

# 9 INDIGENOUS PEOPLES

## Climate change poses particular threats to Indigenous Peoples' health, well-being, and ways of life.

The peoples, lands, and resources of indigenous communities in the United States, including Alaska and the Pacific Rim, face an array of climate change impacts and vulnerabilities. The consequences of observed and projected climate change have and will undermine indigenous ways of life that have persisted for thousands of years. Native cultures are directly tied to Native places and homelands, and many indigenous peoples regard all people, plants, and animals that share our world as relatives rather than resources. Language, ceremonies, cultures, practices, and food sources evolved in concert with the inhabitants, human and non-human, of specific homelands.

Climate change impacts on many of the 566 federally recognized tribes and other tribal and indigenous groups are projected to be especially severe, since these impacts are compounded by a number of persistent social and economic problems.<sup>1</sup> Key vulnerabilities include the loss of traditional knowledge in the face of rapidly changing ecological conditions, increased food insecurity due to reduced availability of traditional foods, changing water availability, Arctic sea ice loss, permafrost thaw, and relocation from historic homelands.<sup>2,3</sup>



Human-caused stresses such as dam building have greatly reduced salmon on the Klamath River.

*We humbly ask permission from all our relatives; our elders, our families, our children, the winged and the insects, the four-legged, the swimmers, and all the plant and animal nations, to speak. Our Mother has cried out to us. She is in pain. We are called to answer her cries. Msit No'Kmaq – All my relations!*

— Indigenous Prayer

## KEY MESSAGES: INDIGENOUS PEOPLES, LANDS, AND RESOURCES

Observed and future impacts from climate change threaten Native Peoples' access to traditional foods such as fish, game, and wild and cultivated crops, which have provided sustenance as well as cultural, economic, medicinal, and community health for generations.

A significant decrease in water quality and quantity due to a variety of factors, including climate change, is affecting drinking water, food, and cultures. Native communities' vulnerabilities and limited capacity to adapt to water-related challenges are exacerbated by historical and contemporary government policies and poor socioeconomic conditions.

Declining sea ice in Alaska is causing significant impacts to Native communities, including increasingly risky travel and hunting conditions, damage and loss to settlements, food insecurity, and socioeconomic and health impacts from loss of cultures, traditional knowledge, and homelands.

Alaska Native communities are increasingly exposed to health and livelihood hazards from increasing temperatures and thawing permafrost, which are damaging critical infrastructure, adding to other stressors on traditional lifestyles.

Climate change related impacts are forcing relocation of tribal and indigenous communities, especially in coastal locations. These relocations, and the lack of governance mechanisms or funding to support them, are causing loss of community and culture, health impacts, and economic decline, further exacerbating tribal impoverishment.



Indigenous communities in various parts of the U.S. have observed climatic changes that result in impacts such as the loss of traditional foods, medicines, and water supplies. The Southwest's 182 federally recognized tribes and communities in its U.S.-Mexico border region share particularly high vulnerabilities to climate changes such as high temperatures, drought, and severe storms. Changes in long-term average temperature, precipitation, and declining snowpack have altered the physical and hydrologic environment on the Colorado Plateau, making the Navajo Nation more susceptible to drought impacts.<sup>4</sup> Southwest tribes have observed damage to agriculture and livestock, the loss of springs and medicinal and culturally important plants and animals, and impacts on drinking water supplies.<sup>5</sup> In the Northwest, tribal treaty rights are being affected by the reduction of rainfall and snowmelt in the mountains, melting glaciers, rising temperatures, and shifts in ocean currents.<sup>6</sup> Tribal communities in coastal Louisiana are experiencing climate change induced rising sea levels, along with saltwater intrusion, subsidence, and intense erosion and land loss due to oil and gas extraction, levees, dams, and other river management techniques, forcing them to either relocate or try to find ways to save their land.<sup>7</sup> In Hawai'i, Native peoples have observed a shortening of the rainy season, increasing intensity of storms and flooding, and unpredictable rainfall patterns.<sup>8</sup>



Harvesting traditional foods is important to Native Peoples' culture, health, and economic well being. In the Great Lakes region, wild rice is unable to grow in its traditional range due to warming winters and changing water levels.

### Alaska Natives Face Multiple Climate Impacts

Alaska is home to 40% (229 of 566) of the federally recognized tribes in the United States.<sup>9</sup> The small number of jobs, high cost of living, and rapid social change make rural, predominantly Native, communities highly vulnerable to climate change through impacts on traditional hunting and fishing practices. In Alaska, water availability, quality, and quantity are threatened by the consequences of permafrost thaw, which has damaged community water infrastructure, as well as by the northward extension of diseases such as those caused by the *Giardia* parasite.<sup>10</sup>



Rising temperatures are causing damage in Native villages in Alaska as sea ice declines and permafrost thaws. Resident of Selawik, Alaska, and his granddaughter survey a water line sinking into the thawing permafrost, August 2011.

Arctic regional temperatures have risen at twice the global rate over the past few decades.<sup>2</sup> This temperature increase – which is expected to continue with future climate change – is accompanied by significant reductions in sea ice thickness and extent, increased permafrost thaw, more extreme weather and severe storms, and changes in seasonal ice melt/freezing of lakes and rivers, water temperature, sea level, flooding patterns, erosion, and snowfall timing and type.<sup>11,12</sup> These changes increase the number of serious problems for Alaska Native populations, which include: injury from extreme or unpredictable weather and thinning sea ice; changing snow and ice conditions that limit safe hunting, fishing, or herding practices; malnutrition and food insecurity from lack of access to subsistence food; contamination of food and water; increasing economic, mental, and social problems from loss of culture and traditional livelihood; increases in infectious diseases; and loss of buildings and infrastructure from permafrost erosion and thawing, resulting in the relocation of entire communities.<sup>2,10,12,13</sup> For more, see pages 82-83.