

The Fisheries Resources Research Fund (FRRF)

Annual Report 2004-05



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THE FISHERIES RESOURCES RESEARCH FUND (FRRF)

ANNUAL REPORT 2004-05

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ABOUT THIS REPORT

This report covers the operations of the Fisheries Resources Research Fund (FRRF) during the 2004-2005 financial year.

Prepared by the Department of Agriculture, Fisheries and Forestry (DAFF), this report provides:

- a discussion of the FRRF's general operating environment in 2004-05 (including the current role of the fund, general administrative arrangements, the level of funding available and relevant funding priorities);
- a summary of the 46 fishery-related projects or conferences that were funded by the FRRF during 2004-05 and the level of funding provided to each project;
- a brief description of each of the 32 FRRF funded projects that were completed during 2004-05; and
- a brief description of each of the 22 FRRF funded projects that were still ongoing at the end of the 2004-05 financial year.

Secretariat
Fisheries Resources Research Fund
January 2006

PART A: OPERATING ENVIRONMENT

1 ABOUT THE FISHERIES RESOURCES RESEARCH FUND (FRRF)

1.0 The Role of the FRRF

The Australian Government established the Fisheries Resources Research Fund (FRRF) in 1991 as a component of the 1989 government policy statement *New Directions for Commonwealth Fisheries Management in the 1990s*.

The FRRF was originally established to support fisheries related research to be undertaken by the Australian Bureau of Agricultural and Resource Economics (ABARE) and the Bureau of Rural Sciences (BRS) in support of Commonwealth fisheries management. The resulting research was intended to provide for the accurate assessment of the status of the Australian Government managed fish stocks and of fisheries management priorities. The FRRF was also intended to support management-related research categorised as being “in the public interest”, or where industry or other funds were unavailable or inappropriate.

During the 1990’s, as a result of increasing knowledge, the focus of fisheries management in Australia expanded from individual habitats to a more ecosystem-wide focus. At the same time, the range of issues facing the Australian Government’s managers and policy makers diversified, bringing in new industries, new challenges and new issues to be considered. In light of these changes, the role of the FRRF became broader and more important in providing research, assessment and review for the Australian Government’s management of its fishery and marine resources.

The FRRF currently provides the Australian Government with independent research, review and assessment capabilities in pursuit of long-term strategic directions for fisheries resource development. Put simply, the current role of the FRRF is to provide:

- a rolling programme of assessment undertaken by ABARE and BRS of all Commonwealth fisheries; and
- targeted biological, economic and social research to underpin the Government’s response to emerging fishery policy and management issues.

Under these arrangements, the FRRF’s program of research is consistent with the Australian Government’s National Research and Development (R&D) priority of “An Ecologically Sustainable Australia”, whilst also supporting the achievement of at least two of the Government’s rural R&D priorities, namely “Sustainable Natural Resource Management” and “Improved Market and Trade Access”.

The FRRF also contributes to the achievement of DAFF’s major portfolio outcome of “*More sustainable, competitive and profitable Australian agriculture, food, fisheries and forestry industries*”.

1.1 General Administrative Arrangements

Since the 1994 *Task Force Review into Rural Research*, staff within the Fisheries and Forestry Division (F&FD) of DAFF have administered the allocation of FRRF money. This allocation has generally taken place under the guidance of an independent Advisory Committee, the FRRF Project Advisory Committee.

The role of the Project Advisory Committee is to provide expert independent advice and to recommend priority funding for research proposals submitted to the FRRF. DAFF appoints members of the FRRF Project Advisory Committee on the basis of their skills, background and experience in fisheries management, research and assessment.

In 2004-05, the membership of the FRRF Project Advisory Committee was:

- Ms Catherine Smith, Manager, Domestic Fisheries Section, DAFF
- Dr Patrick Hone, Executive Director, FRDC
- Mr Ian Cresswell, Secretary, Sustainable Fisheries Section, DEH
- Dr Bruce Wallner, Research and Data Manager, AFMA
- Ms Mary Lack, Independent Expert, Shellack Consulting Pty Ltd

FRRF administration is in turn managed by the FRRF Secretariat, which for the period of 2004/05 was Neil Garbutt of DAFF.

1.2 FRRF's Funding Base for 2004-05

The Australian Government first provided funding to the FRRF in 1992, with an amount equivalent to 0.25 per cent of the average gross value of national fisheries production each year. This amount has been subsequently reduced by budgetary and productivity measures (including the provision of \$1 million in funding to AFMA and two budgetary cuts of \$1 million in 1993/94 and \$200,000 in 1997/98).

In the 2004-05 Budget, funds of \$3.5 million were originally made available by the Australian Government for use by the FRRF. This figure was later modified by the addition of \$386,000 in funds rolled over from 2003-04 financial year and the reallocation of \$50,000 of FRRF funds to support a Government commitment to provide funding to the Australian Seafood Industry Council (ASIC) in February 2005. These modifications lead to a total available budget of \$3.845 million for 2004-2005.

In 2004-05 FRRF spent a total of \$3,839,608, which left an under spend of \$5,402 of its funding allocation. This funding was allocated on the following basis:

• BRS Administered Research Projects	\$1,314,053
• ABARE Administered Research Projects	\$ 938,736
• CSIRO Administered Research Projects	\$ 414,014
• AFMA Administered Research Projects	\$ 176,760
• Other Research Providers (FERM, AIMS, UOW, etc)	\$ 840,690
• Sponsorship of Conferences/Policy Development Workshops	\$ 35,355
• Administrative Costs	\$ 120,000
Total:	\$3,839,608

1.3 Selection of research and service providers

Consistent with the purpose of the fund, a large component of FRRF's budget is annually allocated to ABARE and BRS for research that will underpin an independent assessment of the status of the Commonwealth fisheries (over the last 5 years this has usually averaged around 25.49% (ABARE) and 37.42% (BRS) of FRRF's total budget).

In 2004-05, BRS delivered a mixture of stand-alone projects and an ongoing programme of work under its 3 year Service Level Agreement (SLA) with F&FD. Under the SLA, BRS provides F&FD with a range of biological advice and services, including ad-hoc briefings, participation in selected international and domestic fishery meetings and the development of the 2005 Fishery Status Reports.

The majority of ABARE's 2004-05 work programme was negotiated between the Bureau and F&FD at the beginning of the 2004-05 financial year. This programme focused on examining the ongoing economic performance of the Commonwealth fisheries, whilst also exploring alternative management options. A major part of this work programme was ABARE's annual Fishery Economic Surveys.

A further component of the FRRF is used to select other research and service providers, particularly where ABARE and BRS are unable to undertake the research. In 2004-05, the majority of the projects in this category were commissioned in response to emerging policy needs. Under this process, F&FD selects organisations or individuals from known research providers, according to the type of research being commissioned. These projects are then reviewed by the FRRF Project Advisory Committee.

Finally, another small component of the fund is usually set aside for fishery related conferences. In providing such funding, F&FD recognises the value of such events in bringing together major stakeholders to consider issues affecting the management of Australia's fishery resources. These projects are usually initiated through F&FD being directly approached by conference organisers for sponsorship.

1.4 Strategic Planning

The FRRF Strategic Plan has been the primary guiding document for the administration of the Fund. This document explains the purpose of the fund and specifies the strategic directions in which FRRF funding will be used.

A new strategic research plan for the fund is currently being developed. The new Strategic Plan will be operational for 2006-2008 and is scheduled to be in place by early 2008.

2. THE FRRF'S FUNDING PRIORITIES FOR 2004-05

FRRF funding supports an agreed program of independent assessment of Commonwealth fisheries management performance. The FRRF also supports the development of new and improved policies for fisheries management in accordance with the two-program approach as identified in the current FRRF Strategic Plan. Under this arrangement, in 2004-05 FRRF funds were allocated to the following two research programs:

- **Program 1** - *Fishing Industry Development Program*; and
- **Program 2** - *Resources Sustainability Program*.

Program 1 - Fishing Industry Development Program

Purpose

To achieve a fishing industry whose commercial (wild-catch and aquaculture), recreational and traditional sectors are socially and politically resilient, and whose commercial sector is profitable and internationally competitive.

Program Description

The program is consistent with the following Australian Government priorities for rural research and development (R&D):

- *Whole-of-chain approach*: A whole-of-chain approach to production, processing and marketing to ensure an effective supply chain approach that maximises Australia's competitive advantage.
- *Biotechnology*: Development of biotechnology to support Australia's aquaculture industries, along with sensitive handling to accommodate consumers' concerns, to supplement and replace wild-catch fisheries, where appropriate.
- *Increases in trade and market access*: A need for data and associated market analyses to allow for informed debate and to support Australia's negotiating position in international forums.
- *Clean and green*: Maintenance and enhancement of Australia's 'clean, green' image.
- *Food safety*: Addressing food safety concerns of consumers.
- *Improving human resources*: Cultivating creativity and innovation in the use of human capital.

These priorities for rural R&D within the Fishing Industry Development Program will be achieved through the following key strategies:

Sub-Program 1: Industry Growth and Competitiveness

This strategy will include projects that provide for the:

- review, assessment and development of policy to support restructuring and adjustment schemes;
- review, assessment and development of strategies to deal with factors affecting development of the wild-catch and industry sectors of the fishing industry;
- review, assessment and development of strategies to deal with industry

- competitiveness;
- identification of economic and political impediments to the development of aquaculture;
- development of innovative applications for aquaculture;
- identification, development, review and assessment of sustainability criteria for aquaculture; and
- identification, development, review and assessment of strategies by which Aboriginal and Torres Strait Islander people may develop commercial fishing activities.

Sub-Program 2: Industry Sustainability

This strategy will include projects that provide for the:

- identification, review and assessment of innovative methods of incorporating fisheries and aquaculture in regional development;
- determining the social characteristics of populations in, and associated with, the fishing industry to support the development of equitable fisheries policy that may affect regional Australia; and
- acquisition and analysis of information that allows domestic and international fisheries policies to meet short-term and long-term challenges in the most efficient and effective way.

Sub-Program 3: Trade and Marketing

This strategy will be achieved through projects that provide for:

- review and assessment of domestic marketing issues; and
- review and assessment of policy dealing with international trade negotiations.

Program 2 - Resources Sustainability Program

Purpose

To achieve a sustainable resource base for the fishing industry.

Program Description

This program is consistent with the following Australian Government priority for rural R&D:

- *Sustainable management and use of our marine resource base:* through the integration of effective, scientifically-based resource assessments and mitigation strategies into our fishing and aquaculture industries.

This priority for rural R&D within the Resources Sustainability Program will be achieved through the following key strategies:

- Status of Fish Stocks, Environment and Industry;
- Fisheries Management, Regulation, Compliance and Improvement;
- Ecosystem Processes;
- External Fisheries Policy, Economic and Environmental Instruments; and

- Maintaining and Developing Linkages Overseas.

Sub-Program 1: Status of Fish Stocks, Environment and Industry

The strategy of Status of Fish Stocks, Environment and Industry will include projects that provide for:

- the independent assessment of status and condition of Commonwealth fishing stocks and industry; and
- the development, assessment and review of tools, indicators and methodologies to support environmental assessment and monitoring, and evaluation of fisheries performance against principles of ecologically sustainable development (ESD).

Sub-Program 2: Fisheries Management, Regulation, Compliance and Improvement

The strategy of Fisheries Management, Regulation, Compliance and Improvement will be achieved through projects that provide for:

- the development of approaches for identifying and dealing with resource access and allocation issues;
- the development, assessment and review of management strategies that support the sustainable utilisation of resources;
- the assessment and review of management strategies, regulatory approaches and compliance arrangements;
- policy development to support specific fishery management plans;
- the review and assessment of policy, legislation and jurisdictional issues (Commonwealth and Australia's Oceans Policy) to ascertain their support for an integrated ecosystem approach to fisheries resource management;
- the identification, review and assessment of social and economic contributions, impacts and/or influences on sustainable management of the wild-catch and aquaculture sectors;
- the development, review or assessment of alternative uses for bycatch; and
- the identification and development of management strategies, indicators and methodologies to address aquaculture and land-use issues in coastal zones and inland Australia, such as integrated coastal zone management.

Sub-Program 3: Ecosystem Processes

The strategy of Ecosystem Processes will encompass projects that provide for the:

- the identification and development of a comprehensive understanding of key ecosystem processes and the impacts of fishing, pollution, habitat destruction, environment and climatic factors on fish stocks;
- the review and assessment of economic and/or social factors influencing fisheries and their ecosystems; and
- the development, assessment and review of management strategies, tools, indicators and methodologies related to the management of marine health, diseases and pest incursions.

Sub-Program 4: External Fisheries Policy, Economic and Environmental Instruments

The strategy of External Fisheries Policy, Economic and Environmental Instruments

will be achieved through projects that provide for:

- the development, assessment and review of high seas management;
- the review and assessment of policy dealing with international obligations and agreements that affect Australian fisheries resources; and
- the development, assessment and review of economic and environmental instruments to aid ESD.

Sub-Program 5: Maintaining and Developing Linkages Overseas

The strategy of Maintaining and Developing Linkages Overseas will focus potential benefits, to Australia and Australian industries – through shared research and development activity and membership of regional and international fisheries management or aquaculture organisations.

PART B: PROJECTS FUNDED IN 2004-2005

Table 1: Projects funded in 2004-2005

During 2004-2005, DAFF utilised the FRRF to provide \$3,719,608 in funding to 46 new and existing research projects. An additional \$120,000 was provided to F&FD to cover the costs of administering the fund.

A full description of the funding provided during the 2004-2005 financial year is set out in the Table below. It is important to note that all figures included in this table are GST exclusive and refer to the level of funding provided during the 2004-05 financial year.

The “Scheduled Completion” column describes the project’s status at 30 June 2005.

Research Organisation	Project Title	2004/05 Funding \$	Scheduled Completion
ABARE	Sustainable Ecosystems 2002-03: * Economic Value of Charter and Recreational Fishing in Australia’s Eastern Tuna and Billfish Fishery; and * Discarding of commercial catch: implications for Commonwealth managed with ITQs	50,004	Completed
ABARE	Performance Monitoring 2004-05: * 2004-05 Fish Surveys	232,103	Completed
ABARE	Measuring capacity in Commonwealth Fisheries	101,156	October 2005
ABARE	Extensions to the Northern Prawn Fishery Bio-economic Model	55,442	December 2005
ABARE	Efficient Total Allowable Catch (TAC) Setting in the South East Trawl Fishery (SETF)	126,100	Completed
ABARE	Economic effects to the Australian Seafood Industry of a United States (US) Import Ban on Pelagic Longline Caught Species	37,911	November 2005
ABARE	Efficiency and Management Changes in the Eastern Tuna and Billfish Fishery (*)	47,926	June 2006
ABARE	Australian Opportunities for High Seas Fishing	123,128	Completed
ABARE	Alternative Management Instruments for Torres Strait Prawn Fishery	67,295	Completed
ABARE	Alternative Management Controls in the Northern Prawn Fishery (NPF)	37,825	June 2006
ABARE	Performance Monitoring – AFMA’s Economic Efficiency Objective	19,670	Completed
ABARE	Provision of Advice on Economic Efficiency and Overfishing	40,176	December 2005

AFMA	Ecological Indicators in Fisheries Management: Non-Target Species, Habitats and Food Chains	34,276	Completed
AFMA	A Refinement of the Torres Strait Tiger Prawn Stock Assessment	22,727	September 2005
AFMA	A Review of Interactions Between Commonwealth Managed Fisheries	28,217	Completed
AFMA	Species Identification from Shark Fins	91,540	June 2006
AIC	A National Study of Crime in Australian Fisheries	85,000	December 2005
ANU	Illegal Fishermen in Australian Waters: Shark Fishermen from Merauke, Dodo, Saumlaki and Papela	14,054	Completed
APFA	Sponsorship of the 2004 Australian Prawn Fisheries Association (APFA) Annual Conference	5,000	Completed
ASIC	Seafood Directions 2005- Conference Sponsorship	25,000	September 2005
BRS	Service Legal Agreement * Scientific Support for International Fisheries Policy Development * Science for Sustainable Development of Marine Resources * Scientific Data and Fishery Advisory Service	1,058,070	Completed
BRS	2004-05 Contribution to the OECD Ministerial Taskforce on Illegal, Unreported and Unregulated (IUU) fishing	324,038	Completed
BRS	Community Perceptions of Aquaculture	45,000	Completed
BRS	Data Analysis of AFMA Seabird Mitigation Trials – Past and Present	62,314	October 2005
BRS	Development and Implementation of National Strategies to Address Marine Wildlife Conservation and Management Issues – Seals and Sharks	41,478	Completed
BRS	Great Australian Bight (GAB) - Southern Bluefin Tuna Stocktake	62,992	December 2005
BRS	Analysis of Interactions Between Domestic Longline and Recreational Gamefish Fisheries Taking Striped Marlin in NSW	26,206	October 2005
BRS	Feasibility Study on Effect of Circle Hooks on Target and Non-Target Catches in Australia's Longline Fisheries (Phase 1: Feasibility of Experimental Approach)	17,993	October 2005
CSIRO	Monitoring the Longline Catch of Southern Bluefin Tuna Landed in Indonesia 2003-04	35,000	Completed
CSIRO	Monitoring the Longline Catch of Southern Bluefin Tuna Landed in Indonesia 2004-05	112,628	Completed
CSIRO	A Scoping Study of the Development of a New Catch Sharing Model of the Torres Strait Rock Lobster Fishery	19,908	Completed

CSIRO	Aerial Survey of Southern Bluefin Tuna in the Great Australian Bight	246,387	Completed
FAB	FRRF Administration costs	120,000	Completed
FAB	Implementation of Strategy for Maintaining and Increasing Market Access for Australia's Fishing Industry 2004-05	154,774	Completed
FAB	Aquaculture Industry Development for Indigenous Australians 2004-05	62,500	Completed
FAB	Flag of Convenience and Illegal, Unreported and Unregulated (IUU) Fisheries Investigation Project	20,000	Completed
FAB	Support for the Inaugural Meeting Western and Central Pacific Fishing Commission (WCPFC)	20,000	Completed
FAB	Resource Sharing Facilitator - Western Tuna and Billfish Fishery & Eastern Tuna Billfish Fishery	50,000	November 2005
FAB	Support for the Arafura and Torres Strait Expert Forum (ATSEF) Ministerial Meeting	30,000	November 2005
FAB	General Project Adjustment Payments (includes currency exchange payments and GST corrections)	446	Completed
FERM	ITQs, Aging Boats and the Price of Fish: Profitability and Autonomous Adjustment in the South East Trawl Fishery	18,120	Completed
FRDC	Melbourne Seafood Study	10,000	November 2005
Independent	Support for the Advance in Seafood Leaders Program	4,000	Completed
Independent	Catch Landing Arrangements - Legal Review	5,000	Completed
NOO	Review of Torres Strait Natural Resource Management (NRM) Governance Arrangements	28,000	December 2005
QLD DPI	Closer Industry and Research Linkages Between Australia and France in Tropical Aquaculture	15,203	October 2005
WAFIC	Support for Australian Seafood Promotional Activities at the 2005 European Exposition	5,000	Completed
	Total Expenditure 2004-05	3,839,608	

(*) Due to conflicting research and funding priorities, it was agreed by the FRRF Secretariat and ABARE that this project be put on hold until 2005-06. The funding associated with this payment represents the cost incurred by ABARE prior to this decision being made.

PART C: PROJECTS COMPLETED IN 2004-05

Overview:

During 2004-05, a total of 32 FRRF projects were completed. This section of the Annual Report provides a brief description of each of these projects, their objectives and major outcomes. It is important to note that these projects include both new projects that were initiated in 2004-05 and older projects that had been established in previous financial years but were successfully completed in 2004-05.

In assessing the effectiveness of the FRRF projects completed during 2004-05, this section of the report generally restricts itself to looking at the outputs that were generated by these projects. This reflects the fact that there is often significant lag time between a project being completed and its outputs contributing to a tangible policy or management outcome. Where possible, additional information has also been included on how a project was utilised or implemented in a policy or management sense.

During 2004-05, several projects from ABARE and BRS provided input into the FRRF's primary role of providing an independent assessment of the status of the Commonwealth fish stocks. The remainder of the 2004-05 projects contributed to FRRF's other major role of providing research that supports the development of effective fisheries policy in light of emerging issues.

A summary of projects completed during 2004-2005 is provided below. Total funding refers to the total FRRF funds provided throughout the life of the project, whilst 2004-05 Funding refers to the level of FRRF funding provided during that financial year.

1) ABARE – Assessing Alternative Management Instruments 2002-03

Total Funding - \$174,225

2004-05 Funding - \$0

Objective – To provide an economic assessment of alternative managements options in the Commonwealth fisheries. The Project outputs completed in 2004-05 included:

Management Options for the Australian Northern Prawn Fishery, an Economic Assessment: To provide an independent assessment of the Northern Prawn Fishery in terms of technical efficiency and the use of a bio-economical model.

Managing Small Fisheries, an economic perspective - To provide practical management options for small fisheries to reduce management costs as a percentage of gross value of production.

Outcome - The final report “*Management Options for the Australian Northern Prawn Fishery, an Economic Assessment*” was published in August 2004. This paper went on to be the catalyst for a number of significant management decisions in the fishery, including the adoption of Maximum Economic Yield (MEY) as the fishery's target reference point.

The final report of “*Managing Small Fisheries, an economic perspective*” was published in May 2005. This document was provided to AFMA managers and DAFF policy officers for their further consideration.

2) ABARE – Sustainable Ecosystems 2002-03

Total Funding - \$320,091

2004-05 Funding - \$50,004

Objective – To provide an economic analysis of the impacts on commercial fishing of policies established to address environmental issues. The project outputs completed in 2004-05 included:

Economic Value of Charter and Recreational Fishing in Australia's Eastern Tuna and Billfish Fishery: to examine the economic value associated with recreational and charter fishing in the Eastern Tuna and Billfish Fishery and how these values could be used in an allocation framework.

Discarding of commercial catch: implications for Commonwealth fisheries managed with ITQs: to provide recommendations regarding policies designed to reduce the level of discarding in fisheries.

Outcome – The final report “*Economic Value of Charter and Recreational Fishing in Australia's Eastern Tuna and Billfish Fishery*” was published by ABARE in November 2004. This document has informed the development of resource allocation arrangements in the ETBF.

The final report of “*Discarding of commercial catch: implications for Commonwealth fisheries managed with ITQs*” was published by ABARE in July 2005. Copies of this report have been distributed to AFMA and DAFF's policy managers for their consideration.

3) ABARE – Assessing Alternative Management Instruments 2003-04

Total Funding - \$95,522

2004-05 Funding - \$0

Objective – To provide AFMA fishery managers and policy makers with the economic information necessary to make informed decisions when choosing management instruments. The Project outputs completed in 2004-05 included:

The costs of structural adjustment and excess capital – this project provided a general survey of research on the issue of structural adjustment and an analysis of how this research can be applied to specific Commonwealth fisheries (with case studies given in the NPF and SETF). This research will also construct measures of productivity losses and increases as the result of structural change using a new index number measure of productivity changes being developed at ABARE.

Outcome – The final report was published by ABARE in November 2004. This report has been utilised in recent discussions regarding structural adjustment for Commonwealth fisheries.

4) ABARE – A Cost-Benefit Analysis of Foreign Boats Landing their Catch in Australia

Total Funding - \$ 39,838

2004-05 Funding - \$0

Objective – To undertake a detailed analysis of the economic costs and benefits of Australia's current approach to allowing catch from foreign fishing vessels to be landed in Australian ports.

Outcome- The final report "*A Cost-Benefit analysis of Foreign Boats Landing Their Catch in Australia*" was published by ABARE in May 2005. This document has since been used as the basis for the development of further policy on this issue within DAFF.

5) ABARE – Performance Monitoring 2004-05

Total Funding – \$232,103

2004-05 Funding - \$232,103

Objective – To provide the economic information necessary for the performance of AFMA fishery managers to be assessed against economic efficiency and cost effective management criteria. Specific outputs for this project in 2004-05 include:

2004-05 Fish surveys - This project collected information regarding the economic and financial performance of selected Commonwealth fisheries. The 2004-05 project assessed the performance of the Gillnet Hook and Trap Fishery (GHAT), the Eastern Tuna and Billfish Fishery (ETBF) and the Southern Squid Jig fishery. This project included the collection of the survey data in 2003-04 and the actual analysis of this data was undertaken on 2004-05 ABARE work program.

Outcome – Surveys of the GHAT, ETBF and Southern Squid Jig fisheries were completed. The '*2004-05 Fish Survey*' was published by ABARE in August 2005.

6) ABARE – Australian Opportunities for High Seas Fishing

Total Funding - \$123,128

2004-05 Funding - \$123,128

Objective – This project had a number of stated objectives related to Australia's involvement in high seas fishing. These included the following:

- Identify the extent of the current level and type of activity of Australian fishing operations on the high seas (including joint ventures with other countries);
- Undertake an investigation to provide accurate information on the economic performance of the Australian high seas fleet relative to the high seas fleets of other high seas fishing nations;

- Identify the advantages, disadvantages, and impediments to the establishment of high seas joint ventures from the perspective of existing and potential Australian operators; and

- Provide advice and recommendations on potential strategies that DAFF can use to negotiate joint venture agreements with foreign governments.

Outcome – The final report for this project was received by DAFF in June 2005 and has been used to underpin further policy development on this issue. Due to the commercial-in-confidence nature of some of the information contained in this report, the report is not publicly available.

7) ABARE – Efficient Total Allowable Catch (TAC) Setting in the South East Trawl Fishery (SETF)

Total Funding - \$126,100

2004-05 Funding - \$126,100

Objective – To develop a bio-economic model for the South East Trawl Fishery (SETF); to estimate economically efficient TACs for key SETF species; to assess implications of sub-optimal TACs on the biology and economics of the fishery and to determine guidelines for setting TAC when stock status is uncertain or subject to fluctuation.

Outcome – The final report was published by ABARE in June 2005. The findings from this report were scheduled to be discussed with SETF MAC members in late 2005.

8) ABARE – Alternative Management Instruments for the Torres Strait Prawn Fishery

Total Funding - \$67,295

2004-05 Funding - \$67,295

Objective – To provide information to the Torres Strait Protected Zones Joint Authority (PZJA) on the economic condition of the Torres Strait Prawn Fishery. This project assesses how alternative management arrangements, such as different input and output controls, could improve the efficiency of the TSPF. The project determines if the data available is enough to develop a bio-economic model in the future.

Outcome – The final report for the “*Torres Strait Prawn Fishery: Economic Issues*” project was published by ABARE in June 2005. This report will be used to help guide the PZJA’s development of future management arrangements for the fishery.

A summary of the report’s findings was discussed at a meeting of the Torres Strait Prawn Working Group in late June 2005. The findings of the report were generally well received by both industry and management.

9) ABARE – Performance Monitoring - AFMA’s Economic Efficiency Objective

Total Funding - \$19,670

2004-05 Funding - \$19,670

Objectives - This project was prepared in order to provide the Government with guidance on how AFMA should be pursuing economic efficiency in the management of the Commonwealth fisheries. This project attempted to develop a clear definition of economic efficiency in fisheries; to provide a review of recent case law on the issue and to propose a framework for AFMA to incorporate economic efficiency more effectively into management plans and processes.

Outcome – The final report *AFMA’s Economic Efficiency Objective* was published in June 2005 and distributed to AFMA, FRDC, DEH and DAFF managers for their consideration. This report was relied heavily upon in recent Government discussions over the nature of the economic efficiency objective.

10) AFMA - A Review of Interactions between Commonwealth Managed Fisheries.

Total Funding - \$51,732

2004-05 Funding - \$28,217

Objective – To develop a detailed matrix of Commonwealth fisheries, species, fishing methods and jurisdictions; to identify key interactions; and to discuss findings in light of current developing management plans, EPBC Act requirements and bycatch action plans, and OCS agreements and future negotiations regarding these agreements.

Outcome – The final report “*Review of Interactions between Commonwealth-Managed Fisheries*” was delivered in June 2005. The project report provides fishery managers and policy makers with the first comprehensive overview of potential interactions between nearly 20 Commonwealth managed fisheries. DAFF and AFMA are currently considering how to effectively utilise the information developed during this project.

11) AFMA – Ecological Indicators for Fishery Management: Non-target Species, Habitats and Food Chains

Total Funding – \$171,378 (representing FRRF’s 33.3% share of the project, jointly funded by AFMA and DEH)

2004-05 Funding – \$34,276

Objective - To review the current use of ecological indicators in fisheries management and to identify robust ecological indicators and reference points for fisheries management.

Outcome - The final report “*Ecological Indicators for Fishery Management: Non-target Species, Habitats and Food Chains*”, was delivered in May 2005. The project report has been provided to AFMA Management for their consideration.

12) APFA - Sponsorship of the 2004 Australian Prawn Fisheries Association (APFA) Annual Conference

Total Funding – \$5,000

2004-05 Funding - \$5,000

Objective – To bring together national and international speakers covering industry development, new technologies, export market economies and opportunities, domestic market issues, quarantine and animal health, and training.

Outcome – The conference was successfully held in July 2004. In recognition of a sharp increase in cheap prawn imports, the conference focused on issues related to the marketing and promotion of Australian Prawns.

13) ANU- Illegal Fishermen in Australian Waters: Shark Fishermen from Merauke, Dodo, Saumlaki and Papela

Total Funding – \$14,054

2004-05 Funding - \$14,054

Objective: - This report examines a range of issues relating to illegal fishing – mainly shark fishing- by small-scale fishermen from the Eastern Indonesian ports of Merauke (Irian Jaya), Dodo (Aru Island), Saumlaki (Tanimbar Island) and Papela (Rote Island). The report looks at the pattern of fishing among these fishermen, the origins of the fishermen, and their relations to boat owners and traders who provide the capital for their voyages and purchase their catch.

Outcome – The final report was presented to DAFF in February 2005. This report has contributed to the further development of the Department's policies regarding IUU fishing. Given the nature of the report, it is being kept as an internal document for DAFF and AFMA's use only.

14) BRS – Service Level Agreement (SLA) with Bureau of Rural Science (BRS)

Total Funding - \$1,058,070

2004-05 Funding - \$1,058,070

Objective – The SLA sets out conditions for the provision of general scientific advice by the BRS Fisheries and Marine Sciences program to DAFF's Fisheries and Forestry Division. The agreement seeks to strengthen the working relationship between the different parties, whilst at the same time providing an efficient mechanism for the flexible use of the FRRF funds to meet the Department's needs.

The work undertaken by BRS under the SLA is focused on three major projects:

Scientific Support for International Fisheries Policy Development – this project is designed to provide support for Australia's engagement in emerging regional fisheries issues and international fisheries fora. Funding under this project provides for BRS's participation in relevant international fora, the development of scientific data and required scientific advice and research.

Scientific Support for Domestic Fisheries Policy Development – This project is designed to provide on a rolling basis, in-depth case studies of individual Commonwealth fisheries (these are published as the highly recognised BRS “Fishery Status Reports”). A key part of delivering this project is the ongoing participation of BRS Fisheries and Marine Science staff in Fishery Assessment Groups and Management Authority Committee for Commonwealth Fisheries.

Science for Sustainable Management of Marine Resources – Under this project, BRS provides requested ad hoc scientific advice to the Fisheries and Forestry Division.

Outcome – This project was satisfactorily completed for 2004-05. In light of its overall success, BRS and the Fisheries and Forestry Division have recently agreed to a new 3 year SLA Agreement.

15) BRS - 2004-05 Contribution to the OECD Ministerial Taskforce on Illegal, Unreported and Unregulated (IUU) fishing

Total Funding – \$324,038

2004-05 Funding - \$324,038

Objective – The Australian Government has indicated that IUU fishing is a key priority as it threatens Australia’s sovereign interests and the sustainability of valuable stocks. To support this view the Government has contributed a full time fisheries specialist to the Secretariat for the OECD Ministerial Task Force on IUU fishing. This contract was managed by BRS, but paid through the FRRF.

Outcome – The 2004/05 component of the contract represented the 2nd financial year for the Government’s contribution to this project. The major outputs to DAFF during this period were regular monthly reports to the Government detailing the progress of the taskforce. These reports were received by the IUU Fishing Section of DAFF and BRS’s Marine Sciences area.

16) BRS – Community Perceptions of Aquaculture

Total Funding – \$130,000

2004-05 Funding - \$45,000

Objective: – To build a important knowledge base about the community, specialist and cultural values of marine and coastal aquaculture to underpin the long term sustainability of aquaculture and improved aquaculture management.

Outcome – The final report of “*Community Perceptions of Aquaculture*” was delivered to DAFF in February 2005. The project provided new and important information about community views of aquaculture to the Australian Government, State Governments, the aquaculture industry and other key stakeholders. This information is helping governments and the aquaculture industry to identify the variety of views about the aquaculture industry and the implications flowing from those findings.

17) BRS – Development and Implementation of National Strategies to Address Marine Wildlife Conservation and Management Issues – Seals and Sharks

Total Funding - \$120,518

2004-05 Funding - \$41,478

Objective – The project focuses on sharks and seals, and particularly interactions with the fishing industry. The overall objective of the project is to develop a national, coordinated strategy to manage seal-human interactions at the national level, involving all relevant sectors.

Outcomes – The final report for the seal component of this project “*National Assessment of Interactions between Humans and Seals: Fisheries, Aquaculture and Tourism*” was delivered in August 2004. This report provides scientific background information that is essential for the development of a national strategy aimed at minimising adverse interactions between seals and the fishing industry, including marine finfish aquaculture.

The final report for the shark component was also delivered in August 2004. This information has assisted a small government working group in developing Shark Education and Awareness Raising programs, one of which was launched by the Minister for Fisheries, Forestry and Conservation in March 2005.

18) CSIRO - Monitoring the Longline Catch of SBT landed in Indonesia 2003-04

Total Funding – \$115,004

2004-05 Funding - \$35,000

Objective – This project monitored the Indonesian longline fishery operating out of Bali, West Java, and Central Java, including species composition of landings, and the measurement of length and weight of a representative sub-sample of the key species caught. This data was then used to monitor changes in the spawning population of SBT including size and age distribution, and temporal patterns of abundance on the spawning ground.

Outcome – The final report ‘*Monitoring the longline catch of SBT landed in Indonesia 2003-04*’ was received by DAFF in August 2004. The data contained in this report was utilised by the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) to make critical decisions (such as the setting of annual national allocations and TAC of SBT for CCSBT members at annual commission meetings) relating to the protection of the SBT spawning ground.

19) CSIRO - Monitoring the Longline Catch of SBT landed in Indonesia 2004-05

Total Funding – \$112,628

2004-05 Funding - \$112,628

Objective – This project monitored the Indonesian longline fishery operating out of Bali, West Java, and Central Java, including species composition of landings, and the measurement of length and weight of a representative sub-sample of the key species caught. This data was then used to monitor changes in the spawning population of SBT including size and age distribution, and temporal patterns of abundance on the spawning ground.

Outcome – The final report ‘*Monitoring the longline catch of SBT landed in Indonesia 2004-05*’ was received by DAFF in June 2005. The data contained in this report was used by the CCSBT to make critical decisions (such as the setting of annual national allocations and TAC of SBT for CCSBT members at annual commission meetings) relating to the protection of the SBT spawning ground.

20) CSIRO – A Scoping Study of the Development of a New Catch Sharing Model of the Torres Strait Rock Lobster Fishery

Total Funding – \$19,908

2004-05 Funding - \$19,908

Objective – To set a sustainable Total Allowable Catch (TAC) for the shared PNG and Australia Torres Strait Rock Lobster Fishery through a thorough assessment of the current stock status.

Outcome – A final report “*A scoping study of the Development of a New Catch Sharing Model for the Torres Strait Rock Lobster Fishery*” was provided to DAFF in July 2004. This report provided the conceptual model which will be used to determine how the rock lobster stocks will be assessed and then shared according to the Torres Strait Treaty. This report was also utilised to underpin bilateral talks between Australia and PNG in the middle of 2005.

21) CSIRO – Aerial Survey of Southern Bluefin Tuna in the Great Australian Bight

Total Funding – \$246,387

2004-05 Funding - \$246,387

Objective – To carry out a scientific aerial survey and to estimate an index of relative abundance of juvenile SBT in the Great Australian Bight. This project will provide a fishery-independent indicator for determining trends in recruitment of the SBT species.

Outcome – The “*Southern Bluefin Tuna Recruitment Monitoring Program 2004-05*” was delivered to DAFF in June 2005. This project contributed towards recent international discussions over management arrangements for SBT.

22) FAB – Implementation of the Strategy for Maintaining and Increasing Market Access for Australia’s Fishing Industry 2004-05

Total Funding – \$154,774

2004-05 Funding - \$154,774

Objective – Development of a targeted market access agenda, including participation in the current World Trade Organization (WTO) round of negotiations and in impending bilateral agreements. Publish industry-identified export market guides. Development of a strategy to promote greater coordination and cooperation between the Australian seafood industry and Commonwealth, State and Territory governments in dealing with market access issues. Development of a program to alleviate current inadequacies in the collation and dissemination of market information.

Outcome – Advice on market access issues was provided to the Fisheries and Forestry Division throughout 2004-05. As part of this process, input was provided to several Free Trade Agreements, negotiations were held with the US over access by Australian prawns to its markets and participation in several international trade meetings.

The final report for the “*HK\$15 billion reasons to access the Hong Kong seafood market: A guide to exporting Australia’s fisheries products to Hong Kong Special Administrative Region, China*” was delivered to DAFF in June 2005. The report provides relevant information on accessing the opportunities presented by the Hong Kong seafood market.

23) FAB – Aquaculture Industry Development for Indigenous Australians 2004-05

Total Funding – \$250,000

2004-05 Funding - \$62,500

Objective – To establish an aquaculture unit to implement the National Indigenous Aquaculture Development Strategy, to enhance the quality of the Australian Government’s program and service delivery to current and prospective Indigenous clients; to generate employment, training and education opportunities and to achieve long-term commercial outcomes and sustainable development for Indigenous communities.

Outcome - The final report for 2004-05 was presented to FRRF in June 2005. The Indigenous Unit Project supported seven Indigenous aquaculture projects in Northern Territory, New South Wales and in Queensland.

24) FAB – Support for the International Pectinid (Scallop) Conference

Total Funding - \$10,000

2004-05 Funding - \$0

Objective - To provide funding for the International Scallop Conference, in order to disseminate information about scallop biology, fisheries, aquaculture and economics.

Outcome – FRRF funding for this project was originally approved in the 2003-04 financial year. The Scallop Conference was held on 20-26 April 2005. The final report was presented to FRRF in June 2005.

The workshop included keynote speakers addressing broad topic a high level, delivered papers and posters on specific topics and focus-area workshops. General indicators were that the conference was well attended and well received.

25) FAB – Assessment of the Legal and International Implications of Australia’s Foreign Catch Landing Arrangements

Total Funding - \$15,000

2004-05 Funding - \$0

Objective- The aim of this project was to produce an assessment of the legal and international policy implications of Australia’s approach to catch landing form foreign fishing vessels. The consultancy analyzed the broader legal impact as a result of possible legal amendments to the current fishing policy.

Outcome – The final report “*Catch Landings: a review of possible changes to Australia’s policy with respect to landing or transshipment of catches from a legal perspective*” was delivered to DAFF in August 2004. The document has been used as the basis for future policy development in DAFF.

26) FAB – Flags of Convenience and Illegal, Unreported and Unregulated (IUU) Fishing on the High Seas: Recommendations for Action

Total Funding - \$20,000

2004-05 Funding - \$20,000

Objective – To provide detailed information on the extent and impact of IUU fishing and the usage of foreign flags for convenience.

This information included:

- an analysis of transshipment vessels, fleets and port based activities that are supporting IUU fishing;
- an investigation of peak times and seasons for IUU fishing activity;
- the identification of companies that are involved in supporting the infrastructure of IUU fishing; and
- information on the maltreatment of crew on IUU fishing vessels and human rights abuses in selected ports.

Outcome – The final report was delivered to DAFF in June 2005. This document was later printed and widely distributed at the October 2005 United Nations General Assembly and at the next meeting of the Convention for the Conservation of Antarctic Marine Living Resources (CCMLAR). The report was very well received in the international fisheries and environment communities.

27) FAB – Support for the Inaugural Meeting Western and Central Pacific Fishing Commission (WCPFC)

Total Funding - \$20,000

2004-05 Funding - \$20,000

Objective – Funding was provided from the FRRF to support the inaugural meeting of the WCPFC. This meeting considered and endorsed the administrative and organizational arrangements that underpin the WCPFC ‘s general operations.

Outcome – The meeting was held in the Federated States of Micronesia on 9-10 December 2004. The report from the Australian contingent to the meeting suggested that it was well organized and well attended. The meeting addressed all issues on the agenda and the work of the Commission has begun with timeframes in place.

28) FERM – ITQs, Aging Boats and the Price of Fish, Profitability and Autonomous Adjustment in the South East Trawl Fishery

Total Funding – \$80,942

2004-05 Funding - \$18,120

Objective – To review the current status of the South East Trawl Fishery and make recommendations on issues such as future harvesting regimes and industry funded approaches to structural adjustment in the trawl sector.

Outcome – The final report “*ITQs, Aging Boats and the Price of Fish, Profitability and Autonomous Adjustment in the South East Trawl Fishery*” was presented in December 2004. The report provided a number of recommendations to the fishing industry to aim improving profitability and better management practices. This report has contributed to recent discussions regarding the general profitability of the SETF fishery.

29) FRDC – Development of a National System of Secure Funding for Recfish Australia

Total Funding - \$30,000 (jointly funded with the FRDC, who provided an additional \$20,000 to the project)

2004-05 Funding - \$0

Objective – To develop a system of secure funding for the national recreational fishing peak body, Recfish Australia.

Outcome – The consultation for this project took place in October 2004, with the final report “*Development of a National System of Secure Funding for Recfish Australia*” presented to FRRF in January 2005. Several of the major outcomes from this project were built into the 4-year funding agreement that was established between the Australian Government and Recfish Australia in May 2005.

30) Independent- Support for the Advance in Seafood Leadership Program

Total Funding - \$4,000

2004-05 Funding - \$4,000

Objective – This project provided funding for a single DAFF officer to participate in the Leading Industries 2005 Advance in Seafood Leadership Program. This program focuses on creating effective linkages between existing and future leaders of the seafood industry through mentoring, panel sessions and networking opportunities.

Outcome – One DAFF officer participated in the program. A full evaluation report on the program is expected to be provided by the beginning of 2006.

31) NSW Fisheries – Support for the 4th International Fisheries Observer Conference

Total Funding - \$25,000

2004-05 Funding - \$0

Objective – To bring together a broad representation from the international fisheries and observer communities to discuss some of the key fisheries observer issues. The conference included sessions on program design, observer training and obstacles to establishing observer programs.

Outcome – The conference took place on 12 November 2004 at Manly, NSW. The conference's stated objectives were fully met. The conference was well organized and well attended. Several DAFF officials participated in the conference.

32) Western Australia Fishing Industry Council (WAFIC) – Support for Australian Seafood Promotional Activities at the 2005 European Exposition

Total Funding - \$5,000

2004-05 Funding - \$5,000

Objective – To support promotional activities by the Western Australia Food Industry Council (WAFIC) at the European Seafood Exposition held in Belgium in 2005.

Outcomes – The exposition took place in April 2005, with the final report delivered to FRRF in June 2005. As part of FRRF's funding of this process, WAFIC was able to host the European launch of the "Seafood Choices Alliance", a collective effort by industry and several Non-Government Organisations to promote ecologically sustainable seafood industry.

PART D: CURRENT PROJECTS AS AT 30 JUNE 2005

At 30 June 2005, a total of 22 FRRF projects, worth \$847,411 in FRRF funding, were still being undertaken. A brief summary of each of these projects is set out below, in order of research provider.

1. ABARE – Measuring Capacity in Commonwealth Fisheries

Total Funding – \$101,156

2004-05 Funding - \$101,156

Due Completion Date - October 2005

Objective – To provide advice on the level of excess capacity in Commonwealth fisheries. Specific outputs of this project include a review of techniques for measuring capacity in a fishery; the development of a simple indicator of fishery level capacity and the application of the methodology to a number of Commonwealth fisheries.

2. ABARE – Extensions to the Northern Prawn Fishery Bio-economic Model

Total Funding - \$70,442

2004-05 Funding - \$55,442

Due Completion Date - October 2005

Objective – To provide more accurate estimates of Maximum Economic Yield (MEY) in the Northern Prawn Fishery and to identify whether current seasonal closures are appropriate. This project will extend the bio-economic model of tiger prawn species in the NPF to include the banana, grooved and brown prawn species and also incorporate weekly catch and effort level data.

3. ABARE – Economic effects to the Australian seafood industry of a United States (US) import ban on pelagic longline caught species.

Total Funding - \$37,911

2004-05 Funding - \$37,911

Due Completion Date - November 2005

Objective – To provide more accurate information on the possible impact on the Australian fishing industry from US import bans on pelagic fish caught by longlining vessels. The project will review the size and value of the US market and world market for tuna, bill fish and other pelagic species. The document will provide options available to the Australian longline industry and the economic impact of each option.

4. ABARE – Efficiency and Management Changes in the Eastern Tuna and Billfish Fishery

Total Funding - \$87,926

2004-05 Funding - \$47,926

Due Completion Date – This project was originally intended to be delivered during 2004-05. However, with the emergence of other policy issues, it was decided to put this project on hold until the beginning of 2005-06. The funding associated with this payment represents the cost incurred by ABARE prior to this decision being made.

Objective – This project also will assess the efficiency of ETBF management since the early 1990s and look at management measures that are likely to maximize the economic efficiency of the fishery. This project complements an existing ABARE, AFMA and FDRC jointly sponsored project, which is developing measures and indicators to assess the economic performance of Commonwealth fisheries.

5. ABARE – Alternative Management Controls in the Northern Prawn Fishery (NPF)

Total Funding - \$37,825

2004-05 Funding - \$37,825

Due Completion Date – Due to competing work priorities, the principal ABARE investigator of this project changed late in 2004/05. This late change resulted in a subsequent delay in the Project's milestones. It is expected that the final report will be delivered to DAFF in June 2006.

Objective – to provide fishery managers and the fishing industry with an objective and balanced assessment of possible alternative management controls for NPF. This assessment is to consider input controls, output controls and combined instrument packages. ABARE will be working with a biologist to produce this information.

6. ABARE – Provision of Advice on Economic Efficiency and Over Fishing

Total Funding - \$40,176

2004-05 Funding - \$40,176

Due Completion Date – This project was to cover the provision of economic advice by ABARE to the Fisheries and Forestry Division managers on issues related to economic efficiency and over fishing throughout 2004-05. It is expected that this work will continue throughout the 2005-06 financial year.

Objective – To provide information to the Fisheries and Forestry Division regarding the implementation of economically efficient fishery management arrangements and the ongoing problem of over-fishing. This advice was to be provided on an ongoing basis in response to emerging issues and Government decision making processes.

7. AFMA – A Refinement of the Torres Strait Tiger Prawn Stock Assessment

Total Funding – \$60,576

2004-05 Funding - \$60,576

Due Completion Date – This project was modified in late 2004/05 to include an additional industry workshop. The project is now expected to be completed by November 2005.

Objective – To reinforce the scientific advice provided to the Torres Strait Protected Zone Joint Authority (PZJA) before it makes any decision regarding the reduction of fishing effort in the Torres Strait Prawn Fishery. Specific deliverables from this Project are:

- consideration of the high and medium priority recommendations from the independent review of the Torres Strait Tiger Prawn Stock Assessment to minimise uncertainty on sustainable levels of fishing in the fishery;
- development via the Torres Strait Prawn Working Group of alternative management strategies to cap effort directed at tiger prawns at sustainable levels while allowing for an increase in effort for Endeavour prawns;
- an assessment of the impact of the alternative management strategies developed using state of the art Management Strategy Evaluation (MSE) modeling techniques; and
- collate the commercial harvest data from the PNG side of the fishery to factor into future stock assessments and catch sharing arrangements.

8. AFMA - International Marine Protected Areas Conference (IMPAC1)

Total Funding - \$20,000

2004-05 Funding - \$0

Due Completion Date – November 2005

Objective - To progress discussion on the adoption and effective implementation of Marine Protected Areas (MPA). Funding for this project was provided to AFMA to help support its participation in the IMPAC steering group.

It was hoped that AFMA's involvement in this conference will ensure that any debate over the future use and development of MPA's is well balanced and considers the needs of all users of Australia's marine environment. The conference was due to be run in November 2005.

9. AFMA – Species Identification from Shark Fins

Total Funding - \$91,540

2004-05 Funding - \$91,540

Due Completion Date - June 2006

Objective – To develop field and laboratory tests to help identify shark species. The project will investigate options for the development of field-friendly methods of shark fin identification, which will then be used by fisheries officers to collect data on fins confiscated from illegal fishing vessels.

The Project is a joint collaboration between scientists at CSIRO, AIMS and the Queensland Department of Primary Industries and Fisheries. Under the proposed arrangements, the funding provided by the FRRF will be managed by AFMA throughout the term of the project.

10. Australian Institute of Criminology (AIC) – A National Study of Crime in Australian Fisheries

Total Funding – \$170,000

2004-05 Funding - \$85,000

Due Completion Date – A progress report was provided by June 2005 and FRRF expects the final report to be delivered in December 2005

Objective – To produce reports that provide a thorough analysis of the extent of the crime in the fishing industry and also report on the current legislative and management measures designed to deter such crime. These will include: recommendations on effective policing models; effective collaboration between fisheries and police agencies; legislative reform; and ongoing monitoring of organized criminal involvement in the fishing industry.

11. ASIC – Seafood Directions 2005 – Sponsorship

Total Funding - \$25,000

2004-05 Funding - \$25,000

Due Completion Date – September 2005

Objective – The FRRF was utilised by the Department to sponsor the 2005 Seafood Directions conference. Seafood Directions is Australia's peak seafood industry conference and is held every two years. The 2005 conference was scheduled to be held in September 2005.

12. BRS – Data Analysis of AFMA Seabird Mitigation Trials – Past and Present

Total Funding – \$103,856

2004-05 Funding - \$62,314

Due Completion Date – This project was originally due in late 2004. However, uncertainties as to whether the trials associated with this project would go ahead, meant that the project has been re-scheduled several times. Resolution of these issues, meant that the Project is currently scheduled to be completed in November 2005.

Objective – To gain an understanding of the characteristics of seabird by-catch in the ETBF and possible measures that can be adopted to reduce this by-catch. This will be achieved through an analysis of data receiver from existing previous trials that failed to meet the TAP target and to determine key factors that could contribute to effective mitigation. The project will also provide information on potential mitigation measures that could be explored and use this to develop and revise new and ongoing trials.

13. BRS – Great Australian Bight (GAB) Southern Bluefin Tuna Aerial Stocktake

Total Funding – \$69,992

2004-05 Funding - \$62,992

Due Completion Date – December 2005

Objective – To undertake an aerial stock-take survey of the absolute biomass of juvenile SBT in the Great Australian Bight over the 2004-05 season. The project will compare estimates of daily absolute biomass in the GAB with juvenile biomass estimates from the operational model within the CCSBT.

14. BRS – Analysis of Interactions Between Domestic Longline and Recreational Gamefish Fisheries Taking Striped Marlin in NSW

Total Funding - \$65,239

2004-05 Funding - \$26,206

Due Completion Date – October 2005

Objective – To collect and analyze detailed data regarding the catch, effort, size and other fishery specific data for both charter and longline sectors taking striped marlin in NSW. The data will improve the baseline data and analysis to support the development of options for effective resource allocation in the ETBF.

The data will also provide information on trends in the distribution of longline and recreational fishing effort over the past 5-10 years and to assess both charter and longline vessel behaviour. Finally, the data will allow for the development of detailed fine-scale maps and animations of charter and longline catch and effort off the NSW coast, to demonstrate regions and times of spatial interaction between sectors.

15. BRS – Feasibility Study on Effect of Circle Hooks on Target and Non-Target Catches in Australia's Longline Fisheries (Phase 1: Feasibility of Experimental Approach)

Total Funding - \$30,533

2004-05 Funding - \$17,993

Due Completion Date – October 2005

Objective – This project will examine the feasibility of an experimental approach being developed for use in a later FRDC project. The FRDC project will look at the effects on catch and effort of a transition to circle-hooks within Australia's longline fisheries.

Effectively, the FRRF funded Stage 1 will act as a scoping study for the larger project, examining such things as the practicality of proposed alternative gear configurations, circle- hooks size, data collection requirements, methodology design and the financial viability of a larger project.

16. FAB - International Conference on Resource Allocation

Total Funding - \$125,000

2004-05 Funding - \$0

Due Completion Date – 2 March 2006

Objective – To review the issues of resource allocation and sustainability, bringing together scientists, managers and specialists working on resource allocation to explore avenues of common interest relating to resource allocation issues.

17. FAB – Support to Arafura and Torres Strait Expert Forum (ATSEF) Ministerial Meeting

Total Funding - \$30,000

2004-05 Funding - \$30,000

Due Completion Date – November 2005

Objective – The project aims to develop high level support for regional cooperation in the conservation and management of marine resources in the Arafura and Timor Seas.

Funding under this project will be utilised to organize and run the next meeting of the Arafura and Timor Seas Experts' Forum (ATSEF). The funding for these meeting has been provided to the Department of Environment and Heritage for their administration.

18. FAB – Resource Sharing Facilitator – Western Tuna Billfish Fishery & Eastern Tuna and Billfish Fishery

Total Funding - \$59,770

2004-05 Funding - \$50,000

Due Completion Date – November 2005

Objective – The purpose of this project is to engage an independent facilitator to guide the process for developing resource sharing arrangements for Commonwealth fisheries. The facilitator will specifically work on resource sharing arrangements in the Western Tuna and Billfish Fishery and the Eastern Tuna and Billfish Fishery. An independent facilitator is expected to ensure the consultation process is balanced, fair and impartial.

19. FRDC – Development of a Disease Zoning Policy for Marteilirosis to Support Sustainable Production, Health Certification and Trade in the Sydney Rock Oyster

Total Funding – \$120,000

2004-05 Funding - \$0

Due Completion Date – November 2005

Objective – Implement and field test the zoning policy framework developed under *Australia's National Strategic Plan for Aquatic Animal Health 1998-2003* (Aqua-plan) in a practical context. Facilitate further zoning policy development for other significant diseases of aquatic animals. The research under this project is being conducted by the Queensland Museum.

20. FRDC – Melbourne Seafood Study

Total Funding - \$10,000

2004-05 Funding - \$0

Due Completion Date- November 2005

Objective – To provide a detailed assessment of the quality and species of seafood consumed at home and at other venues. The report will be based on comprehensive studies of the retail sale and consumption of seafood in Melbourne. Currently data on consumer trends in seafood is outdated and up to date information is required by industry, processors and Government agencies.

21. NOO - Review of Torres Strait Natural Resource Management (NRM) Governance Arrangements

Total funding – \$28,000

2004-05 Funding - \$28,000

Due Completion Date- November 2005

Objectives – To investigate options for improving the joint NRM regime in accordance with the requirements of the Torres Strait Treaty and Governance Agreements. The final report would be a valuable first step in tackling legal problems associated to management of natural resources in the Torres Strait fishing industry.

22. QLD DPI – Closer Industry and Research Linkages between Australia and France in tropical Aquaculture

Total Funding – \$15,203

2004-05 Funding - \$15,203

Due Completion Date- October 2005

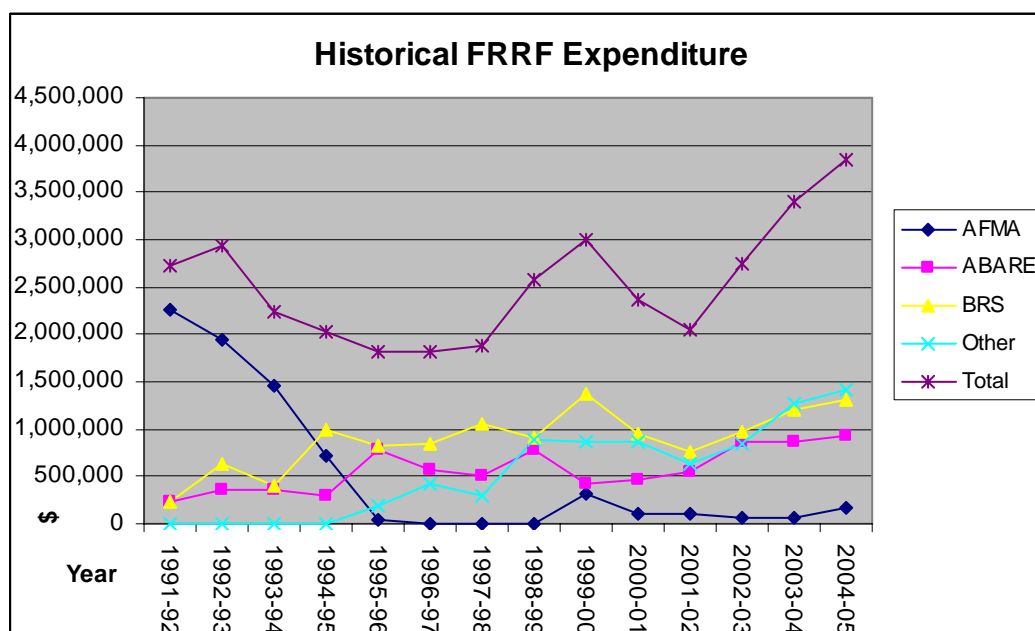
Objectives – This project will fund a workshop of French, New Caledonian and Australian aquaculture scientists, and the dissemination of findings to industry members and other stakeholders. The project will analyse the economic, social and environmental advantages of closer bi-national collaboration (with France and New Caledonia) in tropical aquaculture research; and will be a catalyst for strengthening cooperation if the benefits of bi-national collaboration are found to be worthwhile.

PART E: FRRF – HISTORICAL EXPENDITURE

The following table shows a summary of FRRF expenditure, by service provider, for the period 1991-92 to 2004-05. Note that from 1995-96, \$1.0 million was allocated annually to AFMA for the management-related component of research. This allocation (not shown below) recognises AFMA's obligation to arrange appropriate research in economically non-viable fisheries.

Table 2: FRRF disbursements for 1991-92 to 2004-05

Year	AFMA	ABARE	BRS	Other	Total
1991-92	2,270,212	232,000	230,000	Nil	2,723,212
1992-93	1,942,778	362,522	641,700	Nil	2,947,000
1993-94	1,467,243	359,257	408,500	Nil	2,235,000
1994-95	724,006	300,317	1,002,283	Nil	2,026,606
1995-96	38,702	775,555	816,880	182,580	1,813,717
1996-97	Nil	564,462	843,936	413,800	1,822,198
1997-98	Nil	511,273	1,062,213	305,236	1,878,722
1998-99	Nil	784,270	901,751	884,077	2,570,098
1999-00	318,218	420,214	1,381,058	874,332	2,993,822
2000-01	111,535	459,412	940,143	857,309	2,368,399
2001-02	98,151	542,903	762,706	635,219	2,038,979
2002-03	60,759	875,339	980,725	836,177	2,753,000
2003-04	70,009	856,910	1,206,802	1,271,890	3,405,611
2004-05	176,760	938,736	1,314,053	1,410,059	3,839,608



PART F: FRRF – ABBREVIATIONS & ACRONYMS

ABARE	Australian Bureau of Agricultural and Resource Economics
AFFA	Department of Agriculture, Fisheries and Forestry – Australia (formerly DPIE, now DAFF)
AFMA	Australian Fisheries Management Authority
AIC	Australian Institute of Criminology
AIMS	Australian Institute of Marine Science
APEC	Asia Pacific Economic Cooperation
APFA	Australian Prawn Farmers Association
BRS	Bureau of Rural Sciences
CCSBT	Commission for the Conservation of Southern Bluefin Tuna
CRC	Cooperative Research Centre
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Australian Government Department of Agriculture, Fisheries and Forestry
DPIE	Department of Primary Industries and Energy (now DAFF)
DEH	Australian Government Department of the Environment and Heritage
EEZ	Exclusive economic zone
ESD	Ecologically sustainable development
ETBF	Eastern Tuna and Billfish Fishery
FAD	Fish aggregating device
FAB	Fisheries and Aquaculture Branch, DAFF
FAO	Food and Agriculture Organization of the United Nations
FRDC	Fisheries Research and Development Corporation
FRRF	Fisheries Resources Research Fund
ITQ	Individual Transferable Quota
IUU fishing	Illegal, Unreported and Unregulated fishing
MIEB	Marine Industries Environment Branch, DAFF
NNTT	National Native Title Tribunal
NPOA	National Plan of Action
OCS	Offshore Constitutional Settlement
PBR	Potential biological removals
QX	Marteilia sydneyi
R&D	Research and development
RFMO	Regional Fisheries Management Organisation
SBT	Southern Bluefin Tuna
SCALIA	Statistical Catch-at-Age/Length Integrated Assessment
SCTB	Standing Committee on Tuna and Billfish
TAP	Threat Abatement Plan
UN Fish Stocks Agreement	The Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 1995
UoW	University of Wollongong
WTO	World Trade Organization