## **ABC** Actions Addressing Climate Change

To address these three categories of response to climate change, ABC uses tools to take direct action, such as management of public and private lands. We also use indirect tools, such as encouraging improvement in government policy at all levels and supporting other organizations (such as our partners in Latin America) in their efforts.

Many of the actions listed in the table below began decades ago in ABC's earliest days and are ongoing, while others will be initiated or expanded in the future. Taken together, these actions mean that ABC and our partners are addressing many aspects of climate change, at many different scales.

ABC Climate Actions	Type of Action
Mitigation-specific Actions	
ABC opposes efforts to log mature and old-growth forests in the northwestern U.S. These forests are important stores of carbon that should remain in place. In addition, they are key habitat for threatened birds such as the Northern Spotted Owl and Marbled Murrelet.	Improved government policy
In federal forests, ABC supports the use and implementation of science-based best management practices and adaptive forest management to maintain the quality of those forests as key bird habitat. These forests provide important bird habitats, abundant areas for birdwatching, and ecosystem services such as carbon storage.	Improved government policy
In managed, or working, forests ABC supports adaptive, science- based management across the U.S. and Canada by maintaining collaborative ABC partnerships with organizations such as the Sustainable Forestry Initiative (SFI) and its program participant companies. The objectives of these projects are to maintain forests as forests and to promote bird-friendly management of working forests. They are important carbon stores and provide habitat for many bird species.	Management of private lands
Native grasslands can hold very significant carbon stores. ABC supports conservation and policy efforts on both public and private lands aimed at reducing conversion of native grasslands to non-natives or to other uses, and to maintain these key habitats for threatened grassland birds.	Management of private and public lands
Protecting already-existing natural habitats — forests or grasslands — helps to keep their carbon stores from being emitted into the atmosphere and thereby mitigates climate change. ABC continues to support protection of the natural sites important to Critically	Support for Latin American partners

Endangered and Endangered resident bird species and overwintering	
migratory birds in Latin America and the Caribbean.	
Many Alliance for Zero Extinction (AZE) sites are directly threatened by the changing climate, especially islands and montane sites. ABC works to include protection of these AZE sites and other Key Biodiversity Areas (KBAs) as priorities of multilateral agencies, such as the Global Environment Facility, as well as into Sustainable Development Goals and other frameworks guiding international conservation efforts.	Improved government policy
ABC supports reforestation projects with local communities and ABC partner bird habitat reserves throughout the Americas. These trees will take up carbon from the atmosphere and provide habitat for birds.	Support for Latin American partners
ABC continues to support Bird-Smart Wind Energy development. This includes promoting best practices for use by industry, and bird- safe wind energy policy more broadly.	Improved government policy
ABC promotes development and installation of distributed solar power as the most bird-friendly alternative energy source, requiring little in the way of new land development, few new powerlines, and low risk to birds.	Improved government policy
ABC mitigates its own carbon footprint and offers support to staff to do the same by purchasing certified carbon credits from partner organizations to offset our annual travel, commuting, and energy use, while supporting also conservation.	Improved government policy; support for Latin American partners
Resiliency-specific Actions	
ABC supports shade-grown coffee and cacao farming, and promotes use of best management practices in these farms, to increase resiliency of both resident and wintering migratory bird populations. Shade-grown coffee and cacao provide habitat for birds that single- species, open-sun cultivation practices do not.	Management of private lands
ABC promotes and incorporate actions that improve habitats in all BirdScapes and other designated priority landscapes, on the breeding grounds and wintering grounds, and in migratory stopover sites. Healthy bird populations are better able to overcome the negative effects of climate change.	Management of private and public lands
ABC works in the northern Great Plains of the U.S. to enhance habitat for grassland and sage-steppe birds while maintaining sustainable land use. Healthier populations of the birds can more easily sustain climate change impacts.	Management of private lands
ABC works to maintain, enhance, and restore at-risk forest habitats before they become stressed or degraded. We use adaptive management techniques and strategies that restore or maintain habitat resilience.	Management of private and public lands

ABC works with landowners and agencies in many parts of the western U.S. to restore Ponderosa Pine and other dry forests to their historic conditions by reducing overgrowth and implementing low- level fire or mechanized thinning. Although seemingly contradictory, these actions can improve the quality of the forest and increase the resiliency of bird populations by reducing the risk of catastrophic fire and carbon release. At the same time, these actions benefit cavity-nesting birds and other wildlife.	Management of private and public lands
Working directly and in partnership with numerous federal and state agencies, conservation organizations, and landowners, ABC continues to work through the Migratory Bird Joint Venture network to improve bird habitats across the U.S. High-quality habitats make for resilient bird populations.	Management of private and public lands
With federal and state agencies, ABC is engaging in planning efforts to develop and implement a collaborative conservation effort focused on riparian ecosystem restoration.	Management of public lands; improved governmental policy
For already-existing environmental regulations, ABC will work to ensure that processes under the National Environmental Policy Act (NEPA), such as Environmental Assessments (EA) and Environmental Impact Statements (EIS), incorporate assessments of and planning for climate change, including adequate measures to minimize and mitigate bird mortality.	Improved government policy
ABC works to strengthen the Migratory Bird Treaty Act (MBTA), the Bald and Golden Eagle Protection Act (BGEPA), the Endangered Species Act (ESA), and other regulatory policies to reduce the killing of birds. These actions help to protect bird populations, and healthier bird populations are more resilient to climate change.	Improved government policy
Many birds die in collisions with communications towers, powerlines, wind turbines, or windows in buildings. ABC promotes policies and other efforts to reduce bird mortality from these threats, helping to strengthen bird populations so they are better able to adapt to climate change. Actions to reduce bird collisions, such as reducing the amount of glass used in buildings and minimizing nighttime lighting, also reduce energy consumption and therefore carbon emissions.	Improved government policy
As new regulations are needed, ABC will promote development of regulatory mechanisms requiring mitigation of impacts to birds and habitats, as well as use of best management practices for sectors known to kill large numbers of birds, such as powerlines. Powerlines are likely to increase in number as the economy moves to an electricity-centered model to address climate change.	Improved government policy

ABC works to stop preventable bird deaths from pesticide toxicity and free-roaming cats, so that populations will be stronger and therefore more resilient to a changing climate.	Improved government policy
ABC works with state and local governments and municipalities to enact regulations and/or laws that protect coastal mainland and island habitats for birds so that law enforcement can participate in conservation actions. This will promote protection of some of the most vulnerable coastal areas subject to climate change impacts, while also promoting resiliency.	Improved government policy
Using the best-available knowledge and models, ABC will identify key climate change-related limiting factors of birds, especially changes in vital rates (survival, fecundity, reproductive rates) caused by climate change, and evaluate how to address those limiting factors.	Development of knowledge necessary to address climate change
To support conservation planning, ABC will identify stopover areas for migratory passerines (perching birds) and evaluate those areas for potential impacts from climate change. We will also plan for actions to address climate change at those sites.	Development of knowledge necessary to address climate change
Adaptation-specific Actions	
ABC will work to create predator-free, high-island refuges for seabirds displaced by climate-change-induced sea level rise in Hawai'i and elsewhere, and implement social attraction and translocation to foster colonization of these sites as needed.	Management of public lands
To adapt to the effects of climate-change-induced sea level rise, ABC will work to devise ways to manage coastal marshes so that they continue to provide habitat for marsh-dwelling and marsh- nesting birds. This will likely require policy considerations and changes as well as changes to infrastructure, such as impoundments and seawalls, and control of invasive aquatic plants.	Management of public lands; improved government policy
ABC will support efforts to control invasive mosquitoes in Hawai'i to prevent and/or minimize the expansion of avian malaria and other deadly diseases transmitted by mosquitoes in higher-elevation habitats in the Hawaiian Islands. The spread of these mosquitoes is facilitated by the warmer temperatures caused by climate change.	Management of private and public lands
To ensure that ABC partners' bird habitat reserves throughout the Americas are adapted as much as possible to the effects of climate change, ABC will initiate planning for each reserve, using the best scientific results and models to predict future effects of climate change. These include:	Support for Latin American partners
• Reviewing expected climate change impacts for each reserve area.	

<ul> <li>Ensuring that each reserve has an appropriate fire prevention and control plan and implementation.</li> <li>As necessary for each reserve, planning for:         <ul> <li>Reserve buffers,</li> <li>Watershed protection, and</li> <li>Upslope movement of habitat.</li> </ul> </li> </ul>	
Waterways in the southwestern U.S. provide the water needed to maintain healthy riparian ecosystems on which many aridland bird species depend. Climate change will greatly impact these habitats, unless invasive plants are controlled and regular water flow is maintained. ABC will work in southern California, Arizona, New Mexico, and beyond to adapt and restore southwestern riparian ecosystems on private lands.	Management of private lands
Track Arctic migratory wading birds to identify key refueling sites. These sites may be affected by sea level rise or changes	Development of knowledge necessary to address climate change
To ensure that conservation actions addressing climate change are effectively conserving at-risk species, ABC will monitor IUCN Red List species (Critically Endangered and Endangered) in ABC partners' bird habitat reserves.	Development of knowledge necessary to address climate change
For key migratory birds on their wintering grounds in ABC project areas (wintering-ground BirdScapes and ABC partners' bird habitat reserves) ABC will monitor the birds' populations to ensure that conservation actions addressing climate change are effectively conserving the species.	Development of knowledge necessary to address climate change