



Australian Government
Australian Fisheries Management Authority



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Fisheries Research &
Development Corporation



Development of the ComFRAB 2004-2009 Research Plan

AUSTRALIAN FISHERIES MANAGEMENT AUTHORITY
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FINAL REPORT
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Development of the ComFRAB 2004-2009 Research Plan

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Non-Technical Summary

2003/319

Development of the ComFRAB 2004-2009 Research Plan

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OBJECTIVES:

1. Develop a plan to provide guidance to the ARC/ComFRAB in planning and undertaking research related duties
2. Clearly articulate a process for identifying research priorities and commissioning research to ensure transparency in procedures, priorities and budgets
3. Outline key criteria for assessing research projects

NON TECHNICAL SUMMARY:

The project developed AFMA's strategic research plan entitled *Researching for Fisheries, Industry and Community: AFMA's Strategic Research Plan 2005-210*.

The plan provides guidance to the AFMA Research Committee / Commonwealth Fisheries Research Advisory Body in planning and undertaking research related duties. The plan sets out the principles for research investment in Commonwealth fisheries. The current drivers of fisheries research are outlined. AFMA's four research programs are explained together with the avenues of investment in Commonwealth fisheries. Key participants in AFMA's research activities are specified. The plan clearly articulated a process for identifying research priorities and commissioning research to ensure transparency in procedures, priorities and budgets.

The role of the plan and fishery research plans also is articulated.



OUTCOMES ACHIEVED

Outcome: research projects that are better targeted to meet the information needs of Commonwealth fisheries.

KEYWORDS:

AFMA Strategic Research Plan, strategic, AFMA

1. BACKGROUND

At the time of application, the term of the 1999-2004 Commonwealth Fishery Research Advisory Body (ComFRAB) Strategic Research Plan was set to expire. During the period of the 1999-2004 strategic research plan there had been considerable change in the operating environment of Commonwealth fisheries. The 1999-2004 strategic research plan focused AFMA's interest in research on a number of key areas, including sustainable fisheries management and the development of alternative management options the development of ecosystem, based fishery management through a focus on healthy ecosystems and meeting its ESDS obligations, as well as recognition of the Commonwealth's obligations to manage international, high seas and straddling stock fisheries.

ComFRAB commenced a review and revision of its 5-year strategic research plan to meet these emerging challenges that face Commonwealth fisheries.

The 2004-2009 version of the ComFRAB Strategic Research Plan draws attention to strategic research issues that span across Commonwealth fisheries. The research plan will provide a framework that will structure the research priorities of individual Commonwealth fisheries, developed by their respective Management Advisory Committees (MACs).

2. NEED

A new ComFRAB Strategic Research Plan is required to guide research investment in Commonwealth fisheries.

The revised ComFRAB 5-year plan includes the AFMA strategic research plan and provides a coordinated approach to research in Commonwealth fisheries. The two functions are clearly distinguished in the document, but are complimentary and indicate areas of innovative research and industry development opportunities that will support the future management and development of Commonwealth fisheries.

The ComFRAB Strategic Research Plan provides research providers and users with a clear statement of what is expected from research and the principles that the ARC/ComFRAB will apply in prioritizing and supporting research projects. These principles will guide the process of planning and undertaking research.

The development of a set of strategic research areas enabled the ARC/ComFRAB to take a more pro-active position when calling for and evaluating research projects to meet the needs of Commonwealth fisheries.



3. OBJECTIVES

1. Develop a plan to provide guidance to the ARC/ComFRAB in planning and undertaking research related duties
2. Clearly articulate a process for identifying research priorities and commissioning research to ensure transparency in procedures, priorities and budgets
3. Outline key criteria for assessing research projects

4. METHODS

The ComFRAB strategic research plan is structured around the inputs, outputs and outcomes reporting framework to help provide a strategic structure to the planning, undertaking and delivery of research. This framework enables the strategic research plan to be consistent with the FRDC and AFMA reporting framework.

In developing the strategic research plan a set of key “research drivers” for Commonwealth fisheries were identified, along with the various information requirements demanded by the various drivers. Research undertaken over the term of the existing research plan was reviewed to identify gaps in the existing research portfolio. A set of research outcomes for Commonwealth fisheries was developed from this information.

The draft strategic research plan was developed by the AFMA research section, in consultation with the AFMA Research Committee/ComFRAB. The draft was circulated to key stakeholders for comment. The need for research to value-add products from the Commonwealth fishing industries, and the need to recognize whole-of-chain issues that may improve profitability and sustainability, were brought to commenters’ attention. Comment was sought from the following:

- AFMA fishery managers
- The AFMA Environment Committee
- All Commonwealth fishery Management Advisory Committees (MACs)
- All Commonwealth fishery Consultative Committees
- All Commonwealth fishery Resource Assessment Groups (RAGs)
- The Department of Agriculture, Fisheries and Forestry
- FRDC



5. RESULTS AND DISCUSSION

The ComFRAB Strategic Research Plan has been published, entitled *Researching for Fisheries, Industry and Community: AFMA's Strategic Research Plan, 2005-2010*. The document also is available on the AFMA website (www.afma.gov.au/research). Amendments to the plan will be posted on the website.

The strategic research plan identifies and discusses the research priorities that arose out of the initial draft and consultation, categorized into four broad research programs under each of which are two research strategies:

1. Fishery stocks and biology

- research strategy 1a: stock monitoring
- research strategy 1b: understanding stocks;

2. Ecosystem-based fisheries management

- research strategy 2a; impact monitoring
- research strategy 2b: impact reduction;

3. Evaluation

- research strategy 3a: management indicators
- research strategy 3b: management strategies; and

4. Development

- research strategy 4a: management development
- research strategy 4b: industry development.

The strategic research plan establishes the context for the plan and outlines the principles under which AFMA invests in fisheries research. The plan also identifies and discusses nine current drivers of fisheries research. Avenues of investment in Commonwealth fisheries are detailed.

6. BENEFITS

The ComFRAB strategic research plan provides guidance to the AFMA Research Committee / Commonwealth Fisheries Research Advisory Body in planning and undertaking research related duties. The plan also provides a focused approach for research providers seeking to undertake projects relevant to Commonwealth fisheries, and is a mechanism whereby a coordinated, focused approach to research in Commonwealth fisheries may be attained.

The ComFRAB strategic research plan provides a template for individual fishery research plans for Commonwealth fisheries, against which existing research plans will be reviewed and updated to ensure a consistent format is used.

The ComFRAB strategic research plan, and the fishery research plans, will be referred to in an ongoing manner. MACs will refer to the plans when calling for research proposals of when approaching research providers to commission specific research for the fishery. Research proposals will be referred to ComFRAB to ensure they contribute to the outcomes of the ComFRAB strategic research plan and that they conform with the specified principles for investment. Research proposals then will be referred either to AFMA or FRDC for funding, or split between the two depending on appropriateness.



7. FURTHER DEVELOPMENT

The ComFRAB strategic research plan is a living document that will be regularly reviewed and updated on the website.

8. PLANNED OUTCOMES

The ComFRAB strategic research plan, and the fishery research plans, will be referred to in an ongoing manner to evaluate what research should be undertaken. As a result, the overarching outcome of the strategic research plan will be the completion of research projects that meet the needs of Commonwealth fisheries.

9. CONCLUSIONS

The final document entitled *Researching for Fisheries, Industry and Community: AFMA's Strategic Research Plan, 2005-2010* now has been published and is available on the AFMA website at www.afma.gov.au/research.

10. APPENDICES

Appendix 1 – Intellectual Property

There is no intellectual property issues associated with this project.

Appendix 2 – Staff

Dr Dave Alden, Research Manager, Australian Fisheries Management Authority

Appendix 3 – Attachments to this report

Attached ComFRAB strategic research plan entitled *Researching for Fisheries, Industry and Community: AFMA's Strategic Research Plan, 2005-2010*





Australian Government

Australian Fisheries Management Authority



RESEARCHING FOR FISHERIES,
INDUSTRY AND COMMUNITY:

**AFMA'S STRATEGIC RESEARCH
PLAN, 2005-2010**

RESEARCHING FOR FISHERIES,
INDUSTRY AND COMMUNITY:

**AFMA'S STRATEGIC RESEARCH
PLAN, 2005-2010**



The Australian Fisheries Management Authority invests in fisheries research directed towards the Authority's planned outcome of *ecologically sustainable and economically efficient Commonwealth fisheries*

To ascertain whether any amendments have been made to this plan since its publication in July 2005, please visit www.afma.gov.au/research/

*Researching for fisheries, industry and community:
AFMA's strategic research plan, 2005–2010*

An electronic version is at www.afma.gov.au/research/

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About this plan

This plan describes the way in which the Australian Fisheries Management Authority (AFMA) will support the management and development of Commonwealth fisheries resources through research during the five years 2005–2010.

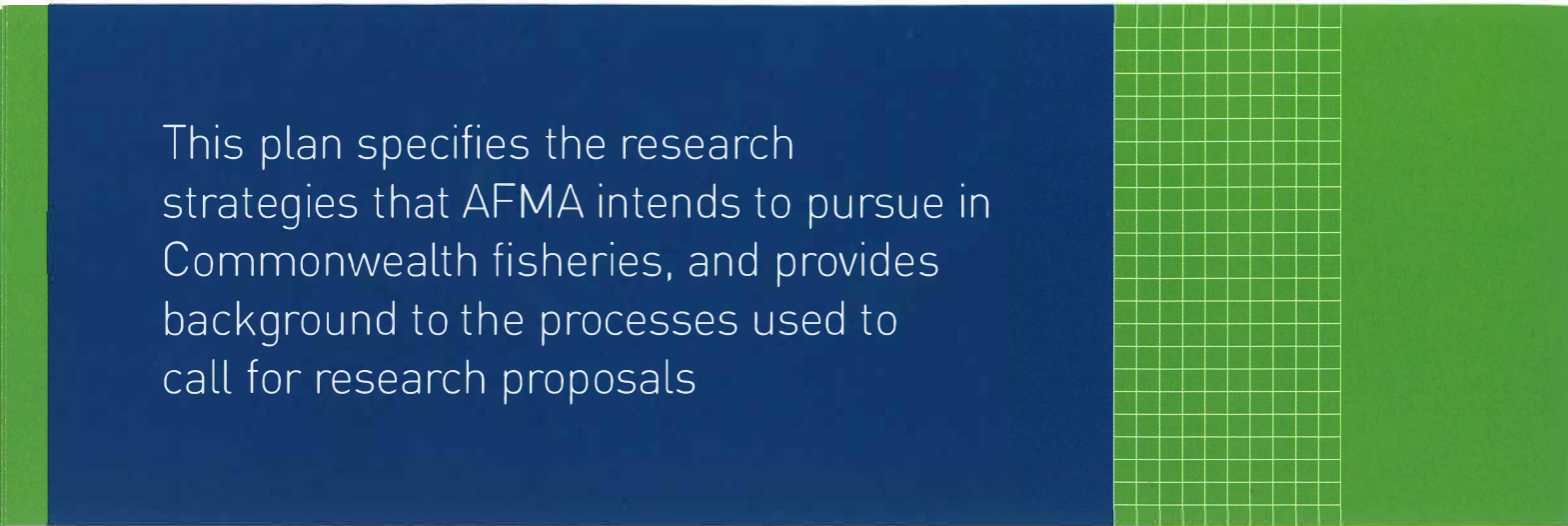
The plan specifies the research strategies that AFMA intend to pursue in Commonwealth fisheries, and provides background to the processes used to call for research proposals.

The Commonwealth fishing sectors are varied, ranging from established, relatively knowledge-rich fisheries such as the South East Trawl Fishery to new and exploratory fisheries such as the Heard Island and McDonald Island fisheries.

Similarly, the fishing sectors that operate within these fisheries range in their level of development and expertise from international fisheries (such as the Southern Bluefin Tuna Fishery) and national fisheries (such as the Northern Prawn Fishery) to exploratory fisheries.

The plan also has the following subsidiary aims:

1. to provide information about Commonwealth fisheries research priorities and processes to potential research providers and Commonwealth fisheries stakeholders;
2. to provide principles to guide investment in Commonwealth fisheries research;
3. to develop continuity between AFMA and Fisheries Research and Development Corporation (FRDC) research investment and an understanding of the two organisations' research interests in Commonwealth fisheries; and
4. to develop a framework to allow the success of research investment in Commonwealth fisheries to be reviewed.



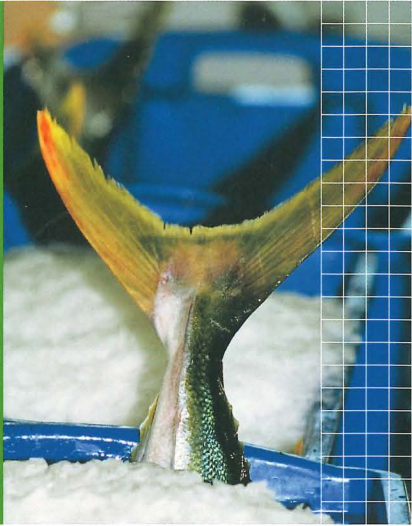
This plan specifies the research strategies that AFMA intends to pursue in Commonwealth fisheries, and provides background to the processes used to call for research proposals

The plan sets out a framework for each fishery to review its information and development needs and to plan and develop its individual five-year research programs. However, it does not specify the priority research programs within the individual Commonwealth fisheries, which vary considerably with the circumstances and history of the individual fisheries.

The plan was developed to reflect the findings of the review of Commonwealth Fisheries Policy (2003) and to take into account the FRDC's five-year R&D plan, *Investing for tomorrow's fish* (2005). It builds on previous AFMA research plans by improving coordination between AFMA and the FRDC and focusing on outcomes that will position Commonwealth fisheries so that they can satisfy the information needs of their stakeholders.

This plan also responds to the need for it to be flexible to accommodate the requirements of the different fisheries, to remain relevant over its five-year duration, and to be responsive to the development and information needs of industry and other stakeholders. The information needs include addressing issues to support ecosystem-based fisheries management of Commonwealth fisheries. There is a strong synergy between the research interests of AFMA and FRDC, with the research investment made by each organisation building on each other in the interests of profitability, economic efficiency and sustainability of Commonwealth fisheries. The plan also seeks to facilitate better identification and coordination of the research investment made by the two organisations.

The AFMA Research Committee will review this plan as needed, but at least every three years.



The context for this plan

Australia's fisheries natural resources

The Australian Government ratified the United Nations Convention on the Law of the Sea in 1982. This Convention extended sovereign rights to the seas within a 200 nautical mile exclusive economic zone (EEZ) around the continent and its external territories. Australia took on responsibility for the wise use and sustainable management of fisheries resources contained within this area.

Generally, Australia's Commonwealth fisheries equate to all but the innermost three nautical miles of the Australian Fishing Zone, which extends 200 nautical miles from the baseline of our continent and our island territories.¹ This zone is the third-largest in the world, covering about 10.3 million square kilometres: one-and-a-third times the area of Australia's land mass. It contains a diverse range of aquatic species — about 4,500 known species of finfish (in addition to perhaps tens of thousands of invertebrate species) — most of which occur in relatively small volumes. About 800 marine and freshwater seafood species are caught and sold in Australia (under about 300 marketing names) for local and overseas consumption. Most known species are at or near full exploitation; several have been over-exploited.

Although Australian waters are particularly rich in molluscs and crustaceans, and have a high diversity of finfish, the low levels of nutrients and plankton produced in Australian ocean waters do not support high biomass. This gives rise to comparatively low-tonnage catches. Consequently, Australia's commercial catch ranks 60th in the world, representing only 0.2 per cent of world tonnage — although it is 2 per cent by value.

Nutrients and plankton in Australian ocean waters do not support high-tonnage catches of finfish as in other nations' waters

¹ AFMA's role in managing Commonwealth fisheries resources within the Australian Fishing Zone is discussed on page 6.

Australia's unusually low production is reflected in catches from the nation's highest-tonnage fishery, the Southern and Eastern Scalefish and Shark (SESS) Fishery: about 30,000 tonnes per year. Within this tonnage is a blue grenadier catch of about 9,000 tonnes. The New Zealand catch of the same species (called hoki in New Zealand) is about 180,000 tonnes — some 20 times the Australian catch and 6 times the tonnage of the entire SESS Fishery.

The low production capabilities of Australia's wild fisheries give little opportunity to increase tonnages, yet local and international demand for seafood is set to grow substantially. This situation underlies the strategic directions for Australia's fishing industry. Production from aquaculture is growing steadily; its share of the gross value of production of Australia's total fisheries now exceeds 30 per cent. However, aquaculture will not meet the forecast shortfall in Australian seafood production against demand.

The over-arching significance of ecologically sustainable development

The Australian community has become increasingly aware of the need to protect ocean, estuary and river ecosystems, and to maintain biological diversity in ecosystems that support fisheries. Awareness of the inter-connectedness of ecosystems (such as those of coastal plains and the continental shelf) is also increasing. The ability of aquatic environments to sustain fishing yields or provide other benefits is an area of growing public interest. Awareness of the influences of the various uses of fisheries — commercial (wild-catch and aquaculture), recreational and customary — is also growing. All these subjects involve aspects of ecologically sustainable development (ESD), which has been defined as:

Using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased.

— National Strategy for Ecologically Sustainable Development, 1992

ESD presents one of the greatest challenges to Australia's governments, industries, businesses and the community. In particular, an effective level of progress towards ESD requires a strong economy and a vigorous, profitable commercial sector. Businesses that are struggling for economic survival have limited ability to implement continual improvement of their environmental performance.

To meet the needs of the current generation while conserving ecosystems for the benefit of future generations, fisheries natural resources need to be used in a way that maintains them and where possible improves them.

Sustainable fishing practices safeguard not only the environment but the industry as well



ESD has become a major objective of the fisheries legislation of most jurisdictions. A key component is the need to measure and report on performance against ESD objectives. Setting sustainable levels of fishing has been central to fisheries management and science for a long time. The concept of ESD, however, is far broader than the traditional focus on yields derived from target species. This complexity poses difficulties for fisheries managers, partly because of the poor understanding of how fisheries ecosystems work and how they are affected by their use or by other disturbance or economic activity.

Although the tonnage of fish produced by the Australian commercial sector is small by international standards, the sector produces a wide range of high-quality, high-value products. More than ever, commercial enterprises are recognising that higher long-term incomes are derived not from increasing wild-catch tonnages but from increasing value from sustainable catches.

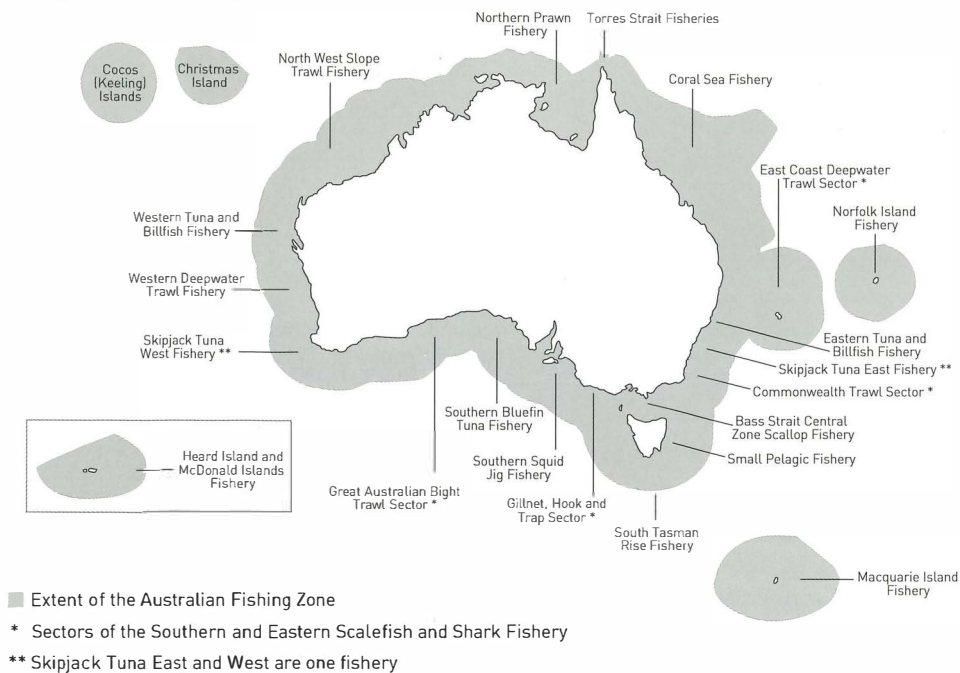
Australians are increasingly realising the economic and social benefits of the fishing industry, especially to rural populations: commercial wild-catch fishing activity is a major resource in many small coastal communities. Such activity often involves several generations of family members; it fosters a unique blend of self-reliance and teamwork; it provides a core for related activities; and it engenders strong levels of "ownership" of the industry by the local community. Commercial fishing activities carry high cultural values that add to the richness and robustness of communities.

People in the fishing industry who support wild-catch and aquaculture activities — such as transporters, wholesalers, retailers (including restaurant operators), and suppliers of commercial and recreational gear — also add to the social fabric of Australian life.

AFMA's role

AFMA is responsible for the day-to-day management of Commonwealth fisheries resources within the Australian Fishing Zone (AFZ — figure 1) and of Australians on the high seas. For administrative purposes, AFMA has grouped these resources into a total of 22 fisheries that are identified by species, fishing method and/or area.

FIGURE 1: THE AUSTRALIAN FISHING ZONE



State and territory governments generally manage fisheries inside three nautical miles. In practice, federal and state/territory governments have negotiated Offshore Constitutional Settlement arrangements that rationalise management, generally on a species basis. Under the terms of these arrangements, the states and the Northern Territory generally manage coastal slow-moving or inshore species (such as rock lobster and abalone) in the inshore areas of the AFZ, while the Australian Government manages deepwater or migratory species (such as orange roughy and tuna).

The Australian Government is also responsible for international fisheries matters, including preventing illegal foreign fishing in the AFZ and managing high-seas fishing by Australian operators.

AFMA is increasingly involved in helping to manage fish stocks on the high seas to meet obligations following the signing and ratification of the United Nations Fish Stocks Agreement. Since then, Australia has been actively involved in negotiating regional arrangements to manage a range of highly migratory and straddling stocks.

Commercial wild-catch fishing activities take many forms, and in many places: nationally, there are more than 160 wild-catch fisheries and more than 16,000 licences. The main Australian wild-catch fishery types (some of which are exclusive to state fisheries) are shown in table 1, opposite.

TABLE 1: THE MAIN AUSTRALIAN COMMERCIAL WILD-CATCH FISHERY TYPES

| Fishery type (major method) | Target species |
|------------------------------------|---|
| Finfish trawling / Danish seining | Multiple species |
| Prawn / scallop trawling | Single species and/or groups of species |
| Scallop dredging | Single species |
| Purse seining | Single species and/or groups of species |
| Net hauling | Multiple species or single species |
| Meshing | Multiple species |
| Line fishing | Single species or multiple species |
| Trapping | Multiple species |
| Potting | Largely single species (e.g. lobsters, crabs) |
| Hand gathering | Usually single species (e.g. abalone) |
| Mixed (no single clear method) | Multiple species |
| Exploratory | Single or multiple species |

Source: Australia New Zealand Standing Committee on Fisheries and Aquaculture

AFMA's relationships with other entities

A significant component of AFMA's management approach is its close working relationship with stakeholders, government agencies (Australian Government and state/territory government) and non-government entities, including other resource managers, research providers and key interest groups, as shown in figure 2.

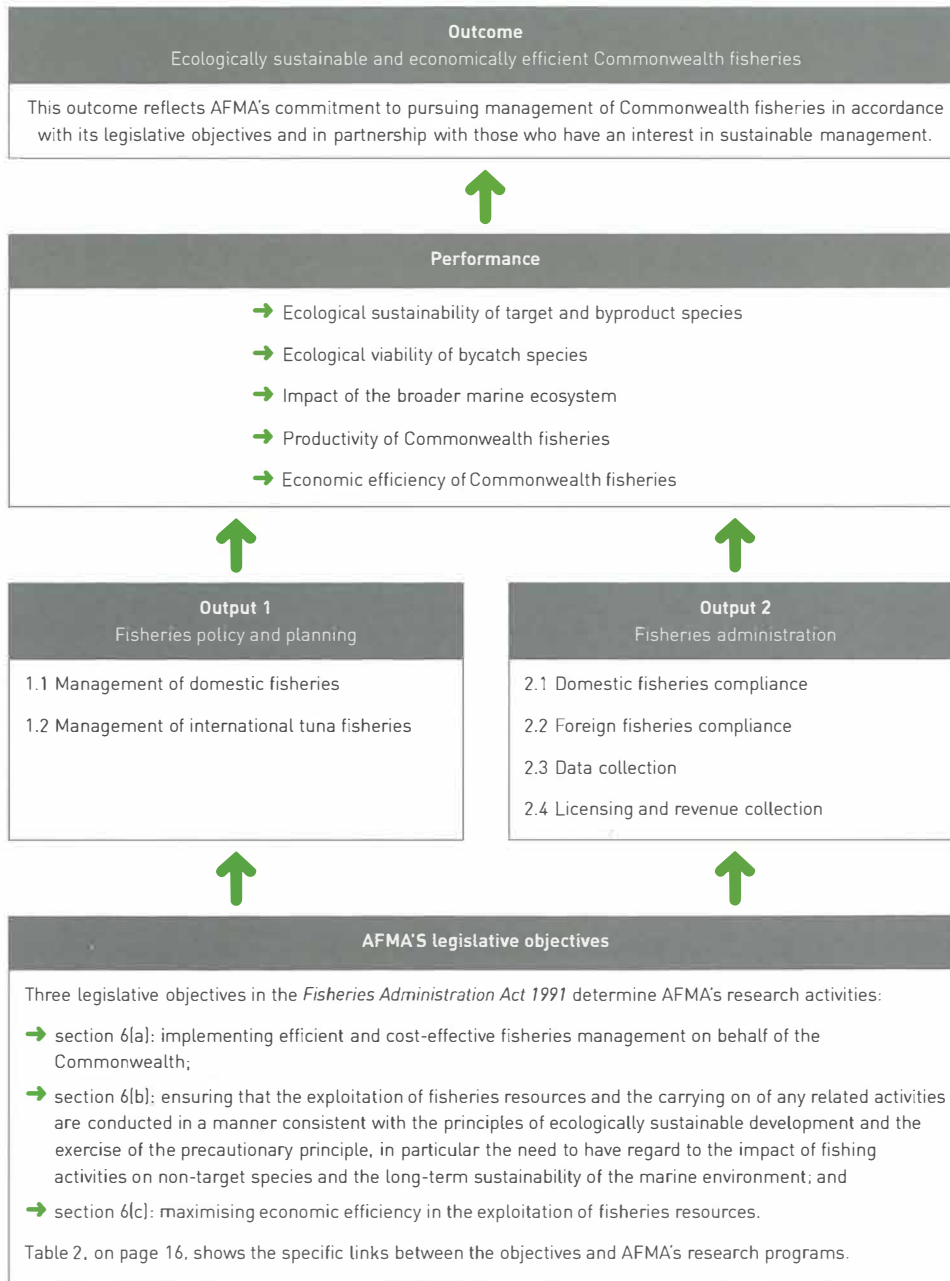
FIGURE 2: ENTITIES ASSOCIATED WITH AFMA

| Industry and community | Research providers and funding bodies | Policy and management entities |
|---|--|--|
| <ul style="list-style-type: none"> → Fishing industry → Australian Seafood Industry Council → Environmental interest groups → Other interest groups → State fisheries → General community | <ul style="list-style-type: none"> → Fisheries Research and Development Corporation → Australian Bureau of Agricultural and Resource Economics → Bureau of Rural Sciences → Commonwealth Scientific and Industrial Research Organisation → State government agencies → Other research providers and funding bodies | <ul style="list-style-type: none"> → Australian Government Minister for Fisheries, Forestry and Conservation → Australian Government Department of Agriculture, Fisheries and Forestry → Australian Government Minister for the Environment and Heritage → Australian Government Department of the Environment and Heritage → Australian Antarctic Division |

Outputs delivered by AFMA

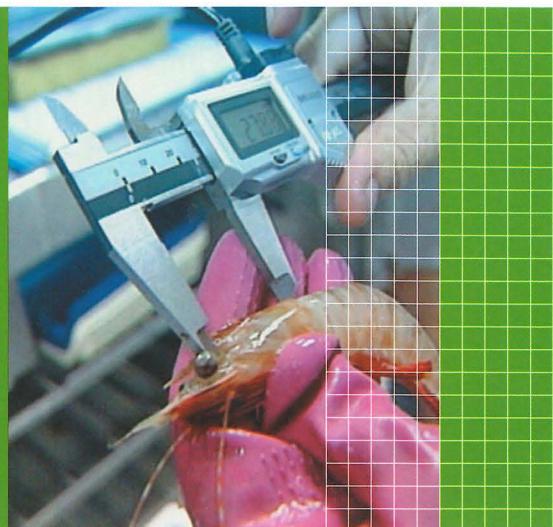
AFMA's planning, operating and reporting framework is centred on delivering outputs that help to achieve its planned outcome. The outcome² and outputs³ involved, as used in the Australian Government's outcome-output accountability framework, are shown in figure 3.

FIGURE 3: AFMA'S PLANNED OUTCOME AND PRINCIPAL OUTPUTS



2 Outcomes are the results, impacts or consequences of actions by AFMA on the fishing industry and Australia's economic, environmental and social resources.

3 Outputs are the goods and services (mainly knowledge, processes and technology) that AFMA produces for external organisations or individuals.



How AFMA invests in fisheries research

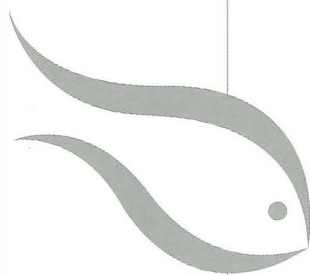
AFMA is responsible under the *Fisheries Administration Act 1991* and the *Fisheries Management Act 1991* for implementing management arrangements for Commonwealth fisheries. Under that legislation, AFMA is accountable to the fishing industry and the Australian community for the success of its management arrangements in pursuing the objectives set out in the legislation.

Other legislation, such as the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the *Torres Strait Fisheries Act 1984*, include additional accountabilities for AFMA that relate to the management of fisheries. Under the EPBC Act these accountabilities relate to assessment of fisheries against ecological sustainability guidelines. Accountabilities under the *Torres Strait Fisheries Act* relate to the management of fisheries recognised under that Act.

Under section 7 (e) of the *Fisheries Administration Act 1991*, a function of AFMA is to:

- establish priorities in respect to research relating to fisheries managed by the Authority and arrange for the undertaking of such research.

For this purpose, AFMA defines fisheries research as an investigation to establish facts or principles relating to fisheries. This includes work to monitor and assess fish stocks, broader ecosystems impacts of fishing, and the economic performance of fisheries. AFMA has limited in-house research capacity and therefore relies on external agencies to carry out research.



One of AFMA's functions is to establish priorities for research relating to fisheries managed by the Authority, and to arrange for such research to be undertaken

In arranging to undertake research in support of fisheries management, AFMA must maximise the benefits it can achieve with the resources available. AFMA considers research as a contestable service, and seeks to purchase research from a range of providers based on the capability of the provider and value for money of the programs offered. Where possible, AFMA will identify funding arrangements to derive better leverage of research investment and maximise return on investment.

Principles for research investment in Commonwealth fisheries

To ensure that research proposals are of high quality and structured to deliver the best outcomes for Commonwealth fisheries, the following principles for research investment have been developed:

1. Research contributes to the knowledge that underpins ecosystem-based fisheries management and improves the quality of the decisions made.
2. To maximise the benefits from research, an appropriate investment in both strategic and applied research areas should be made and, where applicable, the outputs from research should be applied across fisheries.
3. The processes for identifying research priorities and commissioning research must be transparent and undertaken in line with approved procedures, priorities and budgets.
4. Periodic assessment and review of the research program is to be undertaken to determine the effectiveness of the research investment.
5. Research priorities are to be identified for all major Commonwealth fisheries, and research arranged and commissioned where appropriate.
6. Research projects are to be prioritised and funded in accordance with the need, risk, cost and expected benefits of the research to the fishery, ecosystem, industry and broader community.
7. Research projects must include appropriate plans (for example, adoption, communication and/or commercialisation plans) to ensure that the full potential of the research is realised through adoption of research outputs by end-users.

These principles are intended to guide the operation of the AFMA research area and the operations of the AFMA Research Committee, fishery research committees and fisheries' Management Advisory Committees (MACs). They aim to ensure that the research application and prioritisation process is transparent, that the standard of proposals is maintained and that proposals address research priorities of the fisheries.

Researchers should use these principles as a guide for the development of their applications. Fishery research committees and the AFMA Research Committee should consider them when developing their research plans and priorities, and in ranking and assessing research proposals.

Avenues of investment in Commonwealth fisheries are discussed on page 21.



Current drivers of fisheries research

The fisheries management environment is marked by uncertainty. Knowledge of ecosystems and the impacts of fishing on them is imperfect. Markets and costs of operating are subject to considerable fluctuation, which are largely beyond AFMA's control. Market price pressures and rising operating costs are among the factors affecting the incomes of Australian fishers.

The major drivers for the seafood industry and fisheries managers in Commonwealth fisheries that are likely to shape investment in research relating to Commonwealth fisheries during the next five years are outlined in this section.

The need for more fish for human consumption

Demand on fisheries resources for human consumption is growing strongly: a recent report suggests that an extra 200,000 tonnes of seafood will be required by 2020 to meet a conservative prediction (50 per cent) of the increase in demand by Australian consumers.⁴ Inevitably, this factor is prominent in shaping research investment.

A number of key policy and management issues must be accounted for as Commonwealth fisheries resources are used to meet this demand. Research undertaken in Commonwealth fisheries over the next five years will address these issues and will seek to develop outcomes that will allow economic efficiency to be maximised while meeting social and sustainability objectives.

⁴ *Investing for tomorrow's fish: the FRDC's research and development plan, 2005–2010*. Based on findings of FRDC project 1999/160, 'Assessing Australia's future resource requirements to the year 2020 and beyond: strategic options for fisheries' and two seafood consumption studies (FRDC projects 1998/345 and 1999/342).

Australian Government priorities

The Australian Government has recently enunciated priorities for research which are significant in shaping fisheries research effort and its reporting, namely:

- national research priorities, and
- priorities for rural R&D.⁵

The two sets of priorities largely coincide, with differences being mainly caused by respectively national and rural / primary industry perspectives. The priorities applicable to AFMA's research activities are as follows.

National research priorities

| | |
|---|---------------------|
| → An environmentally sustainable Australia | Programs 1, 2 |
| → Promoting and maintaining good health | Program 3 |
| → Frontier technologies for building and transforming Australian industries | Programs 1, 2, 3, 4 |
| → Safeguarding Australia | Programs 1, 2 |

Australian Government priorities for rural R&D

| | |
|--|---------------------|
| → Sustainable natural resource management | Programs 1, 2 |
| → Improving competitiveness through a whole-of-industry approach | Program 3 |
| → Maintaining and improving confidence in the integrity of Australian agricultural, food, fish and forestry products | Program 3 |
| → Improved trade and market access | Program 3 |
| → Use of frontier technologies | Programs 1, 2, 3, 4 |
| → Protecting Australia from invasive diseases and pests | Programs 1, 2 |
| → Creating an innovative culture | Program 4 |

Commonwealth fisheries policy

The 2003 Review of Commonwealth Fisheries Policy has reinforced the need for a continued focus on ecologically sustainable development in fisheries management within current institutional arrangements. Research investment in Commonwealth fisheries will continue to focus on achieving ecologically sustainable and economically robust fisheries.

Australia also participates in a number of international fisheries forums concerned with the management of particular highly migratory, straddling and shared fish stocks. Australia has an obligation to meet the information needs of these forums where Australia has made a commitment to provide information or advice.

⁵ AFMA is not one of the statutory authorities that has been directed to address the Australian Government's priorities for rural R&D. However, half of AFMA's research strategies (namely 1b, 2b, 3b, 4b) address the FRDC's legislative objects and planned outcomes, and the FRDC is subject to these priorities. Therefore, priorities for rural R&D appropriate to the scope of AFMA's research activities have been incorporated into the Authority's research planning, management and reporting framework.

Overfishing and stock recovery

Overfishing of stocks and the subsequent recovery of overfished stocks remains a significant challenge to fisheries managers. As more information is obtained about stocks that currently have an “unknown” status, independent reports on the status of Commonwealth fisheries indicate a trend for fisheries to be over-exploited. Past experience is that when the status of fisheries becomes “over-exploited”, additional investment is required to monitor the stocks’ recovery and to support the additional time required by resource assessment groups for development of the assessments.

Ecosystem-based and total stock fisheries management

The move from species-based fisheries management towards ecosystem-based fisheries management has placed large demands for information on the fishing industry and AFMA. The process involves developing appropriate management frameworks and demonstrating that fisheries are operating, and being managed, in a sustainable way. To fulfil these requirements, industry and AFMA must meet obligations under the *Environment Protection and Biodiversity Conservation Act 1999* through programming research to fulfil Strategic Assessment obligations of the fisheries. Information requirements vary between fisheries, but may include information on fishery impacts on target, bycatch and by-product species and broader ecosystem impacts of fishing.

Ecological risk assessments conducted on Commonwealth fisheries are also used to identify and prioritise research work on fishery impacts and to guide research investment.

Total stock management, which incorporates an understanding of catches taken from all sectors and jurisdictions in the management of fish stocks, is a key element of the sustainable management of fishery stocks and a step towards ecosystem-based fishery management. Fisheries managers are developing decision frameworks to manage fisheries through ecosystem-based fisheries management, taking into account factors such as sectoral catches, multiple jurisdictions and marine protected areas.

The increased demand for Commonwealth fisheries to meet higher social and environmental reporting standards has contributed to an increasing demand for supporting science. It is likely that this factor will have a significant impact on the management of Commonwealth fisheries.

Monitoring and assessment

There will be continued demand for monitoring and assessment work to support effective and transparent decision-making. AFMA supports resource assessment groups to coordinate assessments and monitoring of the fisheries; fishery management advisory committees and the AFMA Board consider the groups' recommendations and implement appropriate management arrangements. Monitoring and assessment activities are costly, and opportunities to reduce these costs through new and improved techniques are constantly being investigated.

Triple bottom line outcomes

Reporting of environmental, social and economic outcomes ("triple bottom line" reporting) is now well established as the required basis for performance reporting. Further research is required to develop appropriate social and economic indicators that can be used to monitor and report on the performance of Commonwealth fisheries.

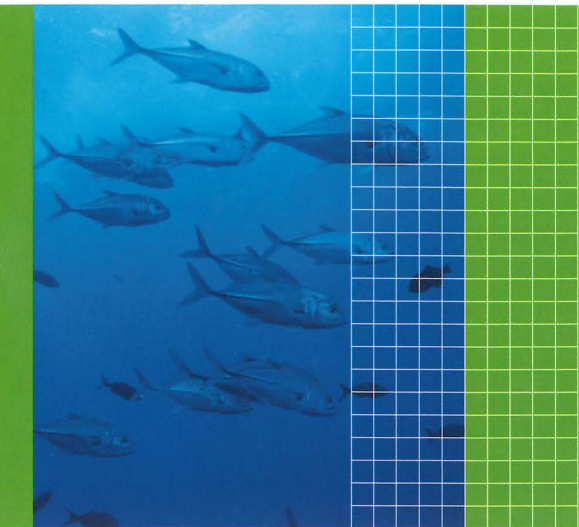
Industry development

Encouragement of the orderly development of industry will continue to be a challenge in Commonwealth fisheries. Factors that will continue to shape continued growth include meeting the information demands of industry, consumers and other stakeholders; ensuring product safety and workplace safety; maintaining freedom of trade through competitive market access; and ensuring ongoing access to fish stocks.

Research drivers in individual fisheries

Within the over-arching framework established by this plan, each Commonwealth fishery also has its own five-year strategic research plan (fishery research plan) in which priority areas for research in the fishery are outlined, based on the fishery's individual research priorities and information needs. Fishery research plans are used to prioritise the calls for projects by the fisheries.

Prospective research providers should obtain a copy of the appropriate fishery research plan and ensure that applications for research funding are relevant to the plan's priority areas. They should also ensure that they consult the relevant fisheries research advisory bodies when developing an application.



The four research programs

The legislative sources of the research programs are shown in table 2 (overleaf). All programs are directed to meeting AFMA's legislative objectives.

The "A" strategies in column 2 of the table (and set out in detail on pages 17–20) apply to activities funded by AFMA and by entities other than the FRDC.

The "B" strategies in column 3 of the table apply to activities funded by the FRDC. They are separately delineated because the FRDC is the most significant of the external funding entities and such activities must meet the FRDC's legislative objects as well as those of AFMA.

The planned outcome for all four research programs is the AFMA planned outcome: ecologically sustainable and economically efficient Commonwealth fisheries

Many research projects produce outputs spanning more than one of the following programs and interact with other such projects (for example, stock monitoring and impact monitoring, and vice versa). Similarly, many projects address, interact with and produce outputs for, more than one national research priority or Australian Government priority for rural R&D.

The relative priority placed on research varies across the Commonwealth fisheries, depending on the information requirements of the fishery and the particular issues that face each fishery. Each fishery's Management Advisory Committee has responsibility for developing its research plan and identifying the research strategies to pursue, in that fishery, AFMA's or FRDC's planned outcomes.

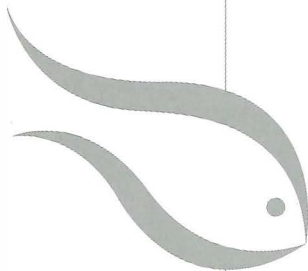


TABLE 2: LEGISLATIVE SOURCES OF AFMA'S RESEARCH PROGRAMS

| AFMA Research Program | "A" strategies (under AFMA legislative objectives in the <i>Fisheries Administration Act 1991</i>) | "B" strategies (under FRDC legislative objects in the <i>Primary Industries and Energy R&D Act 1989</i>) |
|--|--|---|
| Program 1 – fishery stocks and biology | Strategy 1a: to collect appropriate information to support stock assessments, using a total stock management approach Source: FA Act section 6(b): "ensuring that the exploitation of fisheries resources and the carrying on of any related activities are conducted in a manner consistent with the principles of ecologically sustainable development and the exercise of the precautionary principle, in particular the need to have regard to the impact of fishing activities on non-target species and the long-term sustainability of the marine environment". | Strategy 1b: to underpin stock assessments with a knowledge of the stock biology and the total stock accessed by all sectors Source: PIERD Act section 3(b): "achieving the sustainable use and sustainable management of natural resources". |
| Program 2 – ecosystem-based fisheries management | Strategy 2a: to base management decisions on a knowledge of impacts on fisheries ecosystems Source: as for Strategy 1a above. | Strategy 2b: to minimise impacts on fisheries ecosystems Source: as for Strategy 1b above. |
| Program 3 – evaluation | Strategy 3a: to monitor and evaluate the effectiveness of existing management strategies Source: FA Act section 6(c): "maximising economic efficiency in the exploitation of fisheries resources". | Strategy 3b: to develop management and harvest strategies to ensure best-practice management and the greatest return to the community Source: PIERD Act section 3(a): "increasing the economic, environmental and social benefits of members of [the fishing industry] and to the community in general by improving the production, processing, storage, transport or marketing of the products of [the fishing industry]". |
| Program 4 – development | Strategy 4a: to develop policies and technology to support the management of Commonwealth fisheries Source: FA Act section 6(a): "implementing efficient and cost-effective fisheries management on behalf of the Commonwealth". | Strategy 4b: to develop skills and knowledge of stakeholders involved in the fishing industry Source: PIERD Act section 3(c): "making more effective use of the resources and skills of the community in general and the scientific community in particular". |



Program 1 — Fishery stocks and biology

Planned output

Effective management of Commonwealth fishery stocks based on an understanding of the stock and its biology.

Research strategy 1a — stock monitoring

This strategy is: to collect appropriate information to support stock assessments, using a total stock management approach.

Various characteristics of fish stocks are monitored and basic data is collected. This data is used to model the fish populations and to generate stock assessment reports to:

- support the management of Commonwealth fisheries,
- inform policy development, and
- meet information commitments made in fisheries management plans and international forums.

Activities

Examples of activities under this strategy are monitoring programs and stock assessment work (such as ageing and length measurement), data compilation and analysis, and stock assessments.

Research strategy 1b — understanding stocks

In addition to being directed towards the AFMA planned outcome, this strategy addresses the planned outcome of the FRDC's Natural Resources Sustainability R&D Program, with which it is associated:

The natural resources on which the commercial, recreational and traditional sectors of the fishing industry depend are used in an ecologically sustainable way.

This strategy is: to underpin stock assessments with a knowledge of the stock biology and the total stock accessed by all sectors.

The biology of targeted fish stocks is studied to better understand their life history and the environmental variables that influence the growth and reproductive characteristics of the stock, as well as how the stock is accessed by other sectors.

Activities

Usually activities under this strategy are projects that produce new knowledge, techniques or technology to support the management of fish stocks. Examples are development of new information on stock movement (e.g. tagging), rates of reproduction and recovery, development and testing of alternative of stock models, and understanding the catch taken by other sectors.



Program 2 — Ecosystem-based fisheries management

Planned output

Ecosystem-based fisheries management of Commonwealth fishery stocks through an understanding of fisheries ecosystems and of impacts on them.

Research strategy 2a — impact monitoring

This strategy is: to base management decisions on a knowledge of impacts on fisheries ecosystems.

Information on ecosystem impacts of fishing, including bycatch, are studied to better understand the significance of these impacts and of changes in fishing impacts over time.

Activities

Activities under this strategy include ongoing monitoring and assessment activities to support existing ecosystem-based fisheries management of Commonwealth fisheries. Examples of these activities include identification, monitoring and assessment of ecological risks within and across fisheries, and work on environmental indicators of the health of marine ecosystems.

Research strategy 2b — impact reduction

In addition to being directed towards the AFMA planned outcome, this strategy addresses the planned outcome of the FRDC's Natural Resources Sustainability R&D Program, with which it is associated:

The natural resources on which the commercial, recreational and traditional sectors of the fishing industry depend are used in an ecologically sustainable way.

This strategy is: to minimise impacts on fisheries ecosystems.

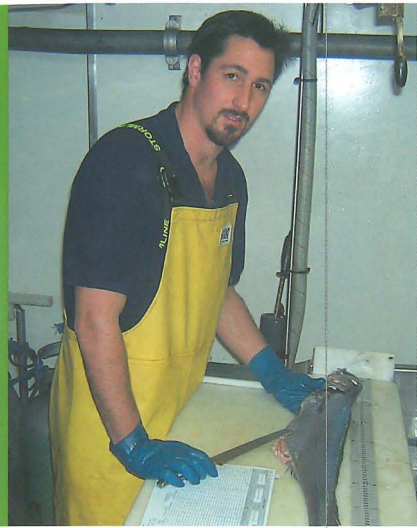
Research is undertaken to develop strategies and technologies to reduce interactions and impacts where fishing impacts or interactions with the environment have been identified as significant or as a potential ecological risk.

Activities

Examples of activities under this strategy are investigation and development of management strategies, policy and technologies (for example, hook deployment, chutes and acoustic technologies) to support ecosystem-based fishery management and to minimise the environmental impacts of fishing, including bycatch, where it is a priority for the fishery.



Photo by Craig Allen



Program 3 — Evaluation

Planned output

Improved ecosystem-based fisheries management through review and development of management strategies.

Research strategy 3a — management indicators

This strategy is: to monitor and evaluate the effectiveness of existing management strategies.

Research is undertaken to monitor and evaluate the effectiveness of current management arrangements in Commonwealth fisheries and to feed into future management decision-making processes

Activities

Examples of activities under this strategy are development and monitoring of economic efficiency indicators, reviews of fishery management approaches, and evaluation of management arrangements for structural adjustment of fisheries.

Research strategy 3b — management strategies

In addition to being directed towards the AFMA planned outcome, this strategy addresses the planned outcome of the FRDC's Industry Development R&D Program, with which it is associated:

The commercial sector of the Australian fishing industry is profitable and internationally competitive; the commercial, recreational and traditional sectors are socially resilient.

This strategy is: to develop management and harvest strategies to ensure best-practice management and the greatest return to the community.

Research is undertaken to improve fishery management policies and strategies to achieve community outcomes while meeting the objectives of ecosystem-based fisheries management. This includes research into improving compliance with fisheries management policies.

Activities

Examples of activities under this strategy are:

- development of fishery management strategies and policies to optimise returns to fishers and the wider community;
- evaluation of management arrangements for the extent of structural adjustment in fisheries;
- management of fisheries in multiple-use environments (e.g. in conjunction with marine protected areas);
- development of new indicators and management frameworks to support ecosystem-based fisheries management; and
- development of strategies to deal with specific issues such as supporting the management of fisheries in crises or the management of highly migratory stocks.



Program 4 — Development

Planned output

Development of the Australian fishing industry to ensure economic, environmental and social benefits from the sector are maximised.

Research strategy 4a — management development

This strategy is: to develop policies and technology to support the management of Commonwealth fisheries.

Research is undertaken to monitor and evaluate the cost-effectiveness of Commonwealth fisheries management and to continually improve the efficiency of service delivery and uptake of results.

Activities

Examples of activities under this strategy are developing fishery management tools (e.g. to improve effectiveness in compliance) and undertaking external reviews of research projects, research programs and research proposals.

Research strategy 4b — industry development

In addition to being directed towards the AFMA planned outcome, this strategy addresses the planned outcome of the FRDC's People Development R&D Program, with which it is associated:

The knowledge and skills of people in and supporting the Australian fishing industry, and in the wider community, are developed and used so that Australians derive maximum economic, environmental and social benefits from fisheries research and development.

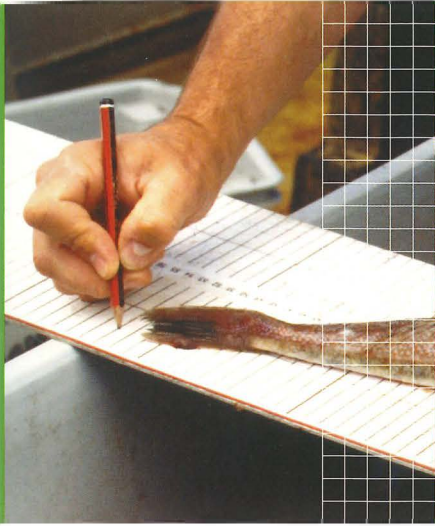
This strategy is: to develop skills and knowledge of stakeholders involved in the fishing industry.

Research is undertaken to improve stakeholders' understanding of their rights and responsibilities in the management of Commonwealth fisheries.

Activities

Activities may include the development of industry skills and knowledge about stock assessments, ecosystem-based fisheries management and value-adding for the industry.





Avenues of investment in Commonwealth fisheries

Research investment in Commonwealth fisheries is funded from two primary sources: AFMA and the FRDC. Targeted investment is also available from a number of other avenues.

Research investment through AFMA's research funds

AFMA research funds are used to support research into Commonwealth fisheries at the discretion of the AFMA Board, based on recommendations of the AFMA Research Committee. The AFMA Research Committee considers research proposals in the light of research plans and priorities for each of the Commonwealth fisheries.

AFMA's *Guidelines for categorising research costs in accordance with the Cost Recovery Impact Statement* (available on AFMA's website) identify two categories of research:

- fisheries management research and collection of verified data, which includes the population assessment work and data collection for research and assessment models (this research is funded 20 per cent by the Australian Government and 80 per cent by industry); and
- broader marine research, which includes research projects that have significant spill-over benefits for the general public or involve significant innovation (this research is funded 75 per cent by the Australian Government and 25 per cent by industry).

Research investment in Commonwealth fisheries by the FRDC

The FRDC (www.frdc.com.au) 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. It is responsible to its stakeholders to:

- plan, invest in and manage fisheries R&D throughout Australia; and
- facilitate the dissemination, adoption and commercialisation of R&D results.

The FRDC is the sole Australian agency with this role.

Stakeholders in the FRDC are the fishing industry; the federal, state and territory governments; and the people of Australia.

The FRDC has a 'whole-of-chain' approach to the fishing industry, which it defines as including:

any industry or activity conducted in or from Australia concerned with taking, culturing, processing, preserving, storing, transporting, marketing or selling fish or fish products.

The Corporation distinguishes between three principal fishing industry sectors: the commercial, recreational and indigenous sectors.

Detailed information on the Corporation's business environment and R&D program is contained in *Investing in tomorrow's fish: the FRDC's research and development plan, 2005 to 2010*.

The Corporation does not itself conduct R&D but instead engages research providers through project agreements and other arrangements.

The FRDC's planned outcomes for its three R&D programs are as follows:

FRDC R&D Program 1: Natural Resources Sustainability

The natural resources on which the commercial, recreational and traditional sectors of the fishing industry depend are used in an ecologically sustainable way.

FRDC R&D Program 2: Industry Development

The commercial sector of the Australian fishing industry is profitable and internationally competitive; the commercial, recreational and traditional sectors are socially resilient.

FRDC R&D Program 3: People Development

The knowledge and skills of people in and supporting the Australian fishing industry, and in the wider community, are developed and used so that Australians derive maximum economic, environmental and social benefits from fisheries research and development.

The FRDC's revenue for investment in fisheries R&D varies over time. The primary revenue source is based on:

- the Australian Government providing unmatched funds equivalent to 0.5 per cent of the average gross value of Australian fisheries production for the three preceding years (AGVP);
- fishers and aquaculturists providing contributions of at least 0.25 per cent of AGVP; and
- the Australian Government matching contributions by fishers and aquaculturists up to a maximum of 0.25 per cent of AGVP.

The high component of public good in the operating environment of wild-catch fishing has significance for the FRDC's revenue base. The Australian Government's contribution is made on the grounds that the Australian Government exercises a stewardship role in relation to fisheries resources on behalf of the Australian community.

There is no legislative impediment to fishers and aquaculturists contributing to the FRDC above the maximum level at which the Australian Government will provide a matching contribution. In recent years the Corporation has attracted additional investment from industry sectors to an increasing degree.

To achieve a balance in its investments, the FRDC as far as practicable ensures that its R&D investment is of direct relevance, within a five-year period, to the fishery, industry sector, or state / territory in which funds were collected. This investment allocation applies to FRDC investment in Commonwealth fisheries.

ComFRAB investment focus

The FRDC supports a network of Fisheries Research Advisory Bodies (FRABs) covering Commonwealth fisheries and the fisheries of each state and the Northern Territory.

The FRABs' role in maximising the efficiency of the FRDC's planning and investment is to:

- develop strategic plans for R&D that take into account other strategic plans, and subsequently maintain strategic directions and be responsive to changing circumstances;
- identify R&D priorities in consultation with management advisory committees and other bodies;
- invite R&D applications to address those priorities;
- encourage collaboration between researchers, and between researchers, fisheries managers and fishing industry interests;
- identify appropriate investment sources (including the FRDC);
- advise the FRDC on the priority and appropriateness of applications attributing benefit to their related fisheries or industry sectors; and
- assist the FRDC with communication and extension of R&D results.

The Fisheries Research Advisory Body for Commonwealth fisheries is the "ComFRAB", chaired by a director of AFMA.

The focus of work supported by the ComFRAB is R&D to support the development of Commonwealth fisheries, within the context of the FRDC's three R&D programs. ComFRAB considers research proposals in light of the research plans for each of the Commonwealth fisheries, with proposals prioritised in line with the principles for research investment described on page 10 of this plan.

Other investors in Commonwealth fisheries research

In addition to AFMA and the FRDC, many organisations invest in research into Commonwealth fisheries, including Australian Government agencies such as the Department of Environment and Heritage, the National Oceans Office and the Department of Agriculture, Fisheries and Forestry. These entities are responsible for developing their own research plans and research priorities, the focus and priority of which will vary over time.

Prospective researchers should contact these organisations directly for information about research application processes and the organisations' interests in research.

Where the research interests of AFMA and the FRDC or any other research investors overlap, there may be opportunities for co-investment to lever better research outcomes. In general, such opportunities are viewed favourably. They should be presented to the appropriate fishery's Management Advisory Committee and the AFMA Research Committee or ComFRAB for consideration as part of the normal funding cycle shown on page 30.



Key participants in AFMA's research activities

A single committee — though referred to as either the AFMA Research Committee or ComFRAB, depending on the function it performs in a particular instance — advises the AFMA Board and the FRDC on research requirements for Commonwealth fisheries. The committee comprises six members drawn from AFMA's Board of Directors and executive management.

The role of this committee is to:

- advise the AFMA Board on the strategic directions, priorities and funding for research relevant to meeting AFMA's information needs and objectives (in this capacity the committee is referred to as the AFMA Research Committee); and
- advise the FRDC on priorities, applications received and funding relating to research and development opportunities for Commonwealth fisheries (in this capacity it is referred to as ComFRAB).

AFMA Research Committee

As part of its role described above, the AFMA Research Committee:

- develops research priorities for Commonwealth fisheries in conjunction with the Management Advisory Committees and addresses AFMA's management needs and objectives as specified in the *Fisheries Management Act 1991* and AFMA's Strategic Research Plan;
- approves five-year research plans for fisheries managed by AFMA;
- advises on allocation of research funds under the control of the AFMA Board;
- monitors biological and economic indicators in AFMA-managed fisheries, with emphasis on sustainability indicators and economic efficiency, and
- liaises with research providers and funding agencies with the aim of establishing Memoranda of Understanding to ensure AFMA's research priorities are given appropriate weight in the wider allocation of research funds.

Commonwealth Fisheries Research Advisory Body

As part of its role described above, the AFMA Research Committee, in its capacity as the ComFRAB, provides advice to, and liaises with, the FRDC by:

- developing and reviewing strategic research plans for each Commonwealth fishery, including exploratory fisheries, in conjunction with AFMA's management advisory committees; and
- advising the FRDC on applications received relevant to Commonwealth fisheries or related areas consistent with the *Primary Industries and Energy Research and Development Act 1989*.

Fishery Management Advisory Committees

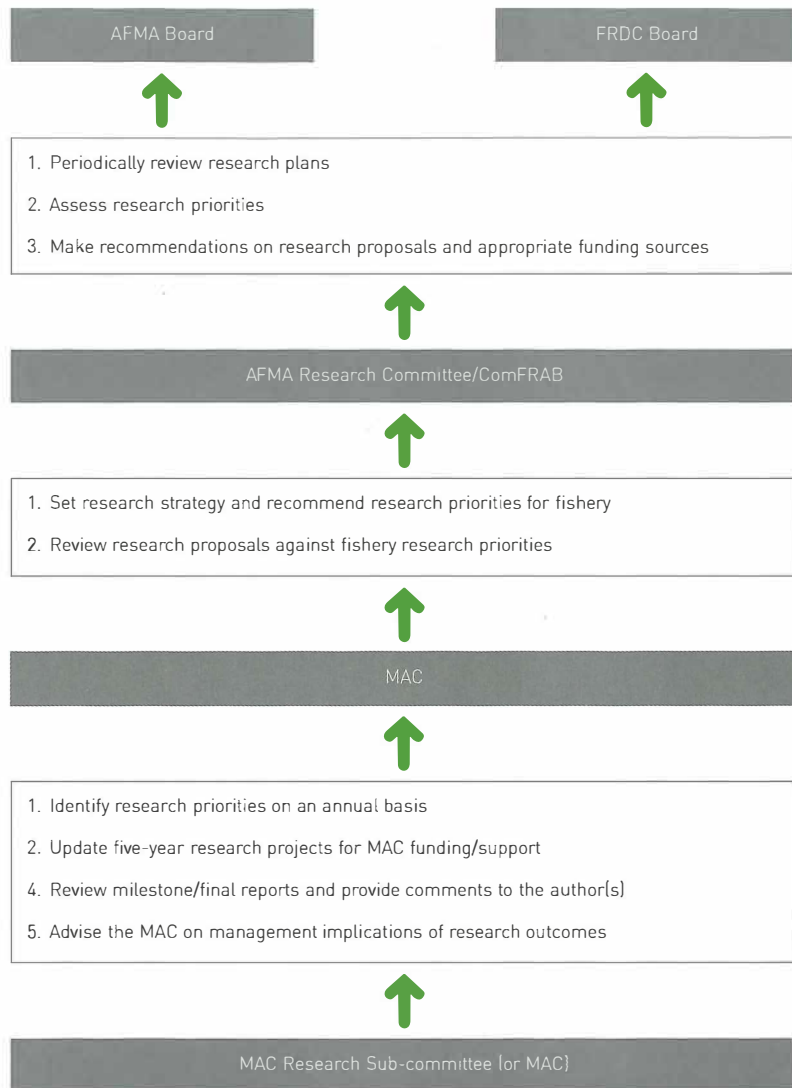
Management Advisory Committees (MACs), established in each major Commonwealth fishery to liaise between AFMA and those with an interest in the fishery, are the principal source of advice on fishery-specific management issues. In this role, MACs and their subcommittees have specific research-related functions that support the decision-making process.

In addition, MACs may take advice from Resource Assessment Groups, established by the AFMA Board for each major fishery group or individual species, concerning information required to improve confidence in fish stock assessments and ecological risk assessments.

The MACs advise the AFMA Research Committee and ComFRAB on fishery objectives, strategies, reference points, risk profiles and management arrangements for achieving fishery-specific goals. The MACs — or in some cases their research subcommittees — provide the technical expertise to determine the research and data requirements for effective management decision-making and to prepare a five-year research plan for the fishery. These bodies also determine the fishery's research priorities and assess the relative returns on investments in research and data collection, which are detailed in the strategic research plan for the fishery.

The AFMA Research Committee and ComFRAB makes recommendations respectively to the AFMA and FRDC Boards on funding decisions for research applications after the MAC Research Sub-Committees and MACs have evaluated them. These relationships are outlined in figure 4, opposite.

FIGURE 4: ROLES AND RESPONSIBILITIES IN THE DEVELOPMENT OF COMMONWEALTH FISHERIES RESEARCH PRIORITIES AND THE PRIORITISATION OF RESEARCH PROPOSALS





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AFMA's annual cycle for research

Commonwealth fisheries research follows an annual cycle structured around a call for proposals, a review and prioritisation of proposals, and the exchange of contracts. This cycle is shown in figure 5 (overleaf).

Key dates and deadlines change annually. Further information and updated deadlines can be obtained from the AFMA website (www.afma.gov.au) or the relevant MAC.

1. Call for proposals

Between February and May each year, researchers are publicly notified of the fishery research priorities and are invited to submit research proposals to address these priorities. The MAC research sub-committee reviews research proposals directed at both AFMA and FRDC. Based on the nature of the research proposals and available research funds, recommendations are made to MACs on the priority of the research proposals. MACs and their research sub-committees may request changes to proposals to better meet the needs of fishery.

2. Prioritisation of research proposals

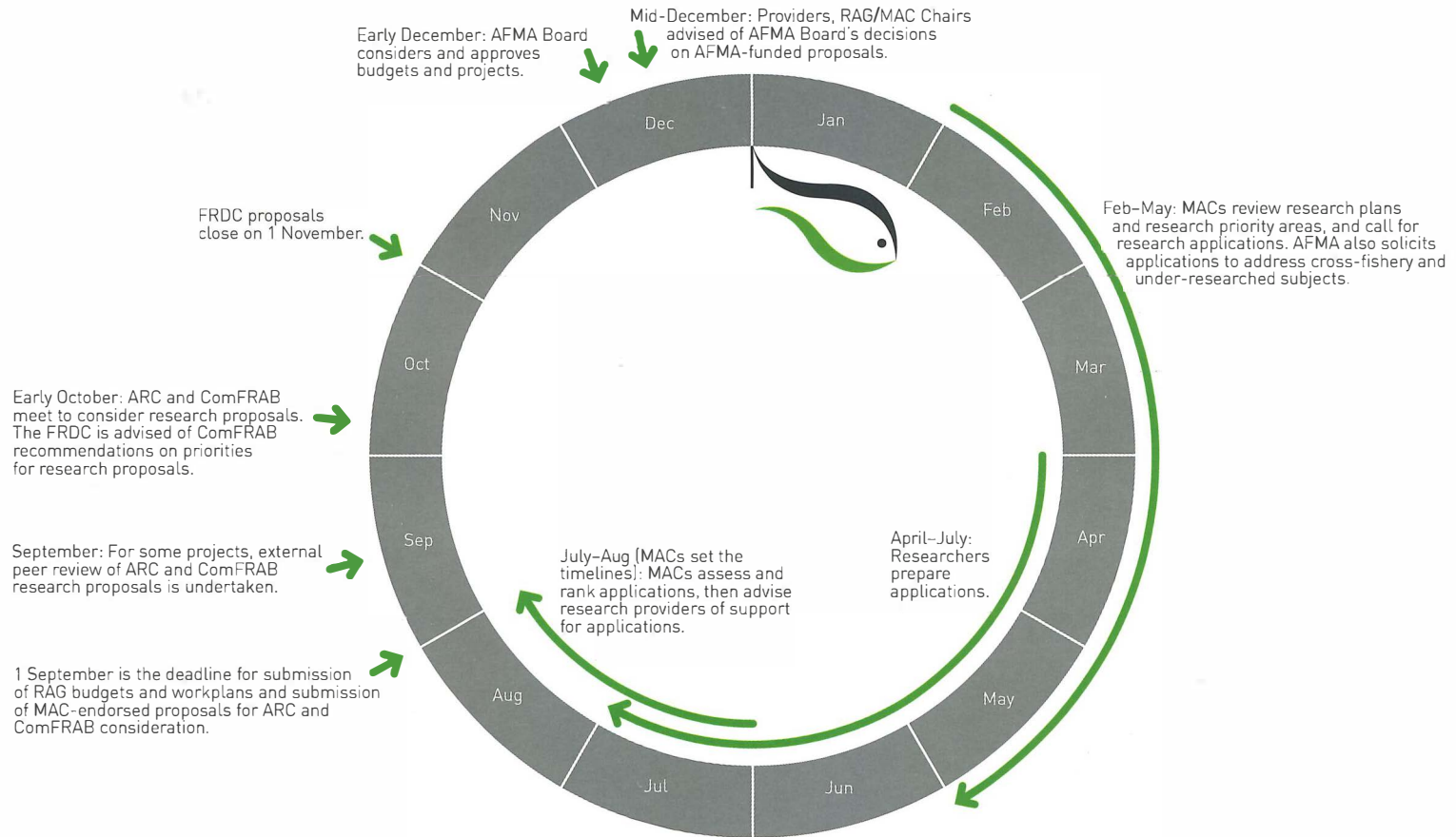
MACs review the revised proposals and make recommendations on projects. The AFMA Research Committee and ComFRAB review those recommendations against the fishery research plans and the AFMA Strategic Research Plan, determine the appropriate funding source for the project, and recommends support for projects to the appropriate funding agency.

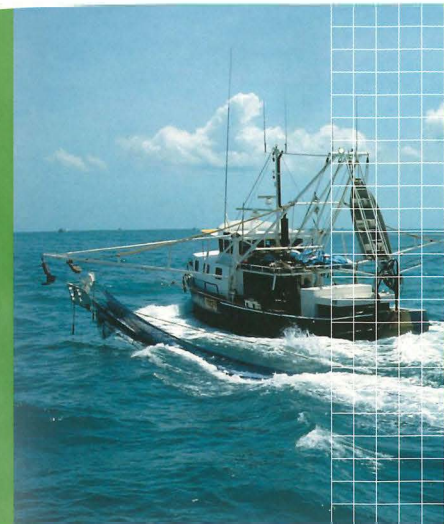
As specified in a Memorandum of Understanding between AFMA and the FRDC, the FRDC is guided in its funding of research by the AFMA Research Committee/ComFRAB recommendations on Commonwealth fisheries research. Full research applications for FRDC funded projects are due in November each year (see www.frdc.com.au).

3. Research contracts

Research projects are commissioned through the issue of research contracts, which specify the outputs of the project, milestone reports, communication and extension activities and final publication requirements. Payments for research projects are contingent on milestones being met in a timely manner.

FIGURE 5: AFMA'S ANNUAL CYCLE FOR RESEARCH





Role of this plan and fisheries research plans

This plan provides a framework for fishery research sub-committees to review their previous research investment and to develop priorities to plan for their future information and research requirements. Priorities and strategies vary between fisheries, depending on the information requirements of the fishery and the particular issues that face each fishery. The fishery MAC has responsibility for developing its research plan to achieve the priority outcomes for that fishery. Fisheries research plans highlight research areas of importance and provide a structure for the deliberations of MACs in their prioritisation of research.

In developing research plans for their respective fisheries, MACs should address the four research programs in this (AFMA) strategic research plan. Each year, when considering proposals, MACs should assess whether they address their fishery research plan; how the proposals address the information needs of the fishery; and whether the project conforms to the principles for research investment.

Where research projects from different fisheries compete for limited funds, such as AFMA's research funds, the AFMA Research Committee/ComFRAB will review the competing projects against the principles for research investment in Commonwealth fisheries and will support the project that best delivers against these principles.





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On the web, this plan is at:
www.afma.gov.au/research/

The Australian Fisheries Management Authority is a statutory authority within the portfolio of the Australian Government Minister for Agriculture, Fisheries and Forestry. It is responsible for the efficient management of Commonwealth fishery resources on behalf of the Australian community.

