

HOW WATER SCARCITY IMPACTS COMMUNITIES AND ECOSYSTEMS

WHO HAS ACCESS TO WATER WHEN THERE'S NOT ENOUGH TO GO AROUND?



Water scarcity poses an existential threat to people and nature. Nearly half of the global population—roughly 3.6 billion—live in areas that suffer from water scarcity at least one month each year. Water scarcity affects everything—from agriculture and industry to human well-being and the environment—and is predicted to be one of the most devastating consequences of climate change.

The impacts of water scarcity are felt most acutely by Indigenous Peoples and local communities who do not have the resources or influence that large industrial, economic and government entities do to secure sufficient clean water supplies for their basic human and economic needs. As water becomes more scarce, marginalized communities pay the steepest price.

In the face of such a daunting problem, community-based conservation can secure water supplies to meet ecological needs and transform local communities' access to water resources.

This approach not only helps ensure that there is adequate water for wildlife, plants, and ecological functions, it helps to address the historical practices that have led to widespread injustice for Indigenous Peoples and local communities. Empowering communities can lead to systems change and better resiliency in the face of water scarcity.

The Nature Conservancy (TNC) is already working with Indigenous Peoples and local communities on issues of water scarcity on several projects around the world. Our recent report, *Community-Based Conservation in Water-Scarce Areas*, examines the lessons we have learned from five projects in Australia, India, Peru, and the United States.

What is Water Scarcity?

Water scarcity is an excess of water demand over available supply. The reasons for this vary from ...



Physical water shortage



Infrastructure failures (inadequate water storage or conveyance)



Governance failures (inequitable distribution)



Water is the primary medium through which we will feel the effects of climate change.
UNITED NATIONS, 2020



This map features locations of TNC freshwater community-based conservation projects/ programs with a water scarcity or drought management component as of January 2020.

- Case study locations
- Other project locations

Cartography - Chris Bruce, Shiteng Kang | Data sources - TNC, Natural Earth

TNC Case Studies

➤ Cultivating trust and meaningful relationships across local communities, organizations, and the **Cusco** government resulted in robust reforestation programs, restoration of ancestral *amunas*, and improved distribution of water tariff funds.

➤ Activating legal precedent helped Tribal Nations in the **Colorado River Basin** gain recognition of their water rights. TNC hopes to help elevate Tribal voices towards full representation in decision-making in the Basin.

➤ Collaborating with a local nonprofit, TNC piloted a project with ten villages in **India's Devnadi River Basin** improving the understanding and management of groundwater depletion and developing drought resilience plans.

➤ Restoring Indigenous management of **Australia's Gayini** landscape is elevating Traditional Ecological Knowledge and reconnecting floodplains and wetlands that support birds and other critical species.

Lessons Learned: For community-based conservation to succeed in the long-term, finding the intersection between community needs and ecological outcomes is vital.

In each case study, we see that:

- **Rights and access** to water are essential. It is often not sufficient to own land—communities also need a priority right to water. Change requires a deep understanding of complex historical, political, and legal frameworks.
- **Partnerships** are key and must be built on trust. This calls for an investment of time and resources, including cultural competency training for TNC staff and conservation training for local groups.
- **Ecological and human well-being** are significantly impacted by large-scale users and are the most vulnerable to declines in water availability. Authentic collaboration can help us achieve durable solutions for both people and nature.
- **Local knowledge** can merge with Western science to provide a much greater likelihood of innovative and transformational conservation.

TNC's work with Indigenous Peoples and local communities on water scarcity is a component of the organization's broader grappling with historical and current conservation practices that contribute to inequity and injustice. Ultimately, the goal of these projects is for local people to manage their own resources. Community-based conservation has the potential to increase resilience in the face of climate change and help communities manage scarce water resources.



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For additional information or to request access to the report, *Community-Based Conservation in Water-Scarce Areas*, please contact caitlin.dougherty@tnc.org