

Freshwater species and ecosystems provide services we depend upon for our survival—but their future remains at risk. Conservation International (CI) is delivering solutions to restore the health of vital freshwater ecosystems and ensure that people and freshwater-dependent species can survive and thrive, both now and in the future.

one solution: **value**

what do we mean by *value*?

Ecosystems represent our planet's natural capital. With an estimated worth upwards of 80 trillion dollars annually, the services provided by natural ecosystems are as important to our livelihoods as the roads, bridges, factories and dams that make up our built, or human-made, capital. Yet, much more needs to be learned about how to quantify ecosystem services and assign them monetary values—so that we can make credible and persuasive arguments and establish policies for protecting the ecosystems that deliver them. For example, what is the value of a healthy ecosystem that provides downstream communities with clean drinking water, and what price will these communities have to pay for clean water if this ecosystem is degraded? Placing a value on the essential services that nature provides helps us better understand the trade-offs we make in economic development decisions.

why is it important?

Appreciating the need to protect species and nature for their own sake is not enough to stop the degradation and destruction of freshwater ecosystems. If humans fail to understand the economic value of healthy ecosystems, there will be no incentive to protect and restore their health. Instead, we will continue to support activities with short-sighted economic gains, such as clearing forests for timber or agriculture, without considering the longer-term consequences, such as degraded freshwater ecosystems.

value

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The poor are the most dependent on the services ecosystems provide—and the least able to afford more costly substitutes once services are destroyed. For example, if the river where a poor community fishes for their main source of protein is dammed upstream—cutting off the fish supply—they likely will not be able to afford switching to a new source of protein.

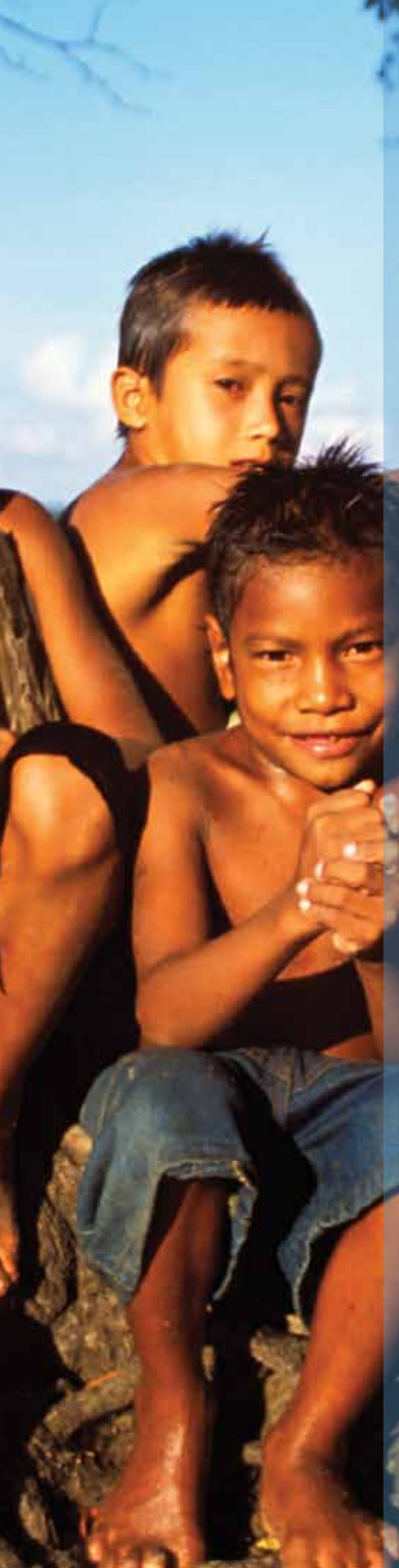
When society factors the full range of benefits, cost reductions, and risk prevention provided by ecosystem services into economic development decisions, the result is better-informed decisions that balance long-term consequences and opportunities. Projects that were once narrowly conceived will be transformed to deliver natural and financial benefits while sustaining ecosystem services over the long term. Fully incorporating the value of ecosystem services into decision making will also help illuminate the trade-offs that are being made as countries try to reduce or adapt to the effects of growing populations and climate change.

how is CI contributing?

We are working with corporate, government, development and community partners to understand and mitigate threats to freshwater biodiversity and ecosystems. We are devising solutions to improve land and water stewardship. For example, fostering ecologically sustainable fisheries, incorporating ecological principles and water- and energy-saving methods into agriculture, and developing ways to adapt to climate change using “natural infrastructure,” opportunities. We are valuing the role that freshwater ecosystems play in delivering services and understanding the unintended trade-offs that occur when we fail to value ecosystems for their services. We are also evaluating the range of conditions under which nature can either support or replace the need for man-made infrastructure and testing the feasibility and economic viability of combining natural options with traditional engineering approaches.

We engage with corporate partners to develop and implement leading water management strategies and practices, including efficiency measures, water footprint accounting and sustainable water sourcing across all stages of operational and product development life cycles. We are working with governments to eliminate harmful subsidies, to adopt market and regulatory innovations for utilities that create incentives for end-user efficiency, and to promote the implementation of more efficient irrigation systems.





CI's niche

- Developing natural infrastructure options to show how conservation can be directly incorporated into development, offering a cost-effective and efficient means of addressing freshwater resource management challenges while enhancing freshwater ecosystem protection.
- Demonstrating innovative and cost-effective water- and energy-efficient practices for utility services (electricity, natural gas and water), agriculture and other private sector interests and helping to shift subsidies that unintentionally degrade freshwater ecosystems into incentives that protect them.
- Increasing land and water stewardship, developing payment-for-ecosystem-services projects, and creating new markets for water to create a direct financial incentive for conserving watersheds and freshwater ecosystems.

priorities

- Seeking new partnerships to pilot-test combined natural and traditional infrastructure approaches in two or more locations.
- Assessing the potential for adopting point-of-service energy efficiency approaches more widely throughout China and Brazil, regions where pressure from infrastructure expansion is mounting.
- Providing advice to countries where CI works on how to include alternative energy into their climate mitigation and adaptation strategies.
- Increasing food, fuel and fiber production on lands that are already degraded to avoid additional land clearing for these activities, and engaging at least three companies in CI's Sustainable Biofuel Crops Initiative, which includes water conservation measures.
- Developing a PES project investment portfolio and training program, including communities, government officials and policymakers, and implementing it in South Africa, China, and other interested countries.



results expected

- Natural infrastructure projects address water resource and supply concerns efficiently and costs effectively while also protecting freshwater ecosystems, as well as the creation of new policies and investment sources by private and public development banks to fund additional projects.
- Creation of climate change adaptation planning and policy processes and funding streams that fund ecosystem-based adaptation approaches in critical landscapes.
- Adoption of better land and water stewardship practices and water pricing by corporate partners, farmers and water utilities in Brazil, Indonesia, China and CI-priority freshwater regions.
- Up to 50 percent of global agricultural commodity production supply chains have been influenced, and USD \$10 million has been secured for enhanced watershed management and protection of freshwater ecosystems and services.
- Development of PES policies and programs, including monitoring protocols and training programs in South Africa, China, Brazil, Costa Rica and other countries that want assistance from CI.
- Secured corporate partnerships and long-term investment from development banks in PES and other water market projects.

