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Center for Sustainable Hydropower

The Nature Conservancy is focused on solutions that will ensure a healthy planet — a planet where nature and people thrive with economies powered by sustainable energy systems. To meet the growing global demand for electricity, hydropower will continue to be a leading source of low-carbon energy, especially in Asia, Africa and Latin America.

Forecasts suggest that global hydropower capacity will approximately double in the next 35 years, requiring the construction of thousands of new dams around the world. Much of this expansion will occur on rivers that drive the most biologically diverse and productive freshwater ecosystems on the planet — systems that support hundreds of millions of people through fisheries and flood-recession agriculture. As the

Conservancy's report [The Power of Rivers](#) makes clear, rapid and poorly planned development poses great risk to environmental and social values and introduces uncertainty into the development plans of many countries.

To forge more balanced solutions between energy development and the conservation of healthy, productive rivers, the Conservancy established the Center for Sustainable Hydropower in Beijing, China. The Center provides a platform for scientists and conservationists to engage directly with decision-makers, including government agencies, major companies and financial institutions, to influence how and where dams are built. Of primary importance is engaging the Chinese hydropower sector, which accounts for more than half of all new global dam construction.



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THE CENTER TODAY FOCUSES ON THREE AREAS

1. INFORM THE POLICIES AND PRACTICES OF MAJOR COMPANIES, KEY GOVERNMENTS AND FINANCIERS OF HYDROPOWER DEVELOPMENT.

We collaborate with key stakeholders on applied research and on-the-ground projects, engage in capacity-building and knowledge-sharing, and work to ensure that policies and practices incorporate the most sustainable approaches at all scales.

KEY ACTIVITIES:

- Engage with major hydropower companies, such as China Three Gorges Corporation, and international financial institutions to promote sustainable hydropower development;
- Engage with Chinese government agencies and institutions to influence policies that develop standards for hydropower development and river restoration, alike;
- Work with Chinese hydropower operators on major rivers such as the Yangtze to design environmental flow and fish monitoring systems, conduct restoration efforts and

study the feasibility of dam removal; and

- Serve as a broker of government agencies, communities and NGOs in countries undergoing significant hydropower expansion — including Myanmar, Gabon, Colombia and Brazil — to identify more balanced development pathways.

2. DEVELOP AND DELIVER IMPACT INVESTING SOLUTIONS FOR SUSTAINABLE HYDROPOWER.

We work with our internal impact investing unit, NatureVest, to identify and implement deals that harness private investment capital to catalyze more sustainable hydropower outcomes.

KEY ACTIVITIES:

- Source, structure and deploy capital into innovative private investment solutions that demonstrate value to the environment, hydropower developers, investors, governments and communities; and
- Current projects under development include dam removal mitigation banking, restoration of forests above reservoirs, and hydropower debt trading to fund conservation investments.

3. DEVELOP TOOLS AND SCIENCE.

We build the business case for sustainable practices in hydropower, identify opportunities where innovation and collaboration will yield the greatest conservation results, and develop software tools to guide sustainable planning, design and operations.

KEY ACTIVITIES:

- Publish and share *The Power of Rivers: A business case*, a report focused on demonstrating the financial, economic and environmental benefits possible through system-scale planning and management of hydropower;
- In regions undergoing rapid hydropower expansion, such as Asia, Africa and the Amazon Basin, identify the best opportunities, projects and places where investments will yield the greatest conservation results; and
- Promote the use of planning and evaluation tools and demonstrate how such tools can improve the environmental performance of dams through a new *Hydropower by Design* web guide.