



Nature-Based Climate Solutions - Traditional Practices for a Changing Climate:

To fully address the climate crisis, we need nature-based climate solutions (NbCS). By stewarding natural spaces and protecting ecosystems, we are actively addressing climate change while increasing resilience for habitats and communities most at risk from its effects. In many cases, climate change is driven by two main contributors: the release of greenhouse gases (GHGs) into Earth's atmosphere and the fragmentation of forests, fields, and other natural areas.

The best way to address these contributors and slow atmospheric warming is to invest in the long-term health of natural spaces. Earth has a built-in safety net to reduce excess GHGs in the air. Trees, grasses, and other plants breathe the excess carbon from the air in a process called photosynthesis. The carbon, a building block for life, is sequestered and stored within the plant's body as it grows. This process is like a baby's diet, providing the baby with energy as it stores its food in its body to support healthy growth.

Plants act as the Earth's lungs and, in the case of our baby analogy, Earth's stomach. While carbon is consumed to produce flowers, fruits, and other new growth, it is removed from the atmosphere. This begins to offset the carbon released into the atmosphere, which is driving climate change. By protecting our green spaces, NbCS can provide critical funding to communities stewarding our Earth while also slowing climate change.

NbCS can look differently across ecosystems, aligning solutions with the goals of local stewards and the unique plant species in the area. For forests, one solution to sequester and store more carbon is to implement Improved Forest Management (IFM). Through IFM projects, forest managers work to decrease the presence of invasive species, create more suitable habitat for native wildlife, and allow timber to grow into mature and/or old-growth forests. Compared to surrounding forests, that are not actively managed with these goals in mind, forests enrolled in IFM projects sequester and store more carbon. This additional carbon can be sold as carbon credits to generate revenue for the local community.



For grassland ecosystems or agricultural areas, there are multiple NbCS to choose from. In many cases, increasing the population or reintroducing natural grazing species can accelerate carbon cycling within the area. This leads to healthier grass growth, a greater diversity of native plant species, and increased carbon sequestration. If fields are nutrient-poor, tree planting can be a great option to sequester carbon, support the local ecosystem, and give the soil time to recharge. Through reforestation in grasslands or rangelands, the growth of trees stores carbon in new growth as well as in the recharged soils.

Any way you put it, the stewardship of natural spaces sequesters carbon and generates increased revenue for local communities. But in many instances, these stewardship practices have been recognized for millennia by Tribal Nations and Indigenous communities. Traditional Ecological Knowledge (TEK) is a set of guiding principles that encourage a good relationship with the land. TEK and NbCS walk hand in hand to achieve a healthy Earth and thriving ecosystems.

By bridging the gaps between the teachings of TEK and forest management for carbon storage, Tribal Nations and Indigenous communities are leading the movement towards climate action. With a deep connection to the land, Indigenous stewardship has been guiding ecosystems toward carbon sequestration while speaking to community values for thousands of years.

Implementing NbCS offers a huge opportunity for Tribal Nations, especially if stewardship and ecosystem health are priorities for natural areas such as forests, prairies, and watersheds. Implementing TEK is a surefire way to ensure the health of these natural spaces for generations to come. And implementing NbCS alongside these practices guarantees annual revenue for the community. The implementation of TEK naturally increases carbon storage by encouraging healthy growth. Including this growth in a climate solution can quantify the amount of carbon stored because of TEK-based management decisions. The carbon sequestered through this work then generates carbon credits, which are directly applied to offset global emissions, and provides income for the Tribe.

Through the application of NbCS, the Mississippi Band of Choctaw Indians has applied carbon revenue to build a state-of-the-art educational facility for their middle and high school students. The Bois Forte Band of Chippewa has applied carbon revenue to rematriate 28,000 acres of ancestral forests. The Blackfeet Nation is using



carbon revenue to reintroduce American bison onto 69,000 acres of protected habitat.

If your Tribal Nation or Indigenous community is ready to explore carbon markets or has questions about nature-based climate solutions, NICC is available to support your journey. To learn more, visit the National Indian Carbon Coalition at www.indiancarbon.org, call us at (651) 766-8999, or email info@indiancarbon.org. We are here to stand by your side today and for the future.

