



Groundfish Fleet Restructuring Information and Analysis Project Executive Summary

The West Coast groundfish fishery has changed dramatically over the last two decades. Following the halcyon days that attracted mariners from around the country to ports in Washington, Oregon and California, fishermen and marine ecosystems now struggle to adjust to continual management changes as well as ongoing and significant declines in many fish species and stocks. Since 1987, with the exception of the whiting fishery, landings of rockfish, flatfish and other types of groundfish have dropped dramatically. Nine of the 82 species managed by the Pacific Fishery Management Council (PFMC) have been listed as 'overfished' in just five years.

In response to dwindling fish populations and associated revenues, in 2000 the PFMC adopted a strategic plan entitled "Transition to Sustainability." The highest priority in this plan is to reduce fishing capacity by at least 50% in each fishery sector. Downsizing the fleet appears more urgent than ever in light of extensive 2002 fishing closures along the upper continental shelf, but without options for transitioning out of the fishery, many fishermen are facing the prospect of attrition and bankruptcy. Currently, a trawl vessel buyback program is the primary option being considered to attempt to accomplish capacity reduction.

It is clear that any reduction of the fleet, whether carefully designed or the result of regulatory or market forces, will have considerable economic and social impacts on coastal communities. Likewise, any change in the composition of the fishing fleet will have impacts on the marine environment. Recognizing the need for a port-by-port analysis of the fishery, and the necessary framework to assess these impacts, the Pacific Marine Conservation Council (PMCC) partnered with Ecotrust in 2001, and jointly initiated the *Groundfish Fleet Restructuring Information and Analysis Project* (GFR project).

The goals of this project were to:

1. Compile a comprehensive set of fishery data and information in a format that can be used by all who wish to explore fleet reduction options and other management measures;
2. Produce a set of analytical, publicly available, tools including:
 - a) Fleet reduction scenarios that consider fleet composition, shore-based infrastructure, harvest history, spatial dynamics, and economic trends from the perspective of local fishing communities;

- b) A matrix or simulation to analyze potential social and economic effects of these scenarios; and,
 - c) Case studies illustrating different port profiles, empirical information on fishing and processing businesses, market dynamics, and the potential effects of fleet buyout proposals and other management measures;
3. Prepare a set of policy options as well as an executive report to be presented to the Pacific Fishery Management Council and made available to all interested parties.

All existing and available data on the groundfish fishery from 1987 - 2000, combined with information on fishery infrastructure gathered through hundreds of personal interviews, were used to complete the GFR project. By using the analytical tools that have been developed in this project, a variety of scenarios for sustaining the fishery can be considered. For instance, we can demonstrate how fishing selectively and returning to the dock with a higher value product can increase fishing income, while extracting fewer fish from the ocean.

Thanks to invaluable assistance and cooperation from individuals, public and private institutions, agencies, and fishing groups along the coast, this project has been highly successful and has garnered national and international interest. In this report we discuss the GFR project and present all results in terms of the aggregate effects on the entire West Coast. Detailed results for dozens of communities are available on-line at www.ecotrust.org/gfr.

Groundfish fleet diversity varies considerably along the west coast. Ports differ both in absolute numbers of vessels which land groundfish, and in the fishing gear types used. During the time period that we reviewed, 1987-2000, more than 11,000 vessels participated in the groundfish fishery at one time or another. Almost 2,000 of those entered the fishery after 1994. According to the existing data, over 55% of the vessels participating in the fishery between 1995 and 2000 fished with only one gear-type, and 27% used two gear-types. This suggests that groundfish effort on the West Coast is fairly specialized.

Different fleet reduction scenarios have markedly different effects on different parts of the coast, and on fleet diversity. They also have different implications for the resulting redistribution of income to vessels that remain in the fishing industry. The GFR framework provides a means of viewing the effects of fleet diversity within various management scenarios, and allows communities and sectors of the fleet to evaluate how they will likely be affected. For example, we determined that:

- Reducing fleet capacity by 50% in each vessel size class in each sector achieves the same reduction of vessels, but at a smaller redistributive effect than selecting vessels at random or than reducing all excess capacity.
- Economic viability is an important consideration in designing capacity reduction measures.
- The catch made in the shelf closure areas may be small in absolute terms, yet account for a high proportion of groundfish landings in some ports.
- Analysis from this project suggests that estimates of the amount of income redistributed to the vessels remaining in the fishery could be viewed as an indicator

of how much the vessels leaving would be willing to accept in compensation for leaving the fishery. This income redistribution information could serve as an indicator for the size of the fleet reduction that can be achieved with a buyback program that costs \$37 - \$75 million dollars.

Additional information can be layered with the GFR Project, including newly available habitat mapping and groundfish observer program data.

We are currently considering proactive options for development of additional tools to analyze the impacts of spatial, or area-based management measures.

PMCC and Ecotrust are confident that the tools developed through this innovative project will not only be useful to regional and national fishery managers in their difficult decision-making, but will help individual coastal communities evaluate their futures and options for fleet restructuring.

For more information, visit the project website, www.ecotrust.org/gfr, or contact:

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