



FishPath

SETTING FISHERIES ON THE PATH TO SUSTAINABILITY

BACKGROUND

Fishing is a major global industry that employs about 10 percent of the world's population and seafood supplies more than 20 percent of the animal protein found in the diets of nearly 3 billion people around the world. Seafood is the most traded global commodity today, accounting for US\$130 billion annually. However, more than 64 percent of the world's fisheries are estimated to be overfished, with many others performing below optimal levels. The sector as a whole loses US\$50 billion a year to mismanagement and declining stocks. Given the importance of this industry, why is mismanagement so pervasive?

Effective fisheries management has traditionally relied on data such as the amount of fish caught and landed at ports, reproductive information, data on fish population size and age structure, and much more. Conventional approaches to data collection and fish stock assessments are very expensive and resource-intensive. Most developed countries carry out regular stock assessments for their major commercial fisheries, so these fisheries tend to be better managed. But the vast majority of developing countries don't have the resources to meet data collection requirements for traditional stock assessments, thus their fisheries go largely unmanaged. More than 95 percent of global fisheries, representing more than half the global catch, are data-limited and unassessed and are likely to be overfished or at risk of overfishing.

VISION

Our vision is for global fisheries to be managed in a way that results in sustainable fisheries, stable supplies of seafood, and ecosystem and biodiversity conservation. To achieve this vision we are focused on increasing the supply of sustainably caught seafood by empowering fishermen to be agents of change in fisheries reform, providing the tools to assess and manage fisheries with science-based harvest rules, and by developing innovative technologies to trace fish from the ocean to the consumer so that market forces can reward sound resource stewardship.

A SIMPLER WAY TO MANAGE FISHERIES

A key component of our strategic approach to fisheries reform is the development of tools that demonstrate how fisheries can move successfully from unassessed and unmanaged to managed and sustainable. There is a clear need for cheaper, easier ways to measure and manage data-limited fisheries. Fisheries experts around the world have developed numerous methods and techniques that attempt to do this, but it has proven difficult to get these techniques to the fisheries managers who need them, and to choose from among the hundreds of methods that exist.

The Nature Conservancy and the Science for Nature and People Partnership (SNaPP) have responded by bringing together a group of renowned fishery scientists and conservation practitioners from around the world to develop a guidance tool



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for selecting the appropriate assessment and management options available for a particular fishery. This tool, named FishPath, is a decision-making software application that provides a step-by-step guide to selecting monitoring, assessment and management methods for data-limited fisheries. It is a unique tool that is simple and easy to use, and designed to be tailored to a specific fishery, taking into account not only characteristics of the local marine environment but also relevant social, political, and economic data.

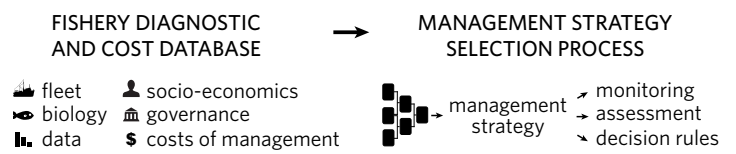
Economists estimate that if using conventional management approaches, more than \$200 billion would be required to reform fisheries to maximize long-term yields; but this kind of investment is simply not feasible for many countries and communities. The Conservancy recognizes that money alone—even if it were available—won't solve the problem of poorly managed fisheries and that capacity and data limitations should not exclude the development of sound fisheries management strategies. We believe that what is needed most is structured guidance in the form of a decision-support system to achieve success and a demonstrated path to sustainability that is recognized by market forces.

FISHPATH

The FishPath decision-making software application begins with a fishery diagnostic tool and cost database. The fishery diagnostic tool is a dynamic questionnaire aimed at understanding the key characteristics of the fishery including fishery data, the biological and life history attributes of relevant species, operational and market characteristics of the fishery, socio-economic characteristics of the community, and any relevant rules and government regulations affecting that fishery. The FishPath database also includes the costs associated with fishery management, such as costs of data collection, or the costs of implementing regulations.

FishPath then integrates user-specified inputs from the fishery diagnostic and the cost database to help the user navigate through a decision-tree process that yields a suite of context-appropriate management strategies for the fishery of

interest, including monitoring, assessment, and management interventions. FishPath can also identify additional data or changes in the fishery that may help the fishery reach its specified goals.



BRINGING SIMPLE MANAGEMENT TO SMALL-SCALE FISHERIES WORLDWIDE

Currently, most small-scale fisheries do not have access to the more lucrative markets of ecolabeled and certified seafood products. This is, in part, because lack of information prevents these fisheries from establishing science-based management rules and because certification schemes tend to require a traditional stock assessment as a first step. With the use of FishPath, the Conservancy is working with ecolabeling and certification partners including Fair Trade USA and the Marine Stewardship Council, to help overcome this barrier. We are testing and integrating FishPath into the decision-making processes of these ecolabeling and certification organizations to help small-scale fisheries worldwide improve sustainability outcomes and gain access to new markets.

Additionally the Conservancy is working closely with fisheries agencies in strategic countries like Peru, Kenya, Indonesia, the United States and Australia to demonstrate that important species can not only be assessed at lower costs, but also that management options are available to put these fisheries on the path to sustainability.

Through our projects we are testing and validating the tool to create a scalable model for global use. Because FishPath provides such an objective and consistent approach to improve fisheries management, it can work on a large scale, opening the door to better management, certification, and sustainability for thousands of fisheries around the world.