



FINAL REPORT

An Impact Assessment of Investment in FRDC Project 2011-521:

The ABARES Outlook Conferences - Fisheries Sessions

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**An Impact Assessment of Investment in FRDC Project 2011-521: The ABARES Outlook Conferences - Fisheries Sessions
FRDC Project 2016-134**

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The Fisheries Research and Development Corporation plans, invests in and manages fisheries research and development throughout Australia. It is a statutory authority within the portfolio of the federal Minister for Agriculture, Fisheries and Forestry, jointly funded by the Australian Government and the fishing industry.

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- Maree Finnigan, Marketing and Events Manager, Australian Bureau of Agricultural and Resource Economics and Sciences

Abbreviations

| | |
|--------|--|
| ABARES | Australian Bureau of Agricultural Resource Economics and Sciences |
| ABS | Australian Bureau of Statistics |
| CBA | Cost-Benefit Analysis |
| CRRDC | Council of Rural Research and Development Corporations |
| DAFF | Department of Agriculture, Fisheries and Forestry (Commonwealth) |
| DAWE | Department of Agriculture, Water, and the Environment (Commonwealth) |
| DAWR | Department of Agriculture and Water Resources (Commonwealth) |
| FRDC | Fisheries Research and Development Corporation |
| OCS | Office of the Chief Scientist |
| PVC | Present Value of Costs |
| R&D | Research and Development |
| RD&E | Research, Development and Extension |
| SARDI | South Australian Research and Development Institute |

Executive Summary

Fisheries Research and Development Corporation (FRDC) Project 2011-521 supported the fisheries session at the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) Outlook Conference over five years including 2011, 2013, 2015, 2017 and 2019.

The evaluation of the investment in the fisheries session at the ABARES Conferences concluded that the investment was highly successful. Among the impacts identified were:

- the opportunity to hear about innovation in fishing and aquaculture from scientists and producers.
- networking with delegates from across Australia on a range of industry issues to build a deeper understanding of what is important to agriculture sector stakeholders.
- maximising the extension of FRDC investment, noting that FRDC (Patrick Hone) chaired the fisheries sessions biannually).
- knowledge sharing to build a larger profile, positioning fisheries and aquaculture as a key contributor in 'Agriculture portfolio'.
- a positive contribution to future wild-catch and aquaculture profitability and environmental sustainability via improved technical and economic decision making by government and industry.
- a positive contribution to an enhanced capacity and capability of Australian fisheries scientific, extension and policy participants.
- some positive impacts on regional communities associated with the supply chains of both wild-catch fisheries and aquaculture.
- a contribution to maintenance of the positive image of Australian managed fisheries (both wild-catch and aquaculture).

FRDC funding for the project over the period 2011 to 2019 totalled \$88,782 (present value terms). Although a number of general positive impacts were identified, the historical nature of the investments over a long period meant that there was a lack of specific and readily available information and data on outcomes and pathways to impact for each session funded. Given that the primary purpose of the ABARES fisheries sessions was to showcase best practice in fisheries and aquaculture and provide a networking platform, none of the impacts identified were valued in monetary terms. The successful ABARES fisheries sessions funded by FRDC from 2011 to 2019 built capacity and capability through information and knowledge sharing with all sectors in the Australian Agricultural portfolio.

Introduction

The Fisheries Research and Development Corporation (FRDC) required an annual series of impact assessments to be carried out on a sample of completed investments from the FRDC research, development, and extension (RD&E) portfolio. The assessments were required to meet the following FRDC evaluation reporting requirements:

- Reporting against the FRDC 2015-2020 RD&E Plan and the Evaluation Framework associated with FRDC's Statutory Funding Agreement with the Commonwealth Government.
- Annual Reporting to FRDC funding partners and other stakeholders.
- Reporting to the Council of Rural Research and Development Corporations (CRRDC).
- Reporting RD&E impact and performance to FRDC levy payers and other fisheries and aquaculture stakeholders as well as the broader Australian community.

In April 2017, FRDC commissioned Agtrans Pty Ltd (Agtrans) to undertake the annual impact assessments for RD&E projects funded under the FRDC 2015-2020 RD&E Plan and completed in the years ended 30 June 2016 to 2020 (FRDC Project 2016-134). Between 2016/17 and 2020/21, four series of annual impact assessments were completed. Each of the four series of assessments included a set of 20 randomly selected FRDC RD&E investments as well as an aggregate analysis across all 20 investments evaluated in each year. Published reports for the annual FRDC evaluations can be found at: <https://www.frdc.com.au/frdc-project-impact-assessments-benefits-research>.

The fifth and final series of impact assessments under Project 2016-134 was for a set of FRDC RD&E investments completed in the year ended 30 June 2020, the final year of the FRDC 2015-2020 RD&E Plan. As in previous years, the fifth series of impact assessments included 20 randomly selected FRDC RD&E investments. The 20 investments had a total value of approximately \$5.30 million (nominal FRDC investment) and were selected from an overall population of 81 FRDC investments worth an estimated \$17.66 million (nominal FRDC investment) where a final deliverable had been submitted in the 2019/20 financial year.

The 20 RD&E investments were selected through a stratified, random sampling process such that investments chosen spanned all five FRDC Programs (Environment, Industry, Communities, People and Adoption), represented approximately 30.0% of the total FRDC RD&E investment in the overall population (in nominal terms), and included a selection of small, medium, and large FRDC investments (total nominal FRDC investment of \leq \$50,000, \$50,001 to \$250,000, and $>$ \$250,000 respectively).

Project 2011-521: *ABARES Outlook Conference* was randomly selected as one of the 20 RD&E investments completed in 2019/20 for evaluation in the fifth series of annual impact assessments (2019/20 sample). The current report presents the Project 2011-521 analysis and findings.

Method

The annual impact assessments of FRDC RD&E investments followed general evaluation guidelines that are now well entrenched within the Australian primary industry research sector including Research and Development Corporations, Cooperative Research Centres, State Departments of Agriculture, and some universities. The approach includes both qualitative and quantitative assessment components that are in accord with the current [guidelines for impact assessment](#) published by the CRRDC (CRRDC, 2018).

The evaluation process utilised an input to impact continuum RD&E project inputs (costs), objectives, activities, and outputs were briefly described and documented. Actual and expected outcomes, and any actual and/or potential future impacts (positive and/or negative) associated with project outcomes then were identified and described. The principal economic, environmental, and social impacts were then summarised in a triple bottom line framework and validated through consultation with expert personnel and review of published literature.

Once impacts were identified and validated, an assessment then was made about whether to quantify/value any of the impacts in monetary terms as part of the project-level analysis. The decision to value an impact identified was based on:

- Data availability and information necessary to form credible valuation assumptions,
- The complexity of the relevant valuation methods applicable given project resources,
- The likely magnitude of the impact and/or the expected relative value of the impact compared to other impacts identified, and
- The strength of the linkages between the RD&E investment and the impact identified.

Where one or more of the identified impacts were selected for valuation, the impact assessment used cost-benefit analysis (CBA) as a principal tool. The impacts valued therefore were deemed to represent the principal benefits delivered by the project investment. However, as not all impacts were valued (based on the selection criteria), the investment criteria estimated for the project investment evaluated are likely to represent an underestimate of the true performance of the FRDC project. No impacts were valued for Project 2011-521.

The qualitative and quantitative analysis processes, data sources, assumptions, specific valuation frameworks (where applicable), and evaluation results were clearly documented and then integrated into a written report.

Project Background

Background

The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) is the science and economics research division of the Australian Department of Agriculture, Water and the Environment (DAWE¹). ABARES provides professional independent data, research, analysis, and advice that informs public and private decisions affecting Australian agriculture, fisheries, and forestry (ABARES, 2021). ABARES works at the interface between research and policy across the various primary industries.

ABARES holds an annual “Outlook Conference” where industry-leaders, experts, researchers, government representatives, and other stakeholders come together to share information and participate in networking. The Conference is split into a number of themed sessions pertaining to different primary industries. Industry related sponsors can financially support/sponsor sessions and also provide useful input into the main themes affecting their sector and advice around potential speakers.

Rationale for Project 2011-521

As the national fisheries and aquaculture RD&E body in Australia, FRDC sponsored the fisheries sessions at the Outlook Conference over a number of including in 2011, 2013, 2015, 2017, and 2019. The sponsorship funding for the ABARES Outlook Conference fisheries sessions between 2011 and 2019 was provided through FRDC Project 2011-521.

¹ Renamed the Australian Department of Agriculture, Fisheries and Forestry (DAFF) under the Labour Government on 1 July 2022.

Project Details

Summary

| |
|--|
| Project Code: 2011-521 |
| Title: <i>Sponsorship of Fisheries Session at a number of ABARES Outlook Conferences</i> |
| Research Organisation: ABARES Outlook Conference |
| Principal Investigator: Manager (various), Fisheries Economics, ABARES |
| Period of Funding: March 2011 to March 2019 |
| FRDC Program Allocation: Adoption 60%, People 40% |

Objectives

1. To sponsor the fisheries session at the 2011 ABARES Outlook Conference.
2. To sponsor the fisheries session at the 2013 ABARES Outlook Conference.
3. To sponsor the fisheries session at the 2015 ABARES Outlook Conference.
4. To sponsor the fisheries session at the 2017 ABARES Outlook Conference
5. To sponsor the fisheries session at the 2019 ABARES Outlook Conference

Logical Framework

Table 1 provides a description of the project in a logical framework developed for the evaluation.

Table 1: Logical Framework for FRDC Project 2011-521

| | |
|------------|---|
| Activities | <p>FRDC has sponsored a session at the annual Outlook Conference in the calendar years 2011, 2013, 2015, 2017, and 2019. In conjunction with DAWE and ABARES personnel, FRDC has provided ABARES with input into the theme of each fisheries session. FRDC has assisted ABARES with the selection of topics, the selection of the session chair, and the invitations to individual speakers. The description of following Conference activities details:</p> <ul style="list-style-type: none"> • the overall theme of four of the five Outlook Conferences, and • the themes of the fisheries sessions for all five three sponsorship years, as well as details of the individual speakers and their topics. <p><u>Outlook Conference 2011</u></p> <p>There was no specific overall theme for Outlook 2011, but the agenda reflected a growing global conversation on sustainability and the future of fishing.</p> <p>The FRDC Sponsored Fisheries session was titled Australian fisheries – towards a sustainable future.</p> <p>Chair: Rhondda Dickson, Commonwealth Department of Agriculture, Fisheries and Forestry</p> <p>Speakers and their presentation topics within the session included:</p> <ul style="list-style-type: none"> • Robert Curtotti, ABARES. Australian fisheries - outlook and economic indicators. • Anthony Smith, Commonwealth Scientific and Industrial Research Organisation, Sustainability of Australian fisheries from a global perspective. • Kate Brooks, FRDC and Australian National University, Australia’s fishing industry – who’s in control of the future? • James Findlay, Australian Fisheries Management Authority, Commonwealth Fisheries Management – what’s beyond sustainability? |
|------------|---|

Outlook Conference 2013

The overall theme of Outlook 2013 was “Future food, future farming”.

The theme reflected a growing global conversation on food security and supply, food production and consumption; the interconnected nature of world trade and how Australia’s markets, industries, commodities, and environments will evolve and adapt.

The FRDC Sponsored session was titled Fisheries- building trust in the Australian seafood industry.

Chair: Patrick Hone, FRDC

Speakers and their presentation topics within the session included:

- Ilona Stobutzki, ABARES. Outlook for seafood and National Status Reporting.
- Fiona Ewing, Tassal. Tassal — building a case for fisheries with the community.
- Michael Harte, World Wildlife Fund. Social legitimacy and the place of environmental non-government organisations.
- Anthony Ciconte, Southern Shark Industry Alliance. New opportunities through better environmental outcomes.

Outlook Conference 2015

The overall theme of Outlook 2015 was 'The business of agriculture: producing for profit'.

The theme reflected the then ongoing conversations on international investment, accessing finance for capital growth, and taking advantage of rising demand across Asia.

The FRDC sponsored session was entitled: Fisheries and aquaculture - new markets, new opportunities.

Chair: Senator the Hon Richard Colbeck, Parliamentary Secretary to the Minister for Agriculture

Speakers and their presentation topics within the session included:

- Robert Curtotti, ABARES. Seafood prospects and competitiveness.
- Arno Verboon, Fremantle Octopus. Octopus-delivering new export opportunities.
- Dallas Donovan, Seafarms Group. Prawn farming in the north – fulfilling the potential.
- Arthur Raptis, A. Raptis and Sons. The future of the seafood industry.

Outlook Conference 2017

The overall theme of Outlook 2017 was: “Innovation in agriculture - capturing the opportunities”. The theme recognised that while the Australian agriculture sector is highly innovative, the drivers of change are accelerating. Global markets are expanding, consumer preferences are diversifying, and the internet's increasing connectivity is generating data about everything. Businesses will need to adapt and utilise new business models, markets, technologies, and information to grow and prosper.

The FRDC Sponsored session was entitled Fisheries and aquaculture — new approaches for the 21st century.

Chair: Patrick Hone, FRDC

Speakers and their presentation topics within the session included:

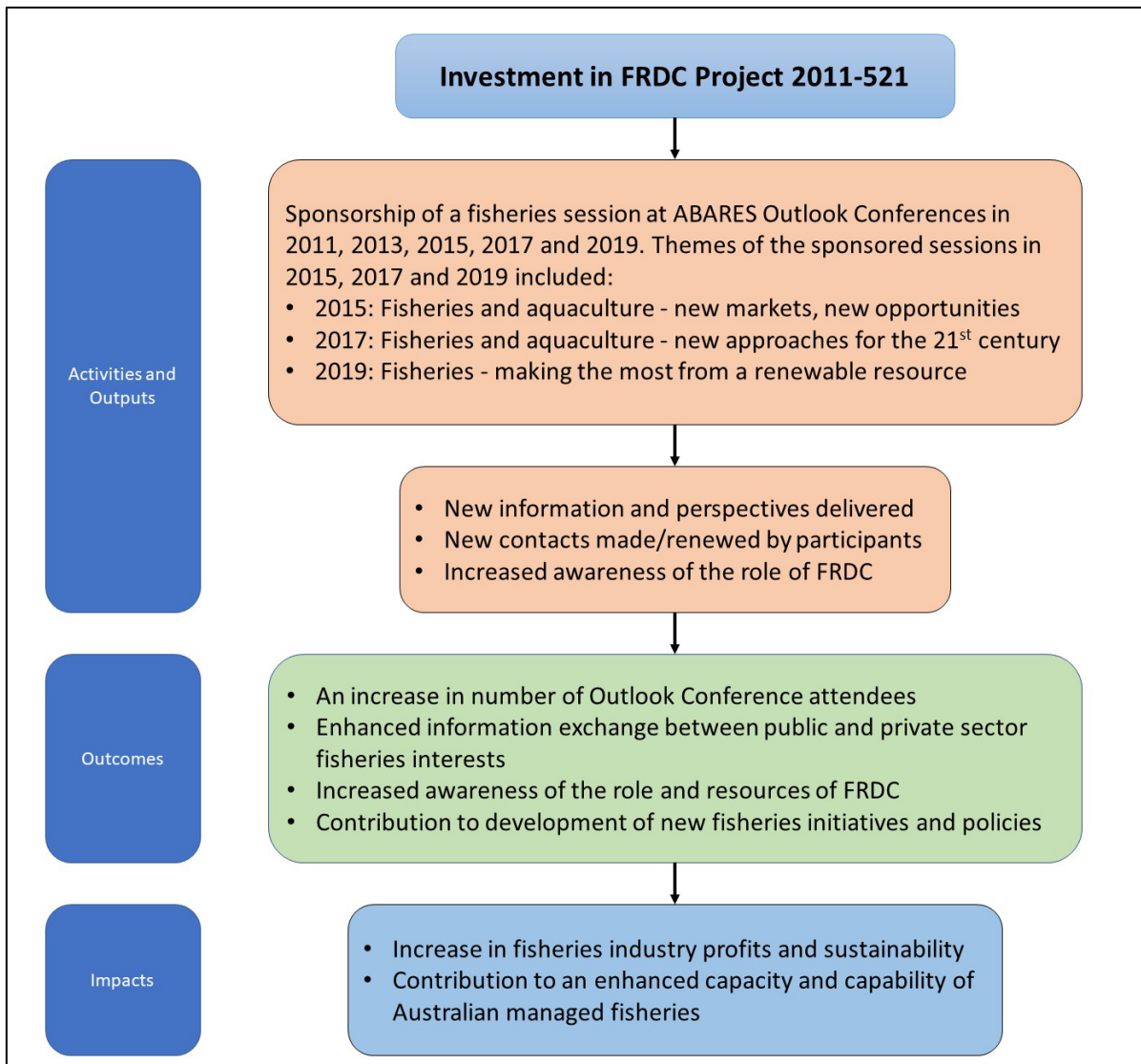
- Robert Curtotti, ABARES. Innovation-shaping the outlook for fisheries and aquaculture.
- Pia Winberg, Venus Shell Systems. Breaking food paradigms with seaweed.
- Brad Adams, Ocean Grown Abalone. Abalone ranching - an innovative aqua-tech business model.
- Roger Edwards, Goolwa PipiCo. Goolwa Pipsis- a rake to plate revolution.

| | |
|----------|--|
| | <p><u>Outlook Conference 2019</u> The overall theme of Outlook 2019 was “Tough choices to boost agricultural productivity and resilience”.</p> <p>The FRDC Sponsored Session was titled: Fisheries – making the most from a renewable resource. Chair: Patrick Hone, FRDC Speakers and their presentation topics within the session included:</p> <ul style="list-style-type: none"> • Robert Curtotti, ABARES. Fisheries and aquaculture markets – what lies ahead. • Matt Rutter, Geraldton Fishermen’s Cooperative. Rock lobster – new supply chains to China. • Stephen Mayfield, South Australian Research and Development Institute (SARDI). Green fish, red fish, yellow fish- exploring the status of Australian fish stocks. • Serena Zipf, Rocky Point Aquaculture. Recovery from white spot prawn disease in southeast Queensland. • Steven Clark, SARDI, Kingfish- Australia’s new potential white fleshed salmon. |
| Outputs | <ul style="list-style-type: none"> • Information provided to session participants relating to fisheries industry productivity and marketing developments, while maintaining sustainable resource usage and care for the environment. • New contacts made/renewed by some conference participants. • Increased awareness of FRDC by both fisheries personnel and other primary industry interests. |
| Outcomes | <ul style="list-style-type: none"> • Attraction of additional attendees at the Outlook Conference due to the fisheries program. • Introduction to Australian fisheries industry issues (e.g., economic, environmental) to personnel currently external to the fisheries industry. • Exchange of ideas between participants including various industry, research, extension, and public policy personnel. • Increased awareness of the role and resources of FRDC. • Contribution to development of new fisheries initiatives and policies. • A broad theme through the conferences was to highlight the rise of aquaculture to policy makers; also, industry speakers have helped the industry develop through sharing ideas (Robert Curtotti, pers. comm., 2022). |
| Impacts | <ul style="list-style-type: none"> • Potential for improved technical, economic, and environmental decision making by session attendees in their various roles in the fishing and aquaculture industries. • Contribution to an enhanced capacity and capability of Australian fisheries scientific, extension and policy personnel. • Contribution to positive impacts on regional communities associated with the supply chains of both wild-catch fisheries and aquaculture. • Contribution to maintenance of the positive image of Australian managed fisheries (both wild-catch and aquaculture). • The National Fishing Advisory Council meeting that was held at Outlook 2019. It worked effectively to link with the fisheries session of the conference that year, on ‘Fisheries - making the most from a renewable resource.’ Attendees at the Council meeting held at the Outlook conference included Assistant Minister Senator the Hon. Richard Colbeck; two ministerial advisors; 4 senior departmental SES staff; head of AFMA and FRDC; 10 members of the Council. Following the meeting, attendees attended the Fisheries session. (The timing and co-location were the key reason it was held at the Outlook conference, and not elsewhere) (Carolyn Stewardson, pers. comm., 2022). |

Pathway to Impact

A diagram describing the simplified pathways to impact for the investment in Project 2011-521 is provided in Figure 1.

Figure 1: Pathway to Impact for Project 2011-521



Nominal Investment

Table 2 shows the annual investment made in Project 2011-521 by FRDC.

Table 2: Annual Investment in Project 2011-521 (nominal \$)

| Year ended 30 June | FRDC (\$) | TOTAL (\$) |
|-------------------------------|------------------|-------------------|
| 2011 | 12,000 | 12,000 |
| 2012 | 0 | 0 |
| 2013 | 8,000 | 8,000 |
| 2014 | 0 | 0 |
| 2015 | 9,000 | 9,000 |
| 2016 | 0 | 0 |
| 2017 | 9,000 | 9,000 |
| 2018 | 0 | 0 |
| 2019 | 9,000 | 9,000 |
| Totals | 47,000 | 47,000 |

Source: estimated from FRDC project documentation

Note: The data in Table 2 assumes that, if FRDC had not funded the investment, ABARES costs would have remained the same as the fisheries sessions would have been replaced with another session topic.

Project Management Costs

For the FRDC investment, the cost of managing the FRDC funding was added to the FRDC contribution for the project via a management cost multiplier (x1.179). This multiplier was estimated based on the share of 'employee benefits' and 'supplier' expenses in total FRDC expenditure reported in the FRDC's Cash Flow Statement (FRDC, 2017-2021). This multiplier then was applied to the nominal investment by FRDC shown in Table 2.

Real Investment and Extension Costs

For purposes of the investment analysis, the investment costs of all parties were expressed in 2020/21-dollar terms using the Implicit Price Deflator for Gross Domestic Product (ABS, 2021). No additional costs of extension were included as the outcomes and impacts were largely driven by the project activities.

Impacts

Table 3 provides a summary of the principal types of impacts expanded from those listed in Table 1 and categorised into economic, environmental, and social impacts.

Table 3: Triple Bottom Line Categories of Principal Impacts from Project 2011-521

| | |
|---------------|--|
| Economic | <ul style="list-style-type: none"> • Potential for a positive contribution to industry profitability including improved technical and economic decision making by government and industry. |
| Environmental | <ul style="list-style-type: none"> • Potential for improved technical and environmental decision making by government and industry with positive environmental implications for industry and the broader community. |
| Social | <ul style="list-style-type: none"> • Contribution to an enhanced capacity and capability of Australian fisheries scientific, extension and policy participants. • Contribution to positive impacts on regional communities associated with the supply chains of both wild-catch fisheries and aquaculture. • Contribution to maintenance of the positive image of Australian managed fisheries (both wild-catch and aquaculture). |

Public versus Private Impacts

The principal private impacts identified from the investment in the project will be directly related to improved economic outcomes for the wild-catch and aquaculture industries and their supply chains (e.g., production expansion, reduced costs). The public impacts include those of a positive environmental nature such as increased sustainability, again both for wild-catch fisheries and aquaculture). Further public impacts include social impacts, namely:

- the contribution to an enhanced capacity and capability of Australian fisheries scientific, extension and policy personnel.
- the contribution to positive impacts on regional communities associated with the supply chains of both wild-catch fisheries and aquaculture.
- the contribution to maintenance of the positive image of Australian managed fisheries (both wild-catch and aquaculture).

Distribution of Private Impacts

The private impacts from the FRDC hosting of the fisheries session at the five Outlook Conferences will accrue to the industries in both the fisheries wild-catch and aquaculture sub-sectors. Such private benefits likely will be shared by members of the associated supply chains associated with each sub-sector according to relevant short- and long-term supply and demand elasticities.

Impacts on Other Australian Industries

It is expected that there would be negligible impacts on other Australian primary industries.

Impacts Overseas

The major impact overseas will be a continuation of the positive image of the Australian fisheries sector held by overseas interests (e.g., importers of products from Australian fisheries).

Match with National Priorities

Australian Agriculture, Science, and Research Priorities

The Australian Government’s National Science and Research Priorities and Agricultural Innovation Priorities are reproduced in Table 4. Project 2011-521 indirectly contributed to National Science and Research Priorities 1 and 2. Further, the RD&E investment is likely to contribute indirectly to all four Agricultural Innovation Priorities because of the variety of knowledge and information shared and cross-sectoral networking facilitated by the ABARES Outlook Conference fisheries sessions from 2011 to 2019.

Table 4: Australian R&D Priorities

| Australian Government | |
|---|--|
| National Science and Research Priorities ² | National Agricultural Innovation Priorities ³ |
| <ol style="list-style-type: none"> 1. Food – optimising food and fibre production and processing; agricultural productivity and supply chains within Australia and global markets. 2. Soil and Water – improving the use of soils and water resources, both terrestrial and marine. 3. Transport – boosting Australian transportation: securing capability and capacity to move essential commodities; alternative fuels; lowering emissions. 4. Cybersecurity – improving cybersecurity for individuals, businesses, government, and national infrastructure. 5. Energy and Resources – supporting the development of reliable, low cost, sustainable energy supplies and enhancing the long-term viability of Australia’s resources industries. 6. Manufacturing – supporting the development of high value and innovative manufacturing industries in Australia. 7. Environmental Change – mitigating, managing, or adapting to changes in the environment. 8. Health – improving the health outcomes for all Australians. | <p>On 11 October 2021, the National Agricultural Innovation Policy Statement was released. It highlights four long-term priorities for Australia’s agricultural innovation system to address by 2030. These priorities replace the Australian Government’s Rural Research, Development and Extension Priorities which were published in the 2015 Agricultural Competitiveness White Paper.</p> <ol style="list-style-type: none"> 1. Australia is a trusted exporter of premium food and agricultural products by 2030. 2. Australia will champion climate resilience to increase the productivity, profitability, and sustainability of the agricultural sector by 2030. 3. Australia is a world leader in preventing and rapidly responding to significant incursions of pests and diseases through futureproofing our biosecurity system by 2030. 4. Australia is a mature adopter, developer, and exporter of digital agriculture by 2030. |

² Source: 2015 Australian Government *Science and Research Priorities*. <https://www.industry.gov.au/data-and-publications/science-and-research-priorities>.

³ Source: 2021 National Agriculture Innovation Policy Statement. https://www.awe.gov.au/agriculture-land/farm-food-drought/innovation/research_and_development_corporations_and_companies#government-priorities-for-investment.

FRDC National RD&E Priorities

Through extensive consultation, the FRDC 2015-2020 RD&E Plan identified three national RD&E priorities to focus and direct FRDC investments. The three FRDC national RD&E priorities were:

1. Ensuring that Australian fishing and aquaculture products are sustainable and acknowledged to be so.
2. Improving productivity and profitability of fishing and aquaculture.
3. Developing new and emerging aquaculture growth opportunities.

Project 2011-521 indirectly addressed all three FRDC national RD&E priorities by building capability and capacity through knowledge sharing and networking at the fisheries sessions at the ABARES Outlook Conferences between 2011 and 2019.

Valuation of Impacts

None of the impacts in Table 3 were valued as credible information was unavailable on which to base credible assumptions. The fisheries sessions were to showcase best practice in fisheries and aquaculture, and to provide a networking platform. As such, it is challenging to allocate a monetary value to measure impact.

The impacts identified in Table 3 were not valued for the following specific reasons (Table 5):

Table 5: Reasons for Not Valuing Impacts

| Impact/Potential Impact | Reason why Impact Not Valued |
|--|--|
| Potential for a positive contribution to industry profitability including improved technical and economic decision making by government and industry. | There was limited specific information on the fisheries and aquacultural industries most affected, their current productivity, the extent of any gains, the pathway(s) as to how change may have occurred, and the influence of the Outlook Conferences. Further, the sessions were about information/knowledge sharing with all sectors in the Agricultural portfolio., i.e., information/knowledge sharing/transfer & networking (Carolyn Stewardson, pers. comm., 2022). |
| Potential for improved technical and environmental decision making by government and industry with positive environmental implications for industry and the broader community. | There was limited information available on specific environmental management decisions by industry and government that may have been influenced by the Outlook Conferences. |
| Contribution to an enhanced capacity and capability of Australian fisheries scientific, extension and policy participants. | There was difficulty placing a financial value on the enhancement of information related to scientific, extension and policy applications. |
| Contribution to positive impacts on regional communities associated with the supply chains of both wild-catch fisheries and aquaculture. | The regional community spillover impacts have not been valued due to lack of relevant and available data, as well as time and resource constraints. |
| Contribution to maintenance of the positive image of Australian managed fisheries - both wild-catch and aquaculture. | Credible relevant information was unavailable on which to base assumptions. |

Results

All past costs were discounted to 2021/22 (year of evaluation) using a discount rate of 5%. All analyses ran for the length of the project investment period plus 30 years from the last year of investment in Project 2011-521.

Investment Criteria

Investment criteria were estimated in accordance with the current impact assessment guidelines of the CRRDC (CRRDC, 2018). Tables 6 and 7 show the investment criteria estimated for different periods of costs for the total investment and FRDC investment respectively. Note that, as no impacts for this project were valued, the investment criteria reporting are restricted to the Present Value of Costs (PVC). As the FRDC was the only cash funder of the project, the PVC for total investment and FRDC investment are the same.

In the interests of consistency with other project analyses, aggregation and reporting, the PVC was reported for the length of the investment period plus for different periods up to 30 years from the last year of investment (2018/19). The PVC was the same for each period.

Table 6: Investment Criteria for Total Investment in Project 2011-521

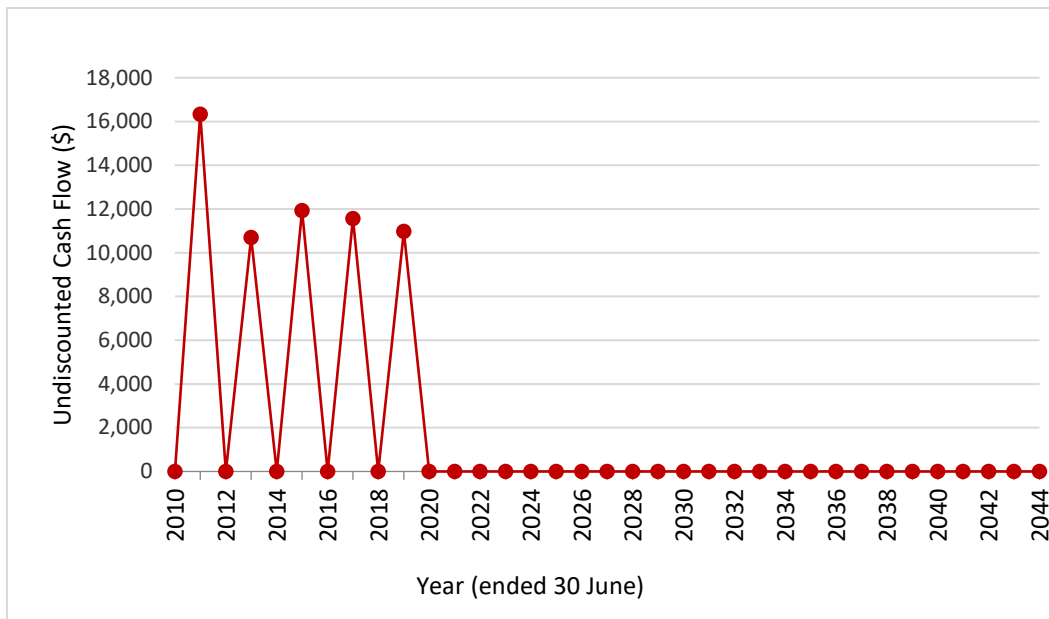
| Investment criteria | Number of years from year of last investment | | | | | | |
|-----------------------------|--|--------|--------|--------|--------|--------|--------|
| | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
| Present value of costs (\$) | 88,752 | 88,752 | 88,752 | 88,752 | 88,752 | 88,752 | 88,752 |

Table 7: Investment Criteria for FRDC Investment in Project 2011-521

| Investment criteria | Number of years from year of last investment | | | | | | |
|-----------------------------|--|--------|--------|--------|--------|--------|--------|
| | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
| Present value of costs (\$) | 88,752 | 88,752 | 88,752 | 88,752 | 88,752 | 88,752 | 88,752 |

The annual undiscounted cost cash flow for the total investment for the duration of the investment period is shown in Figure 1.

Figure 2: Annual Undiscounted Total Cost Cash Flows



Conclusions

Total funding for the investment over the period 2011 to 2019 totalled \$88,752 in present value terms. FRDC contributed 100% of the project funds. This assumes that if FRDC had not funded the investment, ABARES costs would have remained the same as the Fisheries Session would have been replaced with another session topic.

The FRDC investment supported sponsorship of the five Fisheries sessions at ABARE's Outlook Conference over a number of years from 2011 to 2019 (including 2011, 2013, 2015, 2017, and 2019). The evaluation of the investment concluded that the investment was highly successful. Among the probable impacts identified were:

- the opportunity to hear about innovation in fishing and aquaculture from scientists and producers.
- networking with delegates from across Australia on a range of industry issues to build a deeper understanding of what is important to agriculture sector stakeholders.
- maximising the extension of FRDC investment, noting that FRDC (Patrick Hone) chaired the fisheries sessions biannually).
- knowledge sharing to build a larger profile, positioning fisheries and aquaculture as a key contributor in 'Agriculture portfolio'.
- a positive contribution to future industry profitability and environmental sustainability including improved technical and economic decision making by government and industry.
- a positive contribution to an enhanced capacity and capability of Australian fisheries scientific, extension and policy participants.
- some positive impacts on regional communities associated with the supply chains of both wild-catch fisheries and aquaculture.
- a contribution to maintenance of the positive image of Australian managed fisheries (both wild-catch and aquaculture).

Despite the general success of the investments, the historical nature of the investments over a long period meant that there was a lack of specific information on pathways to impact and the role that the Fisheries sessions may have contributed to changes and potential impacts. Hence none of the impacts identified could be valued in economic terms, given the resources available to the evaluation.

Glossary of Economic Terms

| | |
|-----------------------------------|--|
| Cost-benefit analysis: | A conceptual framework for the economic evaluation of projects and programs in the public sector. It differs from a financial appraisal or evaluation in that it considers all gains (benefits) and losses (costs), regardless of to whom they accrue. |
| Benefit-cost ratio: | The ratio of the present value of investment benefits to the present value of investment costs. |
| Discounting: | The process of relating the costs and benefits of an investment to a base year using a stated discount rate. |
| Internal rate of return: | The discount rate at which an investment has a net present value of zero, i.e., where present value of benefits = present value of costs. |
| Investment criteria: | Measures of the economic worth of an investment such as Net Present Value, Benefit-Cost Ratio, and Internal Rate of Return. |
| Modified internal rate of return: | The internal rate of return of an investment that is modified so that the cash inflows from an investment are re-invested at the rate of the cost of capital (the re-investment rate). |
| Net present value: | The discounted value of the benefits of an investment less the discounted value of the costs, i.e., present value of benefits - present value of costs. |
| Present value of benefits: | The discounted value of benefits. |
| Present value of costs: | The discounted value of investment costs. |

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