



A Smarter Way to Measure Ecosystem Health

Water security is one of the most pressing challenges facing humanity. Already, 80% of the world's population is threatened with insufficient water quantity or quality. As the climate continues to change and become less predictable, so does the planet's finite supply and flow of fresh water.

Despite decades of research and interest in assessing the sustainability of the Earth's freshwater systems, so far there has been no approach that links the health of an ecosystem to the benefits from nature that people rely on – and more importantly, makes that information useful to the people and institutions making water-related decisions on the ground.

The Freshwater Health Index

Built on a solid foundation of science, the Freshwater Health Index (FHI) addresses the gaps of other freshwater assessment methods and meets a range of needs.

The FHI provides decision-support at the basin scale through a novel set of indicators that transparently assesses the health of freshwater systems, where “health” is defined as the ability to deliver drinking water, crop irrigation, flood protection and other water-related ecosystem services sustainably and equitably – linking upstream areas (supply) with downstream communities (demand). The FHI offers:

- information to help in developing plans and policies at the basin scale, while also offering a global picture of freshwater health;
- a snapshot of current conditions in a basin that can be repeated and can help evaluate scenarios for climate change, land-use change, infrastructure development and more;
- a picture of the trade-offs of a given action as well as areas of opportunity.

The FHI was designed by an interdisciplinary team of scientists, policymakers, resource managers, private industries and other large-scale water users. It is a flexible tool designed to reflect basin-specific information on stakeholder preferences, underlying pressures and drivers, and differing stages of economic development.

Global in Scope, Local in Scale

Maximizing benefits in some areas often means making trade-offs in others. The FHI is designed to make those trade-offs explicit. The key component of the FHI assessment process is a deliberate and ongoing dialogue between scientists and local stakeholders to ensure that the end result is salient and credible. Using this standardized approach to assess trade-offs, stakeholders can identify the scenarios that benefit both people and nature, and the lessons learned can be applied to other basins.

The FHI leverages considerable experience in synthesizing social and ecological data, developing indicator-based decision-support tools and working at the intersection of conservation and human development. It has been applied in a variety of basin types across Asia, Africa and Latin America.

Learn More

For more information about the FHI, details about how to conduct a basin assessment, or other questions, please visit www.freshwaterhealthindex.org or contact us at info@freshwaterhealthindex.org.

Explore the downloadable desktop version of the FHI tool here: <https://www.freshwaterhealthindex.org/fhi-tool-download>

Freshwater Health Index Components and Indicators

ECOSYSTEM VITALITY	ECOSYSTEM SERVICES	GOVERNANCE & STAKEHOLDERS
<p>Water Quantity Deviation from Natural Flow Groundwater Storage Depletion</p> <p>Water Quality Suspended Solids Total Nitrogen Total Phosphorus Other Quality Parameters of Concern</p> <p>Basin Condition Bank Modification Flow Connectivity Land Cover Naturalness</p> <p>Biodiversity Species of Concern Invasive & Nuisance Species</p>	<p>Provisioning Water Supply Reliability Biomass for Consumption</p> <p>Regulation & Support Sediment Regulation Water quality Regulation Flood Regulation Disease Regulation</p> <p>Cultural Conservation Areas Recreation</p>	<p>Enabling Environment Water Resources Management Rights to Resource Use Incentives & Regulations Financial Capacity Technical Capacity</p> <p>Stakeholder Engagement Information Access Engagement in Decision-making Processes</p> <p>Vision & Adaptive Governance Strategic Planning & Adaptive Management Monitoring & Learning Mechanisms</p> <p>Effectiveness Enforcement & Compliance Distribution of Benefits Water-related Conflict</p>

For More Information

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