

Securing the future of Australia's commercial fisheries

Impact Case Study

May 2014



CSIRO research leads to replenished fish populations and improved economic performance of fisheries

the challenge

In 2005, Australia's commercial fisheries were struggling with economic and environmental sustainability. An assessment of stocks in Commonwealth fisheries showed that 29% of commercial species were overfished or vulnerable to overfishing. As a result the Australian Fisheries Management Authority (AFMA) was directed to take immediate action to cease overfishing and recover overfished stocks to levels that would ensure long term sustainability and productivity. AFMA was also ordered to take steps to avoid further species from becoming overfished in the short and long term, and to manage the broader environmental impacts of fishing, including on threatened species. A Commonwealth Harvest Strategy Policy (HSP) was needed to ensure the recovery of fish stocks and return the fisheries to sustainable profitability.

the response

CSIRO was uniquely positioned to take on the challenge, with world-leading fisheries scientists who have proven experience in tackling research at the national and international level. The HSP, released in 2007, set Total Allowable Catch levels in Commonwealth fisheries based on reference points set within the policy. The new catch levels, together with a buyback of fishing vessels and a structural adjustment package for the fishing industry, resulted in a significant improvement in the position of both overfished stocks and stocks subject to overfishing.

Together with its research partners, CSIRO scientists developed the original harvest strategy framework for fisheries in south eastern Australia, contributed to the drafting of the HSP, and developed and tested harvest strategies for most Commonwealth fisheries. CSIRO also developed the Ecological Risk Assessment for the Effects of Fishing, and the Atlantis ecosystem modelling framework, contributing to ensuring ongoing sustainability.

the engagement

To deliver fit-for-purpose policy advice, CSIRO collaborated with several federal government agencies, including AFMA, the Fisheries Research and Development Corporation and the Department of Agriculture, Fisheries and Forestry, as well as state government agencies, industry, and universities. The products from this research partnership were integral to achieving the Harvest Strategy Policy.

the impact

The major impact from this work is that the long-term future of the commercial fishing industry is sustainable. The overall annual value of the impacts generated by the new management policies in the long term is estimated at \$495 million¹, including:

- improved ecological health of marine ecosystems and a 5% increase in fish stocks, representing an economic impact of \$236 million a year
- A secured volume of catch for commercial fisheries, valued at \$203 million a year
- A benefit to recreational fisheries valued at \$55 million a year.

Fisheries also have greater certainty about future production volumes, leading to more secure income streams and greater security for fishing communities; and there is potential for CSIRO's knowledge of fisheries management to be applied internationally. Europe and Chile are interested in utilising CSIRO's approaches.

¹ Deloitte Access Economics. 2014. Evaluation of CSIRO's research impacts – Impact Case Studies



contact us

FOR FURTHER INFORMATION
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