Australian Government

Fisheries Research and Development Corporation

Annual Report 2005–06

To the Parliament of Australia, the Australian fishing industry and other FRDC stakeholders

Key achievements in 2005–06

New South Wales

- Ana Rubio's partnership with south coast Sydney rock oyster farmers leads to new approach to environmental management (project 2004/224).
- Seafood Directions provides industry view that continual regulations are closing the industry down (project 2004/302).
- SOCo (Select Oyster Company) established as a partnership to exploit the hatchery and selective breeding lines for Sydney rock oysters.

Northern Territory

- Black jewfish tagging provides new evidence about fish movement and aggregation (project 2004/004).

Queensland

- Vessel monitoring system project wins accolades (project 2002/056).
- New environmentally friendly trawl gear (project 2004/060).
- Seafloor mapping of Great Barrier Reef completed (project 2003/021).
- Turtle handling guide DVD released for longline tuna fishery (project 2003/013).
- First commercial domesticated harvest of black tiger prawns (project 2005/205).
- Moreton Bay Seafood Industry Association environmental management system wins sustainable primary production award and most outstanding primary industries award (project 2003/062).

South Australia

- Science points to better management outcomes for seal and fishing interactions (project 2004/201).
- FRDC and Southern Rocklobster Ltd sign MoU to invest in R&D to implement the southern rocklobster industries development plan (project 2006/215).
- Residue study for southern bluefin tuna farmed product leads to acknowledgement by Japanese authorities that it is twice as good as northern bluefin tuna (project 2004/206).

Tasmania

- Marine Protected Areas research ensures best model for industry and the environment is implemented (project 2005/083).
- Rocklobster Congress delivers agreement to work towards a national approach for all rocklobster sectors (project 2005/222).
- Scallop fishers adopt rotational harvest strategies (project 2003/017).
- Rocklobster larval model leads to new insights into recruitment processes for southern Australia (project 2002/007).
- Young chefs tour of Tasmania leads to better understanding of the role of science in fisheries production (project 2006/310).

Victoria

- Voluntary fine scale abalone management developed in partnership with industry (project 2005/024).
- Melbourne consumption reveals continuing decline in in-home consumption and increase in purchasing from supermarkets (project 2004/249).

Western Australia

- Octopus project by Bob Alexander shows industry the way (project 2004/248).
- Marron improved genetics leads to big industry gains (project 2000/215).
- Tuna manual acclaimed by industry for delivering improved quality (project 2003/414).

Commonwealth

- Independent assessments of southern bluefin tuna mortality rates have led to a greater confidence in the stock assessment (project 2004/015).
- Shark risk assessment used as a national template for Environmental Risk Analysis for other species (project 2002/033).
- Adoption by South Eastern Fishery trawl operators of bycatch mitigation technologies using T90, square mesh and larger mesh cod ends (project 2001/006).
- Developing and implementing a business model for marketing and branding Australian seafood by establishment of Seafood Experience Australia (project 2005/233).

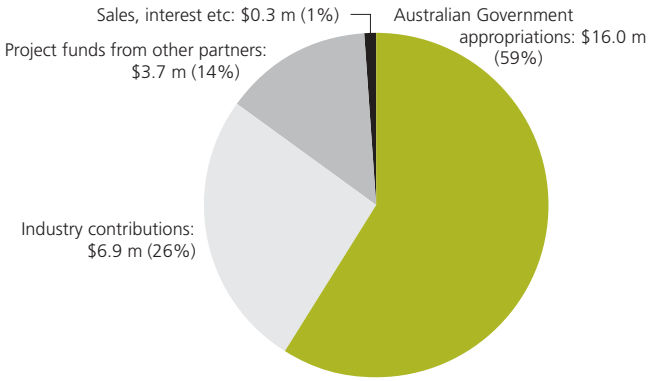
The concept of the pyramid expands on the theme of balancing responsibilities.

It represents that while the FRDC is focused on balancing environment and profitability, the Corporation also has social and more importantly corporate governance responsibilities.

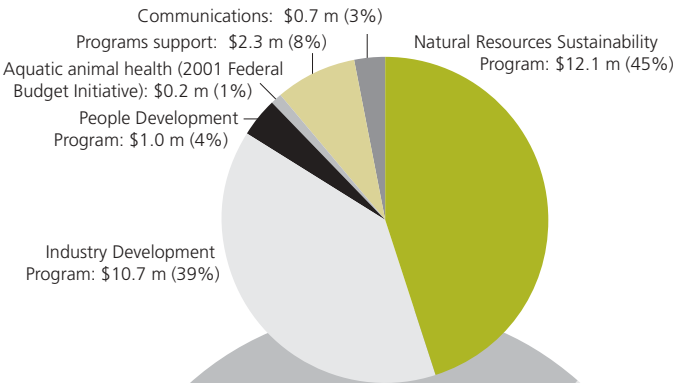
The pyramid also represents the four objectives of the FRDC's enabling legislation.

FIGURE 1: INCOME, EXPENDITURE AND LEVERAGE OF INVESTMENT, 2005–06

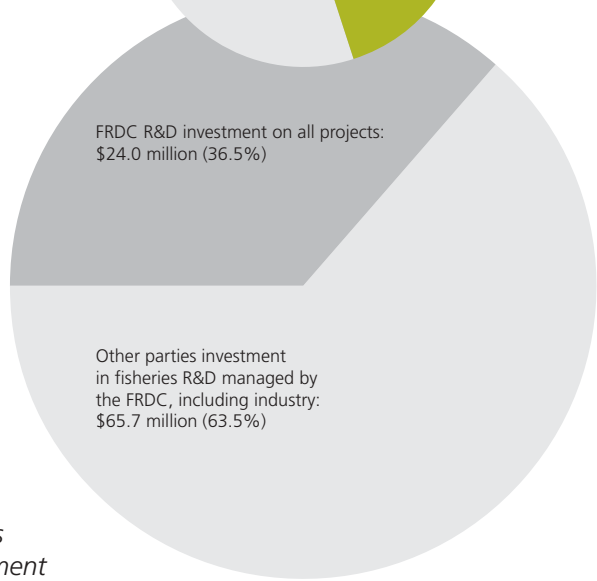
INCOME
Total: S27.0 million



EXPENDITURE
Total: $27.0 million



CO-INVESTMENT:
Total investment from all sources: $65.8 million



Investment derived from other sources (leverage) was 1.74 times the FRDC investment

The industry contribution rose from 114 per cent to 128 per cent of the amount that is matched by the Australian Government, reflecting increased recognition by industry of the benefits flowing from fisheries R&D.

Summary of project expenditure

Expenditure by R&D program

R&D program	2005–06 expenditure	2004–05 expenditure	2003–04 expenditure
Program 1: Natural Resources Sustainability	$12.1 m	$13.9 m	$13.8 m
Program 2: Industry Development	$10.7 m	$10.8 m	$9.6 m
Program 3: People Development	$1.0 m	$0.5 m	$0.6 m
Aquatic animal health*	$0.2 m	$0.4 m	$1.1 m
Total	$24.0 m	$25.6 m	$25.1 m

* Aquatic animal health initiative ended 30 June 2004 and Aquatic Animal Health Program commenced February 2005.

Expenditure by Australian Government national research priority

Priority	2005–06 expenditure	2004–05 expenditure	2003–04 expenditure
An environmentally sustainable Australia	$12.4 m	$13.1 m	$19.4 m
Frontier technologies for building and transforming Australian industries	$4.2 m	$4.6 m	$1.9 m
Promoting and maintaining good health	$6.5 m	$1.4 m	$0.5 m
Safeguarding Australia	$0.8 m	$2.2 m	$1.5 m
Total	$23.9 m	$21.2 m	$23.3 m

Expenditure by Australian Government priority for rural R&D

Priority	2005–06 expenditure	2004–05 expenditure	2003–04 expenditure
Sustainable natural resource management	$11.4 m	$12.0 m	$19.2 m
Improving competitiveness	$7.0 m	$6.8 m	$2.1 m
Maintaining and improving confidence in the integrity of Australian agricultural, food, fish and forestry products	$1.5 m	$1.9 m	$0.2 m
Improved trade and market access	$1.5 m	$0.7 m	—
Use of frontier technologies	$0.4 m	$0.9 m	$1.5 m
Protecting Australia from invasive diseases and pests	$1.0 m	$2.4 m	$1.5 m
Creating an innovative culture	$1.1 m	$0.8 m	$0.4 m
Total	$23.9 m	$25.6 m	$25.1 m

For the full list of projects against the Australian Government National Research and Rural R&D priorities visit the FRDC website at www.frdc.com.au.

Summary of industry contributions

TABLE 1: INDUSTRY CONTRIBUTIONS, MAXIMUM MATCHABLE CONTRIBUTIONS BY THE AUSTRALIAN GOVERNMENT AND RETURNS ON INVESTMENT, 2005–06

	A	B	C	D	E	F
	Maximum matchable contribution (0.25% of AGVP) [see note 1]	Actual industry contribution 2005–06 ($)	B÷A as per cent	Distribution of FRDC R&D investments 2005–06 ($) [see note 2]	Return on contribution (D:B) [see note 3]	
					2005–06	5 yrs
C'wealth Northern Prawn Fishery [note 4]	184,603	281,883	153%	1,386,291	4.9:1	2.3:1
C'wealth fisheries other	711,821	765,130	107%			
Commonwealth fisheries total	896,424	1,047,013	117%	3,018,634	2.9:1	2.8:1
New South Wales fisheries total	358,783	381,999	106%	1,835,671	4.8:1	5.9:1
Northern Territory fisheries total	144,623	152,000	105%	803,835	5.3:1	6.6:1
Qld prawn aquaculture [note 5]	123,850	144,884	117%	703,719	4.9:1	2.8:1
Qld other	574,475	545,000	95%			
Queensland fisheries total	698,325	689,884	99%	2,910,672	4.2:1	4.2:1
SA southern bluefin tuna [note 4]	542,095	605,739	112%	3,207,605	5.3:1	5.6:1
SA other	706,150	999,441	142%			
South Australia fisheries total	974,389	1,605,180	165%	6,000,137	3.7:1	4.4:1
Tas salmon aquaculture [note 4]	278,428	285,000	102%	1,427,517	5.0:1	4.9:1
Tas Pacific oysters [note 4]	38,127	5,000	13%	127,049	25.4:1	9.6:1
Tas other	407,373	689,869	169%			
Tasmania fisheries total	723,928	979,869	135%	3,457,557	3.5:1	4.8:1
Victoria fisheries total	255,425	246,185	96%	1,220,493	5.0:1	5.9:1
Western Australia fisheries total	1,356,952	1,838,878	136%	4,554,352	2.5:1	3.2:1
Total	**5,408,849**	**6,941,003**	**128%**			

NOTES FOR TABLE 1

1. 'Maximum matchable contribution' is the maximum amount to which the Australian Government will match industry contributions in accordance with the criteria detailed on page 130 (including when industry contributions exceed 0.25% of average GVP).
2. Distribution of FRDC R&D investments is based on the estimated flow of R&D benefits to the respective fisheries.
3. Ratios in column F are derived from the distribution of FRDC investments (column D) for 2005–06 and the previous four years. The figures for these five years are relevant to the 1995 Ministerial direction, summarised on page 84, concerning spending of industry contributions.
4. Contributes to the FRDC under the terms of a Memorandum of Understanding.
5. All Australian Prawn Farmers Association contributions are attributed to Queensland because a break-down by states is not available from the Levies Revenue Service of the Department of Agriculture, Fisheries and Forestry.

This year, the target was 85 per cent and the FRDC achieved 128 per cent ($6.9 million). The $6.9 million industry contribution was 7 per cent more than last year's contribution. As a proportion of total FRDC revenue, industry contributions were approximately 3 per cent higher than last year's figure of 23 per cent.

TABLE 2: INDUSTRY CONTRIBUTIONS TO FRDC OVER THE LAST 10 YEARS AS A PERCENTAGE OF MATCHABLE GOVERNMENT CONTRIBUTIONS

Priority	2005 –06	2004 –05	2003 –04	2002 –03	2001 –02	2000 –01	1999 –2000	1998 –99	1997 –98	1996 –97
(Actual)	%	%	%	%	%	%	%	%	%	%
Commonwealth total	117	168	153	101	100	90	90	88	86	108
New South Wales total	106	117	100	81	88	76	63	78	70	78
Northern Territory total	105	89	105	43	38	33	29	31	25	20
Queensland total	99	94	106	100	92	81	65	86	51	59
South Australia total	165	111	110	81	76	69	83	88	80	100
Tasmania total	135	100	82	67	101	70	48	51	11	6
Victoria total	96	94	101	83	87	100	98	95	100	23
Western Australia total	136	102	81	80	51	55	58	60	49	43
Total	**128**	**114**	**109**	**84**	**77**	**71**	**68**	**72**	**59**	**58**

Achievements through this investment

TABLE 3: FINANCIAL INDICATORS OF R&D INVESTMENT

Expenditure	2005–06	2004–05	% change
– on all R&D projects	$23.9 m	$25.6 m	
– on R&D Program 1 (Natural Resources Sustainability)	$12.1 m	$13.9 m	–13%
– on R&D Program 2 (Industry Development)	$10.7 m	$10.8 m	–1%
– on R&D Program 3 (People Development)	$1.0 m	$0.5 m	100%
– on Aquatic Animal Health	$0.2 m	$0.4 m	–50%
– on R&D of benefit to the commercial sector	$25.0 m (369 projects)	$26.8 m (380 projects)	
– on R&D of benefit to the recreational sector	$2.9 m (153 projects)	$3.5 m (154 projects)	
– on R&D of benefit to the Indigenous sector	$0.2 m (55 projects)	$0.2 m (46 projects)	
Benefits	**2005–06**	**2004–05**	
Return on R&D investment to the fishing industry for every dollar contributed to the FRDC	$3.41	$3.89	
Investment levered from other sources for every dollar invested by the FRDC	1.75	1.43	+22.3%
Australian Fisheries Statistics*		**2003–04**	
The wild-catch sector earned the same and caught more	1.48 b for 246,000 t	$1.48 b for 228,000 t	$: 0% t: +8%
The aquaculture sector earned less and produced more	$611 m for 47,089 t	$732 m for 43,475 t	$: –7% t: +8%
Total commercial sector production	$2.05 b for 293,000 t	$2.20 b for 271,000 t	$: –7% t: +8%

* The figures quoted from the Australian Fisheries Statistics are for 2004–05 and are from the latest edition which is historically published around March each year. This can be downloaded from the FRDC website at www.frdc.com.au.

Other indicators

	2005–06	2004–05	2003–04	2002–03
Number of applications evaluated	136	135	171	142
Number of approved new projects	69	64	81	82
Total number of active projects under management	433	426	494	485
Number of final reports completed	88	106	122	82
Median value of active R&D projects	$233,684	$246,261	$224,406	$206,557

The following graph shows improvement in contributions over time:

FIGURE 2: INDUSTRY CONTRIBUTIONS, MAXIMUM MATCHABLE CONTRIBUTIONS BY THE AUSTRALIAN GOVERNMENT AND RETURNS ON INVESTMENT OVER TIME

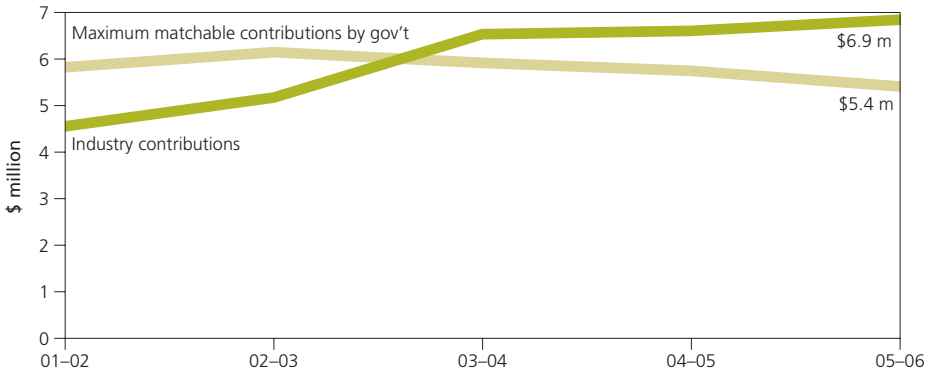
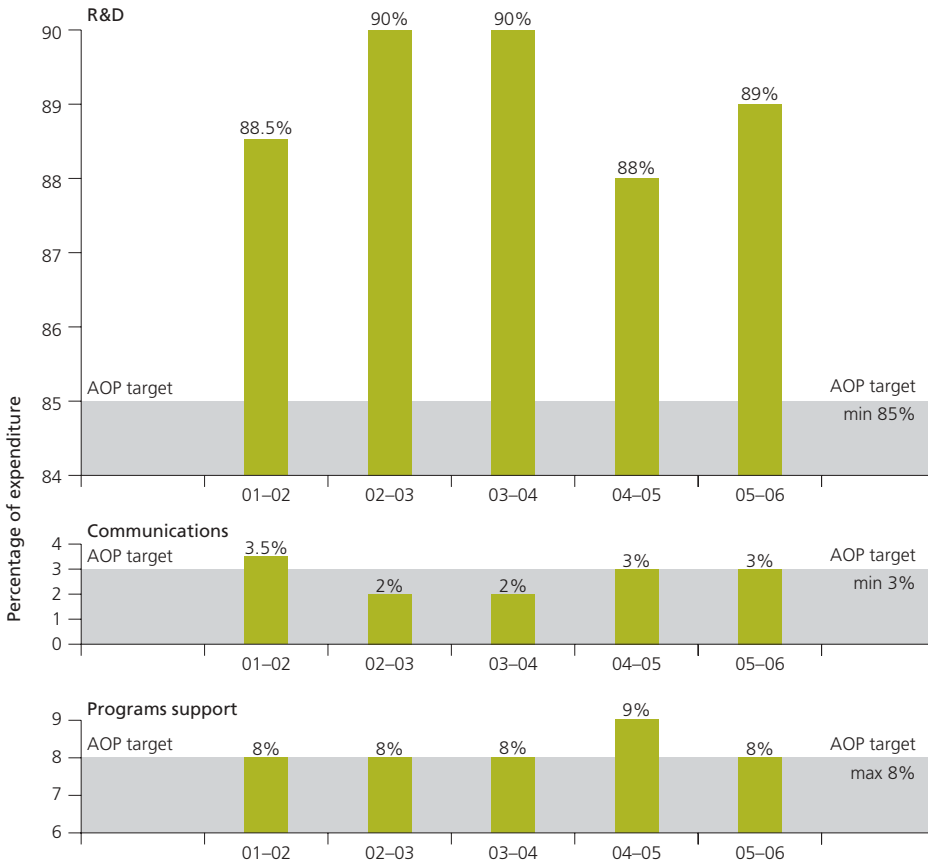


FIGURE 3: MAXIMUM FRDC EXPENDITURE ON R&D PROGRAMS



Note: Communications expenditure includes extension activities undertaken by the Secretariat. Programs support expenditure includes all other activities undertaken by the FRDC, including all salaries and operating expenses of the Secretariat and the Board.

Forecast budget 2006–07

	$		$
Opening balance			517,000
REVENUE			
Australian Government 0.5% AGVP	10,244,147		
Australian Government matching of industry contributions	5,122,073		
Total revenues from the Australian Government			**15,366,220**
Fisheries managed by:			
Australian Government	1,155,000		
Australian Capital Territory	0		
New South Wales	432,181		
Northern Territory	258,000		
Queensland	700,000		
South Australia	1,200,000		
Tasmania	811,000		
Victoria	250,000		
Western Australia	1,583,028		
Sub-total	**6,389,209**		
Aquafin CRC	3,100,000		
South Australia aquaculture initiative	100,000		
Other project income	750,000		
Total contributions revenue			**10,339,209**
Interest			250,000
Sales of goods and services			60,000
Other income			0
TOTAL REVENUE			**26,015,429**
TOTAL FUNDS AVAILABLE			**26,015,429**
EXPENDITURE			
Projects expenditure			
Natural Resources Sustainability	12,815,000	*55%*	
Industry Development	9,320,000	*40%*	
People Development	1,165,000	*5%*	
Total programs			**23,300,000**
Communications			
Other goods and services expense			**650,000**
Programs support			
Employees			**1,370,000**
Suppliers			**690,000**
Depreciation and amortisation			**300,000**
Net write down of assets			—
Other expenses			—
Total programs support			**2,360,000**
TOTAL EXPENDITURE			**26,310,000**
Closing balance			222,429

About the FRDC

The FRDC is one of 15 rural research and development corporations and companies. The FRDC is co-funded by its stakeholders, the Australian Government and the fishing industry.

The Corporation invests strategically across all of Australia in research and development (R&D) activities that benefit all three sectors of the fishing industry — commercial (wild catch and aquaculture), recreational and customary. The FRDC's goal is for Australia's fisheries to be both sustainably managed and profitable.

The FRDC aims to work with partners to disseminate R&D results and assist with its adoption and, when appropriate, commercialisation.

Strategic directions are set with key stakeholders and then partner organisations are directly engaged from across Australia to undertake its R&D activities.

This innovative approach to project management provides the FRDC a great deal of flexibility, while at the same time enabling us to work as a small organisation, to do the work of an organisation many times its size.

The seafood industry is Australia's fifth most valuable food-based primary industry with a landed value of more than $2 billion a year. In addition more than 3.4 million Australians recreationally fish each year spending an additional $1.8 billion a year. For Indigenous communities the fishing industry not only provides avenues for income but also plays a significant role in their culture and subsistence.

Fish are a valuable, community-owned, renewable resource. They are, however, limited and vulnerable. Therefore, it is important they are managed using the best information available.

The Corporation and its partners are striving to ensure that fisheries ecosystems are used in a sustainable way so that future generations benefit.

FRDC's R&D aims to ensure the sustainability of Australia's natural resources while raising awareness of key fisheries-related issues such as industry development, the social and economic impacts on fishing communities, and the health benefits of seafood.

The business environment in which the FRDC operates is characterised by:

- the need for effective stewardship to ensure best use of Australia's resources
- a high emphasis on natural resource management
- specific priorities of the three sectors of the seafood industry
- geographic diversity — Australia's waters extend from the tropics to the Antarctic, and include both marine and freshwater, and
- a broad range of products, including 800+ commercial species, 1000+ recreational species and 100+ farmed species, with a further 100+ protected species.

The five strategic challenges

The FRDC and its stakeholders have analysed the fishing industry's business environment and the changes likely to occur during the next 20 years. This analysis has resulted in identification of the following five strategic challenges:

1. Natural resources sustainability.
2. Resource access and resource allocation.
3. Responses to demand; profitability.
4. People development.
5. Community and consumer support.

The three visions of the Fisheries Research and Development Corporation

For the industry

The commercial sector of the fishing industry is internationally competitive and profitable over the long term.

The commercial, recreational and Indigenous sectors use aquatic resources in a sustainable way; are characterised by a learning culture; and are forward-looking, innovative, professional and socially resilient.

For the community and consumer

The community and consumers are supportive of the fishing industry and the natural resources on which the industry depends.

For fisheries and aquaculture research

Fisheries and aquaculture research is innovative and responsive to the needs of the Australian community, the fishing industry, and the aquatic ecosystems on which they depend.

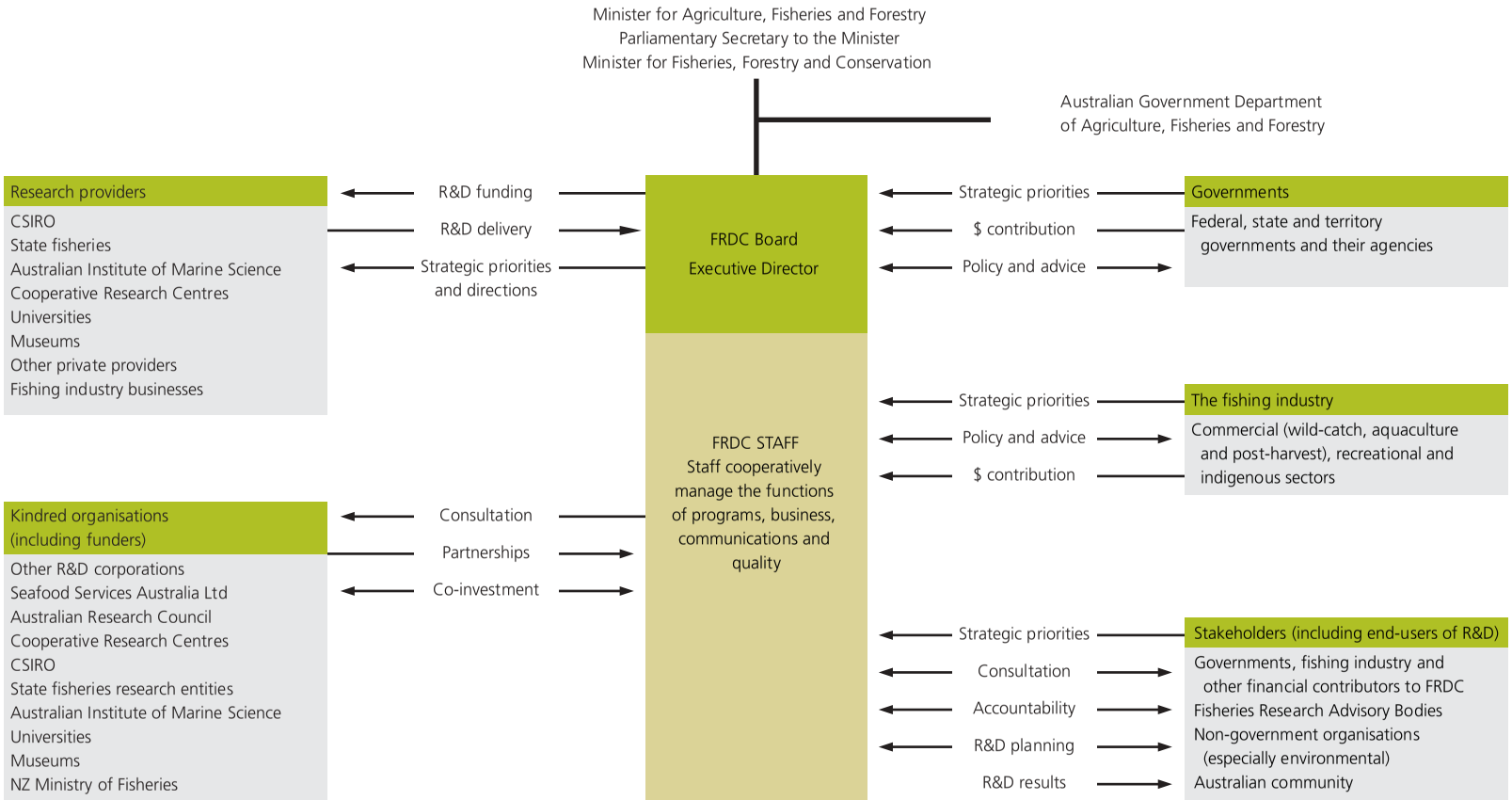
The Corporation's mission

The FRDC's mission is to maximise economic, environmental and social benefits for its stakeholders through effective investment and partnership in research and development.

Stakeholders

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

FIGURE 4: THE FRDC'S ORGANISATION AN OPERATING CONTEXT



Australian Government
Fisheries Research and Development Corporation

13 October 2006

The Hon. Sussan Ley MP
Parliamentary Secretary to the Minister for Agriculture, Fisheries and Forestry
Parliament House
CANBERRA ACT 2600

Dear Ms Ley,

On behalf of the directors of the Fisheries Research and Development Corporation, I have pleasure in presenting the Corporation's annual report for the year ended 30 June 2006. It is forwarded in accordance with section 9 of the *Commonwealth Authorities and Companies Act 1997* (CAC Act). It has been prepared in accordance with the *Primary Industries and Energy Research and Development Act 1989*, the CAC Act, the *Environment Protection and Biodiversity Conservation Act 1999*, the Commonwealth Authorities and Companies (Report of Operations) Orders of 2005, and other Commonwealth legislation and guidelines.

The contents of the report are intended to enable an informed judgement of the Corporation's performance during the year ended 30 June 2006 by you; by the Minister for Agriculture, Fisheries and Forestry; by the Minister for Fisheries, Forestry and Conservation; and by the Parliament.

The report is also intended to inform the FRDC's other stakeholders — especially fishing industry levy payers and other financial contributors; other people in the commercial, recreational and indigenous sectors of the fishing industry; and members of the research and development community.

I take this opportunity to acknowledge the strong support of my fellow directors in guiding the Corporation towards outcomes that will greatly benefit the fishing industry, the natural resources on which it depends, and the Australian community.

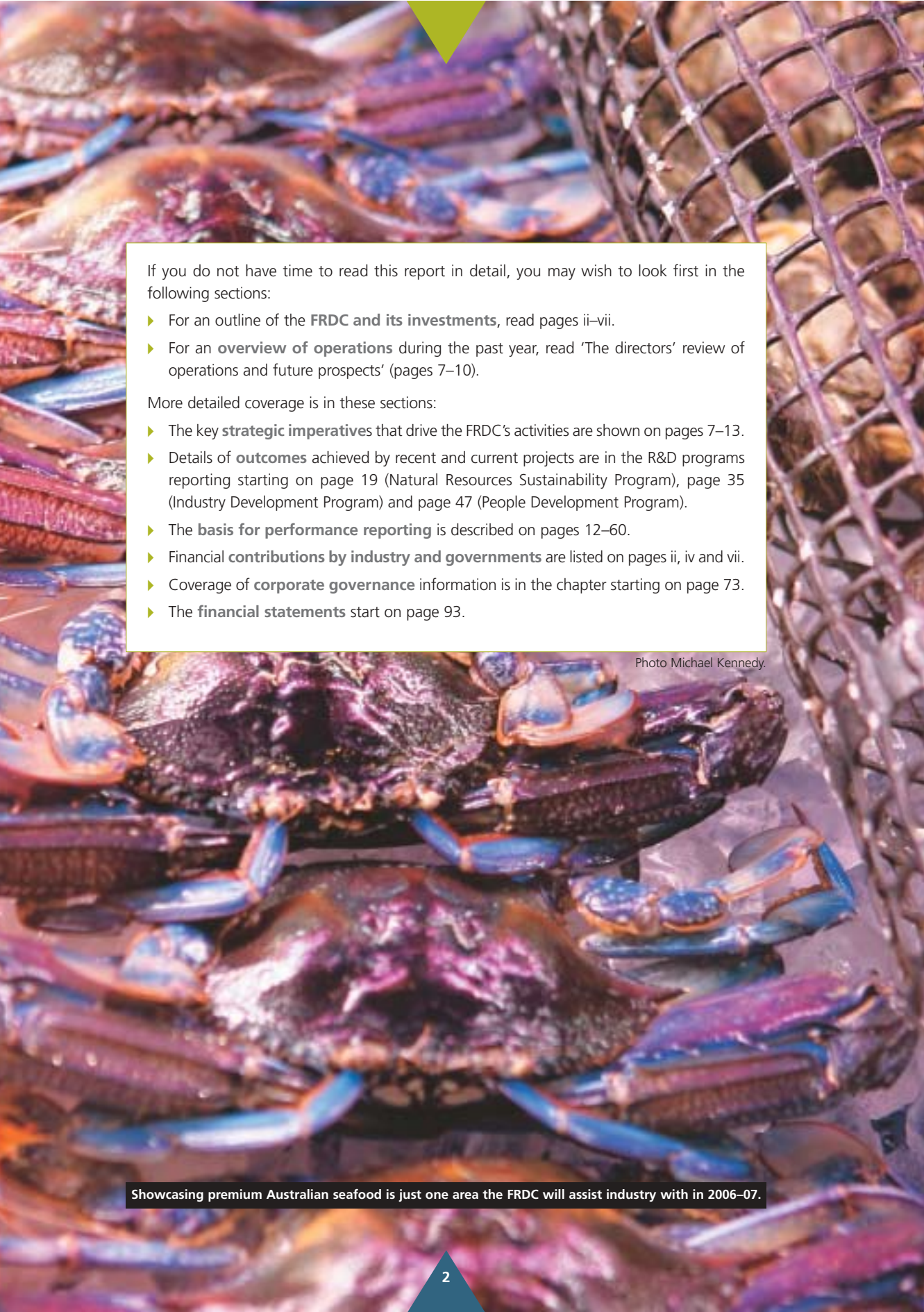
Yours faithfully,

Denis Byrne
Chairman

Postal address: PO Box 222, Deakin West ACT 2600 Australia
Office location: [illegible]
Telephone: 02 6285 0400 Web: http://www.frdc.com.au
[illegible] E-mail: [illegible]
Australian Business Number: 76 211 884 913

Fisheries Research and Development Corporation

Annual Report 2005–06



If you do not have time to read this report in detail, you may wish to look first in the following sections:

- For an outline of the **FRDC and its investments**, read pages ii–vii.
- For an **overview of operations** during the past year, read 'The directors' review of operations and future prospects' (pages 7–10).

More detailed coverage is in these sections:

- The key **strategic imperatives** that drive the FRDC's activities are shown on pages 7–13.
- Details of **outcomes** achieved by recent and current projects are in the R&D programs reporting starting on page 19 (Natural Resources Sustainability Program), page 35 (Industry Development Program) and page 47 (People Development Program).
- The **basis for performance reporting** is described on pages 12–60.
- Financial **contributions by industry and governments** are listed on pages ii, iv and vii.
- Coverage of **corporate governance** information is in the chapter starting on page 73.
- The **financial statements** start on page 93.

Photo Michael Kennedy.

Showcasing premium Australian seafood is just one area the FRDC will assist industry with in 2006–07.

Contents

Reporting criteria of the Australian Government and representative organisations

In recent years, the Australian Government has significantly increased the criteria against which its agencies conduct and report their activities — especially through enactment of the *Commonwealth Authorities and Companies Act 1997* (CAC Act) and the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act); introduction of the outcome-output framework; specification of national research priorities; and, in the case of rural R&D corporations, specification of priorities for rural R&D. These criteria are shown in the compliance index (page 142).

More comprehensive information on the criteria is available from:

- the CAC Act, *Primary Industries and Energy Research and Development Act 1989* (PIERD Act) and the EPBC Act — Appendix B: Principal legislative requirements for reporting, on page 131
- legislated objects, functions, statutory powers, ministerial powers — Appendix C: The FRDC's legislative foundation and the exercise of ministerial powers, on page 134
- National Research Priorities: www.dest.gov.au/priorities/, and
- Rural R&D Priorities: www.frdc.com.au/links.

Global Reporting Initiative

The Global Reporting Initiative provides guidelines on which the Australasian Reporting Awards administrators have developed their assessment criteria. These criteria are shown in the compliance index (page xx), in addition FRDC refers to the *Global Reporting Initiative Sustainability Reporting Guidelines* in preparing its triple bottom line assessment (page 87). The FRDC uses the criteria when developing our annual report.

More comprehensive information on the criteria is available from:

- www.arawards.com.au/criteria_a.htm, and
- www.globalreporting.org.

Photo Michael Kennedy.

The report of operations explicitly addresses section 9 of the CAC Act and includes material required by other legislation, particularly the PIERD Act and the EPBC Act.

Certificate concerning the Report of Operations

The directors of the FRDC are responsible, under section 9 of the CAC Act, for preparation of the following report of operations in accordance with the CAC Orders.

This report of operations is made in accordance with a resolution of the directors at their meeting of 15 August 2006.

The date of the report is 5 September 2006.

Denis Byrne
Chair

Certificate concerning the Global Reporting Initiative

This annual report was prepared in accordance with the 2002 Global Reporting Initiative guidelines and represents a balanced and reasonable presentation of the Corporation's sustainability performance.

[A compliance index for reporting against the Global Reporting Initiative is on page 142.]

Denis Byrne
Chair

Report of Operations

Part 1: The Directors' review of operations and future prospects

Top 10 highlights for 2005–06

- Relations improved with stakeholders, including Ministers, the Department of Agriculture, Fisheries and Forestry (DAFF) and representative bodies.
- Assisted in the establishment of Seafood Experience Australia — the first national body to promote Australian seafood.
- In partnership with the Australian Seafood Industry Council (ASIC), state industry councils (Victoria, South Australia and Tasmania) and fisheries management agencies for those jurisdictions, responded in a timely manner to the release of the South East Region broad areas of interest for Marine Protected Areas (MPAs) — outcome has been acclaimed as successful by industry and government alike.
- Established Recfishing Services to provide leadership and advice on investment and management of recreational research.
- Signed Memorandum of Understanding (MoU) with Southern Rocklobster Limited.
- Recfish Australia and FRDC developed the world's first environment tournament accreditation scheme.
- Published and distributed 500,000 seafood brochures highlighting the R&D on the health benefits of consuming seafood.
- Australian Seafood Co-products (ASCo) signed commercial agreement with Incitec-Pivot. First fertiliser produced from fish waste.
- Sponsored energy efficiency workshop.
- Review of FRDC's People Development Program heralded significant increase in investment in this area.

Industry business environment

Trading conditions for the Australian commercial fishing industry continued to affect production and profitability. Fuel prices, a strong Australian dollar, and low-cost imported seafood have all weighed heavily on the bottom line of the production sector. There has been an increasing emphasis to initiate and support R&D that underpins profitability, despite continued pressure to fund R&D to increase understanding of fish stocks and their supporting ecosystems.

All sectors of the fishing industry have experienced issues with resource security during the year because of the development of a number of MPAs. The issue of MPAs and the broader issue of allocation will continue to be a significant factor over the next three to five years. In 2005–06 the FRDC showed, in the South East Region, that independent expert scientific and economic analysis can underpin better environmental outcomes and minimise the social effect on industry.

The industry figures released this year for seafood production value in 2004–05 declined, falling to $2048 million. This is from a peak of $2427 million in 2000–01. There are indications that this decline may have reached a plateau, with anecdotal reports from industry of increased prices for southern bluefin tuna, pearls, rocklobster, abalone and prawns. Notwithstanding this, other factors such as higher fuel prices and a strong exchange rate will continue to make profitable trading difficult.

A significant issue which is yet to show its full impact is the Australian Government allocation of $220 million to restructure Commonwealth fisheries. The restructure has two fundamental aims, namely: to improve sustainability for the stocks considered overfished; and, increase the profitability of the fisheries.

Board responds proactively

The FRDC Board has flagged that it is considering taking a more proactive role in driving industry change. This will change the Board's past practise of being application-driven in only responding to external investment requests. At its April 2006 meeting the Board confirmed its investment in a number of initiatives. In summary they were:

1. Establishing a dedicated People Development Program.
2. Introducing an Indigenous representative organisation for the FRDC.
3. Establishing an economic and social working group with its first task being to implement the recommendations of review of Australian fisheries statistics.
4. Re-focusing the work program for the Ecological Sustainable Development Reporting and Assessment subprogram.
5. Establishing a resource allocation working group to identify R&D needs.
6. Reviewing the use of fishers' data in fisheries assessment processes to determine the extent to which industry-based monitoring and research can reduce costs and improve stock assessments.
7. Establishing a spatial management and MPAs working group.
8. Establishing a co-management fisheries working group.
9. Reviewing R&D processes for fisheries assessment and EPBC processes.

Further, the Board has endorsed a strategy to change the way FRDC invests in applications. This will include a move away from 100 per cent of funds going through a contestable annual round to a mixture of funding mechanisms that is more flexible and better tailored to the beneficiary needs and planned outcomes.

Australian Government developments

The Australian Government's R&D investment continues to be broadly scrutinised with the FRDC included in a specific review in 2005–06 that also included the other eight PIERD Act R&D corporations. The review was part of the larger Australian Government's review of all statutory agencies (www.finance.gov.au/governancestructures/). This review was prompted following the 2003 release by the Department of Finance of the Uhrig Report. For further information see page 65.

In summary, the FRDC and the other corporations will retain their current governance structure, operating with their own board under the CAC Act. The Australian Government remains committed to the R&D corporations' model, and building on the strong partnership approach that currently exists between government and industry.

However, a number of changes will be implemented:

1. The government director will be removed once enabling legislation is passed (proposed for Autumn 2007).
2. The Minister will be issuing annually a "Statement of Expectation" to the FRDC that will outline the Government's expectations of the FRDC over the next year.
3. The FRDC will reply to the Minister's statement of expectation with a "Statement of Intent" which will detail how the FRDC expects to address the Statement of Expectation.

ASIC demise

On 9 June 2006, the directors of the Australian Seafood Industry Council (ASIC) placed the Council into voluntary administration. The demise of ASIC has a number of implications for FRDC as it was one of two representative bodies along with Recfish Australia, and it was a co-member of Seafood Services Australia. FRDC has strongly supported the need for a national body to provide effective and efficient input from industry and this need has not diminished, rather, continues to grow. FRDC will work with industry to facilitate a new national body, but will not take a leadership role.

The coming year

Consolidating developments initiated by the Board will be the focus of activities undertaken in 2006–07. It is important that FRDC's capacity to deliver is not spread to thin resulting in under achievement. The planned outcomes that will follow from the Board initiatives have significant benefits for industry.

Investment opportunities

FRDC has again experienced declining revenue from government sources as predicted in last year's annual report. The Government's contribution to FRDC is tied to the gross value of production (GVP) for the commercial fisheries. When commercial fisheries are experiencing declining revenue so does FRDC. This direct link to industry ensures that FRDC stays focused on the issues that matter. When industry is doing well so will FRDC and vice versa. While FRDC–Government revenue has declined over the last few years, the converse has occurred for industry's investment in FRDC. Over the last five years investment by industry has increased by 51 per cent. In the last year alone industry increased its investment by 14 per cent. This is a tribute to how the Board has refined FRDC's co-investment model to continue to make it attractive to industry. The key to this has been a strong focus on the adoption of project outputs to deliver outcomes that demonstrably make a difference for industry.

To continue to ensure that new investment products are developed for the fishing industry, the FRDC Board through its Business Development Committee has explored the following new opportunities:

- Partnered with industry and research providers in a Seafood CRC bid to the Department of Education, Science and Training.
- Worked with Recfish Australia to develop and improved R&D outcomes for the recreational sector.
- Worked with the Abalone Council of Australia, Australian Council of Prawn Fishers, Western Rocklobster Council and Southern Rocklobster Limited to improve the process for ensuring R&D investment matches industry needs.
- Partnered with the Department of Agriculture, Fisheries and Forestry and the variety of industry support programs that it provides.
- Commercialised FRDC's investments in genetic breeding programs, rocklobster aquaculture, and fish waste to fertilisers.

Delivering in 2006–07

In 2006–07 the FRDC staff and Board will continue to be instrumental, along with Fisheries Research Advisory Bodies (FRABs), subprograms and strategic partners, in delivering results and benefits from our research portfolio. The Board would like to thank all staff, Board members and stakeholders who have contributed advice and information over the last 12 months to improve our R&D performance. Please let FRDC directors or FRDC's Chair, Denis Byrne know what your thoughts are after reading this annual report.

Challenges and opportunities for the FRDC

R&D demand factors

Demand for FRDC investment in R&D is growing strongly because of increasing awareness of the key challenges facing industry and the need, and expectation for FRDC to address them. Legislation, reflecting higher expectations of the Australian public, is also creating significant demand for fisheries R&D.

Translating these demands into R&D projects is challenging because of the need to balance stakeholder expectations. For example:

- fisheries managers and the fishing industry often have conflicting views on R&D priorities, and generally the industry does not have the resolve or organisation to advocate R&D priorities for the industry, and
- many fisheries research institutes are driven by the need to gain access to external funding, which may give rise to a focus on cash rather than outcomes in their R&D planning.

The FRDC Board and staff continually monitor the external environment for the key factors that are impacting and have potential to impact on industry. The FRDC takes these factors into consideration when investing into new R&D. It is a careful balance that aims to ensure the approach best fits the current requirements of all our stakeholders.

In 2005–06 our industry partners have increased the amount of funds invested with the FRDC (see pages iv, v and vii). This indicates a high level of industry support and confidence in the FRDC.

Funding supply factors

FRDC expects to have $5.5 million to fund new R&D projects in 2007–08. This represents a decline of $1 million on the previous year.

The reduction has been caused by a continuing decline in the annual gross value of production in the commercial seafood industry, on which FRDC's funding formula is based.

Although significantly higher than the previous year's 48 per cent success rate, FRDC Executive Director Patrick Hone said he believed 60 per cent was achievable because of continued improvements in the way providers and FRABs translated end-user needs into R&D applications, using a team approach to ensure only high priority proposals were submitted to FRDC.

The figures take account of historical and forecast industry contributions and FRDC's financial commitment to continuing projects.

During evaluation of the 2006–07 funding round the FRDC Board identified strategic priorities it believed were not being adequately addressed by R&D. These key areas the FRDC will focus on in the next round of funding are:

- **Resource allocation** — No applications were received. FRDC has set up a working group to identify R&D needs and help develop applications. Intending applicants should contact FRDC.
- **Spatial management** — Tools are needed to match spatial management measures to stock structures of target and non-target species, in the light of limited information. Also needed are monitoring and incorporation of MPA outcomes into stock assessments and risk management strategy evaluation.

- **Industry profitability** — Cost reductions are needed in areas such as energy use and fisheries management, through partnership initiatives. Profit needs to be created by maintaining and increasing catch value, improving market access and increasing international competitiveness.
- **Fisheries governance** — Acceptable levels of risk and return must be established along with cost-effective management strategies for small fisheries. Long-term economic and environmental sustainability must be developed, evaluated and communicated, together with strategies for co-management.

Performance indicator matrix

Environmental indicators — Natural Resources Sustainability

Key performance indicator	Achievement
Self-managed or co-managed fisheries governance structures and processes developed and a minimum of five fisheries brought under self management.	Commenced
30% reduction in fisheries that are overfished or of an unknown status.	Commenced
Increased utilisation of fisheries R&D outputs by fisheries management agencies.	Commenced
Development of formal socio-economic assessments for incorporation into fisheries resource allocation processes.	Commenced
Evidence of improved use of spatial management as a tool for fisheries management.	Partially achieved

On 20 December 2005 the Minister for Fisheries issued a Ministerial Directive to the Australian Fisheries Management Authority (AFMA). A significant component of this directive was to address overfished fisheries as a high priority. To this end, the FRDC has been working with AFMA through the Commonwealth Fisheries Research Advisory Body (ComFRAB) to ensure that research and development applications submitted to the FRDC focus on the areas outlined in the ministerial directive. This includes the assessing and mitigation of overfished stocks and the gathering of information with regard to species with an unknown status. This is also continuing through the requirements of fisheries that need to comply with the EPBC Act. Part of this process is to assess and improve spatial management as they refer to fisheries management (which should not be confused with the assessment and establishment of Marine Protected Areas).

At the state level, fish species are increasingly being managed at a discrete level, using localised spatial scales, rather than global scales. For example, the abalone industry is moving towards localised spatial management of resources along southern Australian coastlines. This is progressing with mechanisms and assessments incorporating size, growth and density differentials at these sites.

The establishment of the Australian Council of Prawn Fishers is assisting the move towards co-management for prawn fisheries around Australia. This follows the successes in the Spencer Gulf Prawn Fisheries co-management approach that uses real-time analysis of prawn sizes and bycatch rates to maximise the returns on the resource. Increased involvement by industry in the collection of biological, environmental and spatial information is being trialled in the South East Trawl Fishery, Tasmanian Scallop Fishery and southern Australian abalone fisheries. In many cases industry is being engaged and trained to undertake industry based independent surveys. Industry-based independent surveys have already been incorporated into management for the Great Australian Bight Trawl Fishery. This is often one of the first steps in achieving co-management.

In the Northern Prawn Fishery (NPF) work has commenced to design, trial and implement an integrated long-term bycatch monitoring program that addresses the total amount of bycatch, protected species and high risk species in the most cost-effective manner. Once complete, ownership of the program will be transferred to Northern Prawn Fishery Management Advisory Committee (NORMAC) and AFMA, for responsibility of ongoing monitoring.

AFMA, through ComFRAB, is also working with the FRDC to assess the past adoption of R&D outputs to realise management outcomes. By reviewing adoption pathways and impediments to adoption, better mechanisms are to be employed to ensure that management outcomes are realised and R&D is targeted at management needs.

In 2005–06 the FRDC Board approved two initiatives to assist in the measurement and adoption of resource allocation in Australian fisheries. A socio-economic working group was also established to assist in the prioritisation of R&D relevant to the fishing industry. To value-add to this group, a resource allocation initiative was established to assess and prioritise R&D within this area with the view of informed resource allocation for all stakeholders.

Economic indicators — Industry Development

Key performance indicator	Achievement
At least two companies accessing new markets for domestically caught seafood.	Partially achieved
Establishment of a third-party audited food quality standard for vessels and processors.	Not achieved
5% increase in finfish production through improved feeds and feeding practices.	Not achieved
Establishment of a commercial operation (ASCo) specialising in the utilisation of fish processing waste.	Partially achieved
At least two companies utilising improved stock from selective breeding programs.	Achieved

In 2005–06 the FRDC invested with Southern Rocklobster Ltd to examine the best approach to enter the super premium fine dining sector of the United States. The project aims to deliver a traceable product to US consumers while reducing the links in the supply chain to ensure that profits are maximised and markets are retained. It is anticipated that this business model will form the template for markets into Europe and Asia, and potentially for other species to use.

A significant breakthrough was achieved during the year with the closing of the life cycle of *Penaeus monodon*. The achievement will allow Australian Prawn Farmers Association (APFA) members to be able purchase selectively bred *Penaeus monodon* broodstock and reduce their reliance on acquiring those from the wild. This is an extremely positive result for both wild populations and for the industry to be competitive in the global market by choosing fast-growing family lines.

This year the FRDC again continued to support the further commercialisation of research and development activities and projects. The Sydney rock and Pacific oyster breeding programs have resulted in the production of fast growth oysters that reach the table in considerably lower timeframes than traditionally accomplished. Disease resistance is the next target.

Incitec Pivot Limited (IPL) have recently outlined a business plan and scenario for adopting BioPhos as part of their fertiliser products aimed at the growing sustainability sector of the agriculture industry. ASCo will partner IPL in the commercialisation of the product and provide the raw material derived from waste fish product.

Social indicators — People Development

Key performance indicator	Achievement
Two seafood industry leaders to complete the Australian Rural Leadership Program annually.	Achieved
Minimum of 10 fishing industry participants annually to attend the Advance in Seafood Leadership Development Program.	Achieved
10% improvement in recreational fisher capacity to release all fish in good condition.	Achieved
10% increased consumption of seafood.	Preliminary assessment
Aquaculture ventures are able to access new sites.	Not assessed

Investment into the capacity of people involved in the fishing industry has been steadily increasing. In 2005–06 the FRDC's investment doubled in this area. The FRDC initiated the Peter Dundas-Smith Leadership Scholarship to enhance the development of leadership skills, in recognition of the inaugural Executive Director's support and commitment to developing leaders in the fishing industry. This is complemented by the Australian Rural Leadership Program and the Seafood Development Leadership Program. In addition to this, the FRDC has also undertaken a review of people development to further improve capacity, priorities and results in this area.

A study of consumption in Melbourne has shed light on the habits of consumers in the Victorian capital. Melbourne's per capita consumption of fish and seafood in- and out-of-home increased 8.3 per cent from 11.5 to 12.5 kilograms since the 1991 National Seafood Consumption Study. In-home consumption rose 2.3 per cent to 7.8 kilograms while out-of-home consumption rose 19.6 per cent to 4.7 kilograms per person. Further work is being undertaken by the FRDC to measure national consumption levels.

Exploration of inland saline aquaculture has the potential to use land that has previously been unusable because of increased salination. Many new opportunities are developing to use or divert this saline water to realise aquaculture potential for salt water-tolerant species. The Victorian Government has also recently allocated 18 new aquaculture lease sites within Port Phillip Bay to realise the growing potential for aquaculture.

TABLE 4: GOVERNMENT PRIORITIES AND FRDC R&D PROGRAMS

This table shows how the R&D programs incorporate the Australian Government's priorities.

Objects of the FRDC's enabling legislation — PIERD Act section 3

Achieve sustainable use and management of natural resources	Increase economic, environmental and social benefits	Make more effective use of human resources and skills
Improve accountability for expenditure		

Planned outcomes of representative organisations	**Planned outcomes of representative organisations**	**Planned outcomes of representative organisations**
ASIC outcome: Ecologically sustainable fisheries, based on sound environmental and management practices. **Recfish Australia outcome**: Australian marine and freshwater resources and habitats are managed sustainably to produce abundant, diverse, high-quality fishing experiences for recreational and sport fishers.	**ASIC outcome**: Financial viability of commercial fisheries and associated communities, based on industry stability and growth in both domestic and export markets that is consistent with economic, environmental and social policy goals for Australia. **Recfish Australia outcome**: The recreational sector of the fishing industry develops in ways that maximise economic, environmental and social benefits to recreational and sport fishers, associated businesses and the Australian community.	**ASIC outcome**: Strong industry development, based on industry education and training as a catalyst for change and an investment in the future. **Recfish Australia outcome**: The skills of people in the recreational sector of the fishing industry are developed and used to achieve sustainable fishing practices, to enable fishers and their organisations to participate effectively in sustainable fisheries management, and to derive maximum economic, environmental and social benefits for the Australian community.
National Research Priority • An environmentally sustainable Australia • Safeguarding Australia	National Research Priority • Frontier technologies for building and transforming Australian industries • Promoting good health	National Research Priority • Frontier technologies for building and transforming Australian industries • Promoting and maintaining good health

Priority for rural R&D

- Sustainable natural resource management
- Protecting Australia from invasive pests and diseases

Priority for rural R&D

- Improved competitiveness through a whole-of-chain approach
- Maintaining and improving confidence in the integrity of Australian agricultural, food, fish and forestry products
- Improved trade and market access
- Use of frontier technologies

Priority for rural R&D

- Use of frontier technologies
- Creating an innovative culture

Challenge 1 — Maintain and improve the management and use of aquatic natural resources to ensure their sustainability.

Challenge 2 — Optimise resource access, resource allocation and opportunities for each sector of the fishing industry, within a right-based framework.

Challenge 3 — Respond to, and take advantage of, increased demand for seafood and for recreational and customary fishing experiences.

Challenge 4 — Develop people who will help the fishing industry to meet its future needs.

Challenge 5 — Increase community and consumer support for the benefits of the three main sectors of the fishing industry.

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

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

FRDC Planned Outcome
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 Corporation's mission — The FRDC's mission is to maximise economic, environmental and social benefits for its stakeholders through effective investment and partnership in research and development.

Report of Operations

Part 2: The FRDC's operational results

Photo Tony Karacsonyi.

Environment indicators

R&D Program 1: Natural Resources Sustainability

Reporting of the year's R&D activities is, for the most part, set out against the five main challenges arising from the FRDC's forecasts of the next 20 years.

The FRDC addresses these strategic challenges as it works towards achieving the planned outcomes for its three R&D programs.

Summary of completed projects in 2005–06 for Program 1

Strategic challenge	No. of projects completed in 2005–06	FRDC investment in these projects
Challenge 1: Natural Resources Sustainability Improve the sustainability of natural resources supporting wild-catch and aquaculture.	39	$11.6 m
Key performance indicator		
Self managed or co-managed fisheries governance structures and processes developed and a minimum of five fisheries brought under self management.		
30% reduction in fisheries that are overfished or of an unknown status.		
Increased utilisation of fisheries R&D outputs by fisheries management agencies.		
Challenge 2: Resource access and resource allocation Optimise resource access, resource allocation and opportunities for each sector of the fishing industry, "within a rights-based framework.	15	$4.6 m
Key performance indicator		
30% reduction in fisheries that are overfished or of an unknown status.		
Increased utilisation of fisheries R&D outputs by fisheries management agencies.		
Total	54	$16.2 m

Summary of performance

Quantitative measures of natural resources sustainability in wild fisheries are difficult to prescribe and report against. For more detail see the performance matrix on pages 12–14. Notwithstanding this, the FRDC is confident, on an aggregated basis, that:

MOST ASPECTS OF THE AOP PERFORMANCE MEASURES WERE NOT ACHIEVED, BUT WORK TO ADDRESS THESE WAS STARTED

Principal inputs

During 2005–06, $16.2 million (64 per cent of the FRDC's R&D investment) was invested in R&D activities within this program, through 54 projects listed on the FRDC website.

The FRDC also oversaw an additional $0.2 million of R&D funded for aquatic animal health projects.

Environment indicators

R&D Program 1: Natural Resources Sustainability

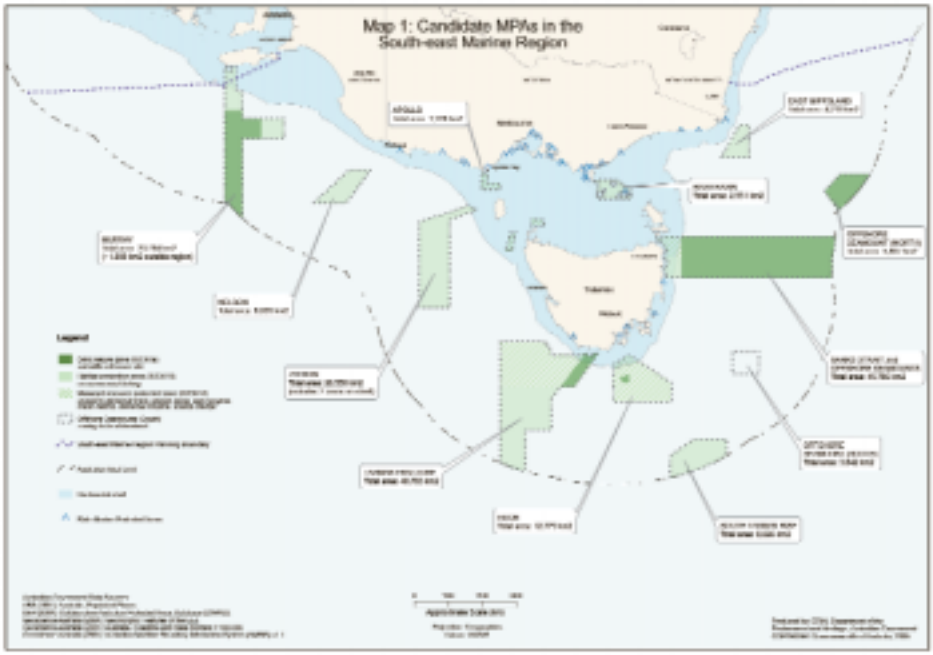
Australia has a broad range of freshwater and marine habitats that support a diverse range of aquatic species. Australia's maritime zone is one of the largest in the world covering about 14 million square kilometres: about twice the area of Australia's land mass. This zone contains about 4500 known species of finfish (and perhaps tens of thousands of invertebrate species) — most in relatively small numbers.

Federal, state and territory government agencies are responsible for managing the fisheries and aquaculture activities within their jurisdictions. A large component of the research and development undertaken by the FRDC focuses on providing information that will assist these agencies improve the sustainable use of Australia's environment. The projects that are outlined below highlight the diversity and excellence of the FRDC's current research portfolio.

Environment — the big winner

Project title: Review and assessment of the impacts of the proposed broad areas of interest (BAOI) for MPA development in the South East Region (project 2005/083)

In December 2005 the FRDC and Tasmanian Department of Primary Industry, Water and Environment joined together to initiate a project to independently assess the impacts of the proposed Marine Protected Areas (MPA) in the South East Region of Australia.



MPAs initially proposed by DEH for Australia's south-east bio-region covered 170,000 square kilometres.

In response, Professor Colin Buxton (above), Director of the Tasmanian Aquaculture and Fisheries Institute (TAFI) was engaged by the seafood industry and the FRDC to head up the expert-based project team. The team examined all 14 MPAs put forward by the Australian Government Department of the Environment and Heritage (DEH) and assessed their impact in a way that could be substantiated by science.

The project did this by identifying areas of importance to the fishing industry within and around proposed MPAs and quantifying the impact on industry if these are lost.

The report gauged the impact on fisheries including:

- Tasmanian scallop
- Commonwealth orange roughy
- Commonwealth auto-longlining
- Commonwealth southern shark
- South Australian rocklobster, and
- giant crab.

As part of their initial investigation it became clear that about 90 per cent of the impact would be on Tasmanian-based seafood operations.

One of the most significant impacts of the Banks-Strait MPA would be on the Tasmanian scallop fishery, which would lose an estimated 4000 tonnes a year and see its successful and sustainable "paddock" harvesting strategy compromised.

Mutual benefits

The concept of planning MPAs to provide mutually-beneficial outcomes is not new. The areas proposed by DEH already provide for oil and gas exploration and, presumably at some point, development.

The research team noted that including fishing values in this planning process would simply capitalise on an opportunity to conserve biodiversity, while providing a positive future for Australia's primary industries.

Minister called for changes

The Australian Government Minister for Fisheries and Conservation, Eric Abetz, has made it clear he will not accept the restrictions on the fishing industry proposed by DEH.

He was speaking to industry members at a Tasmanian industry meeting after receiving the FRDC-initiated report from TAFI Director Colin Buxton.

"Based on my initial reading, it is clear that changes will need to be made to the current MPA proposal," he said.

"What we need is a sensible, balance between fishing and the environment, similar to that achieved in the forestry sector."

"This scientific study of the impact of the proposed MPAs will be an invaluable resource to the Howard Government as we strive to effectively balance the needs of fishing and conservation," he said.

"While we'll need to go over the details of the proposal very carefully, it's clear the report makes a very important contribution to the debate."

Eric Abetz said the Australian Government would consult stakeholders including the commercial and recreational fishing industry, oil and gas interests and environment groups before determining MPA boundaries in the south east bio-region.

More: www.mffc.gov.au/releases/2006/06004a.htm

Colin Buxton (left) presents Eric Abetz with a copy of the report.

The final plan delivered

The Government made around 20 changes to boundaries and zoning based on stakeholder inputs (primarily those from the FRDC report). These changes did not compromise the overall representation of geomorphic features and bioregions, as in every case it was possible to avoid key areas of industry activity by finding alternative features elsewhere in the region.

Peter Franklin, Chair of the Australian Seafood Industry Council Working Group on MPAs notes that in comparing the Government's December proposal and its final plan released in May 2006. the final plan reduced the impacts on commercial fishers by over 90 per cent while significantly improving conservation outcomes. In total the revised plan achieved increased representation of critical features for biodiversity conservation. For example, the area of shelf increased from 4.7 to 7.5 per cent and seamount coverage increased from 64 to 81 per cent.

Lessons learned

In undertaking this project industry and those involved learnt a number of key lessons that can assist in addressing and responding to future MPA processes.

1. Understand the conservation objectives and the criteria by which fishing activities are to be assessed.
2. Ensure all industry stakeholders are effectively engaged and motivated. An effective industry liaison officer and industry working/coordinating group are essential.
3. Stay engaged and participate in a constructive and positive manner.
4. Do your homework and ensure that industry positions are well-researched, justified, and presented.
5. Ensure that the socio-economic and conservation implications of all proposals are fully researched and understood.
6. Respond to threats and opportunities in a timely and unified manner.
7. Develop and execute an effective communications strategy, and ensure all key politicians are kept briefed and informed.
8. Maintain liaison with other industry groups likely to be affected by the MPAs and key conservation interests.
9. Ensure that fundamental issues such as compensation are resolved before negotiations on boundaries and access classifications commence.
10. Develop a unified approach that recognises there will be "winners" and "losers" but ensures that industry communicates an agreed message.

Trawled redbait.

See sea lions by satellite

Project title: Innovative Solutions for Aquaculture: planning and management — addressing seal interactions in the finfish aquaculture industry (project 2004/201)

South Australian scientists have tracked by satellite the daily movements of 60 Australian sea lions for about six months to discover where and how they feed under as part of FRDC-funded project 2004/201.

The primary aim of the project is to learn more about a mammal now listed as a threatened species under the Australian Government's EPBC Act and to factor its needs into aquaculture planning and management.

This sea lion — a big, eared seal — exists only in Australia, with 80 per cent of the population based on the South Australian coast.

As part of the project South Australian Research and Development Institute (SARDI) and National Parks and Wildlife rangers fitted satellite-linked radio transmitters to 30 adult females, 15 adult males and 15 juveniles from six of eight known breeding sites on the Nuyts Archipelago, off Ceduna.

The study has concentrated on an area around Port Lincoln, where a big sea lion population operates alongside tuna farming. This study will provide valuable data on whether there are any interactions between the seals and the caged tuna.

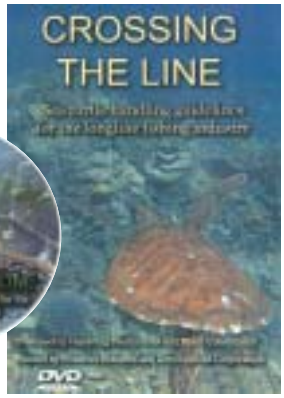
"The study is the most comprehensive ever," said principal investigator Simon Goldsworthy of SARDI, "and very important, because little is known about their important foraging habitats".

"We have already completed a detailed seal lion census, discovered two previously unknown breeding sites and determined that about 400 pups are born at these sites each season, accounting for about 20 per cent of the South Australian population." The project is due for completion in the 2006–07.

More: Simon Goldsworthy, telephone 08 8207 5400,
e-mail goldworthy.simon@saugov.sa.gov.au

Two representatives of one of the world's smallest sea lion populations.

Turtle video release



Project title: Sea turtle mitigation for Australian pelagic longline fisheries (project 2003/013)

A video showing how best to handle accidentally hooked sea turtles is being distributed to Australia's pelagic longline fishers.

Launched in May 2006, the video was produced in FRDC project 2003/013 that is working with fishers to determine the best ways to reduce turtle hook-ups — and to reduce deaths in those that are hooked.

Fishers were provided a logbook, covered in the video, in which they can record every turtle captured and the type of hook and baiting style used, depth and position of hook, design and colour of light stick, gear configuration, time of set and environmental factors.

In addition the fishers are also testing gear modifications suggested by United States studies, including the use of circle hooks and alternative hook spacing on their mainlines to rate the impact.

To improve survival, the crews are testing dip-nets, line-cutters and de-hookers and recommending alternate approaches and designs that deliver the best results. Besides reducing mortality in an endangered species, the project aims to pre-empt any move by the United States to ban imports from fisheries that do not take mitigation measures.

It is worth noting that subsequent to the release of the video, it has been translated into a number of languages including Indonesian for use in their fleet. In addition the United States has also adopted the practices outlined in the video and is being requested by their long line crews.

The program will also help Australia comply with its obligations under a memorandum of understanding on the conservation and management of marine turtles and their Indian Ocean and South East Asian habitats.

More: Principal Investigator Carolyn Robins, telephone 07 5442 8575, e-mail robins.eumundi@bigpond.com

REEF RARITY — gorgonian seafans off Whitsunday Island.

Reef reveals its rarities

Project title: Effects of Trawling Subprogram: mapping bycatch and seabed benthos assemblages in the Great Barrier Reef region for environmental risk assessment and sustainable management of the Queensland East Coast Trawl Fishery (project 2003/021)

After more than 300 days at sea, scientists are compiling a picture of seabed life rich and rare from the length and breadth of the Great Barrier Reef Marine Park.

They have processed 15,000 plant and animal samples, 2000 sediment samples, 2200 hours of video and 140 gigabytes of echo-sounder data from almost 1400 sites on the continental shelf.

These pieces of data form part of a giant underwater jigsaw gathered during 10 voyages aboard the Queensland Department of Primary Industries and Fisheries research vessel Gwendoline May and the Australian Institute of Marine Science (AIMS) vessel Lady Basten.

The results will assist in developing the basis of maps, databases and management tools to help marine resource agencies conserve habitats and biodiversity and ensure that fisheries are ecologically sustainable.

"This has been the most intensive scientific exploration of the lesser known, deeper seabed of the world's largest marine protected area," said Principal Investigator Roland Pitcher of the CSIRO.

"Almost 6000 sea organisms have now been identified. Some are new records for Australia and some may be unique to the Great Barrier Reef."

About 50 scientists and technicians from five research agencies have contributed skills in biology, ecology, geology, physics and mathematics to the Great Barrier Reef Seabed Biodiversity Project.

"The scale is unprecedented and reinforces Australia's role as leader in tropical marine science," said CRC Reef program leader Peter Doherty of AIMS.

The project also demonstrates the benefits of collaboration. The arduous fieldwork being completed in just two years an achievement that could never have been achieved by one agency working alone. The study is also affiliated with the global Census of Marine Life.

More: Roland Pitcher, telephone 07 3826 7250, e-mail roland.pitcher@csiro.au; Peter Doherty, e-mail p.doherty@aims.gov.au; www.reef.crc.org.au/resprogram/programC/seabed/index.htm

REEF RARITY — a tiger prawn strolls through seapens on soft sediment off Port Clinton.

Recs move to accredit

Project title: A national environmental management and accreditation system for recreational fishing tournaments: concept development (project 2005/235)

Recreational fishers and management agencies have supported the move to develop a voluntary five star accreditation system for fishing tournaments to ensure these competitions meet sustainability and other managerial guidelines.

Principal Investigator of the FRDC-funded project, InfoFish Services Manager Bill Sawynok, says tournaments have a high public profile and are important to the recreational sector. However fisheries managers previously had put them in the too-hard basket, with little regulation beyond size and bag limits. As well, organisers have no guidelines, codes of practice or accreditation systems to measure and improve their environmental performance.

To remedy this deficiency, Recfish Australia through FRDC project 2005/235 developed a concept for a national environmental management and accreditation system that takes into account the social and economic benefits of competitions, as well as their underwater impacts.

The accreditation system proposes to use an ISO 14001 environmental standard to classify tournaments. Each will be accredited on a one to five star basis — one star identifying tournaments with high environmental impact and low social and economic benefits and five stars recognising those with negligible or positive environmental impacts.

It is envisaged that participation will be voluntary for the immediate future and administration of the scheme being run by an independent company. The ultimate goal is for the whole accreditation program to be self-funding through fees paid by tournament organisers.

Bill Sawynok said the concept had been developed through consultation with recreational fishing organisations, organisers of major tournaments, state management agencies and the Australian Fishing Tackle Association.

All stakeholders recognised it was an opportunity to promote the sustainability of recreational fishing and address welfare issues especially those generated by catch and release tournaments.

For tournament organisers the incentives to adopt accreditation will be the opportunity to:

- gain a marketing edge over unaccredited events
- attract sponsors
- reduce insurance and other costs
- demonstrate environmental awareness to the community, and
- demonstrate responsibility to government through self-regulation.

The long-term goal for the program is to link with existing initiatives such as the National Ecological Sustainable Development of Fisheries program, FRDC's National Strategy for the Survival of Released Line-caught Fish and the National Code of Practice for Recreational and Sportfishing.

More: Bill Sawynok, telephone 07 4928 6133, e-mail infofish@zbcom.net

Securing jewies' future

Project title: Fishery biology and management of black jewfish *Proteonibea diacanthus (Sciaenidae)* aggregations near Injinoo community, far northern Cape York (project 1998/135)

Northern Territory researchers were joined by southern counterparts in a FRDC-funded effort to secure the future of the big, hard-fighting black jewfish, an aggregating species and one of the north's signature angling attractions.

Northern Territory Department of Primary Industry, Fisheries and Mines, the Australian Institute of Marine Science and the Tasmanian Aquaculture and Fisheries Institute continued to work on understanding the biological importance of the annual aggregations of the black jewfish through project 2004/004.

The black jewfish grows to 40 kilograms and ranges waters from the tidal zone to 100 metres deep. It can be targeted in river and estuarine systems and in coastal and offshore waters.

Senior NT scientist Michael Phelan says with its impressive size and fighting ability it mirrors the attributes of its southern counterpart, the mulloway. The most striking difference is that the black jewfish is not elusive. It has a strong predilection for deep holes and structures such as wrecks or reefs, takes fresh bait and lures and makes up a sizeable proportion of the catch of recreational fishers and fishing tour clients.

Each year big aggregations form at locations across the north, from central Queensland to northern Western Australia, their predictable nature and inshore locations ensuring the popularity of the commonly called "jewies" with the fishers who target them. Although the biggest aggregations comprise thousands of fish their biological purpose and importance are yet to be proven.

However international evidence shows that aggregation fishing can rapidly undermine fish stocks. Chronic effects include reduction of size-age structure and deteriorating reproduction. Acute effects include a complete loss of aggregations.

Michael Phelan says nowhere in the published literature is there evidence of a lost annual aggregation ever reforming. To establish the movement patterns of black jewfish, the researchers have released 84 specimens off Darwin, each carrying traditional external plastic tags, as well as acoustic tags surgically implanted in their body cavities.

All were caught and released in water less than 12 metres deep to ensure they came to the surface and returned to the bottom full of energy.

To capture information on their movement, more than 50 receivers have been deployed along 300 kilometres of coastline. Pulses from the acoustic tags are recorded when a fish swims within a few hundred metres of a receiver.

Michael Phelan says the resulting knowledge of aggregating behaviour will allow custodians and fishers to use stocks sustainably, so they can be enjoyed equally by current and future generations. A public workshop to discuss project results will be held in Darwin later this year. The date will be posted on the project web page at www.fisheries.nt.gov.au along with details of the study's components.

More: Michael Phelan, telephone 08 8999 2144, e-mail Michael.Phelan@nt.gov.au; Principal Investigator Colin Buxton, telephone 03 6227 7256.

Researcher Jayson Semmens inserts an acoustic tag into a black jewfish.

Old heads' new trawl solutions

Project title: Effects of Trawling Subprogram: An investigation of two methods to reduce the benthic impact of prawn trawling (project 2004/060)

A combination of industry and scientific know-how looks like reducing the impact of prawn trawls on the sea floor — and improving the fuel economy of the trawlers pulling them.

Queensland prawn fisher David Sterling of Sterling Trawl Gear Services and Australian Maritime College fishing technologist Steve Eayrs have used their combined 40-plus years' experience of trawl design and performance to lead FRDC project 2004/060, which has made and tested two modifications they describe as "exceptionally encouraging".

In the first, the existing ground chain has been replaced by what its designers call a soft brush, consisting of a floated HD polyethylene rope with short, light, chains dangling vertically from it.

A conventional ground chain slides over the seabed to stimulate prawn movement into the approaching trawl. The flume tank at the Australian Marine College (AMC) in Launceston was used to fine-tune the balance of forces acting on the new ground gear, set up its correct position relative to the seabed and establishes the effect of trawl speed on its configuration.

The second modification from this collaborative project that also involves the University of Queensland and the Queensland Department of Primary Industries and Fisheries is a new, environmentally-friendlier otter board.

"Most otter boards have an angle of attack of about 40 degrees to ensure they remain stable during deployment, fishing and retrieval," David Sterling said.

The new batwing boards retain this stability, but with a much lower angle of attack that generates less drag and less seabed contact. During the trials, wing-end spread and trawl drag were measured for each configuration at 2.5 knots and 3.0 knots.

Initial engineering results show the new boards produce about 10 per cent higher spread with an overall reduction in drag of 25 per cent. An estimation of efficiency suggests that the lift to drag ratio is about 200 per cent higher than that of conventional flat boards — a good result, say the designers, considering the trawl gear is being stretched to about 88 per cent of its headline length.

AMC-designed underwater cameras were used to monitor the operation and geometry of the otter boards and ground gear. The collaborators said from trawl shots made off Fraser Island it appeared catches of both prawns and scallops were not substantially affected by the use of the soft brush ground gear.

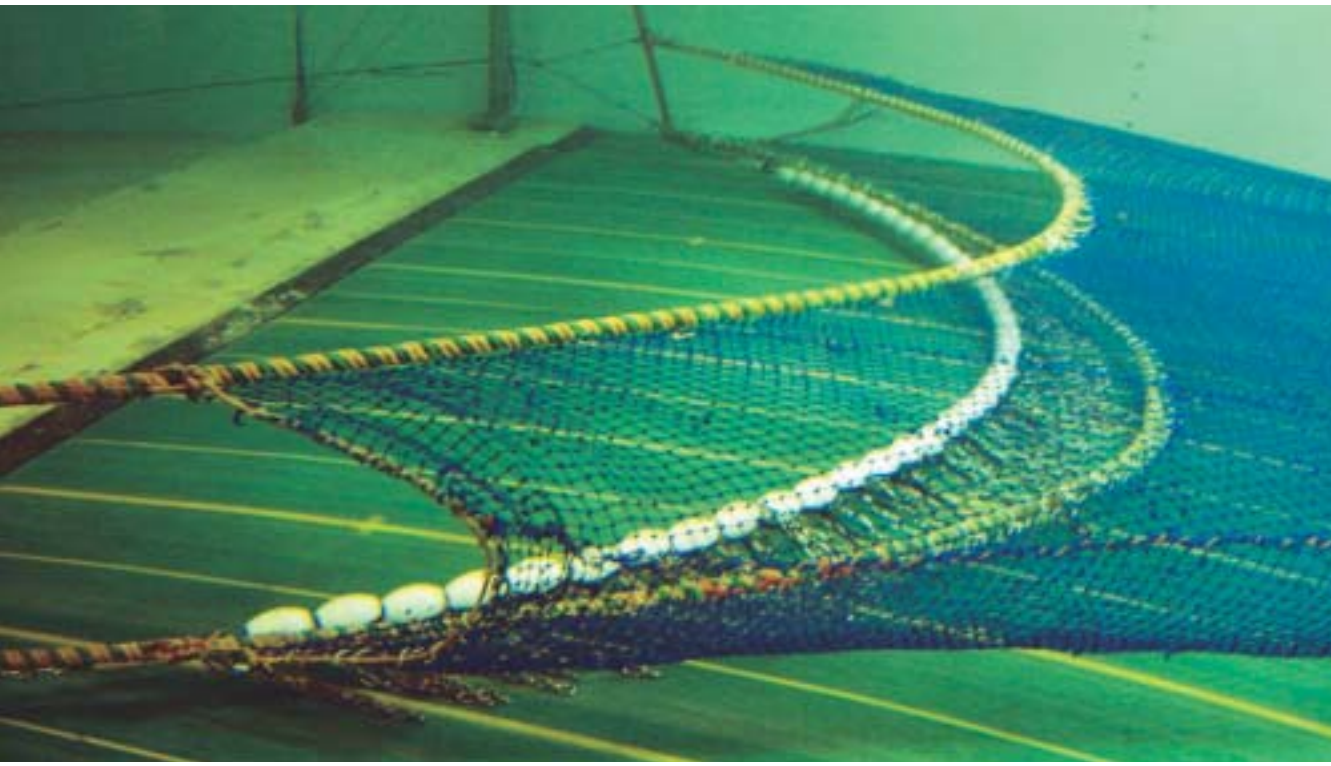
The modification did not seem to markedly affect retention rates of other catch components either — including the range of benthic material in the trial area.

There were variable differences in prawn catch between the new otter boards and conventional ones and a close inspection of the data will be made to establish the significance of the results.

However, the collaborators say it was clear that traditional flat boards caused a marked increase in benthic material retained in the prawn net. This was reduced if 2-metre long sweeps were inserted between the boards and the net, but nevertheless the results clearly showed that the traditional boards caused a much larger disturbance to the sea floor. Although longer sweeps substantially reduced the amount of benthic material retained behind the big flat boards, the catch of fish bycatch increased significantly.

More: David Sterling, telephone 07 33001105, e-mail djstgs@tpgi.com.au

Floating ground gear being tuned in the Australian Marine College flume tank.



Profiling our partners

Ecologically Sustainable Development Reporting and Assessment Subprogram

Ecologically Sustainable Development
Catching Sustainability

Ecologically Sustainable Development (or ESD) is a dynamic concept that seeks to integrate short- and long-term economic, social and environmental effects into the decision-making of government and industry. ESD was formulated over 10 years ago, but until recently has proved hard to implement effectively and demonstrate its achievement, in a practical manner. All Australian fisheries agencies and industry groups are committed to implementing the principles of ESD.

The FRDC helped establish the ESD Reporting and Assessment Subprogram act as the coordinating hub for the development of information and tools for ESD reporting and assessment.

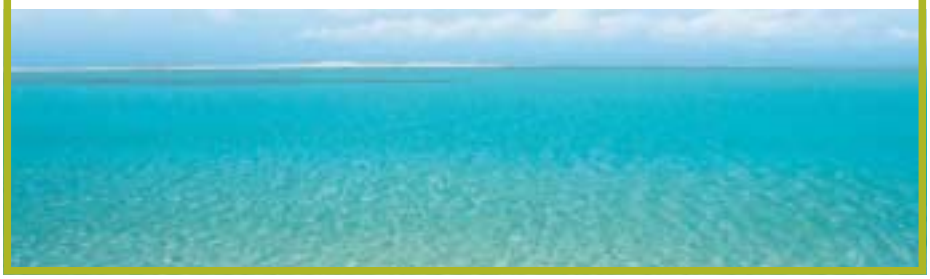
The last 12 months for the subprogram has been a time of consolidation and realignment. The first round of EPBC assessments have been completed by all jurisdictions and the subprogram has been active in assisting the Department of the Environment and Heritage determine their methodology for the reassessment processes that will begin next year. It is likely that a risk based approach will be undertaken and the subprogram will continue to assist in the refinement of the methods and information associated with this process.

At the last meeting of the ESD Subprogram, it was clear that the use of the tools generated by the subprogram for wild capture fisheries were now being widely used amongst jurisdictions. Notably, the ESD framework is now being adopted for use in the Pacific (where it is called the Ecosystem Approach to Fisheries Management) to assist in the management of the tuna fisheries (through Forum Fisheries Agency) and for inshore resources (through work done by the Secretariat of the Pacific Community).

The initiative to trial the application of the ESD framework at the regional level has not progressed as much as expected. The realignment in the scope of the processes being undertaken by the National Oceans Office and also their administrative arrangements have contributed to the delay, but work in this area has commenced.

The project to review progress in ESD implementation across jurisdictions has now been initiated and this will examine what (if any) additional tools and requirements are still needed. The outcomes of this review will be critical in assisting determine what happens when the current subprogram project ends in the middle of 2007.

More: Rick Fletcher, e-mail, Rick.Fletcher@fish.wa.gov.au, telephone 07 3633 6729; http://www.fisheries-esd.com/



EMS nets Queensland's top award

Queensland's Moreton Bay Seafood Industry Association (MBSIA) has won two state awards for a multiple-species environmental management system, developed with the help of Seafood Services Australia in FRDC project 2003/062. The environmental management system (EMS), which took three years to develop, won Queensland's 2006 Sustainable Primary Production Award and Most Outstanding Contribution to Primary Industries Award.

The success of the multi-species EMS for the Moreton Bay Seafood Industry Association has inspired other grassroots fishers along the Queensland coast to develop their own EMS schemes.

Principal Investigator Daryl McPhee of the University of Queensland says "a powerful change of attitude underpins the Moreton Bay story, transforming a tradition of conflict and resistance to change among competing fishers and fisheries into a culture of unity, common goals and performance planning — and winning community approval in the process". As a result, he says, fishing groups from Mackay, Rockhampton, Bowen and Bundaberg have been EMS-motivated and Moreton Bay's blueprint is now available for fisheries in other Australian states and beyond.

The EMS covers Moreton Bay's otter trawl, beam trawl and inshore net fisheries, with crab to still be developed. MBSIA Chief Executive Officer Kellie Williams says it is one of the first EMS programs to cover multiple species, multiple fisheries and hundreds of fishermen.

MBSIA environment representative John Page agreed. "Many of our families have been fishing the bay for four or five generations and we want this resource to be here for our children's children."

MBSIA Chairman Warwick Newnham said the EMS has provided commercial fishers with the methodology to identify and minimise the impact of fishing on the marine environment, with the added benefit of establishing what he called a culture of continuous improvement and industry cohesion.

Moreton Bay fishers are now a strong, united group committed to conserving and protecting their marine environment because their livelihood depended on it.

More: Warwick Newnham, e-mail, wjpnewnham@optusnet.com.au; Kellie Williams, telephone 07 3633 6729; www.seafood.net.au/files/mbsia.pdf

ACHIEVEMENT AWARDED — back from left: Michael Fennessy, Wally Newham, John Page, Rob Brock. Front: Michael Wood and Kellie Williams.

Deck hand Trigg McAuliff sets a rocklobster pot off the coast of Western Australia.

Part 2: Economic indicators

R&D Program 2: Industry Development

Investment in activities under this program depends on evidence of market, institutional, technical, policy or political failure, and/or likely "public good" benefits.

Such investment helps to achieve the "public good" imperative of relieving pressure (directly or indirectly) on wild fisheries resources. At the same time, it helps to meet a growing demand for seafood (for example, through aquaculture) and for lifestyle benefits through recreational fishing. It also helps to satisfy the cultural needs of Aboriginal and Torres Strait Islander people through customary fishing.

Summary of completed projects in 2005–06 for Program 2

Strategic challenge	No. of projects completed in 2005–06	FRDC investment in these projects
Challenge 3: Response to demand; profitability Respond to, and take advantage of, increased demand for seafood and for recreational and customary fishing experiences.	38	$8.4 m
Key performance indicator		
At least two companies accessing new markets for domestically caught seafood.		
Establishment of a third-party audited food quality standard for vessels and processors.		
Five per cent increase in finfish production through improved feeds and feeding practices.		
Establishment of a commercial operation (ASCo) specialising in the utilisation of fish processing waste.		
At least two companies utilising improved stock from selective breeding programs.		
Total	38	$8.4 m

Summary of Program 2 performance

Quantitative measures of industry development are difficult to prescribe and report against. For more detail see the performance matrix on pages 12–14. Notwithstanding this, the FRDC is confident, on an aggregated basis, that:

A NUMBER OF PERFORMANCE MEASURES WERE PARTIALLY ACHIEVED

Principal inputs

During 2005–06, $8.4 million (about 33 per cent of the FRDC's R&D investment) was invested in R&D activities within this program, through 38 projects listed on the FRDC website.

Economic indicators

R&D Program 2: Industry Development

Demand for high-quality seafood is predicted to outstrip supply in both domestic and export markets; and similarly in the recreational and Indigenous sectors the demand for high-quality fishing experiences will outstrip supply. There is a need therefore, to increase both the production and the value of the catch and to take advantage of future opportunities. For the commercial sector business profitability and international competitiveness is an overriding concern. This program aims to assist all sectors improve their overall performance. The following project descriptions provide examples of the R&D being currently undertaken.

Tuna manual is a hit

Project title: A manual of best practice handling techniques for longline caught tuna (project 2003/414)

An onboard manual to improve product quality on tuna longliners has been commended by industry and users throughout the supply chain.

The 80-page *Australian Tuna Handling Manual* sets out to help fishers understand the nature of the fish, plus optimal handling, quality and safe food practices — and therefore have a clear grasp of what processes they can control to maximise quality and improve market access and profit.

Jenny Davies of Ocean Wild Tuna says copies are being used on her company's longline vessels, where they are invaluable in helping skippers deliver the crew training necessary to achieve the best possible prices.

"Market prices reflect in the crews' share and ultimately in their bank balances so are of utmost importance to them," she said.

Lucas Woolford, Quality Assessment Manager at the Sydney Fish Market, said the manual sets a standard for all Australian fisheries.

"It is a great help for inexperienced fishers and for experienced ones who needed to break out of set ways of handling fish."

He said in the Sydney Fish Market it was proving to be a valuable educational tool and also provided much-needed guidance for retailers and restaurateurs in assessing sashimi grade tuna.

The concept for the manual came from former Western Australian Rural Woman of the Year Erica Starling, who co-wrote the manual. She and co-author Geoff Diver, former Executive Officer for the Western Tuna and Billfish Management Advisory Committee, were helped by the South Pacific Council, which gave them access to the words and graphics in the manuals it had developed for its longline tuna fisheries.

Funding came from the Rural Industries Research and Development Corporation, through the Rural Woman of the Year award and from FRDC through the Seafood Industry Development Fund.

The manual, on water-resistant stock, is available from Seafood Services Australia, telephone 1300 130 321. Cost: $98, including $10 handling and postage.

Stores of the fish waste liquid are checked prior to processing.

Waste is a growth business

Project title: SESSF Industry Development Subprogram: agricultural trials of a fish-based fertiliser (BioPhos) produced from Australian seafood processing wastes (project 2002/250)

Australia's biggest fertiliser company, Incitec Pivot, signed up to market an organic fertiliser based on what formerly was seafood processing waste.

BioPhos, as it is known, was developed in FRDC's Southern and Eastern Scalefish and Shark Fishery (SESSF) Industry Development Subprogram.

East coast seafood processors and retailers who previously paid up to $150 a tonne to dispose of fish waste can now sell it at a profit. The fishy component of BioPhos is transformed on-site into an odourless liquid using some simple machinery to do the work. The initial capital cost of the equipment is about $100,000.

The Australian Seafood Co-products (ASCo), a company developed by the subprogram, buys the liquid nutrient from the processors and transports it to Incitec Pivot pilot plants in Victoria and New South Wales, where it is blended with rock phosphate to make a fertiliser that, in initial trials made four times more phosphate available to plants than can be delivered by rock phosphate alone.

FRDC Subprogram Leader and ASCo Chair Ian Knuckey told participants at Seafood Directions in September 2005 that with a minimum of 20,000 tonnes of seafood waste available on the eastern seaboard each year, a broad scale and, ultimately, broad acre application had been the most appropriate initial solution.

More: Ian Knuckey, telephone 03 5258 4399, e-mail: fishwell@datafast.net.au

Principal Investigator Craig Lawrence admires a selectively-bred marron at the University of Western Australia aquarium.

Big marron boost profits

Project title: Improved performance of marron using genetic and pond management strategies (project 2000/215)

Marron farmers have been shown how to lift profit up to nine-fold by using the selective breeding techniques of FRDC project 2000/215.

Results from the project are dramatic. On a well-designed and managed 50-pond farm, marron from the selective breeding program can:

- double yield from 1.5 tonnes per hectare per year to 3 tonnes
- increase internal rate of return from 8.24 per cent to 22 per cent
- improve return on capital from 4 per cent to 40 per cent, and
- lift annual profit from $20,722 to $189,130.

As Australia's biggest farmed freshwater crayfish, marron potentially will grow to 2.2 kilograms.

Principal Investigator Craig Lawrence of the Western Australian Department of Fisheries found commercial specimens were getting smaller rather than bigger because farmers were sending their biggest marron to market and breeding from slower-growing leftovers. To reverse the decline, wild broodstock were collected from six WA river systems unrepresented on commercial farms.

The progeny of all six grew faster than their farm cousins. In what Craig Lawrence describes as a simple mass selection breeding program, the best more than doubled farm weights, growing up to 110 per cent faster in only two generations.

Breeding objectives established in consultation with growers were used by researchers to develop a selection index for a more complex pedigree breeding program that permitted simultaneous selection for multiple traits based upon economic merit — and better control of inbreeding.

To test the outcomes and transfer benefits the research team and farmers grew over 147,000 marron to market size in 44 commercial ponds in Western Australia and South Australia during the five years of trials.

From five commercialisation strategies a fast, low-cost option was chosen: four categories of selected stock were distributed through an expression of interest tender process to commercial operators in both states who have the ability to maximise survival and mass-produce juveniles to sell to the broader industry.

This has also allowed maintenance of repository genetic lines held by the WA department and research partner the University of Western Australia to be reduced to a minimum.

Craig Lawrence said more than 10,000 marron were distributed as broodstock in the last two months of 2005, with demand outstripping supply for the best three of the four available categories.

More: Craig Lawrence, telephone 08 9203 0221, e-mail clawrence@fish.wa.gov.au

Rocklobster MoU a trail-blazer

Project title: Southern rocklobster industry research and development planning, implementation and extension (project 2006/215)

A $2.5 million Memorandum of Understanding between tri-state Southern Rocklobster Limited (SRL) and FRDC has allowed SRL to begin a market development program to reduce risk and increase profits.

SRL Chair Roger Cotton (right) said the program aims to position Australia's southern rocklobster in the super premium dining category, initially in the United States, then in Europe and China.

SRL is owned by its three state industry associations, South Australia holding 55 per cent, Tasmania 35 per cent and Victoria 10 per cent. Currently the majority of its fish is sold live into China, where Australia is a price-taker.

Under SRL's five-year MoU with FRDC, licence owners in the three fisheries will contribute $240,000 a year, which the Australian Government will match.

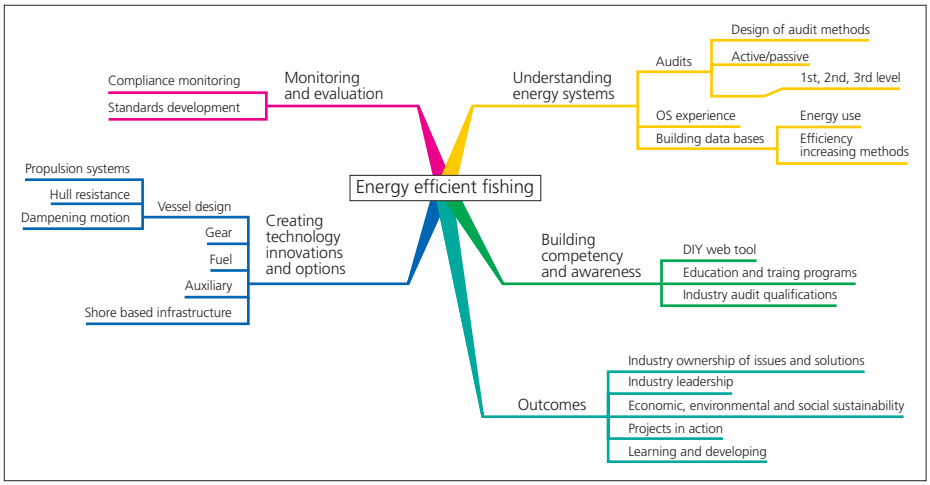
Roger Cotton said the investment from FRDC allows the USA project to investigate American market requirements. Demonstration trials would be held to confirm the suitability and effectiveness of these three components.

This done, a supply chain would be forged to guarantee consistent delivery of rocklobsters that met USA super premium restaurant specifications.

A communication system will assist to gain entry to this restaurant sector, along with a niche distribution system to take care of deliveries.

In a national first, the MoU will see a dedicated organisation established to coordinate all southern rocklobster R&D, with the objective of boosting long-term sustainability, competitiveness and profitability.

More: Roger Edwards, telephone 08 8272 7766, e-mail roger@corvel.com.au



Energy hits the deck

Project title: Fishing energy efficiency review for the FRDC (project 2005/239)

The first significant meeting of minds on energy options for Australia's fishing fleet was undertaken in December 2005. This meeting resulted in a trans-Tasman R&D agenda for alternative fuels, greater efficiency and cleaner emissions.

The two-day workshop was held in Melbourne, brought together alternative energy providers, boat and gear designers, trawl fishers, researchers and funding providers. The workshop concluded that the process should begin with an energy audit of current Australian and New Zealand fishing operations. Additionally, a concurrent demonstration project on potential fuel and engine options will seek input from bio-diesel and liquefied natural gas producers and conversion suppliers.

Participants of the workshop said identifying actual energy use on a fishing vessel and the real-life practices on board were the first steps in achieving fuel conservation.

Fishery managers will be engaged and asked to re-assess existing input controls that discourage economic and environmental efficiencies, such as vessel length restrictions, crewing levels based on length and power and restrictions on pair trawling.

Participants of the workshop were told that anecdotal surveys (South East Trawl Fishery Industry Association) indicated 270 million litres of diesel Australian fisheries currently burnt each year accounted for up to 30 per cent of operating costs at current prices. Future projects will aim to confirm this figure.

Future prospects were higher prices, a domestic oil production deficit beyond 2015 and a global need to reduce greenhouse gas production.

Organisers said "as a scoping exercise the workshop had begun building energy efficiency networks and sharing knowledge". It had initiated a greater energy system view, particularly between Australia and New Zealand; identified and acted to close gaps in education and information; and had taken the first steps toward determining the best energy options for the nation's fishers. In addition discussions had begun with Seafish, the UK Fisheries Research and Development Organisation, to extend the scope for knowledge sharing.

More: Ian Knuckey, telephone 03 5258 4399, e-mail fishwell@datafast.net.au; Crispian Ashby, telephone 02 6285 0425, e-mail crispian.ashby@frdc.com.au

Hatchery manager Brian Murphy with black tiger prawns produced from domesticated broodstock.

Tiger prawn cycle is closed

Project title: Understanding and removing the barriers to *Penaeus monodon* domestication (project 2002/209)

A Queensland farm has harvested the world's first commercial crop of black tiger prawns grown from parent stock bred in captivity.

Previously, all parent stock had to be located and collected in the wild — a practice regarded as a major inhibitor to aquaculture expansion.

Director of Gold Coast Marine Aquaculture, Noel Herbst, says the 50 tonne closed cycle harvest represents about 15 per cent of his farm's annual production.

"They are the third generation to be bred in our Logan River hatchery and they have survived and grown as well, or better, than the progeny of wild-caught parents," he said.

He said supplies of wild parent stocks were seasonal and erratic and not having to rely on them entirely meant production would be more consistent.

The domestication of black tigers, *P. monodon*, Australia's most commonly farmed prawn, comes in a FRDC-funded collaboration between industry and scientists.

The industry partners are Gold Coast Marine Aquaculture, Seafarm Pty Ltd and the Australian Prawn Farmers' Association. The research organisations are the CSIRO through its Food Futures Flagship, the Australian Institute of Marine Science and the Queensland Department of Primary Industries.

Principal Investigator Nigel Preston of CSIRO said three generations were grown to maturity in experimental tank, pond and indoor raceway systems before a transfer to commercial ponds in 2004.

"We tried to reproduce the kind of natural conditions and cues prawns experience in the wild, in places such as the Gulf of Carpentaria and off eastern Queensland," he said.

"Water temperature and diet need to be just right to achieve the best possible rates of spawning and larval survival."

He said technology flowing from the project would be invaluable to the farm sector, but there was more to be done.

"The next challenge is to develop selective breeding programs that will further improve the quality and consistency of Australian black tiger prawns."

More: Nigel Preston, CSIRO, telephone 07 3826 7221; Martin Breen, Australian Prawn Farmer's Association, telephone 0402 689 565; Brian Murphy, Gold Coast Marine Aquaculture, telephone 0407 116 149.

Profiling our partners

Southern Rocklobster Limited

(Southern Rocklobster Limited (SRL), the national peak body for the Australian Southern Rocklobster Industry, was pleased to announce their involvement in a national seafood industry first in January 2006. The signing of a $2.5 million Memorandum of Understanding (MoU) with the FRDC has led to the establishment of a dedicated organisation responsible for coordinating all R&D activities for the Australian southern rocklobster industry and further strengthened the partnership between the FRDC and industry at the national level.

The MoU has secured funding for the implementation of the industry's R&D objectives over the next five years. Following the successful initial roll out and continuing implementation of the Clean Green Program which has ensured that industry members at the grassroots level can demonstrate adherence to the highest environmental, Occupational Health and Safety, food safety and animal welfare standards, the MoU and subsequent R&D activity is set to boost the long-term profitability, sustainability and competitiveness of Australia's $150 million southern rocklobster industry.

Major projects incorporated under the MoU include:

- USA Market Development Program: this has focussed on the development of supply chain, distribution and communication tools to facilitate penetration into the USA Super Premium Fine Dining (SPFD) market, and has incorporated product trials and training for SPFD chefs and restaurant chefs. It is intended that the project will provide an avenue for entry into the USA's SPFD sector via:
  - establishing the capacity to guarantee a product top the marketplace in accordance with market values / meeting specifications
  - establishing the capacity to deliver quality product to the marketplace on a consistent basis
  - creating the most effective communication tool to engage the marketplace, and
  - trialling the standards-based supply chain management system to deliver the "Ultimate Offer and Guarantee" to the SPFD at an increased value per lobster.

A REAL TREATY!
Dr Patrick Hone (left), FRDC Executive Director, and Roger Cotton, SRL Chairman, signing the historic Memorandum of Understanding

PRESENTATION STYLE — A more than 2 kilogram Australian southern rocklobster served recently in the USA as part of the SRL Market Development Program.

A SRL delegation undertook research in the USA during early May 2006 to confirm the opportunity and assess potential supply chain partners, achieving positive results.

- Australian southern rocklobster industry strategic planning process:
  - strategic planning workshop conducted early June 2006
  - progress checked against original strategic plan (2003)
  - the workshop established two key platforms going forward aimed at capturing opportunities for industry growth over the next five to ten years. The meeting reaffirmed the highest priority area as market development and SRL was endorsed to continue implementing the Market Development Program.
  - the second and new key priority area where opportunity was identified was that of the stock enhancement, with opportunities seen with extra weight and price improvement through translocation, growth rates and seasons.

More: Roger Edwards, SRL Executive Officer, telephone 1300 853 880

CASE STUDY

Bob puts new spin on old ways

Bob Alexander's invoices arrive at the FRDC office in a time-honoured form — handwritten.

From the Western Australian hamlet of Green Head (population 300) he and son Glenn continue another tradition older than scribes and parchment — catching octopuses in bait-less pots. But, tradition aside, Bob, 63, and Glenn, 27, are taking the refuge pot technology of the ancient Greeks and feudal Japanese to a new peak of efficiency.

Through FRDC project 2004/248 they have doubled their catch per unit of effort and reduced costs by developing a winch retrieval system.

"We also can use a smaller boat, work our gear in rougher weather than before and Glenn's not breaking his back hand-pulling, restacking and re-setting pot lines that have 40 kilograms of ballast at either end," Bob Alexander said.

The father and son work flat weed shallows about 35 kilometres north and south of Green Head from a trailered 7 metre aluminium planing hull with twin outboards.

"With our new technology the weather lets us work about four days a week on average and trailering means we burn only about $20 of outboard fuel a day."

The new gear is called a double refuge pot retrieval system — double refuge, because the pots of 100 millimetre diameter PVC pipe are bolted together in parallel pairs, with concrete blocking one end of each; its weight ensuring they lie flat and motionless on the ocean floor.

"The openings of each pair are at opposite ends, to separate the occys so they don't fight each other," Bob Alexander said.

The father and son settled on the double refuge configuration after years experimenting with different shapes and sizes.

Shorter lines, better catches

Instead of the conventional WA longline of 100 pots strung 4 to 6 metres apart, the Alexanders set shorter lines of 20 pairs, each at 3 fathom spacings — about 5.4 metres.

"Short lines are easier to shoot and retrieve and they let us place our pots on productive ground in a way that's not possible with longlines. This is a big factor in increasing the catch rate," he said. Previously they used to tub the retrieved pots, remove the octopuses, restack, then re-set — all by hand.

The winch-based retrieval system they have designed with FRDC funding pulls the gear and slides each pair of pots on to a horizontal rack, from which it runs off automatically for re-setting. Commercial-grade cloth is rigged under the rack, hammock-like, into which the octopuses slide.

"We needed something they couldn't attach themselves to with their suction pads and the cloth does the job. We'll refine this a bit further, so they slide from a cloth hopper into a basket or bin," he said.

The Alexanders remove the octopus heads at sea and chill the carcasses in an onboard ice slurry for transport to Green Head, where they are bagged in 1 kilogram packs and frozen for the WA restaurant market.

Bob Alexander and son Glenn with the new baitless octopus pots.

Access hiccup

It's a venture that hasn't all been plain sailing. When the WA Department of Fisheries recently reclassified octopus fishing as a new industry it overlooked the Alexanders who, Bob said, had been filing regular octopus catch returns since 1988. With some outside help they were reinstated but, under the departmental reclassification, renewal of their fishing licence is now subject to review.

"The department currently allows us to use up to 12,000 pots. Our soak time is up to 30 days and we aim to retrieve and reset 500 double pots per fishing day."

The decision to seek FRDC funding to develop their innovation flowed from their attempt to reinstate themselves as octopus fishers in the eyes of the WA department.

"We went looking for friends. Our local member of parliament and Richard Stevens from the WA Fishing Industry Council (WAFIC) supported us and the WA Business Enterprise Commission subsequently helped a lot with our application to FRDC.

"And anyone who catches occys more efficiently has the rocklobster fishery on side, because they're harvesting the major predator of rocklobster in pots."

Beach price for the Alexanders' product isn't flash — just $7–8 a kilogram, which they put down to its low market profile.

"We've been experimenting with value-adding and have developed some interesting products that we hope to market soon. Either way, there'll never be a fortune in it for us. My aim is a comfortable living for our two families from a low-cost, sustainable operation that Glenn can then take over.

"The biggest benefits from the FRDC project will come if other WA octopus fishers decide they can use our system to work more safely, efficiently and profitably. If they do, the rocklobster fishery will benefit too."

More: Bob Alexander, telephone 08 9953 1813

Part 2: Social indicators

R&D Program 3: People Development

Projects funded under Program 3 primarily address the FRDC's planned outcome for people development. However, this outcome is also addressed, as a secondary but very important element, by projects within Programs 1 and 2.

Summary of completed projects in 2005–06 for Program 3

Strategic challenge	No. of projects completed in 2005–06	FRDC investment in these projects
Challenge 4: People development Develop people who will help the fishing industry to meet its future needs.	10	$0.7 m
Key performance indicator		
Two seafood industry leaders to complete the Australian Rural Leadership Program annually.		
Minimum of 10 fishing industry participants annually to attend the Advance in Seafood Leadership Development Program.		
Challenge 5: Community and consumer support Increase community and consumer support for the benefits of the three main sectors of the fishing industry.	1	$0.1 m
Key performance indicator		
Ten per cent improvement in recreational fisher capacity to release all fish in good condition.		
Ten per cent increased consumption of seafood.		
Aquaculture ventures are able to access new sites.		
Total	**11**	**$0.8 m**

Summary of Program 3 performance

Quantitative measures of how our investment in people development impacts on the fishing industry is difficult to prescribe and report against. For more detail see the performance matrix on pages 12–14. Notwithstanding this, the FRDC is confident, on an aggregated basis, that:

A MAJORITY OF AOP PERFORMANCE MEASURES WERE MET

Principal inputs

During 2005–06, $0.8 million (about 3 per cent of the FRDC's R&D investment) was invested in R&D activities within this program, through 11 projects on the FRDC website.

Social indicators

R&D Program 3: People Development

People are the cornerstone of any industry. For the fishing industry it is vital that it continues to produce people who will take the industry forward towards a sustainable and profitable future. The FRDC has taken a strong role in supporting people development; from employing and developing young researchers, through to providing management training for all levels of industry. The following projects outline some of the key investment areas in 2005–06.

Food stars of the future

Project title: Lexus Young Chef of the Year (project 2006/312)

In 2006 the FRDC sponsored the Lexus Young Chef of the Year Awards. The objective of sponsorship was to allow the FRDC to invest throughout the whole supply chain; not just in fisheries sustainability and seafood production.

To make sure this year's seven finalists had an appreciation of what goes on in the fishing industry (and the broader agricultural environment), FRDC put together an industry tour of Tasmania.

The FRDC structured the tour collaboratively with four other R&D corporations to cover most aspects of Australian food production. This not only meant the chefs got a better understanding of Australian food-based agriculture, it meant the cost for each RDC was significantly less.

Lexus Young Chef of the Year state finalists (from left) Adam D'Sylva, Messimo Melle, Hannah Williams, Colin Barker and Kenneth Bryce (winner) pictured with celebrity chef Luke Mangan and Tim Fischer.

Lyndey Milan, *Australian Women's Weekly* food director with Kenneth Bryce, the 2005 winner; and Luke Mangan who founded the Lexus Young Chef of the Year Award.

Over five days the finalists visited the Bolduan Bay oyster farm, Petuna/Sevrup salmon hatchery, Redrock and Stanley Fish lobster holding facilities, as well as winemakers, cattle producers, potato and onion farmers and a vegetable distribution business.

On the final night FRDC hosted an industry stakeholder dinner at The Deck in Devonport. Interestingly, the interaction between the young fishers and young chefs was strong. John Richey clearly articulated where the seafood industry is and what it offers to the chefs. This event provided a rare opportunity for younger members of the seafood industry to speak with food professionals their own age.

The Lexus Young Chef of the Year Award was established in February 2005 by Luke Mangan, Executive Chef, Glass, Hilton Sydney; and business partner Lucy Allon to identify, recognise and nurture the finest emerging young talent within the Australian food industry.

The industry tour was co-funded by the Australian Egg Corporation, Meat and Livestock Australia, Horticulture Australia and the Grape and Wine Research and Development Corporation.

More: Peter Horvat, FRDC Communications Manager, telephone 02 6285 0414, e-mail: peter.horvat@frdc.com.au

Lure cast to catch consumer

Project title: Enhanced usage of contemporary scientific findings on health benefits of seafood to promote fresh seafood consumption (project 1996/340)

Next time you nip into your local seafood retailer you might see two new, colourful brochures outlining the health, nutrition and convenience of Australian seafood.

The four-panel brochures were produced and distributed by FRDC and the Australian Seafood Industry Council as a first step to reversing a national trend to eat less seafood at home. The brochures build on the very successful book of the same name "What's so healthy about seafood?".

"Gram for gram, seafood is one of the lowest-fat, highest-protein foods and one of the best sources of omega-3 fats, which are vital for health and long life," said Mark Wahlqvist, Professor of Medicine at Monash University, Melbourne. "However in a national survey on nutrition, only one in four Australians reported eating fish at least once a week."

He said there were a number of possible reasons for this and the new brochures were seeking to address these issues head-on. Some of the key issues addressed include seafood's health benefits, nutritional composition, and preparation and storage of seafood.

"Consumer education is vital. Seafood is an important part of a healthy diet and can play a significant role in maintaining a healthy heart and reducing the risk of major health problems, including diabetes," Mark Wahlqvist said.

The brochures are supported by the interactive website, www.fish.gov.au, which offers more detailed nutritional information and cooking tips.

More: Peter Horvat, FRDC Communications Manager, telephone 02 6285 0414, e-mail peter.horvat@frdc.com.au

Developing our people

The FRDC contributed significantly to developing the capacities of people in the industry and the R&D community by supporting people involved directly in R&D projects. In addition, staff were employed on FRDC projects through in-kind contributions of project partners. The Corporation has also continued to involve end-users directly in research projects, increasing their ability to undertake research and to maximise their utilisation of R&D results.

The FRDC also sponsored a PhD student in the Department of Agriculture, Fisheries and Forestry-funded *Science Awards for Young People*.

Some of the people the FRDC has helped to develop in 2005–06

Scholarships for three

Three seafood industry operators have won scholarships for an intensive five-day course in corporate governance run by the Australian Institute of Company Directors.

Peter Dyke, 34, is farm manager of the family-owned aquaculture business Oyster Bay Oysters, at Little Swanport, Tasmania. He is also his region's representative on the Tasmanian Shellfish Executive Council and a contributor to the Tasmanian Shellfish Quality Assurance Program's algal monitoring project.

Samara Miller is Executive Officer of the Port Lincoln-based Spencer Gulf and West Coast Prawn Fishermen's Association and Executive Chair of the Australian Council of Prawn Fishers.

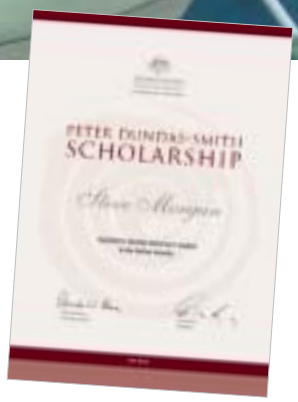
Kellie Williams, 24, of Hendra, Queensland, is Chief Executive of the Moreton Bay Seafood Industry Association and Vice-president of the Queensland Women's Industry Network Seafood Community. She manages the Queensland component of national program trialling wild-harvest environmental management systems.

They join a long list of other rural scholarship winners on the FRDC funded course, aimed at equipping them with the skills and confidence needed to boost their presence on industry decision-making bodies, as a precursor to future industry leadership.

More: Department of Agriculture, Fisheries and Forestry, telephone 1800 686 175; www.daff.gov.au/industrypartnerships

Samara Miller

Kellie Williams



Steve seeks US formula

The winner of the second Peter Dundas-Smith Leadership Scholarship to develop fishing industry leadership will use the $10,000 prize to study the organisation of America's million dollar catch-and-release fishing tournaments and their ability to attract sponsors.

Steve Morgan (pictured above) of Brisbane is director of Australian Bass Tournaments Pty Ltd, controls the publishing group Fishing Monthly, which produces *Fishing Monthly* and associated magazines; and the Network Ten television show AFC Outdoor.

He says this puts him in a unique position to ensure that Australian tournament fishing benefits from the knowledge he expects to gain in the United States, where tournament companies receive major sponsorship from out-of-industry sources.

"I believe that, in Australia, out-of-industry funding is the key to promoting fishing to the wider audience, thus addressing declining participation nationally," he said.

In the United States he will study management of the biggest tournament of the year, the $US1.5 million FLW Tour Championship, including the methods used to value the event, the inclusion of children through a kids' fun zone and the flow of competitors and their catch through weigh-in and safety procedures.

More: Simon Goldsmith, e-mail simon@fishingmonthly.com.au

FRDC Executive Director Patrick Hone (left) with "yound scientists" Nathan Miles and Simone Valle de Souza.

Young science

The FRDC in 2005 sponsored two applicants of the Australian Government's Science and Innovation Awards for Young People in Agriculture, Fisheries and Forestry due to the large number of applicants in the field of fisheries. The Awards aim to encourage people between the ages of 18 and 35 years to use science, technology and innovation to advance the future of agriculture, fisheries, forestry, food and natural resource management industries by providing $10,000 to assist in undertaking their respective projects. The two winners this year were as follows.

Nathan Miles — Uncovering the secrets of mystery fish

Nathan will use his award to study a remarkable group of fish on the NSW south coast. These so called diadromous fish are unique in that they migrate between fresh and salt water for important parts of their lifecycle. Ninety-nine per cent of all other fish are restricted to either salt or freshwater.

Many Australian species of diadromous fish are potentially under threat due to high coastal population densities and associated impacts such as poor land practices, land reclamation and particularly river regulation. The main problem is that the lifecycle of many of these species is a complete mystery so it is hard to determine their current status and the best ways to encourage their survival. Nathan will use a variety of techniques to better understand the lifecycles of these fish species. This will include field surveys of their current distribution and migratory movements, as well as laboratory based experiments into their spawning requirements.

"The increased biological information gained on these species will be useful for managers of estuarine fisheries, water resource management and river rehabilitation and management," Nathan says.

Simone Valle de Souza — Mathematically managing prawns

Simone de Souza's project aims to develop a computer model to help improve management of the Northern Prawn Fishery.

Simone plans to develop a model that will encompass the key environmental, economical, social and biological variables of the system used by the Northern Prawn Fishery. This will allow the impact of different control mechanisms to be estimated.

The Northern Prawn Fishery is the most valuable fishery managed by the Australian Government. It had production of approximately $82.5 million in 2002–03. Simone had developed the methodology that she will use for the project during her Master of Economic Studies. She chose the Fishery to be the first practical application of the methodology because of its value to the Australian economy.

"If it is successful the methodology could be adapted to model fisheries with other species or even for a different field such as forestry," Simone says.

Developing our industry

During 2005–06 the FRDC sponsored a number of significant conferences and workshops around Australia. A big change for the FRDC this year was to provide the events' host state industry council with a number of sponsored registrations at each event. The goal was to get the state to send a representative from another part of the industry in order to broaden the industry's overall awareness. Key events undertaken this year include the following.

Conference — Seafood Directions 2005

The bi-annual Seafood Directions Conference was held in Sydney with more than 300 industry people attending. While the level of industry participation was not as high as expected, it did not represent a lack of interest by industry, more the current financial situation many face.

Conference — 4th National Rock Lobster Congress: market development workshop

The Congress remains the key national rocklobster industry event for information dissemination, networking and development of a national direction. The 4th National Congress was an overwhelming success as demonstrated by the attendance and response from participants.

Conference — Sharing the Fish

The International Observer Conference brought together 200 participants from 26 nations representing government agencies, commercial and recreational fishing sectors, observer service delivery companies, observers, universities, private consulting and research organisations and labour unions that are active or interested in fisheries observer programs throughout the world to share ideas and to discuss key issues of common interest.

Conference — Seventh International Conference and Workshop on Lobster Biology and Management

The Seventh International Conference and Workshop on Lobster Biology and Management showcased Australian research and management, with Australians involved in 66 (43 per cent) of the 155 oral and 12 (24 per cent) of the poster presentations. This conference was the largest International Conference and Workshop on Lobster Biology held to date, with a record number of oral and poster presentations received, and the largest number of countries participating. The *New Zealand Journal of Marine and Freshwater Research* published the proceedings in two special issues, vol. 39/no. 2 and 3/2005.

Profiling our partners

The Australian Rural Leadership Foundation is a key partner in our people development program.

The FRDC is a proud supporter of the Australian Rural Leadership Foundation and has sponsored 19 participants of the Australian Rural Leadership Program (ARLP) over a period of 10 years.

The ARLP was initiated by the Australian Rural Leadership Foundation in 1992 as a unique opportunity for men and women from rural and regional communities to undertake a program of personal and professional growth that would prepare them for leadership roles in the future.

AUSTRALIAN RURAL LEADERSHIP FOUNDATION
SPONSOR

Participants are drawn from diverse backgrounds, and represent all spheres of rural and regional business, industry, community and government. All have been identified as people with the potential to articulate the needs of rural Australia in domestic and international arenas.

The ARLP takes participants on a journey that challenges them physically, emotionally and intellectually. They are encouraged to reflect on and evaluate their values, to step outside their comfort zone and to experience life from a very different perspective. Participants are exposed to a wide range of issues and viewpoints, and are given opportunities to interact with domestic and international business, industry and government, as well as different cultures and communities.

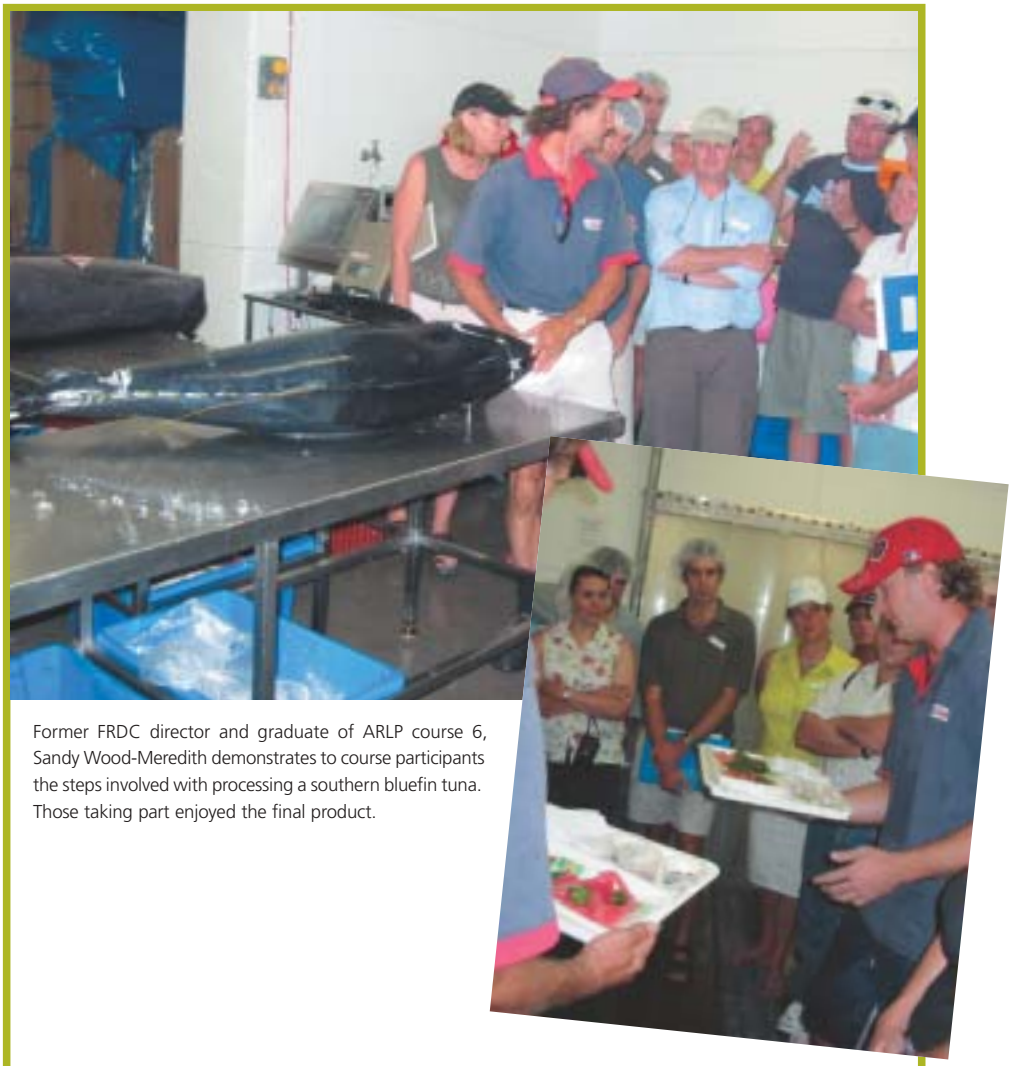
FRDC sponsored graduates over the past decade have been:

- Course 2 — Stephen Hinge and Nigel Scullion
- Course 3 — Nev Perryman
- Course 4 — Duncan Leadbitter
- Course 5 — Graeme Hillyard
- Course 6 — Sandy Wood-Meredith and John Roach
- Course 8 — John Harrison and Ted Loveday
- Course 9 — Steven Gill and Jenny Shaw
- Course 10 — Tim Mirabella and Martin Breen
- Course 11 — Mark Gooley and Leith Whittaker

Current participants

- Course 12 — Ian Knuckey and Christine Tucker
- Course 13 — Mark Pagano and David Ellis

"Participating in the Australian Rural Leadership Program provided me with challenges and opportunities for personal growth which I would never have achieved in any other course. The most exciting benefit is now being part of a network of graduates with the skills, passion and commitment to lead positive change in our industries and rural communities."
ARLP graduate



Former FRDC director and graduate of ARLP course 6, Sandy Wood-Meredith demonstrates to course participants the steps involved with processing a southern bluefin tuna. Those taking part enjoyed the final product.

"Rural and regional Australia has no shortage of individuals who have the passion and interest to drive our spirited communities. What has been too often lacking, however, is the encouragement and support that programs like the ARLP do offer." ARLP graduate

A Decade of Visions

This year the Australian Rural Leadership Foundation published *A Decade of Visions* — featuring visions presented at graduation by participants of their first 10 Australian Rural Leadership Programs. It is a stunning testament to the strategic thinking required to develop a collaborative vision for rural and regional Australia from 300 different personalities. It also represents an important opportunity for the future as graduates link together within and across courses to develop further actions that will make a difference for rural and regional Australia. FRDC jointly funded the publication partnering with other research and development corporations.

More: Australian Rural Leadership Foundation, www.rural-leaders.com.au

CASE STUDY

Oyster secrets shared

"In three years we've leap-frogged from the 18th century to the 21st century. We've learnt so much. It's been such a positive experience".

Sydney rock oyster grower, and Sydney-based retailer, Audrey Thors is speaking of a FRDC-funded project 2004/224 to reverse a decline in production of the indigenous oyster in New South Wales' Clyde River.

Designed and run by international aquaculture researcher Ana Rubio, the three year project still has months to go and the outcomes are far from certain.

But talk to growers on the Clyde and they will tell you that after a brief bout of 'Who is this person?' the two parties engaged and the flow of benefits has been constant.

Audrey Thors' sentiment is repeated — and volunteered — by individual growers, from a Greek-born patriarch to a 20-something representative of a new generation.

Which is intriguing, considering that Ana Rubio's R&D goal is, as the *Yes Minister* bureaucrats would say, courageous; and the project jury is still out. The researcher aims to:

- identify every item that oysters eat in the Clyde, using stable isotope analysis
- match these dietary components to the river's available nutrients
- determine why some parts of the Clyde estuary produce better oysters than others, and
- develop a model that will allow growers to predict the optimal carrying capacity of the estuary as environmental conditions and nutrient flows fluctuate naturally.

For the growers, these are still intangibles. Their championing of their researcher is based on two benefits they have derived along the way.

Direct sale

The first is the right to sell Sydney rock oysters direct from the river without depuration when the Clyde's salinity level is high enough (30 parts per thousand) — a major breakthrough that delivers a better, more profitable oyster and reduces water-to-market time by 36 hours.

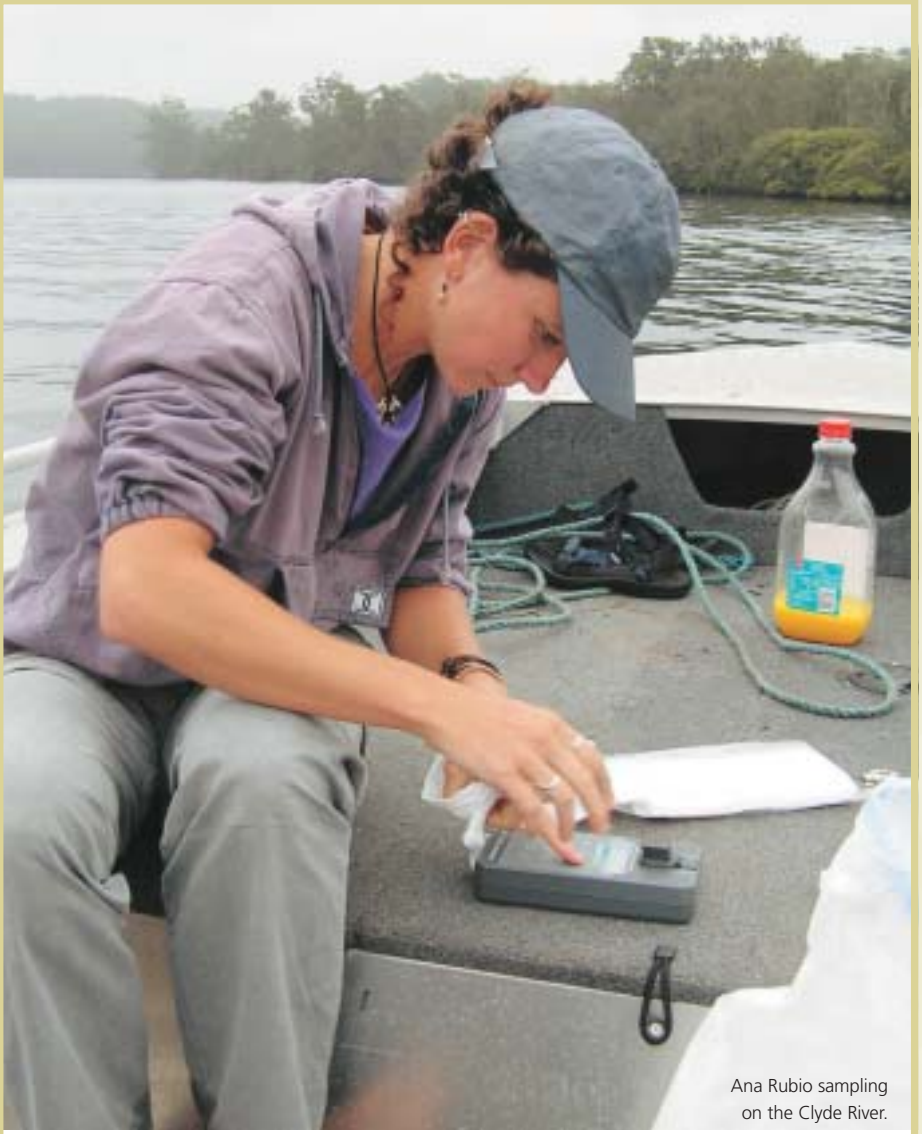
"Ana on her own time helped us manage new protocols towards our direct harvest accreditation, talked to the NSW Food Authority on our behalf and gathered the evidence we presented to them," said Audrey Thors.

The second benefit is to have shared, week by week, the knowledge Ana Rubio has progressively gained from almost three years' work on and in the water. As a result, the growers know how the estuary works environmentally and ecologically.

How heavy rain drives a flow of nitrogen-based nutrients downstream from the forested national park that is the estuary's backdrop and protector.

How these nutrients stimulate phytoplankton production and the resulting time-lags until the plankton become a banquet for the oysters and the oysters peak in growth and condition. How the complementary phosphates flow in the opposite direction — upstream, from the sea.

And, ultimately, how to put this ability to read the river to commercial benefit.



Ana Rubio sampling on the Clyde River.

Communication the key

Throughout, the key has been communication. Week after week, month after month two-way communication.

"When I come down now (from Canberra, two hours away) I budget for an extra day talking with the growers," Ana Rubio said.

Her greatest satisfaction and, she conjectures, perhaps her future career spring from this human interaction and the knowledge she is doing something beneficial for other people.

"I'm confident we'll identify every item the oysters eat and I think we know why some parts of the industry grow better oysters than others. As well, we've determined that stocking at high densities reduces oyster condition but not shell growth — and I've done some comparative studies in the Shoalhaven estuary too."

"So will we be able to create a reliable model to predict optimal variations in carrying capacities? At this moment, I don't know. But I do know the Sydney rock industry has been declining for 30 years. And with the growers on the Clyde I've made a start to reversing that 30-year decline."

The researcher

Ana Rubio graduated as a marine zoologist in her native Spain. She subsequently worked in Britain on European lobster aquaculture, completed a masters degree there in aquaculture and fisheries, then worked in Ireland on oysters.

She and her partner came to Australia in part to escape British Isles' weather. Initially she worked as an unpaid volunteer on oysters for NSW Fisheries at Port Stephens.

After learning about the problems on the Clyde from Audrey Thors and intrigued that the causes of a long-term, state-wide decline in Sydney rock production had not been identified, she became a student again. She applied for and obtained a PhD scholarship at the Australian National University (ANU) in Canberra, supervised by Ian White.

The FRDC-funded project on the Clyde is part of her PhD investigation. Her Canberra base is at CSIRO Land and Water, which provides laboratory facilities unavailable at the ANU's Centre for Resources and Environmental Studies.

The farmers

There are only 22 oyster growers on the big, pristine Clyde River estuary at Batemans Bay. But some individual leases have been subdivided into three, suggesting that the number of oysters in the water at some locations has tripled. Consequently, some growers believe the estuary is overstocked. Despite the partial protection of a national park, turbidity and siltation from elsewhere in the catchment are seen as a problem too and there is criticism that the NSW Government has not legislated for buffer zones to protect water quality.

On the plus side, the ability to sell direct from the water when salinity allows is welcomed, even though growers say the cut-off level is unnecessarily high. And hatchery spat has been a godsend.

"I can put them out as big as my fingernail and harvest them nine months later," said oyster grower Sid Pashalidis.

Even so, production is falling and if the current R&D project confirms the growers' suspicions, what then?

Audrey Thors doesn't hesitate. "We must monitor environmental impacts and ensure that sedimentation is limited. We must use science to educate ourselves on stocking densities. Then we must self-manage as a group of 22. Ana's model will provide the tools."

More: Ana Rubio,
telephone 02 6246 5589,
e-mail ana.rubio@csiro.au

Report of Operations

Part 3: Management and accountability, and corporate governance

Program 4: Management and accountability

The challenge for this program is to continually improve the activities through which it:

- plans, invests in and manages fisheries R&D throughout Australia, and
- facilitates the dissemination, adoption and commercialisation of R&D results.

The FRDC's ISO-certified quality management system encompasses all these activities.

Most Program 4 outputs do not lead directly to the FRDC outcome but enhance the inputs of Programs 1–3 (the three R&D programs — pages 12 to 60).

Management and accountability output indicators

Since the management and accountability outputs of Program 4 contribute to the planned outcome of the FRDC R&D programs, they are crucial to the FRDC's effectiveness and efficiency. These outputs are outlined on the following under the headings:

- Business Strategy and Planning
- Information Management Systems
- Corporate Communications
- Risk Management
- Finance and Administration
- Quality System
- Human Resources Management
- Corporate Governance

TABLE 5: PERFORMANCE INDICATORS FOR MANAGEMENT AND ACCOUNTABILITY

Performance indicators	Status reached	Details
Business strategy and planning		
Acceptance of the annual operational plan and annual report by the Parliamentary Secretary and the FRDC's representative organisations.	Achieved	See page 72
Evidence of consultation with stakeholders and research providers	Achieved	FRDC awarded special award for stakeholder communications. Market research confirms FRDC rating. More on pages 67–68
Evidence of FRAB influence on research providers — minimum 80% of applications submitted through FRAB	Achieved	Advice provided by representative bodies and FRABs
Information management systems		
Further development of corporation's computerised systems	Partially achieved	New application system 'Fishnet' completed and users rate it as a vast improvement
Update information available via FRDC website	Achieved	Web site completely renovated to provide improved access to R&D outputs and in particular products http://www.frdc.com.au/

TABLE 5 (CONTINUED)

Performance indicators	Status reached	Details
Corporate communications		
Undertake market research with stakeholders	Achieved	See pages 67–68
Evidence of adoption and research uptake from post-project evaluations, and other sources	Achieved	Responses from principal investigators and stakeholders indicate a high level of research dissemination
New publications developed	Achieved	See page 152
R&D results disseminated in *R&D News*, the World Wide Web, the Australian Natural Resources Online databases and other media	Achieved	See pages 68–69
Risk management		
Board-approved fraud control and risk management plans for the corporation	Achieved	See pages 73 and 81
Quality system		
Satisfactory internal and independent audit reports in relation to the corporation's ISO9001:2000 quality accreditation system demonstrating compliance with the Australian standard	Achieved	See page 82
Human resources management		
All staff has personal performance agreement	Achieved	See page 81
Develop a succession planning process	Partially achieved	Work commenced in 2005–06
Finance and administration		
A minimum of 85% of the contributions paid by industry to the FRDC that can be matched by the Australian Government	Achieved	128% achieved 2005–06. See pages iv, v and vii
A minimum of four sub-sectors contributing more than the maximum matchable contribution	Achieved	See page iv
Evidence of 10% operating budget comes from other funding sources	Achieved	See page ii
Proportion of expenditure on R&D programs, and programs support—respectively minimum 90% (including communications) and maximum 10%	Achieved	See page vii
Evidence of work being undertaken to expand the definition of AGVP	Partially achieved	See page 72
Corporate governance		
Board members and all staff trained in relevant procedure	Achieved	See page 73
Undertake induction training for new Board members	Not applicable	—
New policies introduced as required	Achieved	All FRDC policies are available via the FRDC website www.frdc.com.au

Management and accountability

Note: In the interests of improved accountability, some minor modifications have been made to the reporting structure of this program that were not incorporated into the Annual Operational Plan (AOP) for 2005–06 when it was prepared in early 2005. However, the program's coverage remains the same.

Principal inputs

During 2005–06, $3.0 million was invested in activities within this program, including $0.2 million on communications.

Principal outputs

Planned outputs for this program are continually improving management and accountability activities. Each year, information on explicit planned outputs is provided in the Annual Operational Plan (AOP). Since these outputs contribute to the planned outcomes of the three R&D programs, they are crucial to the FRDC's effectiveness and efficiency.

Selected outputs achieved by the management and accountability program during the year were as follows, under headings of strategies specified in the R&D plan and against key performance indicators nominated in the AOP:

1. To provide leadership in fisheries R&D.
2. To invest in high-priority R&D that has the potential to deliver the highest benefits.
3. To make R&D results widely known, and to facilitate their adoption and (if appropriate) commercialisation.
4. To expand the FRDC revenue base to increase investment in fisheries R&D.
5. To develop and maintain effective, efficient, open and accountable management procedures and systems.

Strategy 1: To provide leadership in fisheries R&D

During the year the FRDC continued to support a number of organisations in the pursuit of building a solid base of infrastructure for the fishing industry. In particular:

- The Corporation continued to provide support for its two representative organisations.
  - On 9 June 2006, the directors of the Australian Seafood Industry Council (ASIC) placed the Council into voluntary administration after confirming that there was insufficient funding to maintain its viability. (See also comment in the Report of Operations on page 10.) This will place pressure on the FRDC to ensure a balanced level of representation for the industry until a replacement organisation is formed.
  - In 2006–07 FRDC will work with industry to ensure they receive adequate representation in all respects of FRDC's work program.
- Continued support was provided to Seafood Services Australia Ltd, the company limited by guarantee that the FRDC established in conjunction with the Australian Seafood Industry Council to be a catalyst for sustainable development of the seafood industry.
- FRDC continued to assist the Australian Seafood Industries — the Corporation continued to ensure that the intellectual property resulting from research to improve Pacific oysters through genetic selection is managed by the industry.

- Comparable work in relation to Sydney rock oysters, the FRDC also facilitated the establishment of the Select Oyster Company.
- FRDC continued to support the work of the Australian Seafood Co-products (ASCo), in 2005 the company secured a significant deal with Incitec Pivot for the production of the organic fertiliser BioPhos (see story on page 38).

FRDC reviewed and business will continue

In 2005–06 the Australian Government finalised a review of statutory agencies.

The review was part of the larger Australian Government's review of all statutory agencies. Even though the review process itself was not new with the Prime Minister announcing the review by Mr John Uhrig in November 2002. The review was completed 27 June 2003.

In August 2004, the Government accepted all but one of Uhrig's recommendations. The Australian Government announced that Ministers were to assess their portfolio agencies against the two governance templates that Uhrig recommended. (For more detail refer www.finance.gov.au/ governancestructures/index.html)

The final stages and assessments of agencies occurred during the 2005–06 financial year. The Department of Agriculture, Fisheries and Forestry indicated that the key elements that must be demonstrated for a research and development corporation to remain under the CAC Act are:

- the body operates commercially with the intention of making a profit, in a competitive environment, and it would likely be classified as outside the general government sector
- the body has an entrepreneurial focus
- a governing board would provide effective governance for a body
- there is a clear rationale for the assets of the body to not be owned or controlled by the Commonwealth directly, and
- the body requires a degree of independence from general policies of the Australian Government unless applied after consultation and formal notification.

The basic corporate structure remains the same however a number of changes will be implemented:

- the government director will be removed once enabling legislation is passed (this could take some time)
- the Minister will be issuing annually a "Statement of Expectation" to the FRDC in which he is expected to outline his expectations of the FRDC over the next year, and
- the FRDC will reply to the Minister's Statement of Expectation with a "Statement of Intent" which will detail how the FRDC expects to address the Statement of Expectation.

FRDC Executive Director Patrick Hone said "we couldn't have wished for a better outcome".

"It's a vote of support for the RDC partnership model. The basis is our close link with industry and our focus on delivering commercial benefits," he said.

More: www.finance.gov.au/governancestructures/

Strategy 2: To invest in high-priority R&D that has the potential to deliver the highest benefits

All FRDC strategic planning and reporting documents were approved by the Parliamentary Secretary to the Minister for Agriculture, Fisheries and Forestry in 2005–06. In addition all documents were provided to the FRDC's two representative bodies for comment and to ensure they are relevant to the goals of industry.

The *2005–2010 FRDC Research and Development Plan* (R&D Plan) was officially launched by Senator Ian Macdonald, the then Minister for Fisheries, at Seafood Directions 2005 held in September. The R&D Plan continues to be the central document that drives the direction of the FRDC research program. Closely aligned with this is the work of the state and territory FRABs that refine and guide the development of applications to meet the needs of industry, their jurisdiction and the FRDC.

In February 2005 the FRDC held a FRAB and stakeholders workshop in Canberra with more than 50 key stakeholders, representing all jurisdictions and sectors of industry attending.

In conjunction with the R&D Plan the FRDC also published a shorter companion volume. In 2006–07 the "R&D Plan Companion", which contains the FRDC key performance indicators, will be revised and updated to ensure it remains relevant to the needs of the fishing industry.

Improving the FRDC investment process

Late in 2005 the FRDC developed a discussion paper that examined the current FRDC investment framework, and sought to describe possible alternative models that may better suit the evolving nature of fishing industry R&D. FRDC's current model has been essentially unchanged since 1991. The model was developed when FRDC's business environment lacked planning infrastructure, had previously been based on a R&D granting process, and industry had little capacity to manage R&D.

The paper has been revised to take into account the collective comments made by the delegates at the biennial FRAB and stakeholder workshop (12–13 April 2006). The general consensus at that meeting supported the need to change the current FRDC process for investing in R&D. The change needs to provide greater ownership of the process by the contributors to FRDC. There is a need to take into account the changes operating environment at a national, and state and territory level. This includes the proposed changes to the R&D and Extension (RD&E) infrastructure and delivery nodes, regional delivery of natural resource management (NRM), stronger competition for research dollars and stronger sector bodies.

In considering an alternative investment framework for FRDC it is important to ensure that it is consistent with what has made FRDC and the RDC's model successful. The alternatives need to:

- strengthen and not weaken the partnership approach, and the bottom up priority setting process
- focus on achieving successful outcomes for Australia
- consider the process as an investment with a determined rate of return
- define the return in terms of economic, environmental and social benefits
- increase flexibility, reduce application cost and improve timeliness of output delivery, and
- make more user friendly for industry.

Feedback to date from stakeholders has supported the concept of a mixed model funding framework. It has been generally agreed that one process cannot meet the diverse funding needs of the fishing industry sector. Further, the current system has disincentives for stakeholders to contribute to the FRDC. The new process has to deliver improved outcomes, reduced transaction costs for those applying for funding, improved funding certainty and improved accessibility by industry.

Changes to the way FRDC undertakes it investment in R&D will be phased in over the next two years.

FRDC doing well, can do better

In 2005–06 the FRDC undertook its first stakeholder assessment. Research organisation IPSOS Australia was engaged to interview more than 200 industry operators nationwide. The research found several significant findings including that 47 per cent identified (without any prompting) FRDC as the organisation responsible for managing fisheries R&D nationally. Further a majority of industry operators saw FRDC as an efficient outfit with an intimate knowledge of key issues and a valuable ability to manage R&D funds and projects.

IPSOS consultants Jonathan Jenkin and George Katos said overall impressions reflected an organisation that had the respect of its stakeholders.

Among the conclusions:

- FRDC is seen by most as efficient, well-organised and competent
- high confidence exists in FRDC's ability to deliver on its core business role and objectives
- FRDC personnel are respected for their knowledge of industry issues and ability to undertake core activities, and
- high value is placed on FRDC funding governance and project management capabilities.

The past five years' R&D was rated highly by 56 per cent of respondents, with, 53 per cent saying it had a positive impact on their businesses.

Looking to the future, sustainability concerns and other uncertainties expressed by 80 per cent of respondents meant business operators were looking more than ever for strong leadership from FRDC.

Areas industry saw that the FRDC had to improve included:

- lack of funding for market development and product promotion — a concern volunteered by nine per cent of respondents
- to work more closely with industry associations and improve its communication of current R&D initiatives, and
- strengthen the ties with and engagement of the post-harvest sector.

More: Peter Horvat, FRDC Communications Manager, telephone 02 6285 0414; www.frdc.com.au; IPSOS Australia, telephone 03 9946 0888.

Strategy 3: To make R&D results widely known, and to facilitate their adoption and (if appropriate) commercialisation

Principal publications released during the year are listed on page 152. All FRDC publications, including research can be accessed via the FRDC's website www.frdc.com.au.

In 2005–06 the *R&D News* continued to be the jewel in the FRDC's communication crown. A significant achievement, foreshadowed in last year's annual report, was to change the delivery mechanism from being an insert to deliver the *R&D News* by direct mail (see story page 69). In total, four editions of the *R&D News* were published during the year achieving an annual circulation of approximately 50,000 copies. This is significantly down from the previous year distribution of 90,000 however current figures for 2005–06 reflect actual readership figures rather than the number printed. Over the next 12 months the FRDC will continue to build upon the information provided in the *R&D News* providing information in an easily accessible manner.

The FRDC website remains another powerful communication tool for the FRDC providing users with access to a comprehensive array of information on fisheries R&D. During 2005–06 the website was re-structured from a static HTML format to a database driven structure. This has significant implications for the future of the website, allowing for growth in an easy and cost effective way. In addition the FRDC worked hard to improve access to both reports and the image/photo library through making a number of changes to how its online bookstore operates. At the end of 2005–06 FRDC had over 600 short non-technical summaries on all completed projects available. These can be viewed free of charge and then if the reader wants, the full final report they can be purchased and downloaded via the website.

Making a direct connection

Feedback from over 300 stakeholders from across the seafood industry indicated that over 80 per cent read the *R&D News* and would like to receive it direct. In February 2006 FRDC made the change with the *R&D News* being sent direct to more than 10,000 industry stakeholders. At the end of the financial year the number of subscribers had grown 20 per cent to around 12,000. The FRDC has set a goal of increasing the subscribers to the *R&D News* by 30 per cent in the next financial year.

FRDC Communications Manager Peter Horvat said direct mail delivery was the first major step on delivering the latest *R&D News* to industry in a timely manner. The next step however is to continue to refine and develop our content in line with the 93 per cent of respondents who believed FRDC should interact and communicate with its stakeholders throughout the seafood supply chain.

The *Fisheries R&D News* is a free publication that is available to all stakeholders. To subscribe to the publication visit the FRDC website or contact the FRDC.

More: Peter Horvat, telephone 02 6285 0414; www.frdc.com.au

FRDC research online

Our R&D programs benefit the commercial, recreational and customary sectors of the fishing industry and Australia's economic, environmental and social resources. Through making available the latest research we are working towards a well-informed industry and community supportive of the industry and natural resources on which it depends.

Accessing our final reports and publications has never been easier with out new online facilities. This means that you can now view and purchase electronic copies of final reports or you can place an order for a hard copy. Our new bookshop is also equipped with a secure payment facility so you can shop with confidence.

www.frdc.com.au/bookshop

Beneficiary responses

We have explained how we communicate our R&D results but we feel it is important to highlight a few areas where our stakeholders have provided some feedback…

Jason Froud, Fisheries Management Officer

1999/153 — The development of a rigorous sampling methodology for a long-term annual index of recruitment for finfish species from south western Western Australia.

- As the manager of the South Coast Estuarine Managed Fishery and other minor commercial fisheries on the south coast, I was very encouraged to learn of the outcomes of your project… Your project has facilitated the assessment of recruit sampling variables (primarily spatial and temporal variables) with a view to determining the most appropriate time and place to sample for recruits of key finfish species.

Dr Lindsay Joll, Commercial Fisheries Program Manager, Fisheries WA

2000/134 — Biology and stock assessment of the thickskin (sandbar) shark, *Carcharhinus plumbeus*, in Western Australia and further refinement of the dusky shark, *Carcharhinus obscurus*, stock assessment.

- In summary I confirm that the view of the Commercial Fisheries Program that this project was of very direct benefit in aiding the Department of Fisheries to discharge its responsibilities for sustainable fisheries management. I would also like to thank the FRDC for its support of this vital project.

Duncan Worthington, AMBRAD Consulting Pty Ltd

2001/044 — Establishment of the long-spined sea urchin (*Centrostephanus rodgersii*) in Tasmania: a first assessment of the threat to abalone and rock lobster fisheries.

- I congratulate you on the success of the project, and look forward to hearing about the ongoing extension of its outcomes, and the progress of the innovative research and management responses proposed and discussed at the recent workshop.

Rob Fearon, Chief Executive Officer, CRC Coastal Zone, Estuary and Waterway Management

2001/060 — Characterising the fish habitats in the Recherche Archipelago, Western Australia.

- I would like to congratulate the FRDC and the project team on the completion of a well planned, scientifically rigorous and yet relevant and applied research project. This is a combination which is rarely seen and should be promoted more often.

Michael Kitchener, Executive Officer, Master Fish Merchant's Association of Australia

2002/433 — A survey of key merchandising requirements of Australian seafood retailers.

- The outcomes of the project provide a basis for the industry to address key issues affecting POS promotion in the seafood retail sector. This is timely considering the retail sector is coming under increasing pressure thus making effective POS promotion all the more critical.

Lyndon Giles, Managing Director, Southern Star Aquaculture

2003/216 — Aquatic Animal Health Subprogram: detection and management of yellowtail kingfish (*Seriola lalandi*) health issues.

- The photographic *Guide to Diseases of Yellowtail (Seriola) Fish* produced by Mr Sheppard as part of this project is an excellent, unique document which is specifically relevant to our enterprise and is a highly regarded component of our staff training program.

Kim Martin, Co-organiser of the Rocky Barra Bounty Tag and Release Fishing Competition

2005/235 — A national environmental management and accreditation system for recreational fishing tournaments: concept development.

- With the proliferation of fishing competitions in Australia at this present time, I consider it essential that a recognised system of accreditation be implemented to provide an independent mechanism of determining the relative merits of these competitions and their impacts on the fisheries resources of the area.

David Green, Organiser, Gold Coast Flathead Classic

2005/235 — A national environmental management and accreditation system for recreational fishing tournaments: concept development.

- The accreditation system piloted by Recfish Australia is a great innovation, and sets out clear guidelines so such events can be assessed as to their impact across these areas.

Strategy 4: To expand the FRDC revenue base to increase investment in fisheries R&D

The biggest potential area to impact on the FRDC's revenue base is the definition of the Average Gross Value of Production (AGVP). This figure impacts directly on the FRDC bottom line and in late 2005–06 the FRDC commenced preliminary work to examine the current structure and definition of AGVP. This work included looking at the definitions associated with the point in the supply chain the definition uses to calculate the figure. The work also examined a number of options in relation to expanding the definition to include indigenous and recreational fishers. During 2006–07 further work will be undertaken to analyse options for the AGVP model.

The FRDC has continued to build partnerships with individual industry sectors. The FRDC currently invests and partners a number of industry partners, such as Southern Rocklobster Ltd, Tuna Boat Owners Association and prawn and barramundi farmers. These partnerships offer both parties a number of advantages. For industry they provide more involvement in determining and undertaking R&D. For us they provide a more certain flow of industry funds and ultimately a greater understanding of the fishing industry.

An overview of the sectors that have contributed more than the maximum matchable contribution, as shown in Table 1: Industry contributions, maximum matchable contributions by the Australian Government and returns on investment, 2005–06. In addition the FRDC during 2005–06 continued to manage $0.4 million of Aquatic Animal Health investment, with $0.4 million spent in 2005–06.

Strategy 5: To develop and maintain effective, efficient, open and accountable management procedures and systems

The 2004–05 annual report was presented to the Minister before the legislative stipulated deadline and the Minister tabled it in Parliament.

The FRDC's two representative organisations (the Australian Seafood Industry Council and Recfish Australia) accepted the FRDC's 2005–06 annual report at their respective annual meetings on 24 May 2006 and 29 October 2005.

All FRDC programs management and administrative procedures have been documented. They were audited on 10 October 2005 by an external quality auditor, Quality Assurance Services Pty Ltd.

The FRDC's quality management system remained certified to AS/NZS ISO 9001:2000.

The 15 August 2006 audit report by the Australian National Audit Office confirmed that the FRDC's 2005–06 financial statements gave a true and fair view of the financial position of the FRDC.

The Australian National Audit Office conducted an on-site audit of the FRDC's aquatic animal health activities.

The FRDC collaborated with all other R&D corporations in a project to identify best practice in the corporations' "triple bottom line" reporting, coordinated by Land & Water Australia.

Corporate governance

FRDC's commitment to good corporate governance

"Governance" refers to processes by which organisations are directed and controlled — including, among others, characteristics such as authority, accountability, stewardship and leadership. Corporate governance is concerned with structures and processes for decision-making, and with controls and behaviour within organisations that support effective accountability for performance outcomes.

The Board and staff are strongly committed to ensuring good corporate governance of the FRDC. In doing so, the focus on structures, processes, controls and behaviour, is as follows.

Structures

Key elements of the FRDC's legislative foundation (the PIERD Act) are summarised in appendix C (page 134).

The FRDC also operates under the provisions of the CAC Act, which applies high standards of accountability while providing for the independence required by the Corporation's role as a statutory authority.

The FRDC's objects, deriving from section 3 of the PIERD Act and shown in appendix C, are incorporated in the FRDC's visions, mission and planned outcomes. As reflected in table 4 on pages 15–16, the FRDC's three R&D programs mirror the industry development, natural resources sustainability and people development themes of, respectively, sub-sections 3(a), (b) and (c) of the Act. This alignment has brought simplicity and robustness to the FRDC's R&D planning, implementation and reporting, and that of many of the organisations with which it does business. Importantly, the alignment ensures that the R&D outputs resulting from the Corporation's investments fully address the legislative objects.

The FRDC has no fully owned subsidiaries. Its major activities and facilities are located in Canberra.

The Board

The Board comprises nine directors who are appointed in accordance with sections 17 and 77 of the *Primary Industries and Energy Research and Development Act 1989* (the PIERD Act).

Directors are selected on the basis of their expertise in a variety of fields derived from the PIERD Act. These include commodity production and processing, conservation, science, economics, and business and finance management.

Directors are appointed for a term not exceeding three years, except for the Government Director and the Executive Director. All directors except the Executive Director are appointed on a part-time basis.

A finance and audit committee and a remuneration committee, and other ad hoc committees of the Board as deemed necessary from time to time, act on the Board's behalf.

The Board ensures that FRDC staff are provided with strong leadership, and that their qualifications, skills and experience are enhanced with formal, and on-the-job, training.

Details of the directors who held office during the year are shown on the following pages. Dr Patrick Hone (as with his predecessor for part of the year, Mr Peter Dundas-Smith) is the only Executive Director.

Directors' biographies

Mr Denis Byrne: Chairman (non-executive)

Appointed as Chairman from 1 January 2002; re-appointed in July 2004 for another three-year term.

Chairman of the Remuneration and Business Development Committee; and member of the Finance, Audit and Risk Management Committee.

Denis Byrne is a commercial lawyer with wide corporate, infrastructure and resources experience. He was formerly Managing Partner of Freehill Hollingdale & Page, Brisbane and President of the Queensland Law Society and the Law Council of Australia. Denis is Chairman of the Stanwell Corporation Limited and serves as a director on a number of other boards. He is also a member of the Australian and New Zealand takeovers panels both of which adjudicate on disputes in takeovers of publicly listed companies.

Mr Stuart Richey, AM: director (non-executive), Deputy Chairman

Appointed as a director from 1 September 2003 until 31 August 2006.

Member of the Remuneration Committee and Business Development Committee.

Stuart Richey has been actively involved in the fishing industry for more than 30 years and has considerable experience in most fishing methods. Stuart is also Chairman of the Northern Prawn Management Advisory Committee (NORMAC) and a Director of Marine and Safety Tasmania. He holds Skipper Class 1 (fishing) and Master Class 4 (trading) qualifications.

Dr Patrick Hone: Executive Director from 21 April 2005

Member of the Business Development Committee from December 2004.

Patrick Hone has extensive knowledge of all sectors of the fishing industry. Over the last eight years he has played a key role in the planning, management and funding of fisheries related research and development in Australia. He has PhD in the development of aquaculture feed for abalone and has been involved in the development of several significant aquaculture industry developments including southern bluefin tuna, Pacific oyster, abalone and mussel aquaculture.

Mr Simon Bennison: director (non-executive)

Appointed from 1 January 1998; re-appointed in 2001 and 2003.

Chairman of the Finance and Audit Committee.

Simon Bennison has extensive experience in the aquaculture industry gained through 20 years industry experience. He is the Executive Director National Aquaculture Council, a director of Seafood Service Australia and chairs the FRDC Aquatic Animal Health Subprogram. Previously Simon held the position of Executive Director of the Aquaculture Council of Western Australia and was a director of the Western Australian Fishing Industry Council.

A science graduate from Curtin University, Simon maintains a strong interest in the development and management of the Australian Seafood Industry. He also has 10 years' experience as an environmental manager for the mining industry. He has a Diploma of Company Directorship and is a fellow of the Australian Institute of Company Directors.

Mr Ian Cartwright: director (non-executive)
Appointed from 1 January 2001; re-appointed in 2003.
Member of the Finance and Audit Committee.

Ian Cartwright has had a lifetime association with the fishing industry with experience in inshore fishing and, after coming ashore, through a career in fisheries education and management. Underpinning this association is an honours degree in fisheries science and a master's degree in economics.

Professor Tor Hundloe, AM: director (non-executive)
Appointed from 1 September 2003.
Member of the Business Development Committee.

Tor Hundloe wrote his PhD on fisheries economics and is one of very few people in Australia with this qualification. He has been involved in researching the economics of commercial and recreational fishing for more than 25 years and has written three books on fisheries economics and fisheries management. Tor has first hand experience in many complex fisheries issues from marine park zoning of the Great Barrier Reef to resource sharing in the Bay and Inlets fisheries.

Dr Nick Rayns: director (non-executive)
Appointed from 1 September 2003.
Member of the Remuneration Committee and Business Development Committee from May 2005.

Nick Rayns has accumulated a great deal of knowledge of Australasian fisheries. In addition to his PhD in rocklobster aquaculture, he has worked for fisheries agencies in New Zealand and Australia, managing commercial, recreational and Indigenous fisheries from cool temperate to tropical latitudes.

Mr Glenn Hurry: Government Director (non-executive) from 13 September 2002
Holds office during the Minister's pleasure.

Glenn Hurry is the Executive Manager, Fisheries and Forestry Division in the Department of Agriculture, Fisheries and Forestry. He holds a master's degree in aquaculture from Deakin University.

Mr David Bateman: Recfish Australia representative
The Board agreed to invite Mr Bateman to be an observer at FRDC Board meetings following the resignation of Mr Harrison in April 2005.

David Bateman has extensive experience in the area of recreational fishing, both as a participant and member of numerous fishing organisations. As the current Executive Officer and past Chairman of Sunfish and member of the Recfish Australia Executive for more than a decade he brings a wide ranging base of knowledge and expertise on recreational fishing to the board. David has also won numerous state and national fishing tournaments in Australia.

Board meetings and visits

During 2005–06 the Board held six meetings as follows:

Meeting number and date	Location and main activities
Meeting 81 8–10 August 2005	Hobart
	▸ Appraised R&D applications ▸ Directors undertook self-assessment of performance ▸ Meeting of the Finance, Audit and Risk Management Committee ▸ Met with Dr R. van Barneveld (Rocklobster aquaculture subprogram) ▸ Met with Professor Colin Buxton (TAFI) to discuss strategic issues (including future directions for, and future investment in, rocklobster aquaculture) ▸ Tour Shellfish Culture oyster hatchery and nursery ▸ Tour of Marine Culture ▸ Tour of Barilla Bay Oyster Farm ▸ Strategic discussion with Recfish Australia
Meeting 82 (in conjunction with Seafood Directions) 15 September 2005	Sydney
	▸ Appraised R&D applications ▸ Directors undertook self-assessment of performance ▸ Met with fishers sponsored by FRDC to attend Seafood Directions ▸ Official breakfast launch of the FRDC's strategic R&D plan 2005–10
Meeting 83 22–23 November 2005	Geelong/Queenscliff
	▸ Appraised R&D applications ▸ Directors undertook self-assessment of performance ▸ Victorian Department of Primary Industries Queenscliff — presentations on 2003/045, 2003/047, 2003/074, 2004/037, 2002/033, 1999/134 ▸ Tour of Victorian Department of Primary Industries Queenscliff facilities ▸ Tour of Great Southern Waters Abalone Farm ▸ Tour of Austrimi Seafoods processing factory
Meeting 84 13–15 February 2006	Canberra
	▸ Appraised R&D applications ▸ Directors undertook self-assessment of performance ▸ Meeting of the Finance, Audit and Risk Management Committee (ANAO and Acumen Alliance in attendance) ▸ Directors met with AFMA Board
Meeting 85 10–11 April 2006	Canberra
	▸ Appraised R&D applications ▸ Directors undertook self-assessment of performance ▸ Directors participated in the 2006 FRAB and Stakeholder Workshop

Board meetings and visits (continued)

Meeting number and date	Location and main activities
Meeting 86 14–15 June 2006	Port Stephens/Newcastle

	▸ Appraised R&D applications
	▸ Directors undertook self-assessment of performance
	▸ Meeting of the Business Development Committee and the Remuneration Committee
	▸ Tour of the Newcastle Commercial Fisherman's Co-op Ltd, with presentation overview of the Co-op's business
	▸ Met with grass roots fishers (commercial and recreational)
	▸ Marine Park briefing by the Advisory Committee for the Port Stephens Great Lake Marine Park
	▸ Tour of the Port Stephens Fisheries Centre (PSFC), including presentations on:
	  ▸ Oyster hatchery and growout
	  ▸ Marine fish hatchery and broodstock (including saline aquaculture)
	  ▸ Aquaculture nutrition
	▸ Directors met and discussed issues regarding current status of the oyster industry, abalone research and aquatic ecosystem research

Members of the Board at their visit to Great Southern Waters Abalone Farm, Geelong.

Currently the Board has three committees:

- The Finance, Audit and Risk Management Committee.
- The Remuneration Committee.
- The Business Development Committee.

For details of these committees' terms of reference and activities during 2005–06 visit the FRDC website www.frdc.com.au.

As with their other roles as directors, members of the Board committees retain their rights to gain access to all information held by the FRDC and to seek independent third-party advice.

Directors' and officers' attendance at Board meetings held in 2005–06 was as follows.

TABLE 6: ATTENDANCE BY DIRECTORS AND OFFICER

	Board meetings								Finance, Audit and Risk Management Committee meetings			Remuneration Committee meetings				BDC* meet-ings
Number of meetings held during the year	8								08/08/ 2005	18/11/ 2005	13/02/ 2006	04/05/ 2006	01/06/ 2006 (tel)	06/06/ 2006 (tel)	13/06/ 2005	21/07/ 2005
	81	82	83	84	T1	T2	85	86								
Mr Denis Byrne † §	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Mr Simon Bennison *ƒ*	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆					◇
Mr Ian Cartwright	◇	◆	◆	◆	◇	◇	◆	◆	◇	◆	◆					
Dr Patrick Hone	◆	◆	◆	◆	◆	◆	◆	◆	Observer	Observer	Observer	◆	◆	◆	◆	◆
Professor Tor Hundloe	◆	◆	◆	◆	◆	◇	◆	◆								
Mr Glenn Hurry	◆	◇	◇	◆	◇	◇	◆	◇								
Dr Nick Rayns	◆	◆	◆	◆	◇	◆	◆	◆				◆	◆	◆	◆	
Mr Stuart Richey	◆	◆	◆	◆	◆	◆	◆	◆	Observer		Observer	◆	◆	◆	◆	◆
Mr David Bateman (Observer)	—	◆	◆	◆	◆	◆	◆	◆								
Mr John Wilson (Corporate Secretary)	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆			Observer

KEY TO TABLE SHOWING ATTENDANCE

81	9 August 2005	*	Business Development Committee
82	15 September 2005	◆	Attended meeting
83	22 November 2005	◇	Did not attend meeting
84	13–15 February 2006	—	Not eligible to attend meeting
T1	(by telephone) 3 March 2006	†	Chair of Business Development Committee
T2	(by telephone) 20 March 2006	§	Chair of Remuneration Committee
85	10–11 April 2006	*ƒ*	Chair of Finance, Audit and Risk Management Committee
86	14 June 2006		

The Chairman approved all absences from Board meetings in accordance with section 71(2) of the PIERD Act.

Directors' interests

The FRDC's policy on directors' interests, of which the following is a summary, complies with section 21 of the CAC Act. The policy centres on the principle that a director must disclose an interest whenever he/she considers there is a potential conflict of interests.

Participation by director with conflict of interests

A standing notice about directors' interests is updated at each Board meeting. All declarations of interests, and their consideration by the Board, are recorded in the minutes.

Representative organisations and other stakeholders

The FRDC reported to ASIC at the Council's meeting on 24 May 2006, ASIC directors expressed an interest in continuing dialogue with the FRDC to ensure maximum feedback on, and involvement with, the broad range of matters covered in the report.

The FRDC also reported to Recfish Australia at the organisation's annual meeting on 29 October 2005.

Under section 15(2) of the PIERD Act and the *Guidelines on Funding of Consultation Costs by Primary Industries and Energy Portfolio Statutory Authorities*, the FRDC may meet travel and other expenses incurred in connection with consultation between the Corporation and its representative organisations. During 2005–06 the FRDC incurred $15,664 in such expenses; planned expenditure during 2006–07 is $10,000. The decrease in expenditure is expected due to only one representative organisation being fully operational.

Fisheries Research Advisory Bodies (FRABs)

The FRDC supports a network of FRABs covering Commonwealth fisheries and the fisheries of each state and the Northern Territory. The FRABs have an extremely important role in maximising the efficiency of the FRDC's planning and investment processes.

The FRABs represent all sectors of the fishing industry, fisheries managers and researchers; most also include environmental and other community interests. Their Chairs at 30 June 2006 were as follows. For further information on the FRABs visit www.frdc.com.au

Chairs of FRABs at 30 June 2006

Commonwealth	Mr Ian Cartwright
New South Wales	Professor Derek Anderson
Northern Territory	Mr William Flaherty
Queensland	Mr Peter Neville
South Australia	Mr Anthony Cheshire
Victoria	Mr David Smith
Western Australia	Mr Angus Callander
Tasmania	Mr Ian Cartwright

Other structures

A number of other structures reinforce effective and ethical performance by the FRDC in addition to the Corporation's fundamental operating philosophy of openness and accountability to stakeholders. They include steering committees at project and subprogram level, conferences, workshops and meetings.

To increase their effectiveness at the strategic level and to share information the rural R&D corporations — including the FRDC — collaborate through a committee of their Chairs, supported by a part-time secretariat. The Chairs Committee also provides continuity and consistency in communication about the role and contribution of RDCs, and in representation, networking and participation in formulation of policy.

Organisational structure and staff

The manner in which the FRDC operates has been likened to a "virtual organisation". The FRDC sets strategic directions with key stakeholders, then directly engages partner organisations from all over Australia to undertake the (R&D) activities. The FRDC's network spans the continent via its partners. This innovative approach to project management provides the FRDC a great deal of flexibility, but at the same time gives us the capacity of an organisation many times its size.

To put this into perspective the FRDC currently has over 60 partner organisations that employ over 200 principal investigators, and many more researchers, communicators and technicians. Not to mention the hundreds of industry people who work on the various projects.

Staff

Without doubt the single most important part of the FRDC is the staff. It is surprising to know that on average the FRDC operated with just 9.6 full-time-equivalent staff members.

FRDC staff. **Back row, left to right**: Peter Horvat (Communications Manager), Tara Ryan (former Communications Officer), Crispian Ashby (Programs Manager), Dr Patrick Hone (Executive Director), Matt Barwick (Projects Manager — Research). **Front row, left to right**: John Wilson (Business Development Manager), Annette Lyons (Projects Manager — Finance and FRDC Quality Manager), Debbie Bowden (former Corporate Services Manager) and Cheryl Cole (former Office Administrator and now Office Manager).

All staff are employed under terms and conditions determined by the FRDC. No staff member is employed under the *Public Service Act 1999*. As part of ensuring staff activities align with the organisation each staff member has in place a Personal Performance Agreement (PPA). The agreement outlines the key areas each staff member will focus on, and the key activities to be undertaken to assist the FRDC deliver its outcomes.

During the year Deborah Bowden and Jane Graham resigned. Alison Reid joined FRDC as office administrator and Cheryl Cole moved from that position to the position of Office Manager.

Staff development

The FRDC recognises that excellent performance by staff and directors is essential to fulfilment of the Corporation's mission.

During 2005–06, one staff member continued fisheries management studies at Master level, one continued studies of fishing gear selectivity at Master level, and one completed a Bachelor of Business degree. One director and two staff members completed the Australian Institute of Company Directors diploma course. One staff member commenced a graduate diploma in marketing communications and another diploma of government financial management. Staff undertook job-related training, attended conferences relevant to FRDC activities and the fishing industry, and worked with researchers and industry people on various aspects of project management.

Staff members are also encouraged to maintain professional affiliations. They have memberships of the:

- Australian Institute of Company Directors
- Australian Society of Certified Practising Accountants
- Australian Society of Fish Biologists
- Public Relations Institute of Australia
- Institute of Public Administration Australia
- Australian Institute of Management
- Data Management Association
- World Future Society

Controls

Risk management

The FRDC participated in Comcover's annual benchmarking survey of risk management. For the 2005 benchmarking program the FRDC rated a six out of a possible 10. The FRDC also undertook a risk workshop on 21 October 2005 which was used to update the FRDC risk register.

The FRDC incorporates risk management in all activities in accordance with its risk management policy, which is integrated into the FRDC's quality management system and internal audit program.

The risk management policy also incorporates a fraud control framework in accordance with the Fraud Control Guidelines produced by the Attorney-General's Department, May 2002, which seeks to minimise the likelihood and impact of fraud.

No incidence of fraud was detected during 2005–06.

The Board reviewed and approved a revised 2005–06 risk management policy and risk register at the February 2006 meeting.

Training of staff in risk management was provided by Neill Buck and Associates Pty Ltd. As part of this training all staff were updated to the latest ISO Standard on risk management.

All new directors and staff undergo comprehensive induction training, which includes a briefing on the requirements of the CAC Act. This Act, which significantly influences the conduct of the FRDC's affairs, is the basis for much of the corporate governance that is addressed in this annual report. All directors also received appropriate updates of a book, published by the Australian Institute of Company Directors, on the duties and responsibilities of directors. Eight people (the Executive Director and four other directors, and three senior staff) have completed the Diploma Course of the Australian Institute of Company Directors.

Commitment to quality

The FRDC is AS/NZS ISO 9001:2000 certified organisation. FRDC undertook an external quality audit on 10 October 2005. The FRDC aims to meet or exceed the expectations of stakeholders and other people and organisations with which it does business. To do this, the FRDC has adopted Total Quality Management as its operating philosophy. The FRDC integrates a "quality approach" into all its work. The FRDC's quality management system also encompasses the features of a service charter.

Quality System
Quality Endorsed Company
ISO 9001:2000 Lic 11389
Standards Australia

Indemnities and insurance premiums for officers

When appropriate, the FRDC takes out insurance policies to mitigate insurable risk.

The FRDC is required by the Australian Government's self-insurance provisions to use ComCover for its insurance needs. ComCover's confidentiality requirements prohibit the release of information on the nature and limits of liabilities covered and the amount of contribution paid.

Liabilities to staff

The FRDC provides for liabilities to its staff by ensuring that its financial assets (cash, receivables and investments) are always greater than its employee provisions. Fulfilment of this policy is evidenced in the Statement of Financial Position in the Corporation's monthly financial statements.

See also note 1.6 of the financial statements (page 104).

Consultancy services and selection of suppliers

During the year, the FRDC engaged three consultancies (as defined in the Department of Prime Minister and Cabinet document, *Requirements for Departmental Annual Reports*) to the value of $10,000 or more:

Name of consultant	Blake Dawson Waldron Lawyers
Nature and purpose of consultancy	Legal advice — particularly in relation to development of best-practice project agreements and project management agreements, employment contracts and contracts with the Department of Agriculture, Fisheries and Forestry and CSIRO
Cost (exclusive of GST)	$177,405
Name of consultant	Deacons
Nature and purpose of consultancy	Legal advice in relation to general employment conditions
Cost (exclusive of GST)	$17,590
Name of consultant	Boardworks
Nature and purpose of consultancy	Board assessment and review
Cost (exclusive of GST)	$22,565

When selecting suppliers of goods and services, the FRDC seeks to achieve value for money and to deal fairly and impartially. Obtaining value for money does not necessarily require the cheapest supplier to be selected. Other factors considered are urgency, quality, ethical conduct of the supplier, and whole-of-life costs.

The following processes apply to FRDC procurement:

More than $100,000	Open tender
$30,000 to $100,000	Selective tender, with at least three written quotations
Less than $30,000	Competitive tender is not required

Behaviour

Corporate governance practices are evolving rapidly, both in Australia and overseas. The FRDC is proactive in integrating these practices, including those governing ethical behaviour, into its own processes.

The Corporation has a code of conduct that is appropriate to the Corporation's structure and activities and complies with division 4 of the CAC Act, to which all directors and staff are required to adhere. New directors and staff are briefed comprehensively on the code during induction training.

Enabling legislation

The FRDC was formed as a statutory corporation on 2 July 1991 under the provisions of the *Primary Industries and Energy Research and Development Act 1989* (the PIERD Act). Information about the FRDC's legislative foundation is in appendix C, from page 134.

Responsible ministers and exercise of ministerial powers

The Ministers responsible for the FRDC are: the Minister for Agriculture, Fisheries and Forestry and the Minister for Fisheries, Forestry and Conservation. In addition the Parliamentary Secretary to the Minister for Agriculture, Fisheries and Forestry has responsibility for administration of the 15 RDCs. All three exercise executive powers in their own right.

During the 2005–06 financial year the portfolio was overseen by the Minister for Agriculture, Fisheries and Forestry, the Hon. Peter McGauran MP, the Minister for Fisheries, Forestry and Conservation, Senator the Hon. Eric Abetz and the Parliamentary Secretary to the Minister for Agriculture, Fisheries and Forestry, the Hon. Sussan Ley MP.

During the year a Ministerial reshuffle saw Senator Ian MacDonald leave the position of Minister for Fisheries and Richard Colbeck leave the position of Parliamentary Secretary to the Minister for Agriculture, Fisheries and Forestry.

Ministerial directions

The Act provides that the Minister may give direction to the Corporation with respect to the performance of its functions and the exercise of its powers. The FRDC has received no such direction during 2005–06.

Under the CAC Act, the Minister may notify the Board of any general Australian Government policies that apply to the Corporation. At the date of this report, the following notifications have been received:

- In May 1995, the Minister issued a directive in accordance with the CAC Act that spending of industry contributions is to be of direct relevance, within a five-year period, to the fishery, industry sector, or state/territory in which funds were collected. The FRDC is to have regard to advice from management agencies and industry sectors, including FRABs.
- In July 1998, the Minister issued a directive in accordance with section 16(1)(b) of the CAC Act requiring the Corporation to comply with the reporting requirements of the *Guidelines on Funding of Consultation Costs by Primary Industry and Energy Portfolio Statutory Authorities*.
- The Minister has notified the Corporation under section 28 of the CAC Act that the following policies apply to the Corporation.
  - On 21 August 2002, *Commonwealth Fraud Control Guidelines 2002*.
  - On 28 August 2002, Finance Circular No. 2002/01 — Foreign Exchange (Forex) Risk Management.
  - On 14 April 2003, Finance Circular No. 2002/02 — Cost Recovery by Government Agencies.
  - On 13 October 2003, *National Code of Practice for the Construction Industry and the Commonwealth's Implementation Guidelines*.

Policy and administration

Minimisation of administration

To increase its production of outputs in the face of greatly increasing demand for fisheries R&D, the FRDC continually strives to improve the way in which it goes about its business. Productivity has been increased through improved management procedures, aided by the FRDC quality management system, and through the innovation, application and professional development of staff members. As part of this process, the FRDC aims to maximise the proportion of funds expended on R&D programs by minimising the cost of administration. A breakdown of funding outlined in Table 5: Maximum FRDC expenditure on R&D Programs.

However, the FRDC, like every organisation, continues to face ever increasing cost pressures due to the higher levels of compliance reporting required by the Australian Government.

Remuneration policy

Remuneration of non-executive directors is determined by the Remuneration Tribunal.

Remuneration of the Executive Director and staff is determined by an FRDC policy set by the Board, and is administered through the Board's Remuneration Committee. The amount of individual remuneration of the Executive Director and staff is based on advice by Mercer Human Resource Consulting Pty Ltd. The amount is also influenced by performance measured against individual performance agreements and by the size of the program support component within the total FRDC budget, from which salaries are paid.

Equal employment opportunity

The FRDC has a policy of equal employment opportunity. Merit-based principles are applied in recruitment and promotion to ensure that discrimination does not occur. Of the FRDC's staff of 10, five are female and one has a non-English speaking background.

Industrial democracy

The FRDC's staff members work as a team in which all contribute freely. This process is strongly reinforced by the FRDC's Total Quality Management philosophy (page 82) and the attendant emphasis on continual improvement.

Occupational health and safety

No injuries occurred on FRDC premises during 2005–06.

FRDC staff undertook fire safety training with a specialist provider, covering basic fire safety (emergency evacuation and fire control techniques), emergency control and warden awareness.

Three staff members completed Red Cross first aid training during the year.

The FRDC working environment is reviewed periodically by occupational health and safety consultants. This year, a workplace safety and injury management company made an ergonomic assessment of each staff member's immediate working environment and provided training in workplace health and prevention of injury.

Disabilities

The FRDC implements the Commonwealth Disability Strategy on two levels: as a provider of services resulting from R&D and as an employer. During the year the FRDC implemented the Strategy to an extent appropriate to the functions and size of the Corporation.

The FRDC website meets the Australian Government accessibility guidelines for presentation of documents via the Internet.

The FRDC's recruitment and staff development practices seek to eliminate disadvantage that may be contributed by disabilities. Consultation with people with a disability and, when required, with appropriate specialist organisations is a component of the FRDC's policies and practice, recognising that the effect of a disability differs widely between individuals and that often a little thought makes a big difference in meeting a person's needs.

Energy efficiency

The policy for *Improving Energy Efficiency in Commonwealth Government Operations* seeks to improve energy efficiency in relation to vehicles, equipment and building design.

Without specific data to verify how much energy the FRDC uses, the Corporation follows the policy as far as possible, as is relevant to its circumstances. The Corporation is a minority tenant occupying part of an office building and does not own motor vehicles or large equipment. Prudent management of power consumption is followed within the FRDC office.

Privacy of information

The FRDC manages personal information in accordance with the *Privacy Act 1988*. In keeping with the Privacy Principles the FRDC's privacy policy covers soliciting, collecting, storing, gaining access to, altering and using personal information. The policy is accessible via the FRDC website — www.frdc.com.au.

Freedom of information

During 2005–06, the FRDC did not receive any inquiry pursuant to the *Freedom of Information Act 1982*.

A statement in accordance with the *Freedom of Information Act 1982*, giving information about the FRDC and about making a Freedom of Information request, is in appendix D (page 137).

Triple bottom line reporting

The FRDC continues to focus on reporting in line with best practice triple bottom line (TBL) and global reporting initiatives — *Sustainability Reporting Guidelines*. The move to these reporting standards has kept the FRDC at the leading edge of reporting.

The FRDC reports against environment, economic and social indicator categories. These categories line up with existing FRDC programs, for example; program one — natural resources sustainability will become the environment indicator; program two — industry development becomes the economic indicator; and program three — people development, the social indicator.

In 2005–06 the FRDC will build on the Balancing Act reporting commenced in 2004–05 to measure and benchmark its performance.

Balancing act

The FRDC is focused on integrated triple bottom line reporting that will provide greater transparency on, and an understanding of, the FRDC's operations and its impacts in the broader environment. As the first stage of this process FRDC engaged Sydney University to undertake an analysis of the FRDC Secretariat functions (the running of the FRDC, staff, building etc.) and develop a TBL account for the Corporation. In 2005–06 the FRDC worked with Sydney University to refine methods and allocations of dollars against each indicator used.

The revisions highlighted a significant variation between the 2004–05 and the 2005–06 figures. These are easily visible in the two 2004–05 "spider" diagrams overleaf. The variation was caused by the reallocation of costs which impacted on the use of resources down the chain. For example by breaking down staff costs into the basic components such as travel, meals and accommodation, the family income indicator goes down while the energy use and land impact figures increase.

As a result of refining the figures the FRDC in 2005–06 increases its overall environmental credentials by reducing below the average for most indicators. FRDC is above the average for employment and land disturbance as its business model is to outsource the research services to organisation's across the country. As a result more people are employed and more facilities are used compared to the rest of the Australian Government average.

Key to reading the spider diagrams

The calculation of the FRDC's TBL account uses a 'generalised input-output analysis' to develop a numerate triple bottom line account for three financial, three social and four environmental indicators. Every indicator is shown at intensity, that is, per one dollar of final demand or per one dollar spent for consumption in everyday life. The indicators are generated with a supply chain approach, where all activities are included or 'embodied' in the final indicator number. Taken together, these 10 indicators provide a macro-landscape against which the FRDC can to benchmark many management issues. The 10 indicators consist of:

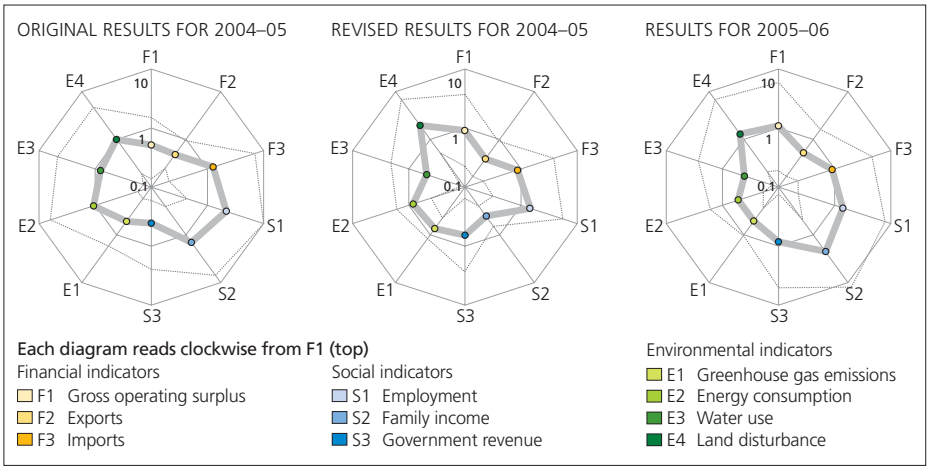
- three financial indicators — the gross operating surplus (or profits), the export propensity and the import penetration
- three social indicators — employment generation, income and government revenue, and
- four environmental indicators — greenhouse gas emissions, primary energy use, managed water use and land disturbance.

Each indicator or intensity is segmented into its direct and indirect effects to indicate whether efforts to improve performance should focus on each sector's own affairs within house, or whether the sector should start managing its supply chain in a more concerted way. The sector-specific analysis provides guidelines for individual products and firms and gives a benchmark against which individual firms and institutions can measure their own performance.

The results of this analysis show that measured per dollar of output, FRDC performs much better than the economy-wide average in terms of all environmental indicators, including far above average in land disturbance and water use, and above average in greenhouse gas emissions and primary energy use (see figure below). FRDC's performance was above average in government revenue and imports, below average in exports and in gross operating surplus, and slightly below average in terms of employment generated. Finally, FRDC's linkages with the rest of the economy are weaker than those of other sectors, measured per dollar of output.

Benchmarked only against the public services sectors, FRDC's TBL performance was comparable with the average public service provider. FRDC's performance is slightly above average in terms of all environmental indicators, but below average in terms of income and employment generation.

Each key indicator has a plotted point of reference. The closer the reference point to the centre of the diagram the better the rating.



To view a full version of the 'FRDC Balancing Act Review' visit www.frdc.com.au.

Collaboration by rural research and development corporations

Natural resource management

In 2004–05 the rural research and development corporations (RDCs) released the first report into the level of natural resource investment. The report was based on a Natural Resource Management Research and Development Reporting Framework, which has established a standard classification system against which each research and development corporation has reported.

The RDCs have a strong commitment to improving the environmental sustainability of Australia's primary industries and their management of natural resources such as soil, water and biodiversity. They do this through strategic investments in the priority area of natural resource management.

This report is produced on a bi-annual basis and the second edition will be released late in 2006 and will be incorporated into the 2006–07 annual report.

Auditor-General's report

Australian National
Audit Office

INDEPENDENT AUDIT REPORT

To the Minister for Agriculture, Fisheries and Forestry

Matters relating to the Electronic Presentation of the Audited Financial Statements

This audit report relates to the financial statements published in both the annual report and on the website of Fisheries Research and Development Corporation for the year ended 30 June 2006. The Corporation's Directors are responsible for the integrity of both the annual report and the web site.

The audit report refers only to the financial statements, schedules and notes named below. It does not provide an opinion on any other information which may have been hyperlinked to/from the audited financial statements.

If the users of this report are concerned with the inherent risks arising from electronic data communications they are advised to refer to the hard copy of the audited financial statements in the Corporation's annual report.

Scope

The financial statements and Directors' responsibility

The financial statements comprise:

- Statement by Directors and Executive Director;
- Income Statement, Balance Sheet and Cash Flow Statement;
- Statement of Changes in Equity;
- Schedules of Commitments and Contingencies; and
- Notes to and forming part of the Financial Statements

of the Fisheries Research and Development Corporation for the year ended 30 June 2006.

The Directors of the Fisheries Research and Development Corporation are responsible for preparing the financial statements that give a true and fair view of the financial position and performance of the Fisheries Research and Development Corporation, and that comply with the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997* and Accounting Standards and mandatory financial reporting requirements in Australia. The Directors of the Fisheries Research and Development Corporation are also responsible for the maintenance of adequate accounting records and internal controls that are designed to prevent and detect fraud and error, and for the accounting policies and accounting estimates inherent in the financial statements.

Audit Approach

I have conducted an independent audit of the financial statements in order to express an opinion on them to you. My audit has been conducted in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing and Assurance Standards, in order to provide reasonable assurance as to whether the financial statements are free of material

GPO Box 707 CANBERRA ACT 2601
Centenary House 19 National Circuit
BARTON ACT
Phone (02) 6203 7500 Fax (02) 6203 7777

misstatement. The nature of an audit is influenced by factors such as the use of professional judgement, selective testing, the inherent limitations of internal control, and the availability of persuasive, rather than conclusive, evidence. Therefore, an audit cannot guarantee that all material misstatements have been detected.

While the effectiveness of management's internal controls over financial reporting was considered when determining the nature and extent of audit procedures, the audit was not designed to provide assurance on internal controls.

I have performed procedures to assess whether, in all material respects, the financial statements present fairly, in accordance with the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997* and Accounting Standards and other mandatory financial reporting requirements in Australia, a view which is consistent with my understanding of the Fisheries Research and Development Corporation's financial position, and of its financial performance and cash flows.

The audit opinion is formed on the basis of these procedures, which included:

- examining, on a test basis, information to provide evidence supporting the amounts and disclosures in the financial statements; and
- assessing the appropriateness of the accounting policies and disclosures used, and the reasonableness of significant accounting estimates made by the Directors of the Fisheries Research and Development Corporation.

Independence

In conducting the audit, I have followed the independence requirements of the Australian National Audit Office, which incorporate the ethical requirements of the Australian accounting profession.

Audit Opinion

In my opinion, the financial statements of the Fisheries Research and Development Corporation:

(a) have been prepared in accordance with the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*; and

(b) give a true and fair view of the Fisheries Research and Development Corporation's financial position as at 30 June 2006 and of its performance and cash flows for the year then ended, in accordance with:

  (i) the matters required by the Finance Minister's Orders; and

  (ii) applicable Accounting Standards and other mandatory financial reporting requirements in Australia.

Australian National Audit Office

Michael White
Executive Director

Delegate of the Auditor-General
Canberra
17 August 2006

Financial statements

for the year ended 30 June 2006

Statement by Directors and Executive Director

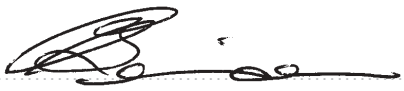
In our opinion, the attached financial statements of the Fisheries Research and Development Corporation (FRDC) for the year ended 30 June 2006 are based on properly maintained financial records and give a true and fair view of the matters required by the Finance Minister's Orders made under the Commonwealth Authorities and Companies Act 1997.

In our opinion, at the date of this statement, there are reasonable grounds to believe that the FRDC will be able to pay its debts as and when they become due and payable.

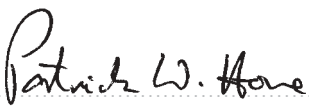
This statement is made in accordance with a resolution of the directors.

Signed  15 August 2006

Denis Byrne
Chair

Signed  15 August 2006

Simon Bennison
Chair Finance, Audit and Risk Management Committee

Signed  15 August 2006

Patrick Hone
Executive Director

Income Statement

for the year ended 30 June 2006

	Notes	30 June 2006 $	30 June 2005 $
INCOME			
Revenue			
Revenues from Government	6A	**16,019,772**	16,897,381
Contributions	6B	**10,691,162**	11,198,596
Goods and services	6C	**43,793**	62,237
Interest	6D	**225,393**	242,075
Other revenues	6E	**10,682**	2,159
Total revenue		**26,990,802**	28,402,448
Gains			
Reversal of previous asset write-downs	6F	**0**	24,584
Net (loss)/gain from disposal of assets	6G	**(183)**	0
Total gains		**(183)**	24,584
TOTAL INCOME		**26,990,619**	28,427,032
EXPENSES			
Employees	7A	**1,275,193**	1,568,231
Suppliers	7B	**785,385**	919,856
Depreciation and amortisation	7C	**234,246**	202,867
Projects expenditure	7D	**23,988,368**	25,569,422
Other expenses	8	**670,375**	800,366
TOTAL EXPENSES		**26,953,567**	29,060,742
OPERATING RESULT		**37,052**	(633,710)

THE ABOVE STATEMENT SHOULD BE READ IN CONJUNCTION WITH THE ACCOMPANYING NOTES.

Balance Sheet

as at 30 June 2006

	Notes	30 June 2006 $	30 June 2005 $
ASSETS			
Financial assets			
Cash and cash equivalents	13B	**166,422**	294,604
Receivables	9A	**1,929,002**	1,502,519
Investments	9B	**5,001**	5,001
Total financial assets		**2,100,425**	1,802,124
Non-financial assets			
Infrastructure, plant and equipment	10A,C	**179,705**	199,010
Intangibles	10B,C	**1,743,848**	1,146,944
Total non-financial assets		**1,923,553**	1,345,954
TOTAL ASSETS		**4,023,978**	3,148,078
LIABILITIES			
Payables			
Suppliers	11A	**133,996**	66,815
Projects	11B	**1,217,417**	188,306
Other payables	11C	**447,430**	763,882
Total payables		**1,798,843**	1,019,003
Provisions			
Employee provisions	12A	**359,673**	312,005
Total provisions		**359,673**	312,005
TOTAL LIABILITIES		**2,158,516**	1,331,008
NET ASSETS		**1,865,462**	1,817,070
EQUITY			
Reserves		**82,763**	71,423
Retained surpluses		**1,782,699**	1,745,647
TOTAL EQUITY		**1,865,462**	1,817,070
Current assets		**2,095,424**	1,797,123
Non-current assets		**1,928,554**	1,350,955
Current liabilities		**2,127,318**	1,268,440
Non-current liabilities		**31,198**	62,568

THE ABOVE STATEMENT SHOULD BE READ IN CONJUNCTION WITH THE ACCOMPANYING NOTES.

Statement of Cash Flows

for the year ended 30 June 2006

	Notes	30 June 2006 $	30 June 2005 $
OPERATING ACTIVITIES			
Cash received			
Revenues from Government		16,019,772	16,897,381
Contributions		10,807,563	12,188,096
Goods and services		43,793	62,237
Interest		225,393	242,075
Net GST received from ATO		1,872,262	1,944,115
Other		10,682	2,159
Total cash received		28,979,465	31,336,063
Cash used			
Employees		(1,227,526)	(1,601,113)
Suppliers		(718,204)	(894,746)
Project expenditure		(25,690,855)	(28,274,638)
Other		(670,375)	(800,366)
Total cash used		(28,306,960)	(31,570,863)
Net cash from or (used by) operating activities	13A	672,505	(234,800)
INVESTING ACTIVITIES			
Cash received			
Proceeds from sale of infrastructure, plant and equipment		225	0
Total cash received		225	0
Cash used			
Purchase of infrastructure, plant and equipment		(36,110)	(50,264)
Purchase of intangibles		(764,802)	(301,472)
Total cash used		(800,912)	(351,736)
Net cash from or (used by) investing activities		(800,687)	(351,736)
Net increase or (decrease) in cash held		(128,182)	(586,536)
Cash at the beginning of the reporting period		294,604	881,140
Cash at the end of the reporting period	13B	166,422	294,604

THE ABOVE STATEMENT SHOULD BE READ IN CONJUNCTION WITH THE ACCOMPANYING NOTES.

Statement of Changes in Equity

for the year ended 30 June 2006

	Accumulated results		Asset revaluation reserve		Total equity	
	2006	2005	**2006**	2005	**2006**	2005
	$	$	**$**	$	**$**	$
Opening balance at 1 July	**1,745,647**	2,379,356	**71,423**	0	**1,817,070**	2,379,356
Adjustment for errors	**0**	0	**0**	0	**0**	0
Adjustment for changes in accounting policies	**0**	0	**0**	0	**0**	0
Adjusted opening balance	**1,745,647**	2,379,356	**71,423**	0	**1,817,070**	2,379,356
Income and expense						
Revaluation adjustment	**0**	0	**11,340**	71,423	**11,340**	71,423
Subtotal income and expenses recognised directly in equity	**0**	0	**11,340**	71,423	**11,340**	71,423
Net operating result	**37,052**	(633,710)	**0**	0	**37,052**	(633,710)
Total income and expenses	**37,052**	(633,710)	**11,340**	71,423	**48,392**	(562,287)
Transfers between equity components	**0**	0	**0**	0	**0**	0
Closing balance at 30 June	**1,782,699**	1,745,646	**82,763**	71,423	**1,865,462**	1,817,069

THE ABOVE STATEMENT SHOULD BE READ IN CONJUNCTION WITH THE ACCOMPANYING NOTES.

Schedule of Commitments

as at 30 June 2006

	30 June 2006 $	30 June 2005 $
BY TYPE		
Other commitments		
Operating leases (1)	**445,776**	7,127
Other commitments (2)	**59,226,154**	69,776,136
Total other commitments	**59,671,929**	69,783,263
Commitments receivable	**(5,424,721)**	(6,343,933)
Net commitments by type	**54,247,209**	63,439,330
BY MATURITY		
Operating lease commitments		
One year or less	**107,076**	7,127
From one to five years	**338,700**	0
Over five years	**0**	0
Total operating lease commitments	**445,776**	7,127
Other commitments		
One year or less	**40,554,447**	47,259,950
From one to five years	**18,060,326**	22,505,186
Over five years	**611,381**	11,000
Total other commitments	**59,226,154**	69,776,136
Commitments receivable	**(5,424,721)**	(6,343,933)
Net commitments by maturity	**54,247,209**	63,439,330
The amount of rental expense recognised in the category 'Supplier expenses' in the reporting period is as follows:	**69,612**	75,240

NB: All commitments are GST inclusive where relevant.

1. Operating leases are effectively non-cancelable and comprise:
   – lease for office accommodation on premises at 25 Geils Court Deakin, which expires 31 July 2010. Lease payments are subject to annual increase in accordance with upwards movements in the Canberra Consumer Price Index. The initial period of office accommodation lease is still current and may be renewed for up to 5 years at FRDC's option, following a once-off adjustment to rentals to current market levels.
2. Other commitments comprise the future funding of approved projects that is contingent on achievement of agreed milestones over the life of the projects (project agreements are exchanged prior to release of the first payment on a project). Projects for which an amount was payable but that were unpaid at the end of the period have been brought to account as project payables. The FRDC contracts to fund projects in future years in advance of receipt of the income needed to fund them. It manages this risk by having the project agreement allow for termination due to insufficient funds or change of Government policy. If the FRDC were to terminate a project agreement, it would only be liable to compensate the research provider for reasonable costs in respect of unavoidable loss incurred by the research provider and directly attributable to the termination.

THE ABOVE SCHEDULE SHOULD BE READ IN CONJUNCTION WITH THE ACCOMPANYING NOTES.

Schedule of Contingencies

as at 30 June 2006

At 30 June 2006, the FRDC had no contingent assets or liabilities.

THE ABOVE SCHEDULE SHOULD BE READ IN CONJUNCTION WITH THE ACCOMPANYING NOTES.

Notes to and forming part of the financial statements

for the year ended 30 June 2006

Note 1: Summary of significant accounting policies

1.1 — Basis of accounting

The financial statements are required by clause 1(b) of Schedule 1 to the *Commonwealth Authorities and Companies Act 1997* and are a general purpose financial report.

The statements have been prepared in accordance with:

- Finance Minister's Orders *(being the Financial Management and Accountability Orders (Financial Statements for reporting periods ending on or after 01 July 2005))*;
- Australian Accounting Standards issued by the Australian Accounting Standards Board that apply for the reporting period; and
- Interpretations issued by the AASB and UIG that apply for the reporting period.

This is the first financial report to be prepared under Australian Equivalents to International Financial Reporting Standards (AEIFRS). The impacts of adopting AEIFRS are disclosed in Note 2.

The Income Statement, Balance Sheet and Statement of Changes in Equity have been prepared on an accrual basis and are in accordance with historical cost convention, except for certain assets which, as noted, are at fair value. Except where stated, no allowance is made for the effect of changing prices on the results or the financial position of the FRDC.

The financial report is presented in Australian dollars.

Unless alternative treatment is specifically required by an accounting standard, assets and liabilities are recognised in the Balance Sheet when and only when it is probable that future economic benefits will flow and the amounts of assets or liabilities can be reliably measured. However, assets and liabilities arising under agreements equally proportionately unperformed are not recognised unless required by an Accounting Standard. Liabilities and assets that are unrecognised are reported in the Schedule of Commitments and the Schedule of Contingencies.

Unless alternative treatment is specifically required by an accounting standard, revenues and expenses are recognised in the FRDC's Income Statement when and only when the flow or consumption or loss of economic benefits has occurred and can be reliably measured.

1.2 — Significant accounting judgments and estimates

No accounting assumptions or estimates have been identified that have a significant risk of causing a material adjustment to carrying amounts of assets and liabilities within the next accounting period.

1.3 — Statement of compliance

The financial report complies with Australian Accounting Standards, which include Australian Equivalents to International Financial Reporting Standards (AEIFRS).

Australian Accounting Standards require the FRDC to disclose Australian Accounting Standards that have not been applied, for standards that have been issued but are not yet effective.

The AASB has issued amendments to existing standards, these amendments are denoted by year and then number, for example 2005-1 indicates amendment 1 issued in 2005.

The table on the following page illustrates standards and amendments that will become effective for the FRDC in the future. The nature of the impending change within the table, has been out of necessity abbreviated and users should consult the full version available on the AASB's website to identify the full impact of the change. The expected impact on the financial report of adoption of these standards is based on the FRDC's initial assessment at this date, but may change. The FRDC intends to adopt all of standards upon their application date.

Title	Standard affected	Application date*	Nature of impending change	Impact expected on financial report
2005-1	AASB 139	1 January 2006	Amends hedging requirements for foreign currency risk of a highly probable intra-group transaction.	No expected impact.
2005-4	AASB 139, AASB 132, AASB 1, AASB 1023 and AASB 1038	1 January 2006	Amends AASB 139, AASB 1023 and AASB 1038 to restrict the option to fair value through profit or loss and makes consequential amendments to AASB 1 and AASB 132.	No expected impact.
2005-5	AASB 1 and AASB 139	1 January 2006	Amends AASB 1 to allow an entity to determine whether an arrangement is, or contains, a lease.	No expected impact.
			Amends AASB 139 to scope out a contractual right to receive reimbursement (in accordance with AASB 137) in the form of cash.	
2005-6	AASB 3	1 January 2006	Amends the scope to exclude business combinations involving entities or businesses under common control.	No expected impact.
2005-9	AASB 4, AASB 1023, AASB 139 and AASB 132	1 January 2006	Amended standards in regards to financial guarantee contracts.	No expected impact.
2005-10	AASB 132, AASB 101, AASB 114, AASB 117, AASB 133, AASB 139, AASB 1, AASB 4, AASB 1023 and AASB 1038	1 January 2007	Amended requirements subsequent to the issuing of AASB 7.	No expected impact.
2006-1	AASB 121	31 December 2006	Changes in requirements for net investments in foreign subsidiaries depending on denominated currency.	No expected impact.
	AASB7 Financial Instruments: Disclosures	1 January 2007	Revise the disclosure requirements for financial instruments from AASB132 requirements.	No expected impact.

* Application date is for annual reporting periods beginning on or after the date shown.

1.4 — Changes in accounting policy

The accounting policies used in the preparation of these financial statements are consistent with those used in 2004–05.

1.5 — Revenue

Revenue from the sale of goods is recognised when:

- The risks and rewards of ownership have been transferred to the buyer;
- The seller retains no managerial involvement nor effective control over the goods;
- The revenue and transaction costs incurred can be reliably measured; and
- It is probable that the economic benefits associated with the transaction will flow to the entity.

Revenue from rendering of services is recognised by reference to the stage of completion of contracts at the reporting date. The revenue is recognised when:

- The amount of revenue, stage of completion and transaction costs incurred can be reliably measured; and
- The probable economic benefits with the transaction will flow to the entity.

The stage of completion of contracts at the reporting date is determined by reference to the proportion that costs incurred to date bear to the estimated total costs of the transaction.

Receivables for goods and services, which have 30 day terms, are recognised at the nominal amounts due less any provision for bad and doubtful debts. Collectability of debts is reviewed at balance date. Provisions are made when collectability of the debt is no longer probable.

Interest revenue is recognised using the effective interest method as set out in AASB 139.

Revenue from the disposal of non-current assets is recognised when control of the asset has passed to the buyer.

Refunds from research organisations are taken to account when received.

Revenues from Government

The full amount of the allocated revenue from government for agency outputs for the year is recognised as revenue.

1.6 — Employee benefits

As required by the Finance Minister's Orders, the FRDC has early adopted AASB 119 Employee Benefits as issued in December 2004.

Liabilities for services rendered by employees are recognised at the reporting date to the extent that they have not been settled.

Liabilities for 'short-term employee benefits' (as defined in AASB 119) and termination benefits due within 12 months are measured at their nominal amounts.

The nominal amount is calculated with regard to the rates expected to be paid on settlement of the liability.

All other employee benefit liabilities are measured as the present value of the estimated future cash outflows to be made in respect of services provided by employees up to the reporting date.

The FRDC has a policy that it will act to ensure its financial assets are greater than its employee provisions.

Leave

The liability for employee benefits includes provision for annual leave and long service leave. No provision has been made for sick leave, as all sick leave is non-vesting and the average sick leave taken in future years by employees is estimated to be less than the annual entitlement for sick leave.

Leave liabilities are calculated on the basis of employees' remuneration, including the FRDC's employer superannuation contribution rates, to the extent that the leave is likely to be taken during service rather than paid out on termination.

Long service leave is accrued for all staff, from their commencement date, at the rate of 9 days per year of service with the entitlement generally becoming due after completion of 10 years service.

All leave provision calculations are based on remuneration packages as at 1 July 2006. See Notes 12 Provisions, 14 Directors' remuneration and 16 Executive remuneration.

In determining the present value of the liability, attrition rates and remuneration increases have been taken into account.

Separation and redundancy

Provision is made for separation and redundancy benefit payments in circumstances where a separation or redundancy payment is expected to be paid within the financial year and a reliable estimate of the amount of the payments can be determined.

Superannuation

FRDC staff are members of the Commonwealth Superannuation Scheme (CSS), the Public Sector Superannuation Scheme (PSS) or the PSS accumulation plan (PSSap).

The CSS and PSS are defined benefit schemes for the Commonwealth. The PSSap is a defined contribution scheme.

The liability for defined benefits is recognised in the financial statements of the Australian Government and is settled by the Australian Government in due course.

FRDC makes employer contributions to the Australian Government at rates determined by an actuary to be sufficient to meet the cost to the Government of the superannuation entitlements of FRDC's employees.

From 1 July 2005, new employees are eligible to join the PSSap scheme.

No liability for superannuation benefits is recognised at 30 June 2006 as the employer contributions fully extinguish the accruing liability which is assumed by the Australian Government.

1.7 — Leases

A distinction is made between finance leases, which in effect transfer from the lessor to the lessee substantially all the risks and benefits incidental to ownership of leased non-current assets, and operating leases, under which the lessor effectively retains substantially all such risks and benefits.

The discount rate used is the interest rate implicit in the lease. Leased assets are amortised over the period of the lease. Lease payments are allocated between the principal component and the interest expense.

Operating lease payments are expensed on a straight line basis which is representative of the pattern of benefits derived from the leased assets.

The FRDC is not currently involved in any finance leases.

1.8 — Projects

The FRDC recognises project liabilities as project agreements require the research provider to perform services or provide facilities, or to meet eligibility criteria. In these cases, liabilities are recognised only to the extent that the services required have been performed or the eligibility criteria have been satisfied by the research provider.

1.9 — Borrowing costs

All borrowing costs are expensed as incurred.

1.10 — Cash

Cash means notes and coins held and any deposits held at call with a bank or financial institution. Cash is recognised at its nominal amount.

For the purposes of the Statement of Cash Flows, cash is net of any outstanding bank overdrafts.

In accordance with section 42 of the *Primary Industries and Energy Research and Development Act 1989* (PIERD Act), the Treasurer has approved the FRDC overdrawing its bank account to a limit of $900,000 on the basis that sufficient funds are held in related accounts to offset any overdrawing, with these funds to be transferred as soon as possible to clear any debt.

1.11 — Financial risk management

The FRDC's activities expose it to normal commercial financial risk. As a result of the nature of the FRDC's business and internal and Australian Government policies, dealing with the management of financial risk, the FRDC's exposure to market, credit, liquidity and cash flow and fair value interest rate risk is considered to be low.

1.12 — Investments

Investments are initially measured at their fair value.

After initial recognition, financial assets are to be measured at their fair values except for:

a) loans and receivables which are measured at amortised cost using the effective interest method,

b) held-to-maturity investments which are measured at amortised cost using the effective interest method, and

c) investments in equity instruments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured and derivatives that are linked to and must be settled by delivery of such unquoted equity instruments, which shall be measured at cost.

1.13 — Derecognition of financial assets and liabilities

As prescribed in the Finance Minister's Orders, the FRDC has applied the option available under AASB 1 of adopting AASB 132 and 139 from 1 July 2005 rather than 1 July 2004.

Financial assets are derecognised when the contractual rights to the cash flows from the financial assets expire or the asset is transferred to another entity. In the case of a transfer to another entity, it is necessary that the risks and rewards of ownership are also transferred.

Financial liabilities are derecognised when the obligation under the contract is discharged or cancelled or expires.

For the comparative year, financial assets were derecognised when the contractual right to receive cash no longer existed. Financial liabilities were derecognised when the contractual obligation to pay cash no longer existed.

1.14 — Impairment of financial assets

As prescribed in the Finance Minister's Orders, the FRDC has applied the option available under AASB 1 of adopting AASB 132 and 139 from 1 July 2005 rather than 1 July 2004.

Financial assets are assessed for impairment at each balance date.

Financial assets held at amortised cost

If there is objective evidence that an impairment loss has been incurred for loans and receivables or held to maturity investments held at amortised cost, the amount of the loss is measured as the difference between the assets carrying amount and the present value of estimated future cash flows discounted at the assets original effective interest rate. The carrying amount is reduced by way of an allowance account. The loss is recognised in profit and loss.

Financial assets held at cost

If there is objective evidence that an impairment loss has been incurred on an unquoted equity instrument that is not carried at fair value because it cannot be reliably measured, or a derivative asset that is linked to and must be settled by delivery of such an unquoted equity instrument, the amount of the impairment loss is the difference between the carrying amount of the asset and the present value of the estimated future cash flows discounted at the current market rate for similar assets.

Available for sale financial assets

If there is objective evidence that an impairment loss on an available for sale financial asset has been incurred, the amount of the difference between its cost, less principal repayments and amortisation, and its current fair value, less any impairment loss previously recognised in profit and loss, is transferred from equity to the profit and loss.

Comparative year

The above policies were not applied for the comparative year. For receivables, amounts were recognised and carried at original invoice amount less a provision for doubtful debts based on an estimate made when collection of the full amount was no longer probable. Bad debts were written off as incurred.

Other financial assets carried at cost which were not held to generate net cash inflows, were assessed for indicators of impairment. Where such indicators were found to exist, the recoverable amount of the assets was estimated and compared to the assets carrying amount and, if less, reduced to the carrying amount. The reduction was shown as an impairment loss.

1.15 — Trade creditors

Trade creditors and accruals are recognised at their nominal amounts, being the amounts at which the liabilities will be settled. Liabilities are recognised to the extent that the goods or services have been received (and irrespective of having been invoiced).

1.16 — Contingent liabilities and contingent assets

Contingent liabilities and assets are not recognised in the Balance Sheet but are discussed in the relevant schedules and notes. They may arise from uncertainty as to the existence of a liability or asset, or represent an existing liability or asset in respect of which settlement is not probable or the amount cannot be reliably measured. Remote contingencies are part of this disclosure. Where settlement becomes probable, a liability or asset is recognised. A liability or asset is recognised when its existence is confirmed by a future event, settlement becomes probable (virtually certain for assets) or reliable measurement becomes possible.

1.17 — Acquisition of assets

Assets are recorded at the cost of acquisition except as stated below. The cost of acquisition includes the fair value of assets transferred in exchange and liabilities undertaken.

Assets acquired at no cost, or for nominal consideration, are initially recognised as assets and revenues at their fair value at the date of acquisition, unless acquired as a consequence of restructuring of administrative arrangements. In the latter case, assets are initially recognised as contributions by owners at the amounts at which they were recognised in the transferor entity's accounts immediately prior to the restructuring.

1.18 — Infrastructure, plant and equipment

Asset recognition threshold

Purchases of infrastructure, plant and equipment are recognised initially at cost of acquisition in the Balance Sheet, except for purchases costing less than $5,000, which are expensed in the year of acquisition (other than where they form part of a group of similar items which are significant in total).

Revaluations

All infrastructure, plant and equipment were revalued as at 30 June 2006 by the Australian Valuation Office.

Infrastructure, plant and equipment are carried at valuation. Revaluations are done on a fair value basis. Fair value is determined to be depreciated replacement cost.

Following initial recognition at cost, valuations are conducted with sufficient frequency to ensure that the carrying amounts of assets do not materially differ with the assets fair values as at the reporting date.

Revaluation adjustments are made on a class basis. Any revaluation increment is credited to equity under the heading of asset revaluation reserve except to the extent that it reverses a previous revaluation decrement of the same asset class that was previously recognised through profit and loss. Revaluation decrements for a class of assets are recognised directly through profit and loss except to the extent that they reverse a previous revaluation increment for that class.

Any accumulated depreciation as at the revaluation date is eliminated against the gross carrying amount of the asset and the asset restated to the revalued amount.

Depreciation and amortisation

Depreciable infrastructure, plant and equipment assets are written-off to their estimated residual value over their estimated useful economic lives using, in all cases, the straight line method of depreciation. Leasehold improvements are depreciated on a straight line basis over the the lesser of the estimated useful life of the improvements or the unexpired period of the lease.

Depreciation and amortisation rates (useful lives) and the methods used are reviewed at each balance date and necessary adjustments are recognised in the current period, or current and future periods, as appropriate. Residual values are re-estimated for a change in price only when an asset is revalued.

Depreciation and amortisation rates applying to each class of depreciable asset are based on the following useful lives:

	2005–06	2004–05
Infrastructure, plant and equipment	**3–5 years**	3–5 years
Computer software developed in-house	**10 years**	10 years
Leasehold improvements	**Term of lease**	Term of lease

The aggregate amount of depreciation and amortisation allocated for each class of asset during the reporting period is disclosed at Note 7C.

1.19 — Impairment of non-current assets

All assets were assessed for impairment at 30 June 2006. Where indications of impairment exist, the asset's recoverable amount is estimated and an impairment adjustment made if the asset's recoverable amount is less than its carrying amount.

The recoverable amount of an asset is the higher of its fair value less costs to sell and its value in use. Value in use is the present value of the future cash flows expected to be derived from the asset. Where the future economic benefit of an asset is not primarily dependent on the asset's ability to generate future cash flows, and the asset would be replaced if the FRDC were deprived of the asset, its value in use is taken to be its depreciated replacement cost.

No indicators of impairment were found for assets at fair value.

1.20 — Taxation

The FRDC is exempt from all forms of taxation except fringe benefits tax (FBT), payroll tax and the goods and services tax (GST).

Revenues, expenses and assets are recognised net of GST:

- except where the amount of GST incurred is not recoverable from the Australian Taxation Office; and
- except for receivables and payables.

1.21 — Comparative figures

Comparative figures have been adjusted to conform to changes in presentation in these financial statements where required.

1.22 — Insurance

The FRDC has insured for risks through the Australian Government's Comcover. Workers compensation is insured through the Australian Government's Comcare.

1.23 — Intangibles

The FRDC's intangibles are made up of internally developed software for internal use. The assets are carried at cost.

Software is amortised on a straight line basis over its anticipated useful life. Based on historical experience, the useful life of FRDC's software is 10 years. This is unchanged from the previous year.

All software assets were assessed for impairment as at 30 June 2006. None were found to be impaired.

Note 2: The impact of the transition to AEIFRS from previous AGAAP

The cash flow statement presented under previous AGAAP is equivalent to that prepared under AEIFRS.

There was no AEIFRS impact on the FRDC accounts.

Note 3A: Reporting of outcomes

The FRDC operates primarily in a single industry and geographic segment, namely the Australian fishing industry. It is a federal statutory authority 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 structured to meet three outcomes:

Outcome 1: The natural resources on which the commercial, recreational and customary sectors of the fishing industry depend are used in an ecologically sustainable way.

Outcome 2: The commercial sector of the Australian fishing industry is profitable and internationally competitive; the commercial, recreational and traditional sectors are socially resilient.

Outcome 3: 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 R&D.

One Output Group is identified for each Outcome.

Output 1: Knowledge, processes and technology that contribute to the use, in an ecologically sustainable way, of the natural resources on which the fishing industry depends.

Output 2: Knowledge, processes and technology that contribute to making the:

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

Output 3: Knowledge, processes and technology that contribute to developing the knowledge and skills of people in and supporting the Australian fishing industry and in the wider community, so that Australians derive maximum economic, environmental and social benefits from fisheries research and development.

Note 3B: Departmental revenues and expenses by outcome groups and outputs

	Outcome Group 1 Output 1		Outcome Group 2 Output 2		Outcome Group 3 Output 3		Total	
	2006	2005	**2006**	2005	**2006**	2005	**2006**	2005
	$000	$000	**$000**	$000	**$000**	$000	**$000**	$000
Operating expenses								
Employees	**701**	863	**510**	627	**64**	78	**1,275**	1,568
Suppliers	**432**	506	**314**	368	**39**	46	**785**	920
Depreciation and amortisation	**129**	112	**94**	81	**12**	10	**235**	203
Projects expenditure	**13,194**	14,063	**9,595**	10,228	**1,199**	1,278	**23,988**	25,569
Other	**367**	440	**268**	320	**34**	40	**669**	800
Total operating expenses	**14,823**	15,984	**10,781**	11,624	**1,348**	1,452	**26,952**	29,060
Funded by:								
Revenues from Government	**8,811**	9,294	**6,408**	6,759	**801**	845	**16,020**	16,898
Contributions	**5,880**	6,159	**4,276**	4,479	**535**	560	**10,691**	11,198
Sale of goods and services	**24**	34	**18**	25	**2**	3	**44**	62
Reversals of previous asset write-downs	**0**	14	**0**	10	**0**	1	**0**	25
Interest	**124**	133	**90**	97	**11**	12	**225**	242
Other revenue	**6**	1	**4**	1	**1**	0	**11**	2
Total operating revenues	**14,845**	15,635	**10,796**	11,371	**1,350**	1,421	**26,991**	28,427

Note 3C: Net cost of outcome delivery

	Outcome 1		Outcome 2		Outcome 3		Total	
	2006	2005	**2006**	2005	**2006**	2005	**2006**	2005
	$000	$000	**$000**	$000	**$000**	$000	**$000**	$000
Departmental expenses	**14,823**	**15,984**	**10,781**	**11,624**	**1,348**	**1,452**	**26,952**	**29,060**
Total expenses	**14,823**	15,984	**10,781**	11,624	**1,348**	1,452	**26,952**	29,060
Other external revenues								
Contributions	**5,880**	**6,159**	**4,276**	**4,479**	**535**	**560**	**10,691**	**11,198**
Sale of goods and services	**24**	**34**	**18**	**25**	**2**	**3**	**44**	**62**
Reversals of previous asset write-downs	**0**	**14**	**0**	**10**	**0**	**1**	**0**	**25**
Interest	**124**	**133**	**90**	**97**	**11**	**12**	**225**	**242**
Other revenue	**6**	**1**	**4**	**1**	**1**	**0**	**11**	**2**
Total departmental	**6,034**	6,341	**4,388**	4,612	**549**	576	**10,971**	11,529
Total other external revenues	**6,034**	**6,341**	**4,388**	**4,612**	**549**	**576**	**10,971**	**11,529**
Net cost/(contribution) of outcome	**8,789**	**9,643**	**6,393**	**7,012**	**799**	**876**	**15,981**	**17,531**

Note 4: Economic dependency

The FRDC was established on 2 July 1991 under the PIERD Act. The Corporation is responsible to the Minister for Agriculture, Fisheries and Forestry; the Parliamentary Secretary to the Minister for Agriculture, Fisheries and Forestry; and the Minister for Fisheries, Forestry and Conservation.

The FRDC is dependent on appropriations from the Parliament of the Australia for its continued existence and ability to carry out its normal activities.

Note 5: Events after the balance sheet date

There are no events occurring after reporting date to report.

Note 6: Income

Revenues

6A — Revenues from Government

	30 June 2006 $	30 June 2005 $
Revenues from Government		
– 0.5% of AGVP *	**10,817,700**	11,471,068
– matching of industry contributions	**5,202,072**	5,426,313
Total revenues from government	**16,019,772**	16,897,381

* AGVP is the average gross value of fisheries production for the three preceding financial years.

The Australian Government's contribution of 0.5% of AGVP is made on the grounds that it exercises a stewardship role in relation to fisheries resources on behalf of the Australian community.

The matching of the industry contribution (up to 0.25% of AGVP) by the Australian Government is in line with policy principles that:

- beneficiaries from research should pay roughly in proportion to the benefits received; and
- the greater the spill-over benefits, the greater the proportion the Australian Government should contribute. †

† As described on page 18 of the FRDC's R&D Plan 2005–10, which is currently available on the corporation website.

6B — Contributions revenue

	30 June 2006 $	30 June 2005 $
Fisheries managed by:		
Australian Fisheries Management Authority	**1,047,012**	1,730,806
Australian Capital Territory	**26,000**	9,000
New South Wales	**381,999**	417,416
Northern Territory	**152,000**	107,626
Queensland	**689,884**	700,249
South Australia	**1,605,180**	1,118,069
Tasmania	**979,869**	722,500
Victoria	**246,185**	252,548
Western Australia	**1,838,878**	1,507,714
Sub-total	**6,967,007**	6,565,928
Projects		
Project funds received from other parties	**3,455,900**	4,543,342
Project refunds of prior years' expenditure	**268,255**	89,326
Sub-total	**3,724,155**	4,632,668
Total contributions revenue	**10,691,162**	11,198,596

Industry's contribution to the FRDC recognises the need for R&D that will be commercially oriented and that will deliver results that will improve industry performance and profitability.

6C — Sales of goods and services

	30 June 2006 $	30 June 2005 $
Sales of goods to external entities	**43,793**	62,237
Total sales of goods and services	**43,793**	62,237

Cost of sales

Sales of goods and services includes the sale of reports published as a result of projects and licensing fees for the use of FRDC developed software. No meaningful cost of sales figure can be determined due to the nature of these sales.

6D — Interest revenue

	30 June 2006 $	30 June 2005 $
Deposits	**225,393**	242,075
Total interest revenue	**225,393**	242,075

6E — Other revenue

	30 June 2006 $	30 June 2005 $
Miscellaneous	**10,682**	2,159
Total other revenue	**10,682**	2,159

Gains

6F — Reversal of previous asset write-downs

	30 June 2006 $	30 June 2005 $
Asset revaluation increment	0	24,584
Total reversals of previous asset write-downs	0	24,584

6G — Net gain/(loss) from sale of assets

	30 June 2006 $	30 June 2005 $
Infrastructure, plant and equipment		
Proceeds from sale	225	0
Net book value of assets disposed	(408)	0
Net gain/(loss) from disposal of infrastructure, plant and equipment	(183)	0

Note 7: Operating expenses

7A — Employee expenses

The basis for employee remuneration is detailed at Note 1.6.

	30 June 2006 $	30 June 2005 $
Remuneration (for services provided)		
Wages and salaries (includes leave and other entitlements)	1,083,806	1,127,581
Separation and redundancy	0	97,212
Superannuation	177,098	204,468
Other employee benefits-recruitment costs	5,525	134,105
Total employee benefits expenses	1,266,429	1,563,366
Workers compensation premiums	8,764	4,865
Total employee expenses	1,275,193	1,568,231

FRDC employees contribute to the Commonwealth Superannuation Scheme (CSS), the Public Sector Superannuation Scheme (PSS), the PSSap accumulated plan or other elected schemes as appropriate, which provide retirement, death and disability benefits to employees.

Contributions to the schemes are at rates calculated to cover existing and emerging obligations. Contribution rates from 1 July 2005 to 30 June 2006 are 25.3% of salary for CSS members, 12.4% of salary for PSS members and 15.4% of salary for PSSap members.

The FRDC also pays an employer productivity superannuation contribution for its employees in accordance with the *Superannuation (Productivity Benefit) Act 1988*.

7B — Supplier expenses

	30 June 2006 $	30 June 2005 $
Audit fees	13,000	9,000
External service providers	369,256	374,546
Asset purchases less than $5,000	2,605	64,408
Insurance	21,345	25,319
Office supplies	25,757	68,625
Property	85,608	96,808
Representation	18,932	26,336
Telecommunications	34,100	35,243
Training	33,911	35,055
Travel	149,296	153,864
Other	31,575	30,652
Total suppliers expenses	**785,385**	919,856

All supplier goods and services were supplied by external entities.

7C — Depreciation and amortisation

	30 June 2006 $	30 June 2005 $
Amortisation of intangibles	167,898	118,226
Depreciation of infrastructure, plant and equipment	66,348	84,641
Total depreciation and amortisation	**234,246**	202,867

The aggregate amounts of depreciation or amortisation expensed during the reporting period for each class of depreciable asset are as follows:

Infrastructure, plant and equipment	66,348	84,641
Computer software	167,898	118,226
Total depreciation and amortisation	**234,246**	202,867

7D — Projects expenditure

	30 June 2006 $	30 June 2005 $
Projects (1)		
Natural Resources Sustainability	12,106,239	13,855,825
Industry Development	10,680,194	10,769,808
People Development	974,189	544,583
Aquatic animal health activities funded by the Australian Government initiative 'Building a national approach to animal and plant health'	227,746	399,206
Total project expenditure	**23,988,368**	25,569,422

(1) Project expenditure is consistent with the expenditure classification of "Grants" according to Schedule 1 of the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*.

Note 8: Operating expenses — other

	30 June 2006 $	30 June 2005 $
Communications		
Annual Report	**29,606**	53,854
ANRO	**16,070**	32,487
Fisheries Research Advisory Bodies	**154,486**	184,905
FRDC initiated project extension	**1,670**	1,897
Joint RDC activities	**53,261**	14,858
Media activities	**24,570**	34,227
Other stakeholder consultation	**53,899**	71,679
R&D News	**199,873**	174,741
R&D Plan	**68,471**	114,398
Representative organisations consultation (1)	**6,737**	15,664
Website	**35,815**	43,311
Other	**25,917**	58,345
Total other expenditure	**670,375**	800,366

(1) Representative organisations consultation relates to expenses incurred by the FRDC in accordance with section 15 of the PIERD Act.

Note 9: Financial assets

9A — Receivables

	30 June 2006 $	30 June 2005 $
GST receivable	**128,930**	208,120
Other receivables	**1,800,072**	1,294,399
Total receivables (net)	**1,929,002**	1,502,519

All receivables are current assets.

Receivables (gross) are aged as follows:		
Not overdue	**1,377,742**	1,502,519
Overdue by:		
Less than 30 days	**402,082**	0
30 to 60 days	**6,047**	0
60 to 90 days	**0**	0
More than 90 days	**143,132**	0
	551,260	0
Total receivables	**1,929,002**	1,502,519

All receivables are with entities external to FRDC.

Included in other receivables are deposits which the FRDC has paid to underwrite conferences. In the event that conference revenues do not exceed conference expenditure, the excess expenditure will be recovered from these deposits. However, the FRDC expects that all conferences will generate sufficient revenues to cover expenditure and that the deposits will be refunded.

9B — Investments

	30 June 2006 $	30 June 2005 $
Shares in other company — unlisted	**5,001**	5,001
Total other investments	**5,001**	5,001

Shares in unlisted company

Australian Seafood Co-Products Pty Ltd (ASCo) is an unlisted company in which FRDC owns a one fifteenth share. The FRDC is not represented on the ASCo Board. The principal activity of ASCo is to invest in ASCo Fertilisers Pty Ltd which carries on the business of commercialisation of know-how and technical information relating to the conversion of fish waste and fish nutrient into agriculture fertiliser products and the development of production facilities for those products. As the shares do not have a quoted market price in an active market and cannot be reliably measured they have been carried at cost in accordance with AASB 139.

Note 10: Non-financial assets

10A — Infrastructure, plant and equipment

	30 June 2006 $	30 June 2005 $
Infrastructure, plant and equipment — at fair value	**438,271**	464,495
Accumulated depreciation	**(258,566)**	(265,485)
Total infrastructure, plant and equipment	**179,705**	199,010

10B — Intangibles

	30 June 2006 $	30 June 2005 $
Computer software (internally developed in use)	**2,169,445**	1,404,640
Accumulated amortisation	**(425,597)**	(257,696)
	1,743,848	1,146,944
Total intangibles	**1,743,848**	1,146,944

10C — Reconciliation of the opening and closing balances of infrastructure, plant and equipment and intangibles

	Infrastructure, plant and equipment $	Intangibles $	Total $
Gross book value as at 1 July 2005	**464,495**	**1,404,640**	**1,869,135**
Accumulated depreciation /amortisation	**(265,485)**	**(257,696)**	**(523,181)**
Opening net book value	**199,010**	**1,146,944**	**1,345,954**
Additions by purchase	36,110	764,802	800,912
Net revaluation increment/(decrement)	(51,646)		(51,646)
Depreciation/amortisation expense	6,919	(167,901)	(160,982)
Disposals	(10,688)		(10,688)
As at 30 June 2006			
Gross book value	438,271	2,169,442	2,607,713
Accumulated depreciation/amorisation	(258,566)	(425,597)	(684,163)
Closing net book value	**179,705**	**1,743,845**	**1,923,550**

In accordance with the FRDC's accounting policy (refer Note 1.19), items under the infrastructure, plant and equipment heading were revalued at their fair value, effective 30 June 2006, by the Australian Valuations Office.

Note 11: Payables

11A — Supplier payables

	30 June 2006 $	30 June 2005 $
Trade creditors	**104,103**	39,056
FBT payable	**1,230**	382
PAYG payable	**28,663**	27,377
Total supplier payables	**133,996**	66,815

All supplier payables are current liabilities.

Trade creditors

Settlement is usually made net 30 days.

11B — Project payables

	30 June 2006 $	30 June 2005 $
Project creditors	1,217,417	188,306
Total project creditors	**1,217,417**	188,306

All project payables are current liabilities.

Project creditors are recognised at their nominal amounts, being the amounts at which the liabilities will be settled. They relate to payments approved on achievement of agreed milestones but were unpaid at the end of the period. Settlement is usually made within 60 days.

11C — Other payables

	30 June 2006 $	30 June 2005 $
Unearned revenue:		
National Food Industry Strategy (NFIS)	80,000	0
DAFF — Aquatic Animal Health	212,580	282,891
DAFF — Securing the Future	35,210	43,530
South Australian Government	119,640	433,461
Other	0	4,000
Total unearned revenue	**447,430**	763,882

All unearned revenue is recognised as a current liability.

Moneys paid by:

- NFIS Contribution to facilitate a collaborative project with NFIS and FRDC "To map and develop a demand chain that will facilitate a new market entry program to target the North American market."
- DAFF (against the Aquatic Animal Health and Securing the Future contracts), and
- the South Australian Government (against "The Initiative to develop outputs relating to the ecological sustainable development of aquaculture") are initially shown as unearned revenue in the Balance Sheet. When project payments are made for milestones achieved, unearned revenue is recognised as project income received from other parties.

Note 12: Provisions

12A — Employee provisions

	30 June 2006 $	30 June 2005 $
Leave	359,673	312,005
Total employee provisions	**359,673**	312,005
Current	328,475	249,437
Non-current	31,198	62,568
Total employee provisions	**359,673**	312,005

Note 13: Cash flow reconciliation

13A — Reconciliation of operating result to net cash from operating activities

	30 June 2006 $	30 June 2005 $
Operating result	37,052	(633,709)
Depreciation and amortisation	234,246	202,867
Revaluation of assets	0	(24,584)
(Gain)/loss on disposal of assets	183	0
(Increase)/decrease in receivables and other non-financial assets	(426,483)	703,961
Increase/(decrease) in supplier payables	67,181	(27)
Increase/(decrease) in other payables	(316,452)	(527,328)
Increase/(decrease) in employee provisions	47,667	(32,882)
Increase/(decrease) in project payables	1,029,111	76,902
Net cash from/(used by) operating activities	672,505	(234,800)

13B — Reconciliation of cash per Balance Sheet to Statement of Cash Flows

	30 June 2006 $	30 June 2005 $
Cash balance comprises:		
Cash at bank	166,122	294,304
Cash on hand	300	300
Total cash on hand and at bank	166,422	294,604
Total cash	166,422	294,604
Balance of cash as at 30 June 2006 shown in the Statement of Cash Flows	166,422	294,604

Cash

Temporarily surplus funds are placed on deposit at call with FRDC's banker. Interest is earned on the daily balance at the prevailing daily rate for money on call and is paid at month end.

Note 14: Director remuneration

	30 June 2006 $	30 June 2005 $
Total remuneration received, or due and receivable, by directors of FRDC	390,026	724,146

The basis for directors' remuneration is detailed at Note 1.6.

The Government Director, Mr G. Hurry, received no remuneration.

The Executive Director, Mr P. Dundas-Smith, retired 20 April 2005 and was paid accrued long service leave, annual leave entitlements and a separation payment, included in the comparison figures for 30 June 2005.

There were no superannuation payments in connection with the retirement of directors.

The number of directors of the FRDC included in these figures are shown below in the expected annual remuneration bands:

Annual remuneration bands	2005–06 number	2004–05 number
Directors		
0 – 14,999	1	1
15,000 – 29,999	5	6
35,000 – 44,999	1	1
45,000 – 59,999	0	0
195,000 – 209,999	0	1
220,000 – 234,999	1	0
330,000 – 344,999	0	1
Total number of directors of FRDC	8	10

Note 15: Related party disclosures

The Directors of the FRDC during the year were:

Mr D. Byrne	Chair (Chair Remuneration Committee and Chair Business Development Committee)
Mr S. Bennison	Director (Chair Finance Audit, Risk and Management Committee)
Mr I. Cartwright	Director
Dr P. Hone	Executive Director
Prof. T. Hundloe	Director
Mr G. Hurry	Government Director
Dr N. Rayns	Director
Mr S. Richey	Director (Deputy Chair)
Mr W. Bateman	Observer from Recfish Australia Mr Bateman also attended FRDC board meetings following the resignation of Mr John Harrison on 30 April 2005 as an observer from Recfish Australia.

The aggregate amount of remuneration of directors is disclosed in Note 14.

Transactions with director-related parties

Director	Organisation and position held	Nature of interest	Income received from entity $	Expenditure paid to entity $
Mr I. Cartwright	Australian Fisheries Management Authority *Director*	Research projects or work undertaken by the organisation	1,191,325	12,011
	Marine Stewardship Council *Member*	Research projects or work undertaken by the organisation	0	775
	University of Melbourne *Consultant*	Research projects or work undertaken by the organisation	0	182,474
Mr S. Bennison	National Aquaculture Council *Chief Executive Officer*	Research projects or work undertaken by the organisation	0	287,843
	Seafood Services Australia Ltd *Director*	Research projects or work undertaken by the organisation	7,246	851,455
Dr P. Hone	CRC for Sustainable Aquaculture of Finfish *Director*	Research projects or work undertaken by the organisation	2,969,936	33,000
Prof. T. Hundloe	University of Queensland *Head of Technology Management*	Research projects or work undertaken by the organisation	0	23,624
Mr G. Hurry	Department of Agriculture, Fisheries and Forestry *Executive Manager Fisheries and Forestry*	Research projects or work undertaken by the organisation	16,326,402	303,392
	Bureau of Rural Sciences *Executive Manager Fisheries and Forestry*	Research projects or work undertaken by the organisation	0	68,466
	Australian Bureau of Agricultural Resource Economics (ABARE) *Executive Manager Fisheries and Forestry*	Research projects or work undertaken by the organisation	0	61,799
	Deakin University *Member*	Research projects or work undertaken by the organisation	0	0

Transactions with director-related parties (continued)

Director	Organisation and position held	Nature of interest	Income received from entity $	Expenditure paid to entity $
Dr N. Rayns	NSW Fisheries *Executive Director Aquaculture and Sustainable Fisheries*	Research projects or work undertaken by the organisation	52,549	0
	Australian Fisheries Management Authority *General Manager*	Research projects or work undertaken by the organisation	1,179,286	12,011
Mr S. Richey	Australian Fisheries Management Authority *Chairman of Northern Prawn Management Advisory Committee*	Research projects or work undertaken by the organisation	1,191,325	12,011
	Seafood Services Australia Ltd *Spouse of Director*	Research projects or work undertaken by the organisation	6,164	444,455
	Tasmanian Fishing Industry Council *Director*	Research projects or work undertaken by the organisation	0	0

All transactions were conducted under normal terms and conditions.

Note 16: Executive remuneration

The number of senior executives who received or were due to receive a total remuneration of $130,000 or more:

	2005–06	2004–05
Between 130,000 – 144,999	1	0
Between 200,000 – 214,999	1	2
Between 225,000 – 240,000	1	0
Between 330,000 – 344,999	0	1
	3	3
	$	$
The aggregate amount of total remuneration of executives shown above is	565,489	650,121

Note 17: Remuneration of auditors

The cost of financial statement audit services provided to the Corporation were:

	30 June 2006 $	30 June 2005 $
Amounts received or due and receivable by the Australian National Audit Office as auditors of FRDC	13,000	9,000

RSM Bird Cameron are contracted by the Australian National Audit Office to provide audit services on the ANAO's behalf. Fees for these services are included above. No other services were provided by the Auditor-General or RSM Bird Cameron during the reporting period.

Note 18: Average staffing levels

	2005–06	2004–05
Average staffing levels during the year were:	9.6	10

19A — Interest rate risk for the year ended 30 June 2006

Financial instrument	Note	Floating interest rate		Fixed interest rate maturing in						Non-interest bearing		Total		Weighted average effective interest rate	
				2005–06			2004–05								
		2005–06	2004–05	1 year or less	1 to 5 years	> 5 years	1 year or less	1 to 5 years	> 5 years	2005–06	2004–05	2005–06	2004–05	2005–06	2004–05
Financial assets															
Cash at bank	13B	**166,122**	294,304									**166,122**	294,304	**1.50%**	1.50%
Cash on hand	13B									**300**	300	**300**	300	**n/a**	n/a
Other receivables	9A									**1,800,072**	1,294,399	**1,800,072**	1,294,399	**n/a**	n/a
Deposits at call	9B	**0**	0	**0**			0					**0**	0	**1.75%**	4.80%
Shares (not associate)	9C									**5,001**	5,001	**5,001**	5,001	**n/a**	n/a
Total		**166,122**	294,304	**0**	**0**	**0**	0	0	0	**1,805,373**	1,299,700	**1,971,495**	1,594,004		
Total assets												**4,023,978**	3,148,078		
Financial liabilities															
Trade creditors	11A									**104,103**	39,056	**104,103**	39,056	**n/a**	n/a
Project creditors	11B									**1,217,417**	188,306	**1,217,417**	188,306	**n/a**	n/a
Unearned revenue	11C									**447,430**	763,882	**447,430**	763,882	**n/a**	n/a
Total		**0**	0	**0**	**0**	**0**	0	0	0	**1,768,950**	991,244	**1,768,950**	991,244		
Total liabilities												**2,158,516**	1,331,008		

19B — Net fair values of financial assets

	Notes	2005–06 Total carrying amount	2005–06 Aggregate fair value	2004–05 Total carrying amount	2004–05 Aggregate fair value
Financial assets					
Cash at bank	13B	**166,122**	**166,122**	294,304	294,304
Cash on hand	13B	**300**	**300**	300	300
Other receivables	9A	**1,800,072**	**1,800,072**	1,294,399	1,294,399
Deposits at call	9B	**0**	**0**	0	0
Shares (not associates)	9C	**5,001**	**5,001**	5,001	5,001
		1,971,495	**1,971,495**	1,594,004	1,594,004
Financial liabilities					
Trade creditors	11A	**104,103**	**104,103**	39,056	39,056
Project creditors	11B	**1,217,417**	**1,217,417**	188,306	188,306
Unearned revenue	11C	**447,430**	**447,430**	763,882	763,882
		1,768,950	**1,768,950**	991,244	991,244

Financial assets

The net fair values of cash, deposits at call and non-interest-bearing monetary financial assets approximate their carrying amounts.

The fair value of the shares cannot be readily determined as there is no active market.

Financial liabilities

The net fair values for trade, project and other payables, all of which are short term in nature, are approximated by their carrying amounts.

19C — Credit risk exposure

The FRDC's maximum exposures to credit risk at the reporting date in relation to each class of recognised financial assets is the carrying amount of those assets as indicated in the Balance Sheet.

The FRDC has no significant exposure to any concentration of credit risk.

All figures for credit risk referred to do not take into account the value of any collateral or other security.

Note 20: Other related parties

The FRDC is one of two members of Seafood Services Australia Limited (SSA), a company limited by guarantee. Although the FRDC has significant influence over SSA, the FRDC has no ownership interest in SSA that would require the application of AAS14 "Accounting for Investments in Associates". The constitution of SSA prohibits the distribution of any assets and income to its members, except as bona fide compensation for services rendered or expenses incurred on behalf of SSA. On the winding up of SSA, any amounts remaining after the satisfaction of all debts and liabilities must be transferred to any corporation with similar objectives to SSA that is not carried on for the profit or gain of its individual members.

Note 21: Contingent liabilities and assets

The FRDC has no contingent liabilities and assets.

Unquantifiable contingencies

Nil

Remote contingencies

Nil

Appendices

Appendix A

The FRDC's principal revenue base

As stipulated in the PIERD Act, and as shown in Figure 5, the FRDC's primary revenue source is based on:

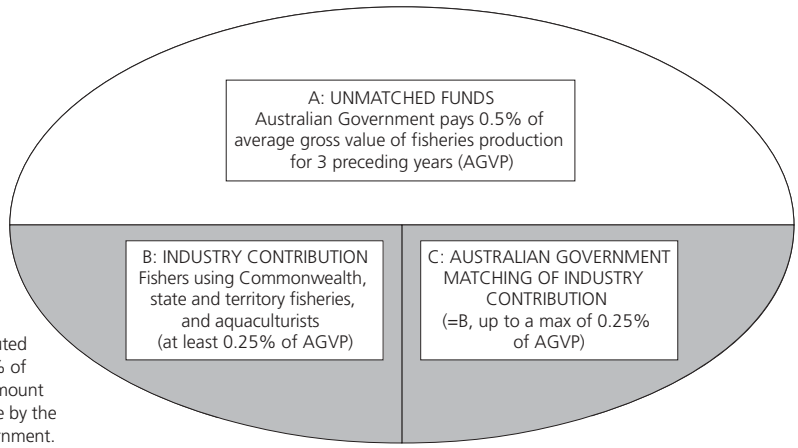
- the Australian Government providing unmatched funds equivalent to 0.5 per cent of the average gross value of Australian fisheries production for the three preceding years (AGVP)
- fishers and aquaculturists providing contributions of at least 0.25 per cent of AGVP, and
- the Australian Government matches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

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.

Industry contributions for the past financial year and trends for the past five years are shown on page vii.

Details of all FRDC revenue (including investments, royalties, and sales of products, information and services) are in the financial statements starting on page 93.

FIGURE 5: PROPORTIONS OF THE FRDC'S PRINCIPAL REVENUE BASE



In 2005–06, the industry contributed more than 128% of the maximum amount that is matchable by the Australian Government.

Rationale for the FRDC's revenue base

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 of 0.5 per cent of AGVP is made on the grounds that the Australian Government exercises a stewardship role in relation to fisheries resources on behalf of the Australian community.

Industry makes its contributions to the FRDC recognising that fisheries R&D will be oriented to its needs and will deliver economic and social benefits. In turn, the Australian Government's matching of the industry contributions is in line with policy principles that:

- beneficiaries from research should pay roughly in proportion to the benefits received, and
- the greater the spill-over benefits, the greater the proportion the Australian Government should contribute.

Appendix B

Principal legislative requirements for reporting

This annual report complies with all requirements of Commonwealth legislation. The principal reporting requirements of the foremost legislation, and some of their consequences for the FRDC, are outlined in this appendix. The Acts are:

- the *Commonwealth Authorities and Companies Act 1997* (CAC Act)
- the *Commonwealth Authorities and Companies (Report of Operations) Orders 2005*
- the *Primary Industries and Energy Research and Development Act 1989* (PIERD Act), and
- the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

CAC Act requirements

The CAC Act is the principal legislation that specifies the content and standards of presentation of statutory authorities' annual reports for parliamentary scrutiny.

Section 9 of the CAC Act requires the FRDC's directors to prepare an annual report in accordance with schedule 1 each financial year, and to give it to the responsible minister by 15 October. Clause 10 of the CAC Orders specifies that the report of operations and future prospects (one of the three main elements of the annual report, the others being financial statements and a report by the Auditor-General) to include, among other things*:

- a review of how the FRDC has performed during the financial year in relation to its statutory objects and functions, its R&D plan and its principal outputs and contribution to outcomes
- factors influencing its performance over the financial year and in the future
- significant events
- operational and financial results, including principal outputs, major investing and financing activities, and key financial and non-financial performance indicators
- significant changes in the FRDC's state of affairs or principal activities
- developments since the end of the financial year, and
- matters required to be included by the PIERD Act and any other legislation.

* The sub-paragraphs are an edited version of clauses 8 to 18 of the *CAC (Report of Operations) Orders 2005*.

PIERD Act requirements

The PIERD Act also specifies matters that must be reported. In particular, section 28 states:

(1) The directors must include in each report on an R&D Corporation prepared under section 9 of the *Commonwealth Authorities and Companies Act 1997*:

(a) particulars of:

(i) the R&D activities that it coordinated or funded, wholly or partly, during the period; and

(ii) the amount that it spent during the period in relation to each of those activities; and

(iia) which (if any) of those activities related to ecologically sustainable development; and

(iii) revisions of its R&D plan or annual operational plan approved by the Minister during the period; and

(iv) the entering into of agreements under sections 13 and 14 during the period and its activities during the period in relation to agreements entered into under that section during or prior to the period; and

(v) its activities during the period in relation to applying for patents for inventions, commercially exploiting patented inventions and granting licences under patented inventions; and

(vi) the activities of any companies in which the Corporation has an interest; and

(vii) any activities relating to the formation of a company; and

(viii) significant acquisitions and dispositions of real property by it during the period; and

(b) an assessment of the extent to which its operations during the period have:

(i) achieved its objectives as stated in its R&D plan; and

(ii) implemented the annual operational plan applicable to the period; and

(c) an assessment of the extent to which the Corporation has, during the period, contributed to the attainment of the objects of this Act as set out in section 3; and

(d) in respect of the grain industry or such other primary industry or class of primary industries as is prescribed in the regulations, particulars of sources and expenditure of funds, including:

(i) commodity, cross commodity and regional classifications; and

(ii) funds derived from transfer of:

(A) assets, debts, liabilities and obligations under section 144; and

(B) levies attached to Research Funds under the *Rural Industries Research Act 1985* under section 151 of this Act.

Further information on the PIERD Act in relation to the FRDC is in Appendix C.

EPBC Act requirements

Section 516A of the EPBC Act requires the FRDC to report on ecologically sustainable development and environmental matters. The specific reporting required by section 516A, and the FRDC's responses, are as follows:

- *The extent to which the principles of ESD have been internalised in decision-making systems and processes.* The objects of the FRDC, specified in the enabling legislation and detailed overleaf, focus its activities on economic, environmental and social matters (that is, the principal elements of ESD), including "sustainable use and sustainable management of Australia's fisheries natural resources". The first three of the legislated objects underpin the FRDC's visions and mission, and are the basis for the planned outcomes of the three R&D programs. In pursuing these outcomes, the FRDC has fully internalised the principles of ESD in its decision-making systems and processes.
- *The contribution to ESD of the social, economic and environmental outcomes that the Australian Government is seeking.* Reporting of the three R&D programs (pages 17–60) addresses this requirement.
- *The environmental impacts of the FRDC's operations and actions, the measures being taken to minimise the impact on the environment, and the mechanisms for reviewing and improving performance.* The FRDC implements section 516A through two functions, as follows:
  - *R&D project management.* The FRDC identifies R&D needs, and the means of addressing them, through a planning process and by entering project agreements with research providers: it does not undertake research itself. Management of fisheries R&D involves reporting against economic, environmental and/or social outcomes — at a strategic level via this annual report and in more detail in final reports for projects. Before R&D projects start, the FRDC assesses their environmental impacts and ensures that appropriate approvals are obtained. The FRDC also has an entire R&D subprogram dedicated to developing an ESD reporting and assessment framework so that the industry can meet its obligations under the Act.
  - *FRDC internal operations*. Mechanisms for reviewing and improving performance are incorporated in the Corporation's ISO-certified quality management system, which provides a structure for continual improvement that permeates all management processes. The FRDC manages the process through Program 4 — the Management and Accountability Program.

A compliance index (on page 134) shows the page numbers on which the FRDC has reported on matters specified in Australian Government legislation and policies.

Appendix C

The FRDC's legislative foundation and the exercise of ministerial powers

Enabling legislation

The FRDC's enabling legislation is the *Primary Industries and Energy Research and Development Act 1989* (Commonwealth) (the PIERD Act).

The FRDC Board is responsible to the Minister for Agriculture, Fisheries and Forestry; to the Parliamentary Secretary to the Minister; and to the Minister for Fisheries, Forestry and Conservation — and, through them, to the Parliament of Australia.

The objects, functions and statutory powers of R&D corporations are specified in the PIERD Act, the text of which is available via the FRDC website.

In the interests of clarity, the following statements of the FRDC's objects, functions and statutory powers mirror the wording of the PIERD Act but are specific to the FRDC and its business environment. Similarly, the statements of the FRDC's functions and statutory powers have been made shorter and simpler than the wording of the Act.

Objects

The objects of the FRDC, deriving from section 3 of the PIERD Act, are to make provision for the funding and administration of fisheries R&D with a view to:

- increasing the economic, environmental and social benefits to members of the Australian fishing industry and to the community in general by improving the production, processing, storage, transport or marketing of fish and fish products
- achieving the sustainable use and sustainable management of Australia's fisheries natural resources
- making more effective use of the resources and skills of the community in general and the scientific community in particular, and
- improving accountability for expenditure on fisheries R&D.

Functions

The functions of the FRDC, deriving from section 11 of the PIERD Act, are to:

- investigate and evaluate the requirements for fisheries research and development and, on that basis, prepare a five-year R&D plan, review it annually and revise it if required
- prepare an annual operational plan for each financial year
- coordinate or fund the carrying out of R&D activities that are consistent with the annual operational plan

- monitor and evaluate fisheries R&D activities that are funded and report on them to the Parliament; the Minister for Agriculture, Fisheries and Forestry; the Parliamentary Secretary to the Minister; the Minister for Fisheries, Forestry and Conservation; the Australian Seafood Industry Council; and the Australian Recreational and Sport Fishing Industry Confederation (trading as Recfish Australia), and
- facilitate the dissemination, adoption and commercialisation of the results of fisheries R&D.

Statutory powers

Subject to the PIERD Act, the FRDC is empowered under section 12 of the Act to do all things necessary or convenient to be done for, or in connection with, the performance of its functions, which may include:

- entering into agreements for the carrying out of R&D activities by other persons
- entering into agreements for the carrying out of R&D activities by the FRDC and other persons
- making applications, including joint applications for patents
- dealing with patents vested in the FRDC and other persons
- making charges for work done, services rendered, and goods and information supplied by it
- accepting gifts, grants, bequests and devises made to it, and acting as trustee of money and other property vested in it on trust
- acquiring, holding and disposing of real and personal property
- joining in the formation of a company, and
- doing anything incidental to any of its powers.

The following description of ministerial powers has been drawn from several sections of the PIERD Act and has been condensed from the original in the interests of clarity.

Ministerial powers

Ministerial powers under the enabling legislation may be exercised by the Minister for Agriculture, Fisheries and Forestry; the Parliamentary Secretary to the Minister; and the Minister for Fisheries, Forestry and Conservation. They relate to:

- directing the FRDC in writing as to the performance of its functions and the exercise of its powers
- approving the R&D plan and the annual operational plan
- requesting and approving variation to the R&D plan and the annual operational plan
- requesting the establishment of a selection committee and determining certain conditions relating to the selection committee
- appointing the presiding member and members of a committee for the selection of directors
- determining the number of directors
- determining terms and conditions of appointment of directors (other than the Executive Director) in relation to matters not provided for by the PIERD Act
- appointing the Chairperson and Government Director
- appointing directors, other than the Chairperson, Government Director and Executive Director, from persons nominated by a selection committee
- appointing a nominated director to be the Deputy Chairperson

- declaring one or more specified organisations to be representative organisations in relation to the FRDC
- determining the gross value of production of the fishing industry for the purposes of establishing the maximum payments by the Australian Government to the FRDC
- establishing written guidelines covering the payment by the FRDC to an eligible industry body, or member of an eligible industry body, for expenses reasonably incurred in connection with consultation with the FRDC
- causing, at least once in each financial year, a coordination meeting to be held of all R&D corporations
- granting leave of absence to the Chairperson, and
- terminating the appointment of the Chairperson or a director other than the Executive Director.

Additional powers under the *Commonwealth Authorities and Companies Act 1997* relating to corporate governance and reporting are available to the Minister for Agriculture, Fisheries and Forestry; the Parliamentary Secretary to the Minister; the Minister for Fisheries, Forestry and Conservation; and the Finance Minister.

Exercise of ministerial powers during 2005–06 is described on page 84.

Appendix D

Freedom of information statement

The *Freedom of Information Act 1982* (FOI Act) requires each Australian Government agency to publish a statement setting out its role, structure and functions, the documents available for public inspection, and access to such documents. Section 8 of the FOI Act requires each agency to publish information on the way it is organised, its powers, decisions made and arrangements for public involvement in its work.

The following statement, in conjunction with information contained this annual report, is intended to meet the requirements of section 8 of the FOI Act.

A leaflet about the FOI Act is available from the Attorney-General's Department (Robert Garran Offices, National Circuit, Barton ACT 2600; telephone 02 6250 6666; www.ag.gov.au/foi/foi%5Fact/welcome.html).

Role, structure and functions

The FRDC's role is described on page x of this annual report; its structure and functions are described respectively on pages xi and 134. Further information is on pages 9–10 and 18–20 of the FRDC's R&D plan. Both these publications are freely available to the public from the FRDC.

The legislation under which the FRDC is established is the *Primary Industries and Energy Research and Development Act 1989*; further information is in appendix B (page 131) and appendix C (page 134).

Documents available for inspection

The following documents are available for inspection at the FRDC office:

R&D plan (the FRDC's strategic plan)	File, publication and FRDC website *
FRDC policy manual	Unpublished document
Operational procedures	Files, unpublished document
Annual operational plan	File, unpublished document
Project details	Database, files
Project agreements	Files
Final project reports	Publications; hyperlinks on FRDC website **
Non-technical summaries of final project reports	Publications and FRDC website *
R&D funding applications	Files
Annual report	File, publications and FRDC website *
R&D News	File, publications and FRDC website *
Administration	Files, unpublished document
Mailing lists	Database

* The FRDC's website address is www.frdc.com.au

** Non-technical summaries of all final reports of FRDC projects are available on the FRDC website. Hyperlinks leading to other websites containing full final reports are also on the FRDC website.

Copies of publications and reports are available on request, generally free of charge except for final project reports and related products. Some other information may be subject to assessment of access for such matters as commercial confidentiality or personal privacy in accordance with the FOI Act.

Sources of information currently available from the FRDC in paper publications and in electronic form are described on page 137.

Access to documents

To seek access to FRDC documents, please contact the FRDC's Business Development Manager: address, telephone, fax and e-mail details are shown inside the back cover of this report. It may not be necessary to request the information under the FOI Act — the FRDC may simply provide it to you when you ask for it. At all times, however, you have the option of applying under the FOI Act.

Unless you are seeking access to personal information about yourself, you will need to pay the standard FOI application fee of $30.00 when making your application. Additional processing charges may also apply.

Documents are usually made available for direct access at the FRDC's office in Canberra. They may also be provided, depending on your preference:

- by mail (photocopies) to an address specified in your request, or
- at the Information Access Office (established by the Attorney-General) nearest where you live.

Organisation, powers, and decisions made

The FRDC's organisation is shown in Figure 4: The FRDC's organisation and operating context on page xi. The FRDC's powers are summarised in appendix C (page 134). The principal decisions made by the FRDC Board during 2005–06 are summarised in the directors' review of operations and future prospects starting on page 7. A ministerial direction is summarised on page 84, followed by ministerial notifications of policies from the Australian Government.

Arrangements for public involvement

The FRDC's relationship with its stakeholders is described on page 79 under the heading 'Representative organisations and other stakeholders'. Other aspects of public involvement are discussed in the directors' review of operations and future prospects (on pages 7–10) and in R&D Program achievements (from pages 17–60).

You are welcome to give your views on current policies, procedures and/or activities of the FRDC to the Executive Director; the Chairman of the FRDC Board; the Minister for Agriculture, Fisheries and Forestry; the Parliamentary Secretary; the Minister for Fisheries, Forestry and Conservation; and to any parliamentary committee that may concern itself with matters relating to the FRDC.

List of abbreviations

AASB	Australian Accounting Standards Board
ANRO	Australian Agriculture and Natural Resources Online
AEIFRS	Australian Equivalents to International Financial Reporting Standards
AFMA	Australian Fisheries Management Authority
AGAAP	Australian Generally Accepted Accounting Principles
AGVP	Average Gross Value of Production
AIMS	Australian Institute of Marine Science
AMC	Australian Marine College
ANAO	Australian National Audit Office
AOP	annual operational plan
APFA	Australian Prawn Farmers Association
ARLP	Australian Rural Leadership Program
ASIC	Australian Seafood Industry Council
ASCo	Australian Seafood Co-products
ATO	Australian Taxation Office
b	billion
CAC Act	*Commonwealth Authorities and Companies Act 1997*
ComFRAB	Commonwealth Fisheries Research Advisory Body
CRC	cooperative research centre
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Australian Government Department of Agriculture, Fisheries and Forestry
DEH	Australian Government Department of the Environment and Heritage
EMS	environmental management system
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
ESD	ecologically sustainable development
FOI	Freedom of Information
FRAB	Fisheries Research Advisory Body
FRDC	Fisheries Research and Development Corporation
GST	goods and services tax
GVP	gross value of production
IPL	Incitex Pivot Limited
ISO	International Organization for Standardization
MoU	Memorandum of Understanding
MPA	Marine Protected Area
NORMAC	Northern Prawn Management Advisory Committee
NPF	Northern Prawn Fishery
NRM	natural resource management

OHS	occupational health and safety
PIERD Act	*Primary Industries and Energy Research and Development Act 1989*
POS	point of sale
R&D	research and development
RDC	research and development corporation
SARDI	South Australian Research and Development Institute
SESSF	Southern and Eastern Scalefish and Shark Fishery
SOCo	Select Oyster Company P/L
SPFD	Super Premium Fine Dining
SRL	Southern Rocklobster Ltd
SSA	Seafood Services Australia Ltd
TAFI	Tasmanian Aquaculture and Fisheries Institute
t	tonne
TBL	triple bottom line
UIG	Urgent Issues Group
WAFIC	Western Australian Fishing Industry Council

Indexes

Compliance index

This index shows the page numbers on which the FRDC has reported on matters specified in Australian Government legislation and policies, and in the Global Reporting Initiative.

When this annual report has not addressed a compliance subject (usually because no activity occurred under that heading during the year), the subject entry is followed by "—" rather than by a page number.

Australian Government legislation and policies

The Australian Government legislation and policies with which the FRDC complies include the following:

- the FRDC's enabling legislation (the *Primary Industries and Energy Research and Development Act 1989*)
- the *Commonwealth Authorities and Companies Act 1997* (CAC Act) and its supporting Commonwealth Authorities and Companies (Report of Operations) Orders 2005 made under section 48 of the Act (CAC Orders)
- the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
- other legislation, such as the *Freedom of Information Act 1982*, the *Occupational Health and Safety (Commonwealth Employment) Act 1991*, the *Disability Discrimination Act 1992* and the *Commonwealth Electoral Act 1918*
- ministerial notifications of Australian Government policy, including national priorities for research and priorities for rural R&D
- *Requirements for annual reports*, Department of the Prime Minister and Cabinet (PM&C), June 2001, approved by the Joint Committee of Public Accounts and Audit under sub-sections 63(2) and 70(2) of the Public Service Act 1999
- other Australian Government guidelines, and
- recommendations by the Australian National Audit Office.

The document *Requirements for annual reports* acknowledges that agencies vary in role and size and there is discretion as to the extent of information to include in annual reports and the sequence in which it is presented. The Joint Committee on Publications has also observed that a departmental report will necessarily be different from that of a statutory authority; a statutory authority, while accountable for its activities, has a degree of independence not shared by departments and its annual reports will thus have a greater freedom of expression and comment. The FRDC's reporting is, accordingly, appropriate to its legislative basis, functions and size.

Commonwealth Authorities and Companies Act 1997

CAC Orders for Report of Operations

Primary Industries and Energy Research and Development Act 1989

Other Australian Government reporting requirements

Global Reporting Initiative

The Global Reporting Initiative (GRI) guidelines recommend that five sections appear in a sustainability report: vision and strategy, profile, governance structure and management systems, GRI content index, and performance indicators. The structure of this annual report is mandated by Australian Government legislation and regulations, and it is not therefore practicable to set out the report explicitly under these GRI headings. However, the report was prepared in accordance with the GRI guidelines (in addition to Australian Government requirements, which share many similarities) and it is particularly strongly focused on triple bottom line and governance reporting. Coverage of content recommended by the GRI is as follows:

Alphabetical index

D

E

F

G

H

I

K

L

M

N

O

P

Q

R

S

T

U

V

W

Y

Publications and other information

The following information is available from the FRDC:	Printed	Website
The R&D plan (*Investing in tomorrow's fish: the FRDC's research and development plan, 2005 to 2010*), which provides comprehensive information on the Corporation; its business environment; the outlook for the fishing industry and the natural resources on which it depends; and the way in which the FRDC plans, invests in and manages fisheries R&D.	◆	◆
This and the previous annual report.	◆	◆
R&D News (published in January, April, July and October, and on other occasions for special themes), which provides information on FRDC activities, summarises final reports on completed R&D projects released during the previous quarter, and lists projects that have been newly funded.	◆	◆
Information on completed projects (final reports and other related products).	◆ (see note 1)	◆
Non-technical summaries of all final reports of FRDC projects.		◆
Hyperlinks to other websites containing full final reports and fisheries R&D strategies, and to other important websites.		◆
R&D funding application details.		◆
Coming events of significance for the industry.		◆
Research databases.		◆

Note 1: Information on completed projects (final reports and other related products) is also available from:

- the National Library of Australia, Parkes ACT 2600;
- the Librarian, CSIRO Marine Research, GPO Box 1538, Hobart, Tasmania 7001;
- state libraries and research institutions that the researcher considers appropriate; and
- for post-harvest projects, Seafood Services Australia, PO Box 2188, Ascot, Queensland 4007 (telephone 1300 130 321, e-mail ssa@seafoodservices.com.au, website www.seafoodservices.com.au).

Details of types of documents and information available on request and under the provisions of the *Freedom of Information Act 1982* are in appendix D, page 137.

www.frdc.com.au

The FRDC's website (www.frdc.com.au) provides easy access to a vast array of information and publications, including the items on this page.

New publications in 2005–06

The FRDC has published, or co-published in partnership with other organisations numerous articles, books and research reports during 2005–06. These include:

- Australia's Finest — booklet produced May 2006 for the Australian stand at the European Seafood Expo.
- What's so healthy about seafood — brochure.
- What's so great about seafood — brochure.

A manual of best practice handling techniques for longline caught tuna (project number 2003/414)

The Australian Tuna Handling Manual is an 80-page book that sets out to help fishers understand the nature of the fish, plus optimal handling, quality and safe food practices. For more information see page 37.

The retail sale and consumption of seafood in Melbourne (project number 2004/249)

The need for reliable information on consumption and consumer attitudes prompted *Retail Sale and Consumption of Seafood Studies*. The latest study looks at Melbourne. The findings of the latest study have been summarised in a booklet that provides a consolidated overview of the findings. The full report with comprehensive information and findings from this study and the previous two (Sydney and Perth) are available from FRDC.

The Pearl Oyster: An atlas of functional anatomy, pathology and histopathology. The pearl oyster atlas (project number 1997/333)

The atlas provides information on the functional anatomy, histology and histopathology of *P. maxima*, the normal structure and function of the oyster is described together with a range of inflammatory and degenerative processes associated with infectious and non-infectious causes of disease. The aim of the atlas is to provide a practical and 'user friendly' guide to assist in the day-to-day management of pearl oyster aquaculture.

About this report

This report describes the extent to which the Corporation implemented its approved annual operational plan during the previous financial year. It meets the requirements for reporting legislated by the Australian Government and informs the FRDC's other stakeholders — especially those in the commercial, recreational and indigenous sectors of the fishing industry and in the research and development community.

Fisheries Research and Development Corporation Annual Report, 2005–06

An electronic version is at www.frdc.com.au/pub/anrep/index.htm

Published by: Fisheries Research and Development Corporation

Postal address: PO Box 222, Deakin West ACT 2600

Office: Fisheries Research House, 25 Geils Court, Deakin, Australian Capital Territory

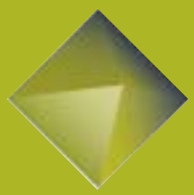
Telephone: 02 6285 0400; from overseas + 61 2 6285 0400

Facsimile: 02 6285 4421; from overseas + 61 2 6285 4421

E-mail: frdc@frdc.com.au

Internet: www.frdc.com.au

ISSN 1039–3773 (soft cover). ISSN 1448–7810 (online).



Designed by Angel Ink Pty Ltd
Printed by National Capital Printing

www.frdc.com.au

FRDC is co-funded by our stakeholders, the Australian Government, and the fishing industry.

The FRDC invests strategically across all of Australia in research and development (R&D) activities that benefit all sectors of the fishing industry. Our goal is for Australia's fisheries to be sustainably managed.