adaptation experts and then surveyed an additional 47 practitioners to develop this flexible and comprehensive set of criteria, which can be tailored to an individual [project](#)'s goals and context.

The increasingly significant and unprecedented pledges in investments for adaptation have intensified the need to assess adaptation outcomes and return on investment. However, unlike evaluating climate change mitigation outcomes, which scientists can measure through the balance of greenhouse gas emissions and removals, evaluating adaptation is a complex endeavor. Outcomes can be multifaceted (social, ecological, economic), and may not be apparent for years after project completion, making it difficult to define what constitutes success and whether it was achieved.

"Decades ago, adaptation was thought of as a failure—the last possible option—by those concerned about climate change," note Dr. Lauren E. Oakes, the study's second author and a conservation scientist on the Forests & Climate Change team at WCS. "People thought, 'Adaptation is

what we will turn to when mitigation doesn't work out.' Now we know that time is of the essence; the impacts are already occurring, and the most impactful solutions will have elements of both adaptation and mitigation."

Oakes says she is hopeful that these criteria will help the growing number of concerned citizens and organizations that are working to find ways to adjust to and cope with the impacts that [climate change](#) is triggering in their local communities.

The comprehensive scorecard was developed to address adaptation projects at every stage, from inputs to outcomes, and its sixteen criteria are divided into four categories: Use of information, project management, outputs, and advancing the field of adaptation.

For example, the criteria "knowledge systems in use" evaluates the incorporation of multiple forms of knowledge, including Traditional Ecological Knowledge. Similarly, "partnerships and collaborations" recognizes that the adaptation process requires the engagement of actors across disciplines, scales of governance, and sectors. Shannon Hagerman, Associate Professor in the Faculty of Forestry at the University of British Columbia and the study's senior author, notes, "In any environmental context—including climate adaptation for biodiversity and ecosystems—it is imperative to consider the interplay between who is involved in decision-making, the knowledge used to support decisions, and the visions of success that the two illuminate and support."

In addition, the study revealed that adaptation experts and practitioners may hold different views about what is considered the most important criteria for success. Adaptation experts (researchers and/or adaptation fund advisors who have played leading roles in shaping the global field of conservation adaptation) commonly ranked social and ecological

outcomes, which are often the most difficult to measure at project completion, amongst the top five most important criteria. Practitioners, on the other hand, focused more on [project management](#) criteria such as partnerships and collaboration, engagement and communication, and long-term sustainability of their work.

Says Dr. Molly Cross, a co-author on the study and the Science Director of the WCS Climate Adaptation Fund, "In the ideal case at the project level, successful processes will lead to successful outcomes over time." This set of criteria is one tool to help us make progress towards critical adaptation goals."

More information: Guillaume Peterson St-Laurent et al, Flexible and comprehensive criteria for evaluating climate change adaptation success for biodiversity and natural resource conservation, *Environmental Science & Policy* (2021). [DOI: 10.1016/j.envsci.2021.10.019](https://doi.org/10.1016/j.envsci.2021.10.019)

Provided by Wildlife Conservation Society

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