

JOINT MITIGATION AND ADAPTATION

Frequently Asked Questions



Wildlife Conservation Society



DORIS DUKE
CHARITABLE FOUNDATION

Climate Adaptation Fund



FAQs on JMA | WCS Climate Adaptation Fund

All of the projects supported by the Fund need to be designed to achieve adaptation outcomes for wildlife and ecosystems, but we are also interested in projects that provide additional benefits. Below are responses to FAQs about Joint Mitigation and Adaptation (JMA) for applicants who choose to apply in this category and want to learn more about this exciting arena.

1. **Why support joint adaptation and mitigation efforts?**
2. **What types of joint adaptation and mitigation projects does the Fund support?**
3. **If the Climate Adaptation Fund prioritizes adaptation over mitigation, how should applicants detail the secondary benefits of mitigation?**
4. **How might my JMA project contribute to state adaptation and mitigation efforts?**
5. **What are the general interactions between adaptation and mitigation?**
6. **What are some of the pitfalls to avoid for projects that aim to achieve both adaptation and mitigation outcomes?**
7. **Are there certain sectors and ecosystem types that may be more conducive to joint adaptation and mitigation efforts?**
8. **What are some scholarly resources on the synergies and tradeoffs between adaptation and mitigation?**
9. **What are examples of model JMA projects (U.S.-based and international)?**

1. Why support joint adaptation and mitigation efforts?

By encouraging more on-the-ground JMA projects, the Climate Adaptation Fund strives to break down the barriers between two seemingly separate fields of practice and maximize the outcomes of climate-related investments. The recent [Special Report from the IPCC](#), which reports that limiting the global average temperature rise to 1.5°C will require unprecedented transitions in all aspects of society, calls attention to the urgency and importance of mitigation, as well as the cost of delayed action.

Policies and negotiations often treat adaptation and mitigation separately because they pursue different objectives and operate at different spatial and temporal scales; mitigation provides benefits for global climate in the long-term, whereas adaptation tends to provide more local benefits that accrue in the short-term as well as longer term (Swart and Raes 2007). Mitigation is often regarded as a challenge that requires top-down regulation at the international level; while adaptation is a concern that local policymakers and citizens can address from the bottom-up (Kongsager et al. 2018). In practice, actions that contribute to both objectives can increase the efficiency of financial allocations and minimize trade-offs, particular in some land-related activities such as forestry (Locatelli 2014). Synergies, as defined in the fourth IPCC Assessment Report (Klein et al. 2007), can be understood as the “interaction of adaptation and mitigation so that their combined effect is greater than the sum of their effects if implemented separately.”

2. What types of joint adaptation and mitigation projects does the Fund support?

CAF supports adaptation actions that offer secondary benefits to mitigation (e.g., watershed restoration that could help fish populations adapt to changing conditions and also increase carbon storage) and projects that consider any tradeoffs between the two. We will not fund projects that primarily focus on mitigation with secondary adaptation benefits to wildlife and ecosystems, or projects that compromise any adaptation outcomes by including mitigation benefits.

3. If the Climate Adaptation Fund prioritizes adaptation over mitigation, how should applicants detail the secondary benefits of mitigation?

The Fund does not expect all applicants to conduct a quantitative assessment of possible tradeoffs but asks JMA applicants, instead, to focus primarily on adaptation and justify additional mitigation benefits. Innovative projects that employ rigorous methods of considering any negative impacts to adaptation outcomes will, however, be ranked highly. In their analysis of 201 climate change project design documents, Kongsager et al. (2016), found that most projects have either an explicit adaptation or mitigation goal but potential to contribute to both.

4. How might my JMA project contribute to state adaptation and mitigation efforts?

Striving for climate resilience and mitigation goals, many states are working with local and community leaders to improve the tools and resources available for building resilience to climate impacts and coping with the changes occurring. Your JMA project could contribute to state efforts in a variety of ways, such as including mitigation benefits in the state’s accounting system, or engaging other practitioners and policymakers in the JMA approach to meet commitments. Some states are working together as the U.S. Climate Alliance to take urgent actions to address climate change and advance the goals of the 2016 [Paris Agreement](#), which highlights mitigation actions that affect adaptation, and vice versa. While certain initiatives under the Alliance focus primarily on achieving mitigation targets, others also support adaptation efforts. For more information on the Climate Alliance and various state initiatives, see <https://www.usclimatealliance.org/>

5. What are the general interactions between adaptation and mitigation?

The IPCC distinguishes four types of interactions that characterize the inter-relationships between adaptation and mitigation. The table below provides examples of JMA in conservation efforts that apply to each of these types.

Type of Interaction	Example
1) Adaptation actions that affect mitigation actions	Planting activities designed to provide habitat for species under a changing climate while also increasing carbon storage
2) Mitigation actions that affect adaptation actions	Forest restoration that optimizes carbon storage as the primary objective but could also affect the capacity of species/ecosystems to adapt
3) Decisions that include trade-offs and synergies between adaptation and mitigation	Integrated assessment of climate change impacts on wildlife and/or ecosystems that considers any variation in outcomes by including both adaptation and mitigation approaches (e.g., spatial analysis of restoration effort to determine if mitigation actions compromise adaptation interests)
4) Processes that have consequences for both adaptation and mitigation	Local authorities or resource managers implement guidelines for land-use that integrate both adaptation (e.g., infrastructure resilience and wildlife passage) and mitigation (e.g., reducing land conversion)

6. What are some of the pitfalls to avoid for projects that aim to achieve both adaptation and mitigation outcomes?

Although the intent of JMA is to optimize outcomes from investments, some studies have demonstrated that, in some cases, targeting multiple objectives can have significant trade-offs. For example, in a study conducted on restoration effort in a highly-modified catchment in New Zealand, researchers found significant trade-offs between gain in biodiversity and reduction of environmental impacts, such as nitrogen leaching, greenhouse gas emissions, and erosion (Mason et al. 2012). Consistent with the Fund's prioritization for adaptation before mitigation co-benefits, recommendations from this research emphasize using biodiversity gain as the dominant criterion for the restoration actions, with other benefits as secondary. Applications that demonstrate a thorough consideration of possible trade-offs between adaptation benefits to wildlife and ecosystems and mitigation co-benefits will be ranked higher in review.

7. Are there certain sectors and ecosystem types that may be more conducive to joint adaptation and mitigation efforts?

Agriculture, forestry, and urban development offer many opportunities for synergies in adaptation and mitigation. Many agricultural actions, for example, involve the use of land and water resources so projects designed to benefit wildlife and ecosystems in these working landscapes have potential to deliver both adaptation and mitigation outcomes. Innovative actions could result in sequestering carbon in soils, while strengthening an ecosystem's resilience to current and future climate impacts. In forest ecosystems, changing management intensity and species composition, or altering fire regimes could result in multiple benefits. Actions that support mitigation in urban areas are typically related to energy and water efficiency, as well as increasing green areas (Nordic Council of Ministers 2017). The Fund notes these general tendencies but encourages innovation across a wide-range of sectors and ecosystems.

8. What are some scholarly resources on the synergies and tradeoffs between adaptation and mitigation?

Konsager et al. (2018) offer a meta-analysis of synergies and tradeoffs between adaptation and mitigation. The overall aim of the review is “to contribute to the empirical knowledge base on opportunities and challenges of enhancing the linkages between adaptation and mitigation,” with particular interest in the forestry and agricultural sectors in terrestrial ecosystems. This meta-analysis also offers a history of the perceived dichotomy between adaptation and mitigation. Other relevant studies, such as Schröter et al. 2014, provide examples of quantitative analyses used to consider tradeoffs for outcomes on biodiversity when considering multiple objectives in a specific system.

9. What are examples of model JMA projects (U.S.-based and international)?

[The Green Climate Fund](#) supports international adaptation and mitigation projects, as well as cross-cutting or JMA approaches. Projects such as [RECLIMA](#) in El Salvador serve as examples of on-the-ground adaptation efforts that improve ecosystem resilience, while also offering mitigation co-benefits and other benefits to people. Agroforestry in coffee production zones and upstream restoration in northern Peru can improve water regulation, reduce landslides and erosion, and also enhance carbon stocks (Locatelli et al. 2011). In the United States, Audubon Vermont and the Vermont Agency of Natural Resources collaborated to identify actions that benefit bird habitat while also enhancing carbon storage. This work to update the management plan of [Audubon Vermont's Green Mountain Center](#) offers another strong example of joint mitigation and adaptation. See also Appendix I of the 2019 RFP Guidelines for an extensive list of forest management actions that can provide adaptation benefits along with potential carbon benefits. Many of the case studies referenced in that Appendix were conducted in U.S. or North American landscapes.

Other online resources:

Climate Policy Info Hub: Scientific Knowledge for Decision-makers

<http://climatepolicyinfohub.eu/mitigation-co-benefits-and-interlinkages-adaptation>

An Interview with Scientist Bruno Locatelli on Improving the Design of Climate Change Projects:

<https://forestsnews.cifor.org/47876/time-to-get-it-together-on-mitigation-and-adaptation?fnl=en>

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