

Open Lecture on global fisheries and fisheries management: accomplishments and challenges

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Abstract

Humans engage in fisheries to obtain economic benefits. It follows that the health of fish stocks and ecosystems is not a primary objective of the fishing activity. However, to maximize the long-term flow of benefits from fisheries requires healthy or at least sustainable ecosystems, albeit in a substantially altered state.

As an activity to generate economic benefits, fishing is faced with a fundamental problem, the so-called common property problem caused by the fact that fishers extract from common fish stocks and ecosystems and thus affect each other's fishing opportunities. Analytically, this is the problem of missing private property rights. Now, property rights are a social institution. Thus the fundamental fisheries problem is first and foremost a problem of social organization, i.e. a political problem.

The consequences of the common property problem in fisheries worldwide have been devastating. Valuable fish stocks have been decimated, ecosystems dramatically altered and the very sizable potential economic benefits from the fishing activity squandered. A recent World Bank–FAO study indicates that in 2004, the world's fisheries, far from generating a positive flow of benefits, were actually operated at a substantial net economic loss.

Gratefully, it now appears that the declining trend in the economics and biology of global fisheries may have been halted and even reversed. This development is first and foremost due to increasingly adoption of rights-based fisheries management systems which have eliminated some of the most harmful aspects of the common property arrangement and thus creating incentives for fishers compatible with the common good.

In spite of this relative improvement, global fisheries, as an economic activity, are still faced with a number of formidable challenges. Firstly, fisheries management still has a long way to go. For instance, individual harvesting rights need to be further delineated with respect to year classes, sub-stocks, areas, and other biological factors and there is an urgent need to find ways to build individual incentives for optimal ecosystem use into current management systems. Secondly, commercial fisheries are just one way of utilizing marine resources. To maximize overall benefits from these resources, commercial fishing must be harmonized with the competing activities, including recreational fishing, ocean mining, and pollution. Thirdly, global climate change is likely to alter fishing conditions around the world. While not necessarily to the detriment of overall fish stock productivity, these alterations will undoubtedly require adjustments in fishing activities and their location which may easily be both difficult and costly. These and other challenges to global fisheries will be considered and assessed in the lecture.

Biography

Ragnar Arnason is a professor of fisheries economics and the chairman of the Institute of Economic Studies at the University of Iceland. Professor Arnason received his MSc in mathematical economics from the London School of Economics and his PhD from the University of British Columbia in the field of natural resource economics.

Since 1990, Professor Arnason has primarily conducted his research in the area fisheries economics and fisheries management where he has a publication record of over 160 scientific articles and several books. Professor Arnason has played an important role in the development of the Icelandic tradable fisheries quota system (ITQs). He was one of three authors of the World

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Bank-FAO study the Sunken Billions (2009) and the project coordinator of the recently completed EU-project COBECOS (2009), dealing with the theory and practice of efficient fisheries enforcement.

Professor Arnason has been a visiting scholar at a number of universities and research institutes in America and Europe and helped to manage a number of research institutes. He has also been on the board of several business enterprises and is currently on the board of the Central Bank of Iceland.