

# Appendix B: 2020-088: Quantifying Inter-Sectoral Values within and among the Indigenous, Commercial and Recreational Sectors

## Background

The Australian fishing industry comprises of three sectors: Indigenous, recreational and commercial. It is a diverse and complex industry. A shared appreciation of the different beliefs and values that underpin perceptions of fairness and security was therefore required. It was acknowledged that such values were believed to differ within and between different sectors, and could be a source of tension, conflict and mistrust. For these sectors to collaborate effectively, solutions need to be found to the challenges associated with co-management and resources access. However, historically, trust among the sectors has not always been straightforward.

In response, this project was developed to report on the values held by the three sectors. The intent was to identify complementary and contrasting values within and between sectors to inform more efficient and effective consultation processes. A baseline understanding of complementary and contrasting values is intended to inform future decisions and engagement activities between fishers and policymakers. This project aligns with the FRDC 2020-2025 R&D Strategic Plan, outcome 4, achieving 'fair and secure access to aquatic resources.

## Description of the project

Table 15      *Project summary of 2020-088*

<b>Project code</b>	2020-088
<b>Title</b>	Quantifying Inter-Sectoral Values within and among the Indigenous, Commercial and Recreational Sectors
<b>Research organisation</b>	Natural Capital Economics
<b>Principal investigator</b>	Dr. Buyani Thomy
<b>FRDC project manager</b>	Dr. Carolyn Stewardson
<b>Project duration</b>	January 2021 – June 2021
<b>FRDC investment</b>	\$92,972
<b>FRDC program allocation</b>	50% Industry and 50% Communities

<b>Rationale</b>	This study aimed to develop a baseline understanding of complementary (equally shared) and contrasting (not shared equally) values concerning environmental, cultural, economic, and/or social aspects of fishing held by Indigenous, commercial, and recreational sectors based on three case studies: Western Australia, Tasmania, and the Great Barrier Reef region in Queensland. A fishing value refers to when an aspect of fishing is perceived to be important (i.e. is of value) to a person who identifies as someone from one of the three fishing sectors.
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<b>Objectives</b>	<ul style="list-style-type: none"> <li>• Collect, analyse, and report the values held by the Indigenous, commercial, and recreational sectors</li> <li>• Identify complementary and contrasting values amongst the three sectors</li> <li>• Provide recommendations for efficient and practical data collection mechanisms to FRDC</li> </ul>
<b>Activities and outputs</b>	<ul style="list-style-type: none"> <li>• A literature review on broader human dimensions in fishing was undertaken</li> <li>• Statements were developed for the Q-methodology leveraging the literature review and stakeholder consultation</li> <li>• Three different locations were chosen to contrast geographical differences, and fishers from these areas were contacted to sort and rank statements</li> <li>• Data was analysed to produce the final insights of the project</li> <li>• The study identified that values do not 'neatly' align to specific industry sectors, it was recommended that the range of values across individuals should be taken into account in consultation and R&amp;D aims</li> <li>• The study found that environmental sustainability was the highest-ranked value across all sub-groups, with a strong shared focus on accountability and access issues also</li> <li>• Lower ranked values were mostly cultural value oriented</li> </ul>
<b>Outcomes</b>	<ul style="list-style-type: none"> <li>• Improved understanding of overall values held by Indigenous, commercial, and recreational sectors by the industry regulators</li> <li>• Enhanced understanding of common and complementary values within and between Indigenous, commercial, and recreational sectors by the industry and regulators</li> <li>• Contribution to improvement in providing fair and secure access to resources</li> <li>• Contribution to efficient and effective implementation of harvesting strategies and resource management in general leading to cost-savings</li> <li>• It should be noted there were key limitations in the study with further research needing to be done to determine a comprehensive understanding of inter-sectoral values</li> </ul>
<b>Potential impacts</b>	<ul style="list-style-type: none"> <li>• Provide a base to build trust through an improved understanding of the social, economic and ecological values within and among the three sectors</li> <li>• Move towards reducing historical conflict and tension between the three sectors in relation to outcome 4: Fair and secure access to aquatic resources</li> <li>• FRDC and other researchers, policymakers and industry personnel are more likely to appreciate the shared and contrasting values identified in this study potentially causing a reduction in tension and conflict and greater efficiency in stakeholder engagement and priority alignment</li> <li>• Strengthen social license by addressing factors contributing to mistrust through strategies and engagements</li> </ul>

## Project investment

Table 16 shows a breakdown of FRDC investments over the 2020/21 and 2021/22 financial years, noting this project did not receive any investments from others.

Table 16 *Total investment in Project 2020-088 from FRDC (nominal dollar terms)*

Year ending June 30	FRDC (\$)	Others* (\$)	Total contributions
2020/21	\$ 45,786	\$0	\$45,786
2021/22	\$ 47,186	\$0	\$47,186
<b>Total</b>	<b>\$ 92,972</b>	<b>\$0</b>	<b>\$92,972</b>

Source: Documents provided by FRDC.

\*Contributions to the project cost not sourced from FRDC e.g. in-kind contributions

For the BCA, the cost of managing the FRDC funding was added to the FRDC contribution for the project using a management cost multiplier of 1.157. As per impact assessments in previous years, this multiplier was estimated based on a five-year average of the ratio of total FRDC non-project cash expenditure to project expenditure as reported in FRDC's Cash Flow Statement (FRDC Annual Reports, 2019-2023).

In undertaking the impact assessment, all past costs were expressed in 2023/24-dollar terms using the Implicit Price Deflator for GDP.

## Summary of impacts

Table 17 below is a summary of the expected triple-bottom-line impacts (economic, environmental, and social) from the project.

Table 17 *Triple bottom line impacts, including those valued as part of this evaluation (in bold)*

<b>Economic</b>	<ul style="list-style-type: none"><li>Potential for improved efficiencies in decision-making and policymaking across the industry as values are aligned and issues with mistrust can be resolved</li></ul>
<b>Environmental</b>	<ul style="list-style-type: none"><li>Identification of the shared focus on sustainable practices may lead FRDC and other industry leaders to focus more on environmental outcomes</li></ul>
<b>Social</b>	<ul style="list-style-type: none"><li>Improvements to fisheries' social license and inter-sectoral understanding</li></ul>

### Public versus private Impacts

The potential impacts identified from the project will accrue to both public and private beneficiaries. Benefits to both sectors are expected in the form of greater mutual understanding along with more effective R&D and policymaking.

### Distribution of private impacts

Private impacts are expected to be applied across the fishing industry.

### Impacts on other Australian industries

The process undertaken along with the findings may be applied to other Australian industries with similar circumstances.

## Impacts overseas

No direct impacts overseas were identified.

## Quantification of impacts

The project did not produce quantifiable impacts, so a BCA was not used to value the likely impacts. The nature of the identified impacts is difficult to quantify as they are adding to a larger knowledge base that may increase overall efficiency in the sector. The marginal increase in effectiveness and where this would be applied is unknown at this stage. Further, this study recommends that additional research would be required to directly apply findings, making the impacts of these preliminary findings difficult to quantify.

## Results

To maintain consistency for reporting and analysing projects, Table 18 displays the modelled Present Value of Costs (PV Costs). The PV Costs were discounted to 2023/24 using the Implicit Price Deflator for GDP. The PV Cost is displayed for the length of the investment period plus 30 years from the last year of investment (2023/24). The PV Costs for FRDC investment is the same as the PV Costs for total investment because FRDC contributed 100% of the investment costs for this project.

Table 18 Investment criteria for total investment in Project 2020-088 (\$M)

Year	0	5	10	15	20	25	30
PV Costs	\$0.13	\$0.13	\$0.13	\$0.13	\$0.13	\$0.13	\$0.13

The flow of total undiscounted costs from the project is presented in Figure 2 below.

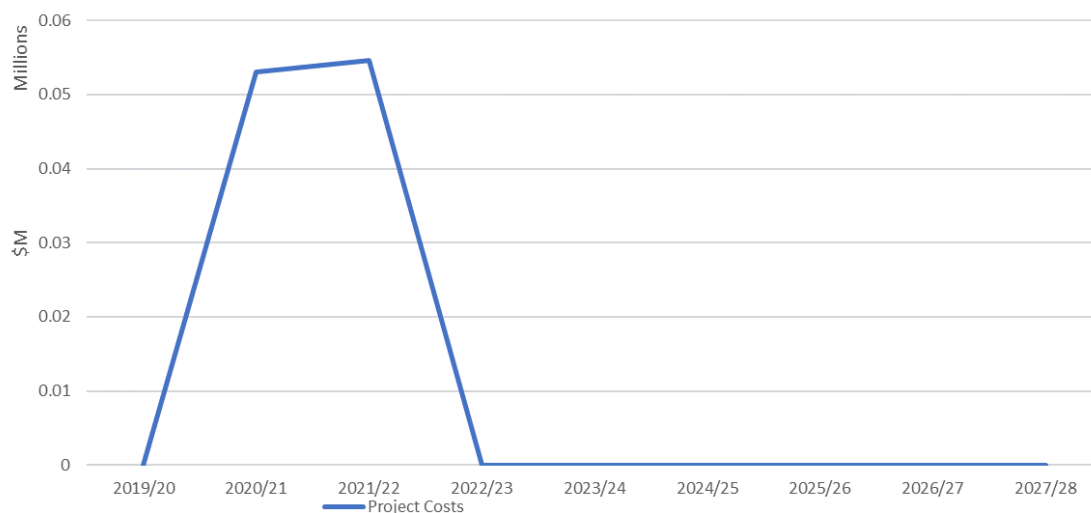


Figure 2 Flow of undiscounted costs and benefits from the project.

## Conclusions

*Project 2020-088: Quantifying Inter-Sector Values within and among Indigenous, commercial, and Recreational Sectors* found that although assumptions are often made on a stakeholder group's collective opinion, individuals are unlikely to fit into such a 'neat' set of values.

Analysis indicated that there were five distinct groups based on how values were ranked. Across the five distinct groups the top four complementary values were: (1) fishing is environmentally sustainable, (2)

accountability for industry participants who break the rules, (3) having access to fish and fishing, and (4) access to the ocean/sea.

The research emphasised environmental sustainability as the highest-ranked value across the industry. Participants felt a strong need for investment in productivity-based R&D that does not compromise sustainability. Though further research and a larger sample size are required to substantiate outcomes, this research can inform future FRDC strategies for fair and equitable access to fishing in a manner that reduces conflict, improves efficiency, and builds trust among industry sectors.

## References

Thomy, B., Hardakar, T., Binney, J., Schultz, T., Chudleigh, P., Duncan, P., Perry, M., Faranda, A., Gustavsson, M. (March 2022). *Quantifying Inter-Sectoral Values Within and Among the Indigenous, Commercial and Recreational Sectors*. Project 2020-088, prepared for FRDC. <https://www.frdc.com.au/project/2020-088>

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