Australian Government

Fisheries Research and Development Corporation

ANNUAL REPORT 2008–09

TO THE PARLIAMENT OF AUSTRALIA, THE AUSTRALIAN FISHING INDUSTRY AND OTHER FRDC STAKEHOLDERS

Highlights in 2008–09

- Southern Bluefin Tuna successfully spawned and bred in captivity (page 29).
- Polymerase chain reaction (PCR) test developed for abalone viral ganglioneuritis.
- Research leads to management changes to assist Western Australian fish stocks.
- New FRDC Chair of Fisheries Economics appointed at the University of Tasmania.
- More than 1500 delegates participate in Australasian Aquaculture conference (page 52).
- Empowering industry R&D delivers over $2 million in new research funding.
- Research package valued at $900,000 to respond to decline in Western Rocklobster pueralis recruitment.
- Report into fisheries co-management released.
- Social research program established.
- FRDC research projects seen by over 8 million viewers on *Escape with ET* (page 49).
- Record number of participants in FRDC's People Development Program (page 41).

Quick guide to the Annual Report

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

1. For an outline of the **FRDC's investments and income**, read pages iv–vii and the financial statements starting on page 87.
2. For an **overview of operations** during the past year, read 'The Directors' review of operations and future prospects' (page 1–8).

More detailed coverage is in these sections:

- The key **strategic imperatives** that drive the FRDC's activities are shown on pages xiii and 9.
- Details of **outcomes** achieved by recent and current projects are in the R&D programs reporting starting on page 16 (Natural Resources Sustainability Program), page 27 (Industry Development Program) and page 39 (People Development Program).
- **Performance reporting for the Corporate Program** is described on pages 59–69.
- Financial **contributions by industry and governments** are listed on pages v and 108.
- Coverage of **corporate governance** information is in the section starting on page 70.
- The **financial statements** start on page 87.

Front cover: Microscopic view of the eye of a Southern Bluefin Tuna fingerling (see story on page 29). The size of this little fish's eye is about 1 millimetre in diameter. Photo courtesy of Clean Seas Tuna.
Back cover: Where the little fingerling may end up — as sashimi.

Australian Government
Fisheries Research and Development Corporation

27 August 2009

The Hon. Tony Burke MP
Minister for Agriculture, Fisheries and Forestry
Parliament House
CANBERRA ACT 2600

Dear Mr Burke,

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 2009. 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 2009 by you, the Minister for Agriculture, Fisheries and Forestry and the Australian 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,

Peter Neville
Chairman

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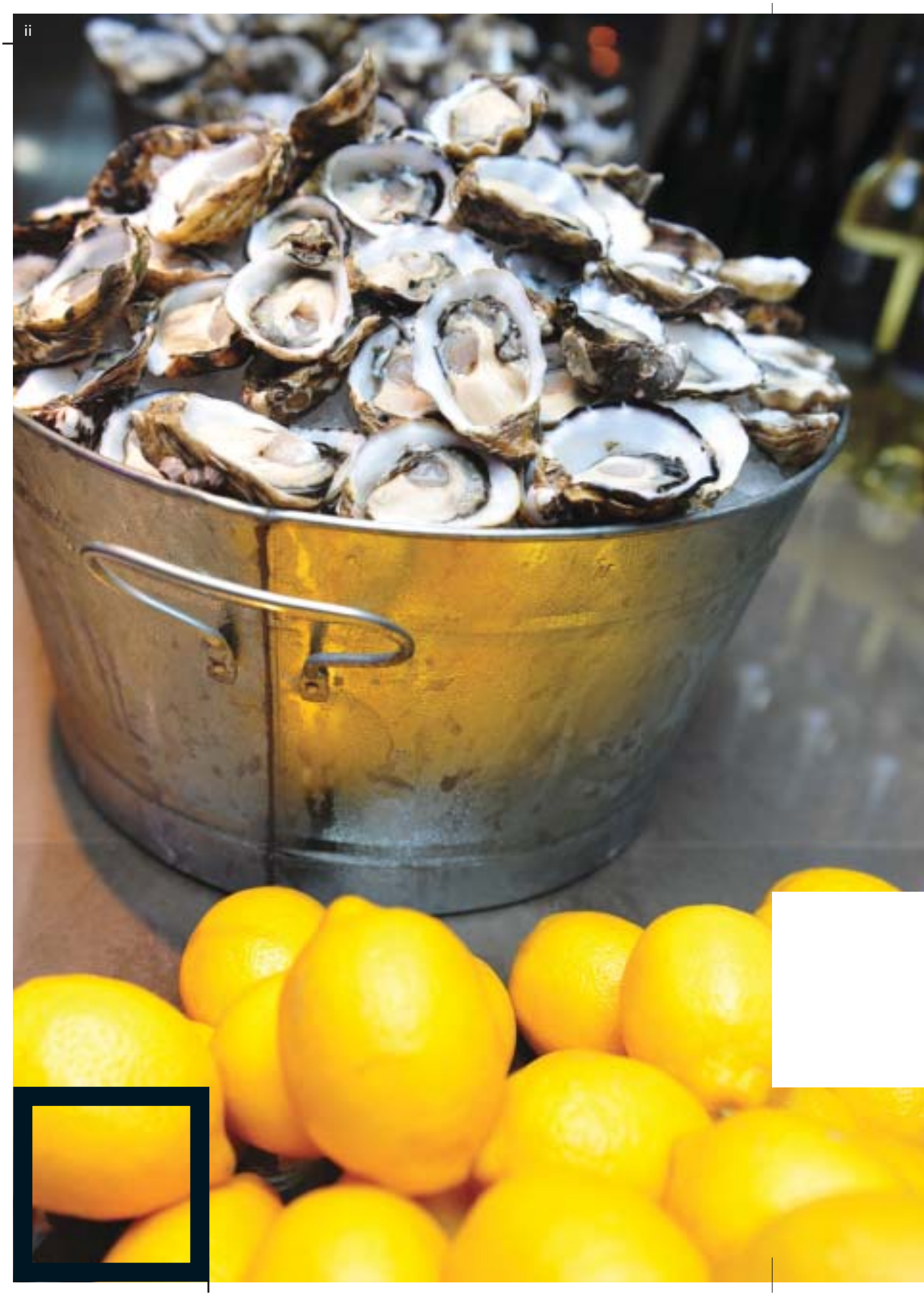


FRDC [FISHERIES RESEARCH AND DEVELOPMENT CORPORATION]

2008–09

Annual Report

2008–09 achievements through investment

Five years at a glance

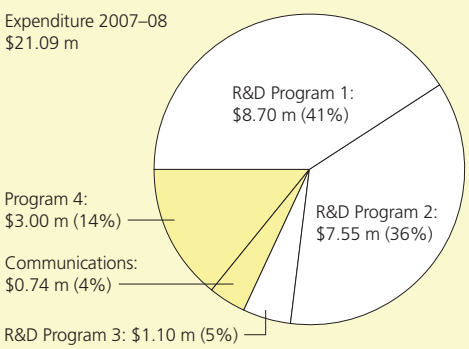
TABLE 1: FINANCIAL INDICATORS OF R&D INVESTMENT

Expenditure	2004 –05	2005 –06	2006 –07	2007 –08	2008 –09	Change	Direction of change
	$m	$m	$m	$m	$m	%	– or +
Total expenditure	29.05	26.95	24.22	21.09	27.75	32	+
Total of R&D projects *	25.56	23.99	20.67	17.35*	23.62	36	+
R&D Program 1 (Natural Resources Sustainability)	13.86	12.11	11.07	8.70	11.97	38	+
R&D Program 2 (Industry Development)	11.16	10.91	8.52	7.55	9.77	29	+
R&D Program 3 (People Development)	0.50	0.97	1.08	1.10	1.88	90	+
Communications and extension	0.80	0.67	0.83	0.74	0.77	14	+
Program 4 (Management and Accountability)	2.69	2.29	2.72	3.00	3.36	17	+

Figures in this table have been rounded, hence totals may not agree with component figures. For exact figures see the financial statements beginning on page 87.

* In 2007–08 the Board approved projects containing milestones valued at over $33.50 million; however project slippage was such that actual expenditure in the year only reached $17.35 million.

	2004 –05	2005 –06	2006 –07	2007 –08	2008 –09		Direction of change
Number of approved new projects	64	69	53	127	135		+
Total number of active projects under management	426	433	399	430	436		+
Number of final reports completed	106	88	67	79	126		+



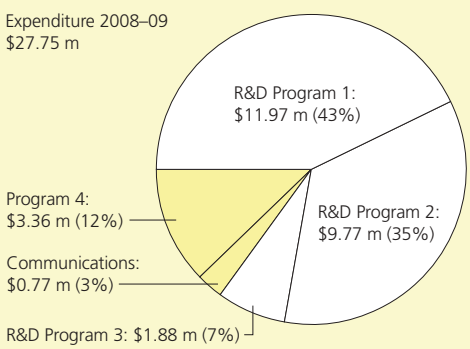


TABLE 2: INDUSTRY CONTRIBUTIONS TO FRDC AS A PERCENTAGE OF MATCHABLE GOVERNMENT CONTRIBUTIONS

	2004–05	2005–06	2006–07	2007–08	2008–09
Commonwealth	168	117	120	195	322
New South Wales	117	106	122	134	74
Northern Territory	89	105	197	476	517
Queensland	94	99	100	94	90
South Australia	111	165	183	145	199
Tasmania	100	135	109	105	104
Victoria	94	96	131	108	110
Western Australia	102	136	116	89	164
Total all fisheries	**114**	**128**	**129**	**130**	**169**

TABLE 3: INCOME TO THE FRDC

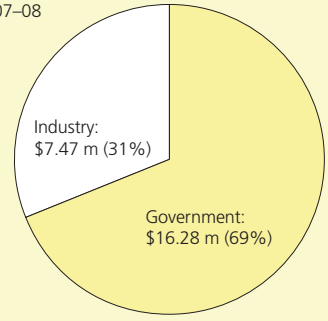
	2004–05	2005–06	2006–07	2007–08	2008–09
	$m	$m	$m	$m	$m
Industry contributions	6.57	6.97	6.90	7.47	9.52
Maximum matchable (government) contribution	5.74	5.41	5.35	5.45	5.50
Actual government matched *	5.43	5.20	5.29	5.38	5.30
Government unmatched **	11.47	10.82	10.69	10.90	11.00
Total government contributions	16.90	16.02	15.98	16.28	16.30
Project funds from other parties	4.63	3.72	2.95	2.11	2.41

* 'Maximum matchable contribution' is the maximum amount to which the Australian Government will match industry contributions in accordance with the criteria detailed on page 128 (including when industry contributions exceed 0.25% of average gross value of production (GVP)).

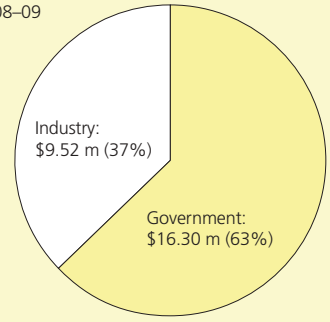
** 'Government unmatched' is an Australian Government contribution set at 0.50% of average GVP, in accordance with the criteria detailed on page 128.

This year, the target for matchable contributions from industry was 90 per cent and the FRDC achieved 169 per cent ($9.52 million). The industry contribution this year increased significantly over the previous year's (2007–08) contribution of 130 per cent.

Contributions 2007–08
$23.75 m



Contributions 2008–09
$25.82 m



Summary of industry contributions

TABLE 4: INDUSTRY CONTRIBUTIONS, MAXIMUM MATCHABLE CONTRIBUTIONS BY THE AUSTRALIAN GOVERNMENT AND RETURNS ON INVESTMENT, 2008–09

Fisheries [see note 1]	A	B	C	D	E	F
	Maximum matchable contribution (0.25% of AGVP) ($) [see note 2]	Actual industry contribution 2008–09 ($) [see note 3]	B÷A as per cent	Distribution of FRDC R&D investments 2008–09 ($) [see note 4]	Return on contribution (D : B) [see note 5]	
					2008–09	5 years
Commonwealth total [6]	718,095	2,310,540	322	4,005,732	1.73	2.34
New South Wales total	322,990	240,282	74	1,356,765	5.65	4.26
NSW oyster aquaculture	91,283	85,085	93			
NSW other	231,707	155,197	67			
Northern Territory total	135,665	701,870	517	837,287	1.19	1.80
NT pearls and other aquaculture	60,975	545,049	894			
NT other	74,690	156,821	210			
Queensland total	723,870	650,295	90	2,161,106	3.32	3.47
QLD prawn aquaculture [7]	108,653	111,931	103			
QLD other	615,217	538,364	88			
South Australia total	1,032,590	2,050,187	199	2,050,186	2.42	3.01
SA Southern Bluefin Tuna [6,8]	400,156	1,107,811	277			
SA Southern Rocklobster [6]	224,651	381,726	170			
SA other	407,783	560,650	137			
Tasmania total	1,252,238	1,299,896	104	3,439,055	2.65	3.16
TAS salmon aquaculture [6]	661,419	540,000	82			
TAS Southern Rocklobster [6]	142,177	637,730	449			
TAS other	448,642	122,166	27			
Victoria total	205,973	226,502	110	1,205,197	5.32	4.34
VIC Southern Rocklobster [6]	36,702	8,400	23			
VIC other	169,271	218,102	129			
Western Australia total [8]	1,106,770	1,810,437	164	5,379,528	2.95	2.53

NOTES FOR TABLE 4 (INDUSTRY CONTRIBUTIONS)

[1] Individual fisheries are included where there is an Australian Government levy or an Industry Partnership Agreement. As such not all contributions are shown and hence total may not agree with component figures.

[2] 'Maximum matchable contribution' is the maximum amount to which the Australian Government will match industry contributions in accordance with the criteria detailed on page 128 (including when industry contributions exceed 0.25% of average GVP (AGVP)).

[3] The industry contribution figures are accrual based.

[4] Distribution of FRDC R&D investments is based on the estimated flow of R&D benefits to the respective fisheries.

[5] Ratios in column F are derived from the distribution of FRDC investments (column D) for 2008–09 and the previous four years. The figures for these five years are relevant to the 1995 Ministerial direction, summarised on page 72, concerning spending of industry contributions.

[6] Contributes to the FRDC under an Industry Partnership Agreement.

[7] All Australian Prawn Farmers Association contributions are currently 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.

[8] There are timing issues in some jurisdictions:

- Some 2006–07 Western Australian contributions received in July 2007 were matched in 2008–09.
- Australian Government matching of industry contributions depends on cash actually received as opposed to the invoice being raised. Consequently, the FRDC was able to achieve the full 0.25% AGVP matching for Western Australia in 2008–09.
- South Australian Southern Bluefin Tuna contributions relating to 2008–09 were not invoiced until after the end of the financial year and therefore do not appear in 2008–09.

TABLE 5: INDUSTRY RESULTS 2008–09*

Australian Fisheries Statistics*	2003–04	2004–05	2005–06	2006–07	2007–08	Change
The wild-catch sector caught and earned less this year	$1.51 b for 231,000 t	$1.50 b for 236,000 t	$1.42 b for 194,527 t	$1.43 b for 188,339 t	$1.34 b for 178,400 t	$: (-6.0%) t: (-5.0%)
The aquaculture sector produced and earned more this year	$724 m for 49,146 t	$634 m for 48,014 t	$748 m for 54,569 t	$805 m for 60,142 t	$868 m for 62,503 t	$: +8.0% t: +3.9%
Overall production and earnings marginally decreased	$2.21 b for 275,435 t	$2.09 b for 279,099 t	$2.16 b for 249,096 t	$2.21 b for 248,481 t	$2.19 b for 240,000 t	$: (-1.8%) t: (-3.0%)

The figures quoted from the Australian Fisheries Statistics are for 2007–08, and are from the latest edition that can be downloaded from the FRDC website — **www.frdc.com.au**

The fishing industry in which FRDC operates

The fishing industry is Australia's sixth most valuable food-based primary industry with a landed value of more than $2.1 billion a year. In addition, more than 3.4 million Australians recreationally fish each year spending an additional $2.5 billion. For indigenous communities the fishing industry not only provides a significant role in culture and subsistence but also an avenue for income.

Employment statistics (Australian Bureau of Statistics) for the fishing industry indicate that commercial fishing employment in 2007–08 was 13,000 people, more than 30 per cent higher than in 2006–07, but around 32 per cent lower than in 2000–01.

The FRDC has a significant responsibility in ensuring, on behalf of the Australian Government, that research is undertaken to assist in the management of the fisheries resource for ongoing sustainability. This means that a significant proportion of funding is directed at research that has a public good benefit.

The FRDC also invests in industry development activities that aim to assist all sectors of the fishing industry to be more efficient and profitable. This research and development covers the spectrum of the supply chain from catching, through processing, and ultimately to the end consumer.

In addition, significant work is being undertaken to develop the people within the seafood industry by providing opportunities to build on skills helping to progress the industry.

Top five by volume		Top five, by value	
Australian Sardines	33,600 tonnes	Rocklobster	$407 million
Salmonids	25,500 tonnes	Salmonids	$299 million
Prawns	22,400 tonnes	Prawns	$268 million
Tuna	14,700 tonnes	Tuna	$210 million
Rocklobster	13,800 tonnes	Abalone	$189 million
Top five exports, by value		**Top five export destinations, by value**	
Rocklobster	$401 million	Hong Kong, China	$554 million
Pearls	$264 million	Japan	$382 million
Abalone	$217 million	United States	$96 million
Tuna (whole)	$202 million	Chinese Taipei	$45 million
Prawns	$69 million	Singapore	$43 million
Top five imports, by value		**Top five import sources, by value**	
Canned fish	$257 million	Thailand	$297 million
Frozen fish fillets	$228 million	New Zealand	$207 million
Fresh, chilled or frozen prawns	$167 million	Vietnam	$142 million
Pearls	$166 million	China	$133 million
Canned crustaceans and molluscs	$128 million	Malaysia	$56 million

The figures quoted from the Australian Fisheries Statistics are for 2007–08, and are from the latest edition that can be downloaded from the FRDC website — **www.frdc.com.au**

Contents

About the FRDC

The Fisheries Research and Development Corporation (FRDC) is a co-funded partnership between its two stakeholders, the Australian Government and the fishing industry. It was formed as a statutory corporation on 2nd July, 1991, under the provisions of the *Primary Industries and Energy Research and Development Act 1989* (the PIERD Act) and is responsible to the Minister for Agriculture, Fisheries and Forestry.

Its primary role is to invest in fisheries research, development and extension (RD&E) activities throughout Australia.

The FRDC's strategic investments in RD&E activities benefit the three sectors of the fishing industry: commercial (wild catch and aquaculture), recreational and indigenous. The FRDC collaborates with its key stakeholders to coordinate, and direct its investment to best address RD&E priorities. In addition the FRDC monitors and evaluates the adoption of RD&E to inform future decisions.

The "fishing industry" is defined in the PIERD Act such that it includes any industry or activity carried on in or from Australia concerned with:

- taking; or
- culturing; or
- processing; or
- preserving; or
- storing; or
- transporting; or
- marketing; or
- selling;

of fish or fish products.

The FRDC therefore invests in RD&E undertaken along the whole supply chain of the industry "from capture to cuisine". This applies equally to the recreational sector where it would be from "catch to release" encompassing the angling experience. The FRDC provides research administration and services using a value adding model. Unlike a simple granting model, this involves significant management and commissioning of RD&E through a variety of flexible approaches. These include open call applications; formal Industry Partnership Agreements; issue specific subprograms or activities; short-term tactical research funding; and specifically targeted commissioned research and development (R&D).

The five strategic research and development challenges for FRDC

The FRDC has aligned its planning, management and reporting of R&D program activities to the objects of the PIERD Act — see appendix B. This alignment is reflected in the FRDC's four R&D programs with the focus of each program further described under five strategic challenges specified in the R&D plan. The R&D programs and associated strategic challenges are as follows:

Program	Strategic challenges
1. Natural Resources Sustainability	1. Natural resources sustainability — to maintain and improve the management and use of aquatic natural resources to ensure their sustainability.
	2. Resource access and resource allocation — to optimise resource access, resource allocation and opportunities for each sector of the fishing industry, within a rights-based framework.
2. Industry Development	3. Responses to demand; profitability — the challenge is to respond to, and take advantage of, increased demand for seafood and for recreational and customary fishing experiences; and to enhance the profitability of the fishing industry.
3. People Development	4. People development — the challenge is to develop people who will help the fishing industry to meet its future needs.
	5. Community and consumer support — increase community and consumer support for the benefits of the three sectors of the fishing industry.
4. Management and Accountability	

These challenges describe those factors that, during the next 20 years, will be of most importance for the economic, environmental and social well-being of the three main sectors of the fishing industry, and for the Australian community. Focusing directly on these strategic challenges ensures that the FRDC addresses the most important factors in the business and external environment and focuses RD&E on outcomes and not simply on inputs.

[FISHERIES RESEARCH AND DEVELOPMENT CORPORATION]

Report of Operations

part 1:

The Directors' review of operations and future prospects

The Corporation's operating environment

The 2008–09 year was one of extreme highs and lows for the fishing industry. In the early part of the year high energy costs and exchange rates made export conditions very difficult for industry. The second half of the year saw reduced energy costs and exchange rates that improved profit margins; however, for many export fisheries the global financial crisis saw a significant decline in both demand and price.

The main commercial sectors that were affected by these conditions were tuna (in particular Southern Bluefin Tuna), pearls and prawns. Conversely, other commercial sectors enjoyed significantly improved trading conditions. These included Southern Rocklobster, domestic finfish, edible oysters and Atlantic Salmon. Companies importing seafood from overseas also faced a fluctuating year due to changes in exchange rates and production costs. Imported lower priced prawns and white fish competed well on the domestic market with alternate protein sources.

The recreational sector anecdotally appears to have grown during the financial crisis. Tackle traders are reporting good sales nationally. The lack of regular annual data on the performance of recreational fisheries continues to affect investment decisions. The indigenous sector's performance is even harder to quantify. The indigenous sector's customary rights are being recognised through decisions such as "Blue Mud Bay" in the Northern Territory and the changes to rights in Torres Strait fisheries.

The research, development and extension (RD&E) activities in the fisheries and aquaculture industry continue to expand in scope, complexity and application. The demand for FRDC investment has been high as seen by the level of contributions (see table 2). The industry, particularly the commercial and recreational components, has a desire and commitment to RD&E. There is significant recognition by industry that RD&E is essential for ongoing access and development of the nation's fisheries resources. The commercial sector has increased its cash contributions to the FRDC to 169 per cent of the maximum matchable 0.25 per cent of average gross value of production (AGVP). This is an exceptional result.

Climate change is now a major issue that is leading to some uncertainty for aspects of fisheries and aquaculture. Over the last year, numerous scientific reports have documented the likely affects of climate change on marine and freshwater environments. In addition, there have been a number of extreme climactic events, such as long-term flooding and high intensity storms. CSIRO has been at the forefront of this research and has assisted in describing the areas of highest risk. In response to the need for more knowledge to inform climate change based decisions, the FRDC has been working with industry, the Australian Government Departments of Agriculture, Fisheries and Forestry (DAFF), and of Climate Change, and fisheries managers to develop a national climate change RD&E program to coordinate national investment and ensure adoption. One aspect of this national program is the establishment of regional programs in the south east, south west and the north.

The south east program is the most advanced partnership, with cash and in-kind investments from:

- DAFF,
- CSIRO,
- New South Wales Department of Primary Industries,
- Victorian Department of Primary Industries,
- Primary Industries and Resources of South Australia, and
- Tasmanian Department of Primary Industries, Parks, Water and Environment.

The FRDC Board has committed a minimum of $2.7 million over the next three to four years to climate change RD&E.

At the August 2008 Australasian Aquaculture Conference the FRDC, in partnership with the National Aquaculture Council, proposed a 100,000 tonne annual target for aquaculture production by 2015. Current production is some 56,000 tonnes and is expected to increase from the growth in production of Atlantic Salmon, Barramundi, Yellowtail Kingfish and molluscs (oysters/abalone). The FRDC has a large investment in the aquaculture industry that has delivered significant improvements in the GVP, industry diversification, and reduced the pressure on the wild fishery. Further, the past year saw the first successful production of Southern Bluefin Tuna (SBT) fingerlings from a partnership between FRDC, the Seafood Cooperative Research Centre (Seafood CRC) and Clean Seas Tuna (see page 29). These activities are contributing to Australia's ability to meet the growing gap between the demand for, and the supply of, seafood; and ensure that Australia contributes to the world's food supply which is becoming increasingly limited.

The role of the Board

The 2008–09 reporting period will be the last for many of the FRDC's current directors, as a new Board will commence on 1 September 2009. Over the last three years the Board has initiated many changes that have improved the performance of FRDC. Following is a summary of some of the key initiatives and their associated outcomes.

Corporate plan: The establishment of the corporate plan resulted from a review of Board performance in 2007. This review recommended a work plan be established for the Board to focus on the strategic needs of the FRDC. The Board established the following as critical issues:

1. The research and development corporation (RDC) model needs to be continually improved to meet government and industry needs.
2. The demand for fisheries R&D funding is greater than FRDC's current resources.
3. There are inadequate processes to quantify the value and benefit of FRDC's R&D investment.
4. The current business model does not adequately address the FRDC's evolving business environment.
5. Current Board and Secretariat roles and processes require review.
6. There is a lack of a national framework for addressing fisheries R&D priorities.

The Board has developed a number of strategies to address these issues. Key among these have been:

- ¬ Reviewing FRDC's program management and consultation processes.
- ¬ Taking the lead in the establishment of a National Fisheries and Aquaculture RD&E Plan, including a comprehensive capability audit, mapping relationships and the development of a single plan for the industry.
- ¬ Implementing a comprehensive evaluation process for quantifying the performance of FRDC's RD&E investment. This has been based on a common methodology developed by the rural RDCs. It is planned that by early 2010 the evaluation will provide a total portfolio analysis of the last five years' investment by the FRDC. This analysis will provide data by which the FRDC and its partners can optimise future investment decisions based on an adaptive management approach.
- ¬ Developing improved partnership relationships with key stakeholders.

Risk management: The Board has implemented a comprehensive risk management strategy that includes both threats and opportunities. The new risk process has been integrated into the Board's decision-making process to ensure adequate controls, and a focus on addressing the highest risks. This includes development of strategies to respond to the declining GVP in some sectors of the industry, and improving profitability. The risk strategy encompasses all aspects of the FRDC's business, from policy development, quality procedures, investment decisions through to output adoption.

Funding framework: Historically, FRDC investment was based on a single annual open call for submissions. The new funding framework provides a mixture of investment methods to meet stakeholder needs and ensure that the FRDC comprehensively addresses national, public good, fisheries management and industry needs. The framework includes:

- ¬ An annual competitive open round that focuses on public good RD&E needs.
- ¬ A tactical research fund that can invest up to $1.75 million in small projects of less than $75,000 and 18 months in duration, through three funding rounds a year.
- ¬ National strategic investment that addresses areas of investment that have a high public good, and are often scored as a low priority when utilising a bottom up priority setting process. Examples of this include climate change, and aquatic animal health.
- ¬ Major partnerships with large sectors like Atlantic Salmon, Southern Rocklobster and Southern Bluefin Tuna. It also includes a $24 million investment over seven years in the Seafood CRC.

- A People Development Program as a discrete investment program. This is the first program where the FRDC has internalised management. The FRDC's normal practice is to use research provider expertise in managing its larger program investments. The People Development Program has expanded FRDC's investment in the people who are important to the industry and its future. People are central to fisheries management (it is their behaviour that is being managed), the development of innovative solutions for improving production, the quality of the fishing experience or the increase of sustainability.

People development

The FRDC is continuing to invest in the future of the Australian seafood industry by focusing on its most valuable resource — its people.

The Corporation's investment over the past year has been delivered through a range of self-initiated activities, including personal and professional development opportunities, bursaries, conferences, awards, commissioned work and tenders. Projects are also regularly funded through the FRDC's annual open call for R&D applications and its more short-term tactical research fund.

In February 2009, the People Development Program manager and members of the People Development Advisory Group (see page 41) developed a draft annual operational plan (AOP) for the FRDC Board to approve. The AOP included a review of progress against program performance indicators, and the AOP of the previous year. This highlighted a greater focus on leadership development and network building.

Rural Research and Development (R&D) Council

The Rural Research and Development (R&D) Council was established by the Minister for Agriculture, Fisheries and Forestry in early 2009. The principal goal of the council is to provide high level advice and coordination to better target and improve the effectiveness of the government's investment in rural R&D. This enhanced focus on R&D will improve the productivity, profitability, sustainability and global competitiveness of Australia's agriculture, fisheries, forestry and food industries, with benefits for individual rural businesses, the environment and the wider community.

The FRDC is building a strong relationship with the Council and assists by providing information as required.

Thank you

The Board would like to thank all staff and stakeholders who have contributed to the Corporation's successes over the past year. FRDC welcomes your feedback, so please contact the FRDC directors and let them know your thoughts are after reading this annual report.

Significant events following 30 June 2009

On 15 September 2009, the Minister for Agriculture, Fisheries and Forestry announced a new FRDC Board of Directors, details of which are available on the FRDC website — **www.frdc.com.au**. The Hon. Harry Woods was appointed by the Minister on 5 June 2009 as the presiding officer of the FRDC Board Selection Committee and a report on the selection process up to the end of the year is located at appendix F (page 139).

Annual Operational Plan budget 2009–10

	$		$
REVENUE			
Australian Government 0.50% AGVP	11,658,722		
Australian Government matching of industry contributions	5,829,361		
Total revenues from the Australian Government			**17,488,083**
Contributions revenue			
Australian Government	1,250,000		
Australian Capital Territory	20,000		
New South Wales	400,000		
Northern Territory	595,000		
Queensland	675,000		
South Australia	1,650,000		
Tasmania	1,300,000		
Victoria	325,000		
Western Australia	1,150,000		
Sub-total	7,365,000		
Other project income	700,000		
Total contributions revenue			**8,065,000**
Interest			250,000
Sales of goods and services			140,000
Other income			5,000
TOTAL REVENUE			**25,948,083**
EXPENDITURE			
Projects expenditure			
Natural resources sustainability	9,832,500	45%*	
Industry development	9,832,500	45%*	
People development	2,185,000	10%*	
Total programs			**21,850,000**
Made up of:			
Forecast payments against existing contracts	16,300,000		
Forecast payments against new contracts	5,550,000		
Communications			
Other goods and services expenses			**775,000**
Programs support			
Employees	1,915,000		
Suppliers	825,000		
Depreciation and amortisation	575,000		
Net write down of assets	0		
Other expenses	0		
Total programs support			**3,315,000**
TOTAL EXPENDITURE			**25,940,000**
NET RESULT FOR THE YEAR			**8,083**

* Target expenditure level.

The year ahead

In 2009–10 the FRDC will develop its 2010–15 RD&E Plan in consultation with key stakeholders. The new RD&E Plan will align with the work being undertaken on developing a new National Framework for RD&E (see overleaf) and will involve an examination of the strengths and weaknesses of the current operating environment and the threats and opportunities going forward. This will enable the development of a plan that will focus FRDC strategic research, development and extension investments in the highest priority areas to best meet stakeholder needs.

Innovation remains the key focus for the FRDC and the FRDC will strive to fund more projects that deliver revolution, instead of investing in projects that deliver gradual evolution in knowledge and adoption.

The FRDC will review its current funding mechanisms to ensure they are flexible and best able to meet stakeholders' needs in a timely way. This is against the background of the recent global financial crisis; and gross value of production fluctuations with their potential impact on RD&E funds available for investment.

The target areas for the FRDC's investment in 2009–10 are as follows.

Industry and fisheries managers' adoption of co-management fisheries principles. FRDC is trialling with three fisheries jurisdictions — Commonwealth, Queensland and Western Australia — alternative co-management arrangements to improve management outcomes and reduce costs.

Improved sustainability performance. FRDC will invest in R&D that addresses fish stocks that are assessed as being below optimum stock levels. This will include knowledge to improve management of Western Rocklobster, scallops, abalone and sharks (in particular deep-water sharks). For aquaculture the focus will be on carrying capacity for Spencer Gulf to support the SBT and Yellowtail Kingfish sectors.

Research, development and extension activities to assess and respond to climate change. FRDC has developed a National Coordination Group for Climate Change. The main focus in the next 12 months will be on industry adaptation and vulnerability assessments. Projects include: understanding the biophysical implications of climate change, understanding the social and economic implications of change for the sectors and related communities, understanding market risks and the opportunities ahead, understanding the needs of stakeholders, and facilitating the development of adaptive capacity within sectors.

Development of tools for undertaking socio-economic assessments. The recently established social science research coordination program will be undertaking a gap and needs analysis on social research that will assist fisheries management achieve triple bottom line requirements. These needs will be prioritised to better allocate the FRDC's investment.

Research based processes for spatial management. Delivery of performance indicators for spatial management will be finalised. A report comparing alternative scientific assessments to determine what scale is required to deliver different management outcomes will be completed.

Developing models or systems for the collection of recreational fishing data. A report will be finalised with options for consideration by management agencies and industry on methods for the collection of recreational data.

Research to assist Australian seafood companies to access new markets. FRDC is partnering with the Seafood CRC to develop new markets in China and the USA for abalone, rocklobster, Yellowtail Kingfish and prawns.

Increase in finfish production through improved hatchery technology and feeds. Through the Aquaculture Innovation Hub, Emerging Species Program and the Seafood CRC, new species, hatchery methods and husbandry practices are to be developed to increase production.

Increase in entities utilising improved stock from selective breeding programs. Investments in prawn domestication and selective breeding, and Atlantic Salmon resistance to amoebic gill disease, are the focus for the next 12 months.

Applications for capacity building and work force challenges (participation, advancement and retention). A range of bursaries, scholarships and leadership programs will be offered to industry. Further, FRDC is leading a change in culture on work force training.

Research to facilitate cost effective biosecurity measures for industry. Research will be delivered to improve biosecurity with respect to the abalone virus and pearl diseases.

In addition, FRDC will continue to focus on the following government priorities:

- **National Primary Industries RD&E Framework**. Over the past three years Australian governments and primary industries have come to the conclusion that to remain globally competitive Australia needs a more national and coordinated approach to rural research, development and extension.

  The current system is seen to be prone to duplication and fragmentation. This leads to rising overhead costs and constraints on technology investment. To address these challenges, Australian governments through their Primary Industries Ministerial Council (PIMC) and the Natural Resource Management Ministerial Council have moved to create a National Research, Development and Extension Strategy. Sitting underneath the National Strategy will be 14 sectoral plans.

  The development and implementation of the National Fisheries and Aquaculture RD&E Plan is being led by the FRDC and supported by a working group that includes the Victorian Department of Primary Industries, South Australian Research and Development Institute (SARDI), and the Tasmanian Department of Primary Industries, Parks, Water and Environment. One of the primary goals of this group is to better understand how the processes behind RD&E expenditure would fit within a national framework. These processes include national priorities, the FRDC's plan, Commonwealth and state government priorities, plus sector plans.

- **Climate change**. This poses both challenges and opportunities for Australia's wild fisheries and aquaculture sectors. FRDC has been participating in the development of a strategic framework to enhance each sector's adaptive capacity, and mitigate against, and take advantage of, further climate change. This builds on the large body of research undertaken over the past decade looking at climate variability and its impact on the fishing industry. FRDC will participate with the other rural RDCs in the collaborative research initiative Climate Change Research Strategy for Primary Industries (CCRSPI), to examine and respond to the positive and negative impacts of climate change on primary industries.

  In addition, the need for the Fisheries Climate Change Action Plan was identified as part of the National Climate Change Adaptation Framework that was endorsed by the Council of Australian Governments in 2007. The framework recognises that Australian commercial, indigenous and recreational fisheries will be affected by climate change through: increasing ocean temperatures, changes to ocean currents, wind and nutrients; changed rainfall patterns; and ocean acidification.

  FRDC has a role at the national level to coordinate fisheries climate change R&D with federal, state and territory government agencies; industry; and stakeholders.

- **Evaluation of R&D outcomes**. The FRDC, as part of the Council of Rural Research and Development Corporations' Chairs (CRRDCC), is working collaboratively to implement a framework of benefit cost analysis (BCA) to evaluate research and development activities undertaken. By the end of 2009–10 the FRDC aims to have completed BCAs on 18 R&D subprograms comprising more than 200 projects which will deliver a total R&D portfolio assessment. Three of the BCAs completed to date are contained at the end of each program report — see pages 23, 34 and 53.

FRDC's people

Portfolio minister

The portfolio minister for Agriculture, Fisheries and Forestry is the Hon. Tony Burke MP. Mr Burke is pictured above with Andrew Ettingshausen, the host of *Escape with ET* (see page 49).

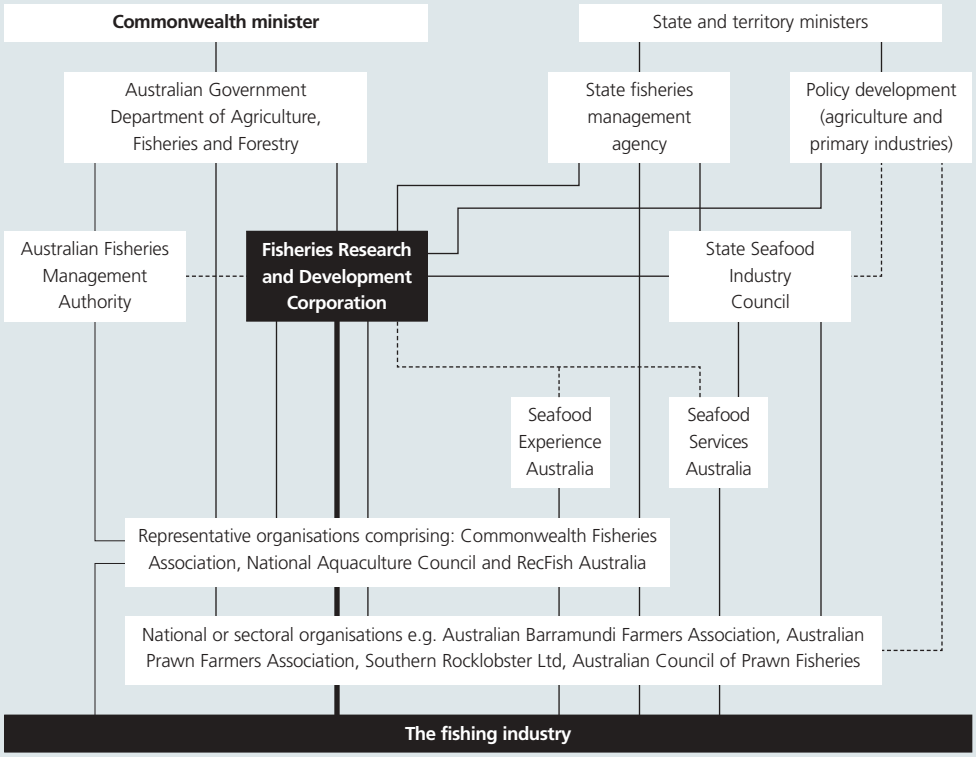
The FRDC Board

Mr Peter Neville	Chair
Mr Stuart Richey AM	Deputy Chair
Dr Patrick Hone	Executive Director
Dr Ray Johnson	Director
Dr Paul McShane	Director
Mr Frank Prokop	Director
Mr Richard A. Stevens OAM	Director
Mr Richard N. Stevens	Director

The FRDC staff

Dr Patrick Hone	Executive Director
Mr John Wilson	Business Development Manager
Ms Cheryl Cole	Office Manager
Ms Tina Lin	Office Administrator
Mr Crispian Ashby	Programs Manager
Ms Annette Lyons	Projects Manager — Finance and Quality
Ms Kylie Giles	Projects Manager — Research
Dr Carolyn Stewardson	Projects Manager — Research
Mr Peter Horvat	Communications Manager
Mr Neil Garbutt	Projects Manager — People Development
Ms Julie Haldane	Communications Officer
Ms Jo-Anne Ruscoe	RD&E Strategic Planning

FIGURE 1: THE FRDC'S OPERATING CONTEXT



Strategic partnerships

In addressing the five strategic challenges, strategic directions are established in association with its partners — government, industry stakeholders and research organisations.

The FRDC works with its partners to not only undertake program management in an effective manner, but also to disseminate the results and assist with their adoption and, when appropriate, commercialisation. Over the course of the year, the FRDC collaborated and worked with all government and corporate research and development corporations on major issues.

Rural research and development corporations

The FRDC is one of 16 rural research and development corporations (RDCs). As part of this group, considerable expertise exists from which to partner and leverage capacity. During the year FRDC partnered with the other RDCs on a number of activities. Most significant of these were climate change; evaluation of R&D and the development of a National Primary Industries Research, Development and Extension (RD&E) Framework. Not only will FRDC partner other RDCs on this project but it will also work more broadly with the Primary Industries Standing Committee participants (Commonwealth and state governments).

The FRDC attended meetings of the Council of Rural Research and Development Corporations' Chairs (CRRDCC), Executive Directors, Business Managers and Communications Managers. In conjunction with other RDCs, the FRDC will assist in coordinating sponsorship of initiatives such as Taste for Excellence (a chef, waiter and restaurateur competition) primary producer's tour. Additionally, FRDC will continue to provide advice and services in relation to project management and the FRDC project management software — OmniFish.

Sector industry bodies

The FRDC has continued to build partnerships with individual industry sectors. It currently invests in, and partners, entities such as Southern Rocklobster Ltd, Australian Southern Bluefin Tuna Industry Association, Tasmanian Salmonid Growers Association, and both the Prawn and Barramundi Farmers Associations. An overview of the sectors that have contributed more than the maximum matchable contribution is shown in table 4: Industry contributions, maximum matchable contributions by the Australian Government and returns on investment, 2008–09.

Seafood Services Australia

FRDC continues to work with and invest in Seafood Services Australia (SSA). At present, the key focus of this partnership is to develop industry's capacity and knowledge and to assist them to engage on key trade issues.

Seafood Cooperative Research Centre

The FRDC has many partners in both the research funding and service provision areas, with one of our newest partners being the Seafood Cooperative Research Centre (Seafood CRC). The FRDC, as a core participant of the Seafood CRC, will invest over $24 million in cash and $1.4 million in-kind, over its seven year life. The mission of the Seafood CRC is to assist end-users of its research to profitably deliver safe, high-quality, nutritious Australian seafood products to premium markets, domestically and overseas. Its research program aims to increase the profitability and value of the Australian seafood industry, increase access to premium markets and increase demand for Australian seafood. These priorities are aligned with the FRDC's R&D programs, and in particular Program 2: Industry Development. This partnership is one innovative way the FRDC extends its activities further along the value chain and enhances its focus on development.

FIGURE 2: FRDC'S FRAMEWORK FOR INTEGRATING LEGISLATIVE, GOVERNMENT AND INDUSTRY PRIORITIES

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

B — Achieve sustainable use and management of natural resources

A — Increase economic, environmental and social benefits

C — Make more effective use of human resources and skills

D — Improve accountability for expenditure

Program 1 — Natural resources sustainability

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.

National Research Priorities

- An environmentally sustainable Australia.
- Safeguarding Australia.

Priorities for rural R&D

- Support effectiveness management of Australia's natural resources to ensure primary industries are both economically and environmentally sustainable.
- Build resilience to climate variability and adapt to, and mitigate the effects of climate change.
- Protecting Australia's community, primary industries and environment from biosecurity threats.

Program 2 — Industry development

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

National Research Priorities

- Frontier technologies for building and transforming Australian industries.
- Promoting and maintaining good health.

Priorities for rural R&D

- Promote the development of new and existing technologies.
- Improve the productivity and profitability of existing industries and support the development of viable new industries.
- Better understand and respond to domestic and international market and consumer requirements and improve the flow of such information through the whole supply chain, including to consumers.

Program 3 — People development

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.

National Research Priorities

- Frontier technologies for building and transforming Australian industries.
- Promoting and maintaining good health.

Priorities for rural R&D

- Improve the skills to undertake research and apply its findings.
- Promote the development of new and existing technologies.

Outcome statement

Increased knowledge that fosters sustainable economic, environmental and social benefits for the Australian fishing industry; including indigenous, recreational, commercial and aquaculture sectors, and the community; through investing in research, development and adoption.

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.

The planned outcome for the Corporation

Increased knowledge that fosters sustainable economic, environmental and social benefits for the Australian fishing industry; including indigenous, recreational, commercial and aquaculture sectors, and the community; through investing in research, development and adoption.

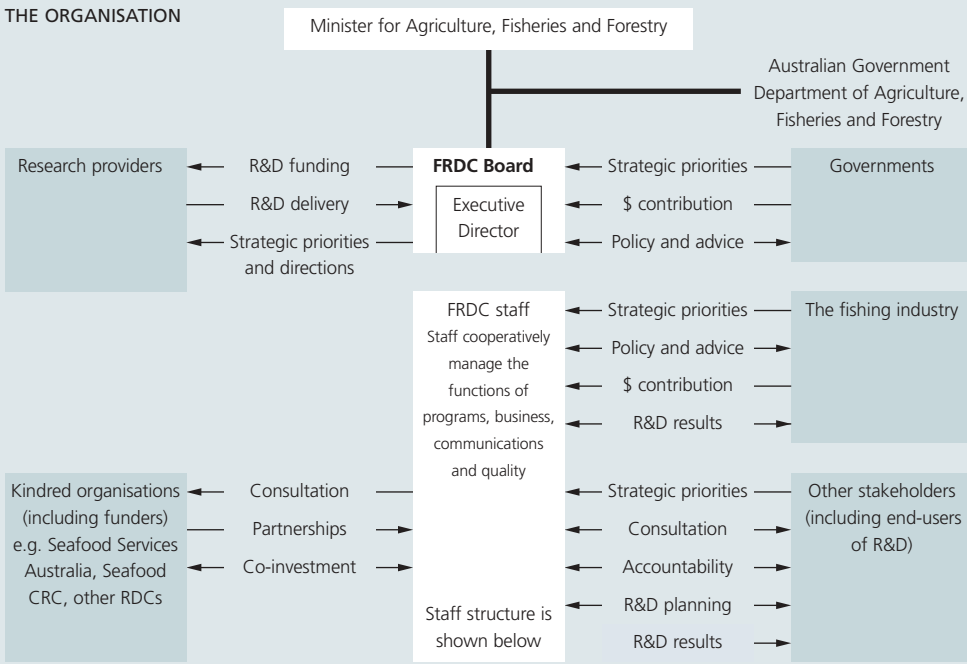
The Corporation's mission

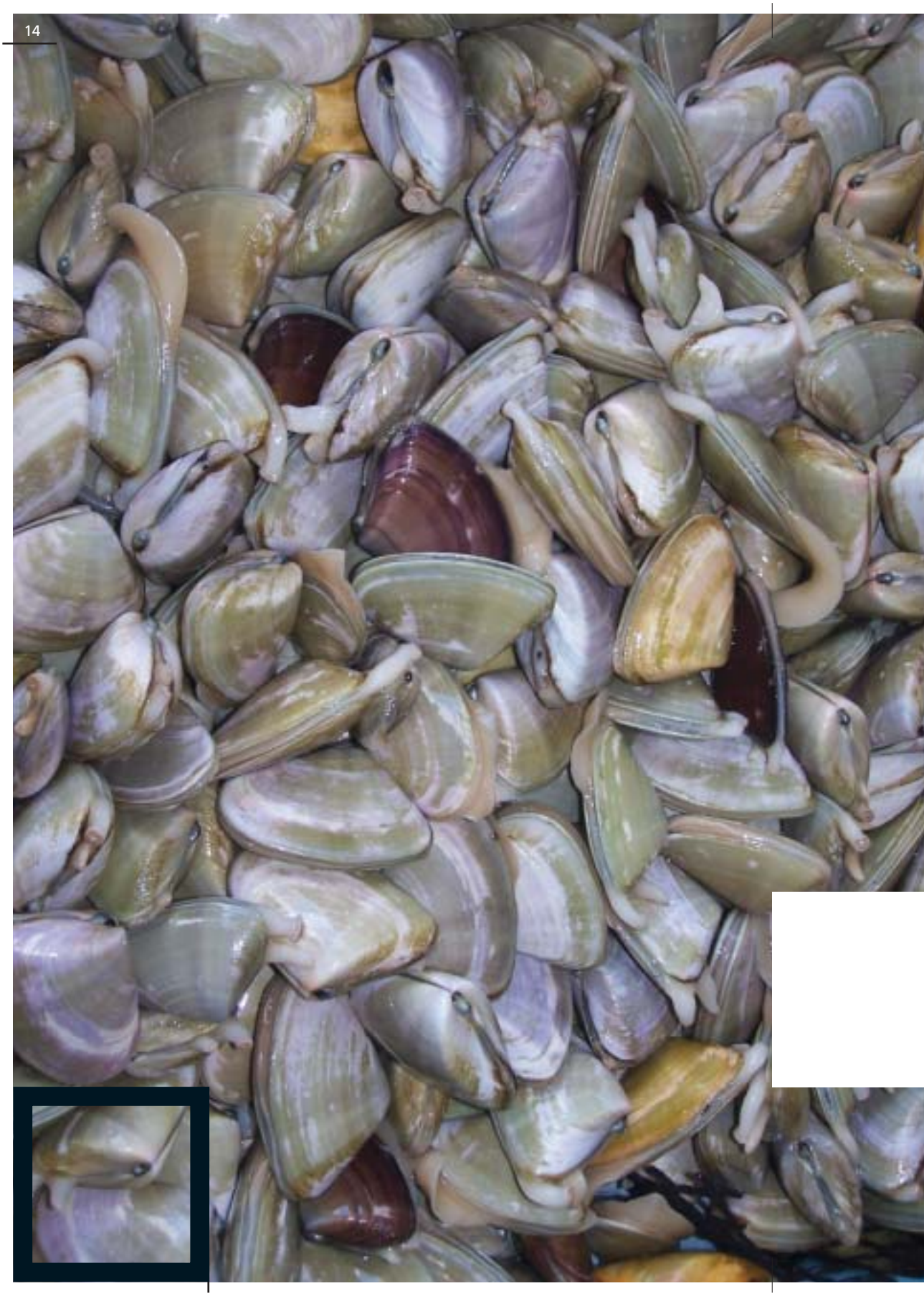
FRDC's mission is to maximise economic, environmental and social benefits for its stakeholders through effective investment and partnership in research and development.

Stakeholders

Stakeholders in the FRDC are the Australian Government and the fishing industry. There are many other partners, collaborators, beneficiaries and interest groups who all influence the FRDC in its priority setting processes and assist in the conduct of its business and the adoption of its research and development activities. These arrangements are addressed in this report. In addition, the legislation under which the Corporation operates recognises that the people of Australia, ultimately, are the principal beneficiaries of the work of the FRDC.

FIGURE 3: THE FRDC'S STAKEHOLDER FRAMEWORK AND STAFF STRUCTURE





Report of Operations

part 2:

The FRDC's operational results

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 13.6 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. Large components of the R&D undertaken by the FRDC focuses on providing information that will assist these agencies improve the sustainable use of Australia's aquatic resources. The projects outlined on the following pages highlight the diversity and excellence of the FRDC's current research portfolio.

For a full listing of projects and expenditure for 2008–09 visit the FRDC website — **www.frdc.com.au**

Principal inputs

During 2008–09, $11.97 million (51 per cent of total R&D expenditure) was invested in R&D activities within this program.

Strategic challenges for Program 1

Challenge 1: Natural resources sustainability	Improve the sustainability of natural resources supporting wild catch and aquaculture.
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.

Summary of performance indicators for Program 1

Key performance indicator		Achievement
Climate change R&D priorities for fisheries identified and a work program established with projects addressing the program being funded.	Minimum of four projects funded.	Achieved. National Coordination program commenced and five climate change projects funded.
Industry adoption of co-management fisheries principles.	Minimum of five fisheries (for example, currently engaging Spencer Gulf Prawn, Northern Prawn, Queensland Inshore, Shark Bay Prawn, Lakes Entrance).	Commenced. Four fisheries — Spencer Gulf, Exmouth Gulf, South East Trawl and Northern Prawn fisheries have made significant inroads towards co-management. A further four in Queensland are commencing.
Documented use of R&D outcomes to improve sustainability performance.	Minimum of five fisheries improve.	Achieved. During the year a significant number of fisheries improved their performance. Detail on the fisheries that have improved can be found in the Commonwealth and state Fishery Status reports.
Increased utilisation of fisheries R&D outputs by fisheries management agencies.	Responses from management agencies indicating adoption of R&D outputs.	Achieved.
Expanded use of formal socio-economic assessments in fisheries resource allocation processes.	Minimum of two fisheries (for example, currently engaging Queensland Inshore, South Australian Marine Scalefish).	Achieved. Research has been used to assist two fisheries to be managed. The Northern Prawn Fishery is now using maximum economic yield (MEY); while Western Rocklobster trialled the use of socio-economic assessments.
Adoption of research based processes in defining spatial management including, marine protected areas.	Minimum of two fisheries (for example, currently engaging in Moreton Bay, Western Rocklobster fishery).	Achieved. Research has been used in two geographical regions — Moreton Bay and the south east (encompassing many fisheries) and has been incorporated into the spatial management of a number of the associated fisheries.

Program 1 — Challenge 1 and 2 examples of project activities

DNA research the key to sustainable fisheries

Project title — Development of a DNA-based ageing technique for use in fisheries assessments (project 2007/033)

A harmless, reliable and cost-effective method that will estimate a fish's age, and thus growth rate, is an expected outcome from this research project.

Australian commercial fisheries species are less well understood than commercial species in the northern hemisphere. This research aims to increase our knowledge and develop a DNA-based fish ageing tool that will supply ongoing information on the growth and longevity of exploited fishery species. Ultimately this will contribute to the development of sustainable harvest plans for commercial fisheries throughout Australia.

The ambitious study, led by the Queensland Department of Primary Industries and Fisheries (QDPI&F), aims to use telomeric DNA as a marker for individual age and growth rates in a range of fisheries species, particularly invertebrates.

Biological science needs as many research tools as possible to support the development of sustainable harvest plans.

Age has historically been determined by cross-sectioning and counting annual growth checks in vertebrae or otoliths in bony fish species. However this approach presents problems as the animal must be killed, rings are not always clearly defined and interpretation can be difficult.

FROM LEFT: PROJECT RESEARCH TECHNICIAN VIVEK MITTER, SENIOR FISHERIES GENETICIST AND PROJECT SCIENTIST ROSIE GODWIN, AND PROJECT LEADER JENNY OVENDEN.

The DNA method being researched may provide a valuable addition to this practice, but it will be most advantageous when applied to commercial invertebrate species such as crustaceans and Bêche-de-mer which do not have hard parts that can be sectioned.

The technique is based on the principle that each time tissue cells divide and DNA replicates, the end structures of the chromosome, called telomeres, become shorter. By determining the rate that telomeres shrink over the life of an animal, molecular biologists can estimate its age. If the telomeres are short, the creature is likely to be older while robust telomeres equate with youth.

The new method is also expected to offer a better alternative to mark-recapture studies of growth, whereby animals are captured, tagged, measured and released, then measured again if recaptured — a procedure complicated by tag loss and variable animal recovery rates.

The research team is transferring scientific knowledge from the field of human cancer research, where telomeres have been widely studied, to invertebrate organisms.

The project is now 12 months into the research program. However, it will take considerable time to test the theories given the sizeable gap between humans and fisheries species with the goal of a new nationally DNA technique operational in two to four years.

For further information: Jenny Ovenden, 07 3346 6514, jennifer.ovenden@dpi.qld.gov.au, www.dpi.qld.gov.au/fishweb

Population finding crucial for future management

Project title — Determination of management units for Grey Mackerel fisheries in Queensland and the Northern Territory (project 2005/010)

Researchers have found that northern Australia's Grey Mackerel, found from Exmouth in Western Australia to Queensland's Hervey Bay, is made up of at least five distinct populations — information which will help fisheries' management decisions.

Without basic knowledge on whether you are dealing with one big population or a number of smaller ones, it makes it difficult to manage a fishery properly. This is because if different stocks were found, then they may need to be managed independently.

Concerns about stock status was the trigger for the research, which saw collaboration between the Department of Fisheries Western Australia; the Northern Territory Department of Regional Development, Primary Industry, Fisheries and Resources; the University of Queensland; QDPI&F and James Cook University.

In the past seven years, Grey Mackerel has been increasingly targeted in the Gulf of Carpentaria, while the same thing has occurred on Australia's east coast during the past five years because they have become more profitable and marketable. In addition, management changes in other fisheries have seen Grey Mackerel increasingly targeted.

A multi-disciplinary approach was applied to the study. By studying the genetics of the Grey Mackerel, researchers can gain information about fish populations over evolutionary timeframes. Genetics gives information at the population level and captures past information beyond the lifespan of the individual. By comparison, identifying parasites found in fish, researchers can determine where fish have been.

Otoliths (fish ear bones) are often used to age fish and were used to identify what micro elements fish have absorbed during their lifetime — and therefore where they have been based on environmental conditions.

The researchers also looked at how fast fish grew and how big they became. This information can help to understand a stock's productivity.

Finding five different stocks of Grey Mackerel was a little surprising, one of the researchers says. "They are quite a mobile species and given their habitat preferences, there is not a lot that acts as natural barriers to their movement. But, there are at least five distinguishable stocks. Western Australia stands out very strongly as being different to stocks across northern Australia. Fish sampled in Darwin were very different to what were found in Western Australia and clearly different to what were found in the Gulf of Carpentaria. Then on the east coast, researchers found two distinct stocks with the cut off somewhere around Bowen."

The information uncovered through the collaborative project will feed into management and monitoring activities and ultimately stock assessment.

For further information: David Welch, 07 4781 5114, david.welch@jcu.edu.au

Survival strategy comes full circle

Project title — National Strategy for the Survival of Released Line Caught Fish: Planning, project management and communications (project 2002/099)

Almost half of all fish caught by Australia's recreational fishers are released back into oceans and waterways for any number of reasons — they might be undersized, they might not be a preferred eating species, or catching them might be just a matter of sport.

For the past six years, as part of the National Strategy for the Survival of Released Line Caught Fish, research has focused on what happens once they are released, and how many of those fish actually survive. During this time 20 research projects have been completed — a total investment of $7.3 million from the FRDC, and partners — which has added to a body of research on survival rates and how to improve them.

When the strategy began in 2002, there was limited information available. Only the survival of four species — Longfin Rock Cod, Stripey Snapper, Tailor, and King George Whiting — were known about. There is now information on an additional 15 species: Barramundi, Black Bream, Crimson Snapper, Coral Trout, Dusky Flathead, Mulloway, Red Emperor, Redthroat Emperor, Saddletail Snapper, Sand Flathead, Sand Whiting, Silver Trevally, snapper, Yellowfin Bream and Western Australian Dhufish. And research is continuing on the survival rates of Luderick, mullet, garfish, Murray Cod, Golden Perch, bass and Black Jewfish as part of the FRDC's recently established Recfishing Research program.

The strategy began with the "Gently Does It" education campaign, which had promising results. Advising fishers on best practice in releasing line caught fish, it included a national television advertising campaign in 2003 featuring Andrew Ettingshausen. A survey following the television campaign found that it helped 35 per cent of those surveyed to change their practices. This included better handling of fish, holding them horizontally rather than vertically if removing them from the water to take a photograph, and how to remove hooks correctly.

As research projects have been completed, best practices have been revised and updated. For example, research found that attempting to remove hooks from fish that have swallowed them, whatever the species, was likely to cause significant internal damage, increasing the likelihood of the fish dying. So, fishers are now advised to leave the hook and cut the line as close to the fish's mouth as possible before releasing. Revised fishing techniques also include simply using larger hooks or circle hooks, both of which are less likely to be swallowed.

Results of the research have shown that most of the species investigated have relatively high survival rates, when released. The exceptions are deep-water fish, which suffer from barotrauma when they are brought to the surface and survival rates for released deep-water fish can be less than 50 per cent.

Through the project, techniques have been identified to improve survival for these fish, such as using a fine hollow needle to puncture an inflated swim bladder, or attaching a lead weight on a barbless hook to the fish, either of which will help the fish return to deep water as quickly as possible.

Getting the results of the research into the hands of the fishing community remains an important part of the initial strategy and for Recfishing Research. A range of information products under the "Gently Does It" banner, which targets fishing equipment and fish species have been developed and distributed. Products include posters, brochures, DVDs and videos available from the Released Fish Survival website (www.recfishingresearch.org).

For further information: Released Fish Survival, Bill Sawynok, bill@info-fish.net, www.recfishingresearch.org

BILL SAWYNOK (PICTURED HERE) IS THE MANAGER OF RECFISHING RESEARCH AND IS A PAST DIRECTOR OF THE FRDC.

An economic analysis of FRDC investment in Marine Protected Areas and spatial management

Projects

There are three projects included in this analysis cluster. These projects were those with final reports completed in the period from 1 July 2003 to 30 June 2008. This meets the criteria for random selection of projects as outlined by the Council of Rural Research and Development Corporations' Chairs.

FRDC projects assessed in this benefit cost analysis were:

- *Evaluating the effectiveness of Marine Protected Areas as a fisheries management tool* (project 1999/162).
- *Development of a fisheries R&D response to Marine Protected Areas and spatial management for fisheries* (project 2003/073).
- *Review and assessment of the impacts of the proposed broad areas of interest for MPA development in the south east region* (project 2005/083).

Background

Marine Protected Areas (MPAs) are a form of spatial management of fisheries. Under international agreements the Australian Government committed to establishing a network of Marine Protected Areas in Australia by 2012 to ensure long-term ecological viability of existing biodiversity and the marine and estuarine systems.

Rationale for the research

Early in the process the fishing industry and FRDC were concerned about the impact of MPAs, in particular on the industry and whether there were real benefits to fisheries management from the establishment of MPAs.

Project investment

The following table shows the investment by project for both the FRDC and for other investors.

Project	FRDC total ($)	Other total ($)	Total ($)
1999/162	**409,168**	1,138,551	1,547,719
2003/073	**30,000**	Nil	30,000
2005/083	**37,900**	30,000	67,900
Total	**477,068**	**1,168,551**	**1,645,619**

Benefits

The benefits identified are as follows.

Economic

For the south east region:

1. Reduced impact of the displaced catch leading to reduced financial impact of sales foregone and reduced impact on industry profits.
2. Reduced potential un-employment.
3. Reduced impact on those providing inputs to the industry supply chain (e.g. processors, repairs and maintenance suppliers).
4. Reduced compliance costs due to greater industry ownership of the revised MPAs.

For other regions:

5. More efficient development of MPAs for other Australian fisheries.

For all regions:

6. More relevant research and more efficient allocation of research resources associated with spatial management of Australian fisheries.

Environmental

7. Marginally improved set of biodiversity and conservation assets for the south east region fisheries and potentially for other Australian fisheries as more MPAs are prescribed.

Social

8. Lowered impact on localised fishing communities and reduced social costs of disruption and dislocation of families, particularly in Tasmania.
9. Potentially lowered social impact in other fishery regions.

Attribution of benefits

On the basis of the nine benefits listed for the cluster, and equal weighting for each benefit, it could be concluded that public benefits to Australia would make up more than half of the total benefits.

Distribution of benefits along the fish supply chain

The private* benefits will initially be captured by the fishers and their employees. However, as the impacts would have been severe along the industry supply chain with the initial MPAs in the south east region and potentially in other regions, it is likely that there will be a significant flow on benefit to other parts of the industry (input suppliers, processors, marketers) and possibly seafood consumers.

Lessons learnt for future investment

Two points can be taken from the analysis of this cluster for future investment:

1. Environmental monitoring of emerging issues and preparing for change are important for FRDC in order to respond effectively and quickly to sudden external policy changes that affect the fishing industry.
2. The inability to value with any confidence changes in biodiversity features of fishing areas should be noted. While it may be possible to value the extinction of a marine species through the community's willingness to pay, it would be far more difficult to make credible assumptions about how the improvements to habitat features (e.g. more protection from fishing given to seamounts and shelfs) contribute to biodiversity and reduce extinction risk.

Conclusion

Nine benefits were identified associated with this investment. On the basis of equal weighting for each benefit, it could be concluded that public benefits to Australia could make up more than half of the total benefits, the remainder being private benefits.

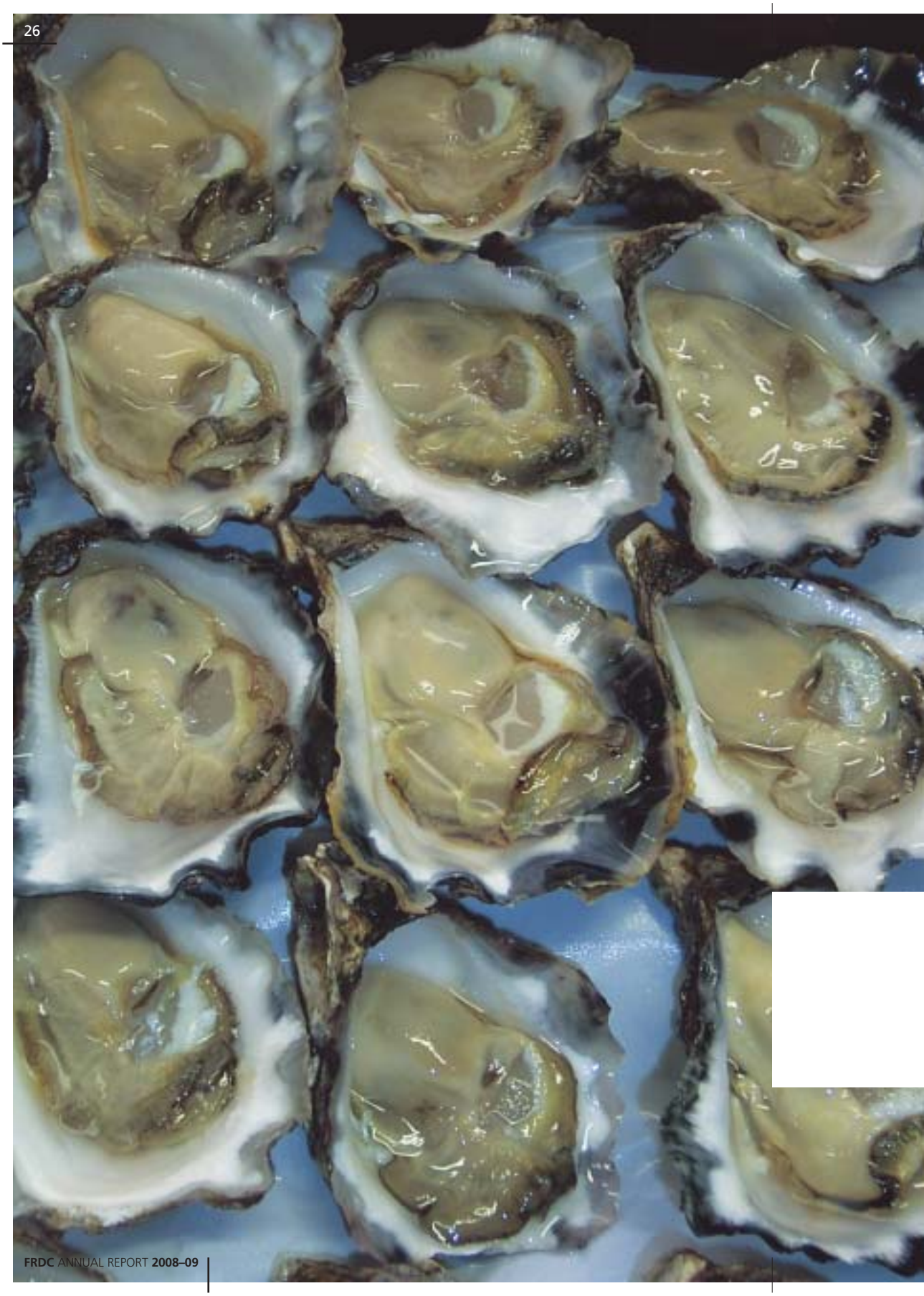
Investment was made in a total of three projects within the cluster with the FRDC contribution approximating 29 per cent of the total costs involved.

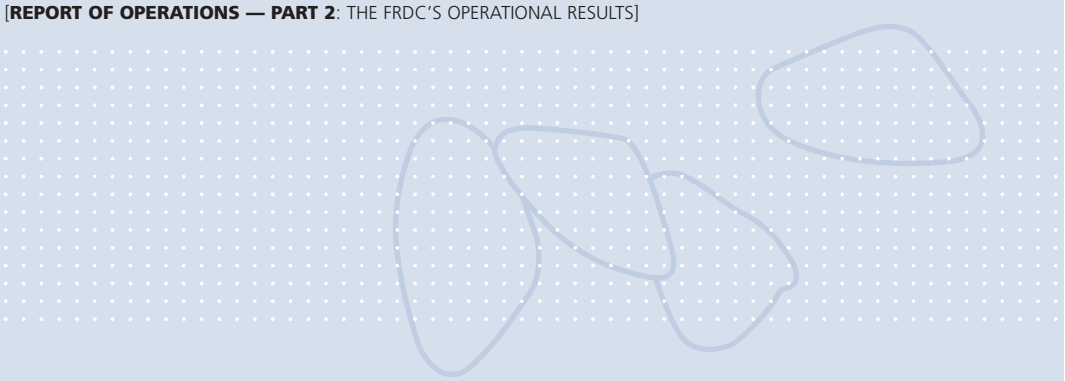
Overall, the investment criteria estimated for the three projects in the cluster were positive with a net present value estimated at $91 million and a benefit cost ratio of over 33 to 1 (over 30 years at a 5 per cent discount rate).

It should be noted that not all benefits identified in the analysis were valued so the results are likely to be underestimates of the actual benefits derived from the investments.

* For the purpose of these BCAs, the definition AgTrans have used is that a private benefit accrues to a fisheries industry or to an individual member in a fisheries industry. Most private benefits are economic in nature but social and environmental benefits can also apply to individual industry members.

Public benefits are those that fall to the wider community and are generally social or environmental in nature.





Program 2: Industry Development

Demand for high-quality seafood is predicted to outstrip supply in both domestic and export markets. Similarly in the recreational and customary sectors the demand for high-quality fishing experiences will outstrip supply. There is a need 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 pages provide examples of the R&D currently underway.

For a full listing of projects and expenditure for 2008–09 visit the FRDC website — **www.frdc.com.au**

Principal inputs

During 2008–09, $9.77 million (about 41 per cent of the total R&D investment) was invested in R&D activities within this program.

Strategic challenge for Program 2

Challenge 3: Response to demand; profitability	Respond to, and take advantage of, increased demand for seafood and for recreational and customary fishing experiences.

Summary of performance indicators for Program 2

Key performance indicator		Achievement
Fund research that assists industry adapt to climate change — e.g. measures fuel use in different fishing vessels.	Minimum of two projects funded.	Achieved. Three projects funded addressing fuel efficiency and alternates and gear technology.
Recreational fishing awareness on released fish survival increased through research and education.	Five articles originating in the media covering released fish survival.	Achieved. FRDC through the Recfishing Research, *Escape with ET* and Neatfish programs have contributed to over 20 articles being written on release fish survival. In addition the FRDC-funded Neatfish program has accredited eight fishing tournaments which includes environmental criteria, i.e. release fish survival.
Companies accessing new markets for domestically produced seafood.	Minimum of two companies.	Achieved. Southern Rocklobster continues to work in the USA to build a strong market presence. Yellowtail Kingfish is now being sold to a number of new international markets. In addition the FRDC assisted the fishers from the Northern Prawn fishery to develop a "Go wild with bananas [prawns]" campaign.
Increase in finfish production through improved feeds and management.	Five per cent increase.	Achieved. Aquaculture production continues to increase with volume rising from 60,000 to 62,000 tonnes. A significant factor was due to Atlantic Salmon and Yellowtail Kingfish. (Figures from 2008 Australian fisheries statistics.)
Increase in entities utilising improved stock from selective breeding programs.	Minimum two entities.	Achieved. Producers from the Atlantic Salmon and oyster industries both benefited from the development of knowledge, and implementation of selective breeding programs. As a result both sectors increased production during the year.

Program 2 — Challenge 3 achievements and activities

History-making spawn heralds tuna farming genesis

Project title — Southern Bluefin Tuna larval/juvenile rearing (project 2009/726)

After years of taking from the sea, a South Australian tuna company has pulled off a scientific coup that could see the industry give something back to the wild.

It is rare to see scientists moved to tears of elation by an experiment, especially when the breakthrough just looks like microscopic blobs floating on the surface of a fish tank. But when some of these blobs hatched into larvae that metamorphosed into juveniles, bearing an uncanny resemblance to the mighty SBT, these tiny jewel-like miniatures proved it is possible to breed the 'king' of tunas in captivity — a result that truly did swell emotions for the researchers involved.

This aquaculture world-first took place at the Clean Seas Tuna Arno Bay facility in South Australia. One hour's drive from Port Lincoln, it is where SBT have been ranched in sea cages for the past 17 years, supplying a Japanese sashimi market worth more than $250 million a year. Evolving the SBT industry and taking the next step — from fattening wild-caught tuna in sea pens to breeding the fish in captivity has been underpinned by the investment by FRDC in R&D.

SBT are a species that requires 10 to 12 years to reach sexual maturity. Complicating matters further, the species does not reproduce as a matter of biological inevitability. Instead, spawning results from environmental cues received during a long migration that takes the fish from the Great Australian Bight's cold deep waters to spawning grounds in the tropical warmth of Indonesia's Java Sea.

Mature adults can grow to over 2 metres in length, weigh up to 200 kilograms, and can swim in bursts at 70 kilometres an hour — making them one of the fastest swimmers in the ocean.

For the aquaculture project, Clean Seas Tuna built a special on-shore facility at Arno Bay based around an indoor tank designed to mimic environmental conditions along the SBT's migratory route. In essence, the facility has to transition through a series of ecological habitats — a feat pulled off by controlling variables like water quality, light, temperature, and feed.

Brood stock for the project were selected from Hagen Stehr's sea ranching cages and transferred into the indoor facility three years ago. This in itself was a major undertaking, requiring a helicopter to airlift the fish from the off-shore pens.

Inside the facility, underwater cameras help gauge animal health and behaviour, with additional monitoring undertaken by the broodstock manager Miles Wyse.

Once the tuna were thriving in their engineered habitat, Clean Seas Tuna set about solving the mystery of SBT reproduction. They recruited scientists from across Australia to work on the project and also received advice from international experts working with Northern Bluefin, Pacific Bluefin and Yellowfin Tuna.

The first tantalising hint of success was obtained in 2008 when the captive SBT briefly attempted to spawn. The breakthrough, however, came in 2009, when the tuna spectacularly went into full mating behaviour. With males chasing females, pandemonium broke out in the breeding pool as the school surfaced and swam in a circle fast enough to create the vortex that funnels eggs and sperm together and ensures fertilisation. As a result, 35 million healthy eggs were produced.

SBT will only spawn under conditions that secure maximum survival for the young. So for the fish to spawn in captivity means they are very happy with their environment.

With the spawning a success, the pressure shifted to larval rearing specialists. Although most of the hatchlings are being reared at the Arno Bay hatchery; to improve chances of success and increase scientific capacity batches of eggs were also sent to SARDI and the NSW Department of Primary Industries' Port Stephens facility. Darwin Aquaculture Centre, Tasmanian Aquaculture and Fisheries Institute, and Flinders University are also involved.

Every day the hatchlings survive sets a new record and for the scientists fostering their development, each day is a roller coaster. The next challenge is getting enough juveniles to survive for 40–45 days, the point where the juveniles can be transferred to a sea cage.

For further information: Len Stephens, Managing Director, Seafood CRC, 08 8201 7651

Science firms source of mushy crabs

Project title — Tactical research fund: Empowering Industry R&D: Uniform flesh quality for premium market positioning of Blue Swimmer Crabs (project 2007/244)

In the pristine waters of Western Australia's Shark Bay, the strength of the fishery, which produces an abundant supply of Blue Swimmer Crabs year-round, is also its weakness.

The water temperature in the world heritage listed waters is a consistent 18°C. Perfect for crabs to breed. While this guarantees continuous stock replenishment, it also means quality can be compromised, for when a crab breeds, it moults… and when it moults it grows into a new shell. If it is netted at this point, the chance of its flesh being 'mushy' is higher.

'Mushiness' is a term given to the crab meat that, when cooked, becomes stringy, instead of holding its shape in chunks. All crustaceans, including crabs, take in water at the moult to expand their shells. This water contributes to the mushiness if a post moult crab is cooked. Mushiness also happens in undercooked crabs as still-active enzymes leak into the muscle from organs associated with the gut.

Moulting is closely associated with the breeding cycle in many crustaceans including Blue Swimmer Crabs. Although there are peaks of both in Shark Bay, breeding and moulting happen throughout the year so it is difficult to time fishing to avoid picking up recently moulted crabs.

Industry has reduced the margin of error for mushiness somewhat; about 5 per cent of crabs with obviously 'soft' shells are thrown back to sea on the boat or discarded at the factory.

A refined, scientific cooking process (at more than 80°C for at least two minutes) within hours of capture to prevent further breakdown of flesh, before packaging and a secret freezing technique has further reduced the problem and optimised quality.

After these checks about one third of the crabs are deemed unsuitable for A-grade premium whole product, with most of the rest stripped for meat and sold in tubs. And of those that pass, a small number of mushy specimens will slip through, only detectable once the crab is opened.

Industry felt this was still not good enough, and believe that the product can always be made better by knowing the why, how or what caused the problem; so it was time for the scientists.

The FRDC's tactical research fund was used to fund the research team of SARDI Food Innovation and Value Chain senior scientist Richard Musgrove and QDPI&F Innovative Food Technology seafood technologist Steve Slattery (pictured above).

These scientists worked alongside industry using tailor-made tools to test for mushiness and sophisticated analysis of procedures and flesh samples in the quest for answers.

Richard and Steve attacked the issue from three areas — examining the crab itself, the capture process and then production.

The results helped put to bed some myths and helped refine how the crabs were processed, thereby improving yield.

They found that reducing cooking time by pre-warming the crabs and improving the effectiveness of chilling after cooking could improve cooking efficiency, reduce tissue breakdown and crab weight loss. Also, limiting airflow between the factory and the chillers could help to better maintain product quality and reduce the chillers' workload.

This has lead to the yield being increased by 1–1.5 per cent, with a noticeable lift in meat quality. The research will also further aid product differentiation — a crucial part in the marketing of the products, which cannot compete with the likes of China on quantity, but can gain ground on quality. This has already been evidenced in Australian exports to Japan which command the highest prices of any country because of superior and consistent quality.

For further information: Richard Musgrove, 08 8348 2473, musgrove.richard@saugov.sa.gov.au; Peter Jecks, 08 9941 2030, peter@abacusfisheries.com.au

Beach rescue bid for Pipis

Project title — Tactical research fund: Economic viability of Pipi (*Donax deltoides*) reseeding (project 2008/071)

Having been elevated from their status as bait to that of a sought-after delicacy in Asian cuisine, Pipi populations are now in dramatic decline in New South Wales (NSW). With the assistance of some tactical research, one group of fishers hopes to turn this around by restocking beaches in the state.

When the popular bait *Donax deltoides*, most commonly known now as the Pipi, became a sought-after Asian delicacy in the 1990s, particularly in Sydney's Asian restaurants, prices skyrocketed as did its popularity with fishers.

Average prices at the Sydney Fish Market increased from about $2/kilogram to $17/kilogram, with Pipis recently fetching as much as $40/kilogram.

Unfortunately, its increased popularity has been followed by a sharp decline in harvests — a result of overfishing by both commercial and recreational fishers who collect for bait — threatening the sustainability of the fishery and the viability of its fishers.

During the past five years commercial Pipi harvests have fallen by 84 per cent from a peak of 403 tonnes in 2004 to a low of 65 tonnes in 2007, according to Sydney Fish Market figures.

Although higher prices helped to maintain the value of the industry in NSW, it still dropped from $1.8 million in 2005 to $0.7 million in 2007 — a figure that an association of NSW Pipi fishers want to address by improving harvests, economics and sustainability. Through a recently completed FRDC project the association is moving closer to that goal.

The Shellfish Quality Assurance Association (SQAA), an association for commercial Pipi fishers based in zone four — one of seven zones in the NSW Estuary General Fishery — undertook an assessment on reseeding NSW beaches with Pipis, finding that doing so would be economically viable.

Pipis are hand harvested by commercial fishers licensed to particular zones. Zone four, from Tuggerah to Crowdy Head on the NSW central and mid-north coast has traditionally been the most productive for Pipis, with annual harvests of up to 200 tonnes. The region is now one of the worst affected by the downturn in stocks.

Increasing demand from all sectors for Pipis has resulted in very little stock being left along zone-four beaches, prompting management changes. This includes a minimum size of 35 millimetres for commercial collection and a closed season from January to June in 2009, a closure that will be reviewed annually.

The report *Economic viability of Pipi (*Donax deltoides*) reseeding* indicates that reseeding would bring a benefit cost ratio of 3.34 to 1, returning initial investment in two years, based on 2008's average Sydney Fish Market price of $17.46/kilogram.

The economic modelling was based on reseeding beaches with 28.4 million Pipis 5 millimetres in size. The modelled survival rate to harvest was 14.1 per cent — about 4 million Pipis. Hatchery costs were based on those of Sydney Rock Oysters because no figures are available for Pipis.

The report also identified that hatchery production costs and survival rates would be critical and as such, the SQAA is hoping to work with the NSW Department of Primary Industries' Port Stephens Fisheries Institute to assess Pipi spat production techniques. SQAA believes that these techniques can be adapted from techniques used for other bivalve species such as scallops and oysters.

While it is uncertain what caused the dramatic decline in Pipis, demand for the shellfish remains buoyant and reseeding, along with other management strategies, has the potential to rebuild a sustainable and increasingly valuable Pipi fishery in NSW.

For further information: Mark Phelps, 02 4981 3716

An economic analysis of FRDC investment in the Atlantic Salmon Aquaculture Subprogram

Projects

There are nine projects included in this analysis cluster and they are a subset of the total number of projects funded through the subprogram. The projects in this cluster were those with final reports completed in the period from 1 July 2003 to 30 June 2008. This meets the criteria for random selection of projects as outlined by the Council of Rural Research and Development Corporations' Chairs.

FRDC projects assessed in this benefit cost analysis were:

- Aquafin CRC – Atlantic Salmon Aquaculture Subprogram: *Development of novel methods for the assessment of sediment condition and determination of management protocols for sustainable finfish cage aquaculture operations* (project 2000/164).
- Aquafin CRC – Atlantic Salmon Aquaculture Subprogram: *Facilitation, administration and promotion* (project 2000/223).
- Atlantic Salmon Aquaculture Subprogram: *Molecular genetic tools for the Tasmanian Atlantic Salmon industry — development and application* (project 2000/224).
- Aquafin CRC – Atlantic Salmon Aquaculture Subprogram: *System–wide environmental issues for sustainable salmonid aquaculture* (project 2001/097).
- Aquafin CRC – Atlantic Salmon Aquaculture Subprogram: *Host–pathogen interactions in amoebic gill disease* (project 2001/244).
- Aquafin CRC – Atlantic Salmon Aquaculture Subprogram: *Model development for epidemiology of amoebic gill disease* (project 2001/245).
- Aquafin CRC – Atlantic Salmon Aquaculture Subprogram: *Control of precocious sexual maturation in Atlantic Salmon* (project 2001/246).
- Aquafin CRC – Atlantic Salmon Aquaculture Subprogram: *Development of a vaccine for amoebic gill disease — genomic and cDNA library screening for antigen discovery* (project 2002/251).
- Aquafin CRC – Atlantic Salmon Aquaculture Subprogram: *Use of immunomodulation to improve fish performance in Australian temperate water finfish aquaculture* (project 2004/210).

Background

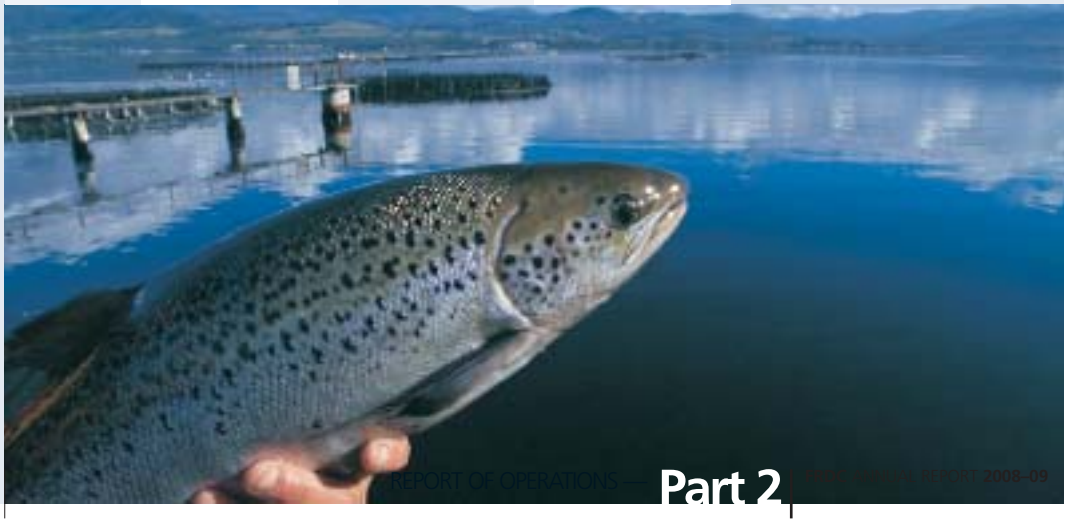
Atlantic Salmon and three species of trout were introduced to Australia in the 1800s, for the purposes of populating rivers in Tasmania and NSW for sport fishing. However, it was not until 1984, when eggs were transferred from the Gaden hatchery in the Snowy Mountains to a quarantine hatchery near Hobart, that the foundations of a salmon farming industry in Tasmania began.

The Atlantic Salmon Aquaculture Subprogram commenced in July 2000, initiated partly as an outcome of an Industry Partnership Agreement between the FRDC and the Tasmanian Salmonid Growers Association Ltd. The subprogram was developed to address a number of biological constraints and socio-economic issues through a coordinated research effort to ensure economic and ecological sustainability, and to develop the industry to its full potential. In particular, research was required that addressed issues of immediate concern while acknowledging that some projects required long-term timeframes. The subprogram sought to use a strategic plan to develop collaborative research projects that addressed industry bottlenecks and avoided duplication and unnecessary expenditure of a finite research fund. The subprogram also had a significant relationship with the CRC for Sustainable Aquaculture of Finfish (Aquafin CRC) with many of the projects being carried out as part of the CRC.

Project investment

The following table show the annual investment by project for both the FRDC and for researchers and other investors.

Project	FRDC total ($)	Other total ($)	Total ($)
2000/164	**467,269**	1,233,071	1,700,340
2000/223	**210,366**	184,915	395,281
2000/224	**461,797**	266,407	728,204
2001/097	**814,610**	1,306,407	2,121,017
2001/244	**860,814**	1,317,256	2,178,070
2001/245	**322,051**	399,764	721,815
2001/246	**521,251**	701,897	1,223,148
2002/251	**315,812**	247,774	563,586
2004/210	**288,959**	185,237	474,196
Total	**4,262,929**	**5,842,728**	**10,105,657**



Benefits

The following addresses the benefits that have been identified as emanating from the nine research projects. The benefits are described by theme area.

Economic	Environmental	Social
Environmental management ¬ Some potential for productivity improvements for salmon farmers where monitoring data is used for adaptive management. ¬ Avoidance of potential productivity losses for commercial fisheries (both aquaculture and wild catch) due to decline in water quality that could occur without the research. ¬ Avoidance of other lost income associated with a decline in water quality, such as tourism and recreational fishing. ¬ Ensuring appropriate levels of expansion for industry due to improved accuracy in public perception of industry impacts.	¬ Avoidance of water quality degradation and associated biodiversity losses.	¬ Maintenance of a profitable and sustainable salmon farming industry in Tasmania, and associated stability benefits to workers and the community. ¬ Avoidance of loss of amenity associated with water quality degradation.
Amoebic gill disease (AGD) ¬ Reduced loss of industry value due to AGD. ¬ More efficient future research due to improved research techniques.		¬ Improved research capacity.
Genetics ¬ Strategic knowledge that can be used by the breeding program and other research projects for improving the long-term efficiency of production systems for salmon including disease management, growth rates and food quality and nutrition.	¬ Avoided use of chemicals for disease management.	
Maturation ¬ Elimination of harvest gap, allowing sale (and provision to consumers) of fresh fish year round and avoiding discounted pricing for frozen fish. ¬ Increased growth, resulting in decreasing production cycle by six weeks. ¬ Delayed maturation, avoiding losses due to fish becoming unsaleable due to flesh quality and colouration.		¬ Improved research capacity (which is also being used for Yellowtail Kingfish, Barramundi etc.).
Coordination ¬ More efficient allocation of research resources and higher and more timely adoption of research outputs through improved industry involvement and communication.		¬ Workshops and public conferences improve the perception of the industry as professional.

Attribution of benefits

The majority of the benefits identified are private (see note page 25) in nature and accrue to the Tasmanian commercial producers of Atlantic Salmon and their input and market supply chains. The public benefits include lowered environmental impacts from the industry with regard to biodiversity and water quality. There are also a number of social benefits.

On the basis of the number of benefits listed, and equal weighting for each benefit, it could be concluded that public benefits to Australia could make up 9/22 or 41 per cent of the total number of benefits identified.

Distribution of benefits along the fish supply chain

Some of the benefits assigned to commercial producers of Atlantic Salmon will be shared along the input and market supply chains, including both domestic and foreign consumers. The Atlantic Salmon supply and marketing chain is highly vertically integrated.

Lessons learnt for future investment

Three points can be taken out from the analysis of this cluster for future investment:

1. The results demonstrate the importance of identifying and addressing high priority issues for the industry and utilising existing research from overseas that can be adapted to Australian situations. For example, the trials on the use of artificial lighting and manipulating maturation periods successfully identified simple practices to address key issues affecting industry productivity.
2. It should be noted that strategic research outputs have not been valued in the current analysis, but are critical in ensuring future benefits continue to be delivered. The strategic investments not valued should be noted, and their investment costs recorded, so that future analyses can attribute benefits to them.
3. Win-win situations for addressing environment and productivity issues in aquaculture have been demonstrated, a similar situation to that observed in research and development success for agriculture.

Conclusions

Fourteen benefits were identified in the evaluation, which were a mixture of public and private benefits. Investment was made in a total of nine projects within the cluster with the FRDC contribution approximating 42 per cent of the total costs involved.

The investments were regarded as a high priority by both the FRDC and the aquaculture industry. In the event that public funding to FRDC were cut by half and assuming an industry levy was still in place, it is likely that the production oriented projects in the cluster (health, genetics, reproduction, etc.) would have still been funded by FRDC, industry and state agencies, but that the environmental oriented projects would have been somewhat curtailed. Further, it is estimated that while selected investment would have gone ahead as planned, overall projects may have been somewhat less well coordinated and some projects would have started later and taken longer to complete.

Overall, the investment criteria estimated for the nine projects in the cluster were positive with a net present value estimated at $160 million and a benefit cost ratio of seven to one (over 30 years at a 5 per cent discount rate).

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 facilitating access to leadership training for all levels of industry.

Projects funded under Program 3 primarily address the FRDC's Challenge 4 for People Development. However, this challenge is also addressed, as a secondary but very important element, by projects within Programs 1 and 2.

For a full listing of projects and expenditure for 2008–09 visit the FRDC website — **www.frdc.com.au**

Principal inputs

During 2008–09, $1.88 million (about 8 per cent of the FRDC's R&D investment) was invested in R&D activities within this program.

Strategic challenges for Program 3

Challenge 4: People development	Develop people who will help the fishing industry to meet its future needs.
Challenge 5: Community and consumer support	Increase community and consumer support for the benefits of the three main sectors of the fishing industry.

Summary of performance indicators for Program 3

Key performance indicator		Achievement
Fishing industry participates in, and benefits from, FRDC leadership development opportunities.	Minimum of 12 graduates, with broad representation (including indigenous) across all sectors.	Achieved. See page 43.
Increase in successful applications received for capacity building and work force challenges (participation, advancement and retention) projects.	Ten per cent increase in project investment.	Achieved.
R&D benefits measured across selected projects through benefit cost ratios.	Maintain level of benefit cost ratio greater than 1 to 1.	Achieved. See pages 23, 34 and 53.
Fishing industry participates in, and benefits from, the bursary and scholarship program.	Minimum of 10 individuals.	Achieved. See page 43.
Development of an innovation policy for FRDC.	Innovation policy developed.	Not achieved. A revised Corporate Plan was developed that encompassed the key criteria for future funding. This document is available from www.frdc.com.au/corporate-documents
Increased consumer awareness of the benefits of eating seafood.	Ten articles originating from the media relating the health benefits of seafood.	Achieved. During the year hundreds of articles were published on the health benefits of seafood nationally. In particular, FRDC investment and partnership with two Omega-3 Centre activities — Scientific Consensus Meeting on Omega-3s and baby boomers and national symposia generated significant coverage.
Increased extension material available to the public, including media exposure.	Twenty media articles covering FRDC projects.	Achieved. In May 2009 the Minister for Agriculture, Fisheries and Forestry released the list of successful FRDC projects from the annual open call funding round. During 2008–09 over 30 FRDC-related project media releases were sent to the media and reported on.
Enhanced biosecurity outcomes for the industry.	FRDC participates in the Quarantine and Biosecurity Review. Further investment in Aquatic Animal Health Subprogram priorities.	Achieved. FRDC's Aquatic Animal Health Subprogram participated in the Quarantine and Biosecurity Review. In total, six new projects addressing the Subprogram priorities were funded. This included projects on abalone, Atlantic Salmon, SBT, oysters and pearls.

Program 3 — Challenge 4 achievements and activities

The FRDC is continuing to invest in the future of the Australian seafood industry by focusing on its most valuable resource — its people.

Operating through its People Development Program, the FRDC is investing in a range of research, development and extension activities that will help address the fourth challenge of its five year *R&D Plan* which is: *To develop people who will help the fishing industry to meet its future needs*.

The Corporation's investment is being delivered through a range of self-initiated activities, including personal and professional development opportunities, bursaries, conferences, awards, commissioned work and tenders. Projects are also regularly funded through the FRDC's annual open call for R&D applications and its tactical research fund.

In 2009–10, the People Development Program will be building on its successes by investing in a broad range of research and personal development opportunities. This includes the development and promotion of career information for the seafood industry; the piloting of programs to build improved committee competence and confidence; training for aquatic animal health professionals; and working with other R&D corporations to promote careers in primary industry's science.

The FRDC will also fund more than 10 scholarships and development bursaries.

Looking ahead to the next year's round of investment, the FRDC's People Development Advisory Group has identified the following as key areas for people development research:

- ¬ building the seafood industry's capacity to drive change to its achieve goals,
- ¬ improving understanding of the seafood industry's work force needs, and
- ¬ building work force capability within the seafood industry.

A refreshed FRDC People Development Advisory Group

In March 2009, the FRDC invited members of the fishing industry to express their interest in joining its People Development Advisory Group. The Advisory Group provides expert advice to the FRDC Board that helps shape its investment in people development.

The Advisory Group members have been appointed until 2013. Further information on the work being undertaken by the group and the FRDC's investment in people development can be found at: www.frdc.com.au/peopledevelopment

Development scholarships and bursaries

The FRDC People Development Program offered a suite of programs, scholarships and bursaries to help build leadership, skills, networks and knowledge within the Australian seafood industry. In June 2009, the FRDC announced the winners of its 2009 round of scholarships and bursaries, which included the following.

- ¬ Indigenous Development Scholarships — Two awards were granted this year, with the recipients being:

  1. Arthur McLeod of Cultural Capital Investments and In-Ja-Ghoondji Lands Inc., Nowra, and
  2. Markalal Maymaru of Laynhapuy Homelands Association Inc., Northern Territory.

  Both Arthur and Markalal will be working with host organisations to further develop their knowledge of aquaculture operations and business practices. These scholarships were jointly funded by the Australian Government Department of Agriculture, Fisheries and Forestry.

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- **FRDC Governance Scholarship for Women** — This was awarded to Rhonda Farlow of Recfish Australia. Rhonda will be funded by the FRDC to undertake the company directors' course provided by the Australian Institute of Company Directors (AICD). The course is recognised as the definitive program for company directors in Australia.
- **FRDC Emerging Leader Governance Scholarship** — Originally offered as a single scholarship, the high quality of applicants for this year's award meant the FRDC decided to award three scholarships. Winners of the partial scholarships are Len Olyott (pictured) of Recfish Australia, David Ellis of the Australian Southern Bluefin Tuna Industry Association and Sam Ibbott of Marine Solutions. The FRDC will cover the fees for all three to participate in the AICD's company directors' course.
- **Peter Dundas-Smith Scholarship** — Kane Moyle (pictured), Recfishwest policy officer, was awarded this $10,000 scholarship and will use it to further develop his knowledge and skills in recreational fisheries management and advocacy.
- **FRDC Visiting Fellow Bursary** — As part of this year's bursary, the Shoalhaven Marine and Freshwater Centre at the University of Wollongong will host Dr Alyssa Joyce. Alyssa is a Lief Eriksson Fellow at the Norwegian University of Life Sciences, and a Swedish Institute Fellow at Stockholm University. She is an ecologist who has worked closely with the shellfish industry and coastal communities to examine aquaculture siting issues in British Columbia. While in Australia, Alyssa will be working with a NSW Government working group to identify key aquaculture sites in Jervis Bay.
- **International Travel Bursaries** — This year the FRDC has awarded four international travel bursaries to support individuals to undertake travel for professional development. This year's recipients are Paul Hardy-Smith, who will attend the International Aquaculture Biosecurity Conference and AquaNor 2009; Mark Oliver who will attend and chair the education session of the World Aquaculture Society's Asia Pacific Conference in Kuala Lumpur; John Keane who will attend and present at the American Fisheries Society's annual Larval Fish Conference in Portland, Oregon; and Ben Chuwen who will attend and present at the 4th International Otolith Symposium in Monterey, Canada.
- **FRDC/WINSC Professional Development Scholarship** — Anni Conn (pictured), Business Manager of Seafarm North Queensland is the winner of the first FRDC/WINSC Professional Development Scholarship. Anni will visit the new Pescanova prawn processing facility in Chinandega, northern Nicaragua; Belize Aquaculture Limited in Belize and selected companies in the United Kingdom.

For further information: Neil Garbutt, 02 6285 0445, neil.garbutt@frdc.com.au, www.frdc.com.au/peopledevelopment

Advance in Seafood Leadership program

The National Seafood Industry Leadership Program 2008 was funded by the FRDC and delivered by leading seafood industries. It is the only national industry specific leadership program designed in consultation with seafood industry people. There are now in excess of 90 graduates of all ages and from all sectors of the industry including fishing, deckhands, processing, extension, exporters, importers and marketing.

This year's graduates are:

Paul Bagnato	Fishing / commercial
Damien Bell	Fishing / commercial
Chelsea Buckley	Australian Fisheries Management Authority / compliance
David Campbell	Indigenous Marine Ranger
Andy Dyer	Aquaculture / mussels
Fiona Exing	OceanWatch / extension
Justin Fromm	FRDC Project Manager
Jethro Gill	Fishing / commercial
Robin Hansen	Queensland Seafood Industry Association, Vice President
Hugh Jones	DAFF / domestic fisheries
Dan Machin	Aquaculture Council of Western Australia, CEO
Raymond Pratt	Sydney Fish Market / wholesale, auction
Michael Sawyer	Recreational angler
Terry Shea	Commercial fisher / rocklobster
Gail Spriggs	Stehr Group, Events and Marketing Coordinator
Che Spuyrt	Fishing / abalone
Barry Tarr	Department of Primary Industries and Resources South Australia (PIRSA) / compliance

Australian Rural Leadership Program

Leadership can be about building a team and recognising that within that team everyone has an important role. This is a key lesson learnt by Crispian Ashby, the FRDC Programs Manager and 2008 participant in the Australian Rural Leadership Program.

His 18-month course started in May 2007 and ended in November 2008. It included a two-week session in Western Australia's Kimberley region and a week in Adelaide, Melbourne, Hobart and Sydney.

The course also included an international component where participants travelled to India for a two-week session. As part of this tour participants looked at rural issues and how these issues were being addressed. All participants found it a challenging and rewarding experience. It also allowed them to see how other cultures deal with similar issues such as competing land use priorities, water access and efficiency.

Over the course of the program, Crispian learnt that a key leadership skill is the art of listening and that the loudest voice not always the most important.

Participants from other Australian rural and regional sectors also learnt valuable lessons, and broadened their perspectives as participants on the course. They learnt that many of the challenges they face are similar to others in the group. As a group they questioned why sectors deal with issues such as markets, community perception and access and allocation between competing priorities in isolation.

Science and Innovation Awards

A project that seeks to identify resilient salmon has won its researcher an FRDC-sponsored Australian Agricultural Industries Young Innovators and Scientists Award. University of Tasmania's Robin Katersky leads a project that aims to help Tasmania's Atlantic Salmon industry cope with long-term climatic changes.

Rising temperatures expected over the next 60 years will impact on the state's Atlantic Salmon industry. As water temperatures increase, dissolved oxygen levels fall, triggering conditions that cause salmon to eat less and digest feed poorly, reducing growth rates. However, Robin Katersky thinks she may have the solution — by identifying individual Tasmanian Atlantic Salmon that do well in high water temperatures and reduced levels of dissolved oxygen and incorporating them into selective breeding programs.

FROM LEFT: CONALL O'CONNELL (DAFF SECRETARY), ROBIN KATERSKY AND MINISTER TONY BURKE

Preliminary research results has suggested that a proportion of the Tasmanian Atlantic Salmon are oxygen regulators, which means they can regulate their metabolic rate to survive during lower levels of dissolved oxygen. The project also has applications for both the Yellowtail Kingfish and Barramundi aquaculture industries, which face similar problems. Being able to selectively breed for fish that can adjust to suboptimal temperatures will be a great benefit to these industries.

The Australian Agricultural Industries Young Innovators and Scientists Awards support young people to pursue innovative scientific ideas that aim to deliver long-term benefits to Australia's rural industries. Each award, now worth $20,000, enables projects with a greater scope and depth to be undertaken.

Nuffield Scholarship

A Nuffield Australia Farming Scholarship is giving a South Australian oyster seed producer the chance to explore how land-based seaweed production works around the world.

Adam Butterworth, based in Port Lincoln will research seaweed production through the FRDC-funded 2009 Nuffield Scholarship, which he was awarded in October. The $26,000 scholarship is the second to be sponsored by the FRDC — the first was awarded to another Port Lincoln oyster grower, Lester Marshall, for travel in 2008.

By investigating land-based seaweed production Adam (pictured overleaf) hopes to better understand its potential as an on-site food source for commercially farmed molluscs and sea urchins.

On-site seaweed production could be important if plans to increase production at the Port Lincoln site are brought to fruition. The immediate priority is to increase oyster seed production, but there is a big incentive to look at other species such as bivalve molluscs and sea urchins. Seaweed could play an important role in the successful cultivation of these species.

The primary research that will be undertaken as part of the scholarship will look at the potential for seaweed to be produced in aquaculture, using a water exchange network to remove waste from aquaculture tanks or raceways to feed the seaweed being grown in nearby, connected tanks.

The seaweed could then be harvested to feed molluscs and sea urchins directly or incorporated into pellets for feeding various aquatic animals, including fish.

ADAM BUTTERWORTH

DANA BURFEIND

Another attraction of integrated seaweed cultivation is that its production requirements — such as sea water and light, or the waste products from other processes, such as nutrients from fish and mollusc waste — are readily available.

With more than 2000 species, Australia has the greatest diversity of seaweeds on earth and many of the native red seaweed species are similar to those already being commercially cultivated in other countries.

Through his 2009 scholarship, Adam will travel to China, North America, Israel, Japan, Europe and South America where seaweed is produced and used extensively.

For further information: www.nuffield.com.au

AMSA young scientist

Dana Burfeind (pictured above) came to Australia in 2005 to undertake a six-month research project. Four years later, she is still here, having recently submitted her PhD thesis on the growth dynamics and habitat value of the invasive alga, *Caulerpa taxifolia*. It is for this work that Dana has been recently recognised, by winning an FRDC prize for best oral presentation at the 2008 Australian Marine Sciences Association (AMSA) conference.

Known in some places as the killer algae, *C. taxifolia* is a green alga native to tropical and subtropical marine waters. Its resilience and ability to rapidly take up nutrients makes it a popular aquarium plant, and it is this trade that has introduced it across the globe, making it one of the world's 100 worst invasive species.

Much of the research on *C. taxifolia* has focused on how to eradicate it, an extremely difficult task once it has been introduced. It is therefore critical to study the ecosystem or large-scale effects of a habitat shift from a seagrass and unvegetated system to a *Caulerpa*-dominated one.

Although observations showed some differences between fish species grazing in seagrass and *C. taxifolia*, over a large scale this provides a similar structure to seagrasses and does provide some habitat value. However, *C. taxifolia* beds have less food resources than seagrass beds. This means it is important that people need to protect seagrasses.

ISLA FITRIDGE

Like Dana Burfeind, Isla Fitridge (pictured above) — the FRDC poster prize winner at the AMSA conference — started her career overseas and has a background in algal ecology, although these days she is concentrating on invasive marine fauna known as hydroids. Her PhD seeks to examine the hydroid fauna associated with man-made structures in Port Phillip Bay, Victoria. It will be the first documented assessment of the region's hydroid fauna. Although they resemble plants in their growth form, hydroids are a type of animal that grows in colonies. They are present in many marine communities and habitats throughout the world and are economically important in terms of their fouling capacity.

In Port Phillip Bay's Blue Mussel farms the presence of some hydroid species on mussel ropes has been noted to substantially increase mussel yields. However, another species, which has been observed in the bay over the last few years, is proving a problem for local farmers by heavily fouling mussel ropes and the shells of adult mussels.

Fouling species such as this hydroid can interfere with spat settlement, compete for space with the mussels and grow on the adult mussel shells, making harvesting difficult. The research will enable the mussel industry to better understand and manage fouling species such as hydroids.

For further information: Peter Horvat, 02 6285 0414, peter.horvat@frdc.com.au

Program 3 — Challenge 5 achievements and activities

Omega-3 message targets longer-living baby boomers

Project title — Omega-3 Centre development (project 2006/312)

Research identifying the health benefits of Omega-3-rich seafood in staving off a range of chronic conditions associated with ageing is providing new impetus for seafood marketing aimed at baby boomers.

Most of Australia's 4.8 million baby boomers — those born from 1946 to 1965 — are not consuming enough long chain Omega-3s to help ward off chronic diseases including cardiovascular disease, obesity, age-related vision degeneration and arthritis.

Health-related research released last year shows that Australian adults' median intake of Omega-3s is less than a quarter of the 500 milligrams a day recommended by the National Heart Foundation of Australia.

With the number of people aged over 65 years projected to rise from 2.9 million in 2011 to more than 5 million by 2031, improving baby boomers' health and reducing Australia's healthcare costs is a priority for the nutrition and medical experts who have identified Omega-3 health benefits in the Omega-3 Centre's report *Omega-3 Fatty Acids for Baby Boomers*.

The report is the result of the first roundtable Omega-3 consensus workshop for baby boomers hosted by the Omega-3 Centre in 2008.

For Australia's seafood industry the Omega-3 health message provides opportunities for marketing seafood to this age bracket because two to three serves of oily fish a week is recommended as one of the easiest ways to meet the recommended daily intake of the essential fatty acids DHA (docosahexaenoic acid) and EPA (eicosapentaenoic acid).

The report shows that by consuming the recommended daily intake of Omega-3s, baby boomers are significantly advantaged in combating a variety of chronic conditions including cardiovascular disease, lowering triglycerides, age-related macular degeneration, rheumatoid arthritis, and some metabolic conditions including weight management.

The evidence of long chain Omega-3s in preventing and managing cardiovascular disease is so convincing that the Heart Foundation has developed a position statement on fish, fish oils, Omega-3 polyunsaturated fatty acids and cardiovascular health.

The position statement provides recommendations for the general public, health professionals, governments and the food industry including one that all adults consume 500 milligrams a day of the combined long chain Omega-3s DHA and EPA to help prevent cardiovascular disease.

The FRDC helped compile a guide to seafood's Omega-3 content. This list is part of the information available from the Heart Foundation website along with recipes and suggested menu ideas to increase Omega-3 consumption.

At the retail level there are many simple mechanisms the fishing industry can use to promote fresh, Omega-3 rich seafood. However the most powerful way for the fishing industry to increase consumption is to work with, and embrace the health messages coming from the medical industry and health professionals who provide a highly credible scientifically-based message for consumers.

For further information: The Omega-3 Centre, info@omega-3centre.com, www.omega-3centre.com

FRDC escapes with ET

Project title — Educating though *Escape with ET* (project 2009/312)

The partnership between FRDC and Andrew Ettingshausen's television show *Escape with ET* has been very successful. The partnership has enabled FRDC to produce high quality information segments and the ability to reach a large cross section of the Australian public.

FRDC has been a partner for the past two seasons (Series 9 and 10). Cumulatively these two series have seen more than 35 stories on fisheries R&D produced. These stories have been seen by an estimated audience of more than 18 million viewers.

In addition to the audience reached by the show FRDC has produced a DVD containing all 23 stories featured in series 9 and distributed them to the 14,000 readers of its *FISH* magazine. Copies were also provided to both commercial industry councils and numerous recreational fishing bodies

Educating the community on the research being undertaken with the Australian fishing industry remains a priority for the FRDC. The FRDC will continue to work with *Escape with ET*'s producers to identify stories, provide background material and ensure accurate stories are presented. The objective is to showcase the different aspects of RD&E and how the fishing industry participates in these activities. Although *Escape with ET* is a recreational fishing show, the FRDC endeavours to feature segments that cover all aspects of the fishing industry. Stories have included released fish survival, catch and release, gene tagging Spanish Mackerel, Samson fish, Southern Rocklobster, and farming of Southern Bluefin Tuna and Yellowtail Kingfish.

FRDC have also provided support to the Enviro-Tip competition. The competition receives hundreds of entries each week, primarily from younger viewers of the show. It requires them to remember the information covered on the show, take action and call to be eligible to win a environmental fishing pack.

For further information: Peter Horvat, 02 6285 0414, peter.horvat@frdc.com.au

Appetite for Excellence — Food stars visit Victoria

Project title — Appetite for Excellence (project 2009/316)

A week-long tour of Victoria whet the appetite of Australia's top young chefs and waiters while building their knowledge of Australian produce.

Watching Soph Mantzaridis wield his sharp knife filleting locally caught seafood, the cream of Australia's young chefs and waiters gained an insight into the many fish that Australia's waters provide — and the best way of filleting them.

Geelong-based Barwon Seafoods was one of many of the food industry specialists — from primary producers to suppliers — that the 13 finalists for the 2009 Electrolux Appetite for Excellence Young Chef and Young Waiter awards met on a tour of Victoria in June 2009.

The tour is a central component of the Appetite for Excellence awards. It aims to introduce those at the highest levels of food service to the people who grow, farm and catch Australia's produce.

Matthew Dempsey (pictured in inset), winner of the Young Chef of the Year award and head chef at Pettavel Winery in Waurn Ponds points out the tour helps young chefs and waiters learn more about primary producers. Consumers want to know where their food is coming from, so it's important the chefs do as well.

The program was established by Luke Mangan, executive chef, at Sydney's Glass restaurant at the Hilton Sydney, and business partner Lucy Allon in February 2005. The program aims to identify, recognise and encourage the emerging talent to stay within the Australian food industry.

The tour and awards are supported by the FRDC, Meat & Livestock Australia, Australian Pork Limited, Horticulture Australia Limited, the Grape and Wine Research and Development Corporation, Dairy Australia, and the Rural Industries Research and Development Corporation.

For further information: Peter Horvat, 02 6285 0414, peter.horvat@frdc.com.au

Australasian Aquaculture Conference 2008

The Asian Pacific Chapter of the World Aquaculture Society and Australia's National Aquaculture Council's biennial Australasian Aquaculture Conference (AA08) was held in Brisbane in August. About 1500 farmers, scientists, processors and other delegates from dozens of countries attended the three-day conference, which hosted 35 sessions, more than 200 individual presentations from both international and local speakers, and 30 trade exhibitors.

The broad theme of AA08 was 'Innovation in a global market' with other minor themes positioned throughout the conference with displays on: responding to consumer needs, success factors for making aquaculture work, fish health, and emerging developments such as third-generation biofuels.

Key trends borne out by the conference included the strengthening of industry and research partnerships, the importance of learning from one another in a global knowledge market and industry as a natural innovator. Trade exhibitors demonstrated the increasing sophistication of new technologies and speakers presented complex science in novel ways, using videos, graphics and analogies to simplify difficult concepts.

Skretting Australia (a supplier of fish feed), the FRDC and DAFF were major sponsors of AA08, which was also supported by Australian prawn and barramundi farmers' associations.

For further information: Peter Horvat, 02 6285 0414, peter.horvat@frdc.com.au

An economic analysis of FRDC investment in the Southern Bluefin Tuna Aquaculture Subprogram

There are 15 projects included in this analysis cluster and they are those with final reports completed in the period from 1 July 2003 to 30 June 2008. This meets the criteria for random selection of projects as outlined by the Council of Rural Research and Development Corporations' Chairs.

FRDC projects assessed in this benefit cost analysis were:

- *Implementation and coordination of research experiments conducted with farmed Southern Bluefin Tuna to assess manufactured diets, feeding regimes and harvesting techniques* (project 1997/361).
- *Management, service delivery, infrastructure and technical support* (project 2000/219).
- *Use of steam extrusion and nutritional surrogates to develop a suitable manufactured diet to replace bait fish as the primary source of nutrients for Southern Bluefin Tuna* (project 2000/220).
- *Tuna environment — development of novel methodologies for cost effective assessment of the environmental impact of aquaculture* (project 2001/102).
- *Tuna environment — development of regional environmental sustainability* (project 2001/104).
- *Tuna cell line development and their application to tuna aquaculture health surveillance* (project 2001/200).
- *Commercialisation trials for a manufactured tuna feed* (project 2001/201).
- *Strategic planning, project management and adoption* (project 2001/250).
- *Infrastructure management, service delivery and technical support* (project 2001/252).
- *A risk assessment of factors influencing the health of farmed Southern Bluefin Tuna* (project 2001/253).
- *Service delivery and infrastructure management for projects requiring Port Lincoln based R&D support* (project 2002/249).
- *Investigation of the relationship between farming practices and Southern Bluefin Tuna health* (project 2003/225).
- *Development and validation of baitfish sampling methods to address international residue standards for Southern Bluefin Tuna (*Thunnus maccoyii*)* (project 2003/227).
- *Activity metabolism in live-held Southern Bluefin Tuna (*Thunnus maccoyii*)* (project 2003/228).
- *Management of food safety hazards in farmed Southern Bluefin Tuna to exploit market opportunities* (project 2004/206).

Background

The Australian SBT aquaculture industry commenced development in 1991. Tuna, generally about two to four years old, are captured from the wild for growing out in pontoons on aquaculture farms near Port Lincoln in South Australia. After three to eight months of fattening, the fish are caught and most are exported to Japan. The industry has grown significantly in the past 18 years and is currently the largest finfish aquaculture industry in Australia.

The SBT Aquaculture Subprogram was initiated in 1997 by the FRDC to coordinate R&D for the SBT across a range of areas including production, quality, value adding, health, environment and education and training.

Project investment

The following table shows the investment by project for both the FRDC and for other investors.

Project	FRDC total ($)	Other total ($)	Total ($)
1997/361	**517,767**	2,534,626	3,052,393
2000/219	**453,802**	1,053,939	1,507,741
2000/220	**173,354**	345,908	519,262
2001/102	**464,739**	253,249	717,988
2001/104	**292,923**	2,638,926	2,931,849
2001/200	**304,989**	735,679	1,040,668
2001/201	**387,399**	1,387,260	1,774,659
2001/250	**278,957**	649,944	928,901
2001/252	**479,013**	267,531	746,544
2001/253	**87,038**	16,782	103,820
2002/249	**1,432,088**	635,530	2,067,618
2003/225	**702,509**	456,541	1,159,050
2003/227	**165,010**	116,339	281,349
2003/228	**204,820**	106,054	310,874
2004/206	**753,180**	1,513,921	2,267,101
Total	**6,697,588**	**12,712,229**	**19,409,817**

Benefits

The following addresses the benefits that have been identified as emanating from the 15 research projects. The benefits are described below in list form by theme area.

Economic	Environmental	Social
Manufactured feeds ¬ Lower total feed cost for some tuna farmers using baitfish due to use of a feed formulation program. ¬ Potential cost savings in formulating and using manufactured feeds including delivery and distribution. ¬ Contingency feeding strategy available should baitfish supply be interrupted (quantity or quality) or where the price of baitfish increases significantly.	¬ Potentially reduced faecal nutrient loads.	¬ Reduced regional impact of baitfish supply interruption and/or price increase.
Fish health ¬ Potential for reducing mortality in young tuna by identifying disease free eggs of SBT (in preparation for the potential closure of the SBT life cycle allowing farmed fish to be developed from eggs rather than wild capture). ¬ Greater capacity by producers to anticipate, monitor and guard against fish health related incursions in tuna farms and hatcheries. ¬ Improved focus on research needs.		¬ Education and training of postgraduate students.
Residues and markets ¬ Retention of existing market access to Japan and the European Union for farmed SBT from South Australia. ¬ Increased competitive position for Australian farmed SBT over competitor products marketed in Japan, leading to opportunities for increasing demand and price and expansion of the Australian industry. ¬ Increased demand for SBT in other non-Japanese markets.		¬ Avoided expected regional social impacts from disruption to overseas trade. ¬ Positive regional social impacts from potential expansion of the SBT farmed industry. ¬ Reduced health risk for Australian and overseas consumers of SBT.
Environmental issues ¬ Increased confidence that the SBT industry can be developed further and can meet planning regulations. ¬ Improved risk management of potentially significant events such as storms. ¬ Improved health of fish and quality of product. ¬ Spinoff economic benefits to other industries such as tourism and diving.	¬ Enhanced biodiversity of Spencer Gulf Region with reduced impact on other seagrasses, marine species and scavengers.	¬ Reduced risk of serious negative social impact on the communities dependent on SBT through planned expansion.

Economic	Environmental	Social
Metabolic rate ¬ Potential improvements in the long-term efficiency of production systems for SBT including feeding and health.	¬ Potentially improved water quality for the environment.	¬ Research capacity increased due to training of PhD student associated with this investment.
Planning and support ¬ Infrastructure support for experimentation, more efficient allocation of research resources, more cost effective and relevant outcomes, and higher and earlier adoption through improved industry involvement and communication.		¬ Better informed community regarding aquaculture operations due to workshops and website.

Attribution of benefits

The majority of the benefits identified are private in nature and accrue to the South Australian (Port Lincoln) commercial producers of SBT and their input and market supply chains. The public benefits include lowered environmental impacts from the industry with regard to biodiversity and water quality. There are a number of social benefits listed in the area of reducing prospective social impacts due to the local region's dependence on the SBT industry.

In addition to the direct project benefits, SBT farming and associated R&D provided a substantial benefit to aquaculture in general; it increased government's perception of the industry's potential not just in South Australia, but also nationally.

On the basis of the number of benefits listed in the table beginning on previous pages, and equal weighting for each benefit, it could be concluded that public benefits to Australia could make up 11/27 or 41 per cent of the number of benefits identified.

Distribution of benefits along the fish supply chain

Some of the benefits assigned to commercial producers of SBT will be shared along the input and market supply chains, including both domestic and foreign consumers.

Lessons learnt for future investment

Three points are noted:

1. The results demonstrate the importance of markets and delivering what is required to those markets. This is particularly important when overall demand is highly dependent on a single market.
2. It should be noted that strategic research outputs have not been valued in the current analysis but are critical in ensuring future benefits continue to be delivered. The strategic investments not valued should be noted, and their investment costs recorded, so that future analyses can attribute any realised benefits to them.
3. Win-win situations for addressing environment and productivity issues in aquaculture have been demonstrated, a similar situation to that observed in research and development success for agriculture.

Conclusions

Investment was made in a total of 15 projects within the cluster with the FRDC contribution approximating 34 per cent of the total costs involved. Twenty seven benefits were identified in the evaluation of which 15 were considered private benefits and 11 public benefits, with the latter being made up of three environmental benefits and eight social benefits.

The investments were regarded as a high priority by both the FRDC and the aquaculture industry. In the event that public funding to FRDC were cut by half, it is likely that most of the projects in the cluster would have still been funded by FRDC, industry and state agencies, assuming an industry levy was still in place. It is estimated that investment in the areas of manufactured feed, residues and markets, environmental issues and planning and support would have gone ahead in some form, with some of the more strategic projects in the areas of fish health and metabolism being significantly restricted. Overall the investments made would have been somewhat less well coordinated and some projects that would have proceeded would have started later and taken longer to complete.

Overall, the investment criteria estimated for the nine projects in the cluster were positive with a net present value estimated at $78 million and a benefit cost ratio of seven to one (over 30 years at a 5 per cent discount rate).

Report of Operations

part 3:

Management and accountability and corporate governance

Program 4: Management and accountability and corporate governance

Planned outputs for this program are focused on continually improving the FRDC management and accountability activities. Each year, information on explicit planned outputs is provided in the Annual Operational Plan. Since these outputs contribute to the planned outcomes of the three R&D programs, they are crucial to the FRDC's effectiveness and efficiency. The FRDC's ISO-certified quality management system encompasses all these activities.

Most Program 4 outputs do not lead directly to the FRDC's outcome but enhance the effectiveness to which Programs 1–3 are delivered.

Principal inputs

During 2008–09, $3.36 million was invested in activities within this program, in addition $0.77 million was spent on communications activities.

Summary of performance indicators for Program 4

Since the management and accountability outputs of Program 4 contribute to the planned outcome of the FRDC RD&E 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
- Quality system
- Human resources management
- Finance and administration
- Corporate governance.

Summary of performance indicators for Program 4

Performance indicators		Achievement
Maintenance of the ISO 9001:2001 accreditation.	ISO 9001:2001 maintained.	Achieved. Tri-annual audit passed.
Planning and reporting documents are published and submitted in accordance with legislative timeframes.	Documents tabled according to statutory requirements.	Achieved. All documents provided within stipulated timeframes.
All Government requirements and standards are satisfied.	Standards are met according to guidelines.	Achieved. All documents within stipulated guidelines.
Good business performance and satisfactory audits.	Clear audit by Australian National Audit office.	Achieved. Unqualified audit competed with no findings.
Innovation policy used by FRDC to direct priorities.	Policy developed.	Not achieved. Corporate plan developed, which contains overview of funding framework for the FRDC investment.
Positive feedback from stakeholders on R&D performance.	Minimum of five responses.	Achieved. Positive feedback received from a range of stakeholders. In addition, the 2008 stakeholder survey showed high levels of support for FRDC investment and activities.
Management and accountability costs kept to budget.	Below 12%.	Achieved. Management and accountability costs were 12%.

Management and accountability

Business strategy and planning

FRDC strategic planning and reporting documents (Annual Operating Plan and Annual Report) were completed and presented within their duly legislated timeframes to the Minister for Agriculture, Fisheries and Forestry. In addition, the annual report was presented and considered at the annual general meetings of two of the FRDC's three representative bodies — Recfish Australia (19 October 2008) and National Aquaculture Council (23 October 2008). The FRDC did not present to the Commonwealth Fisheries Association meeting as it was prior to the report being released.

Over the course of the year FRDC directors and staff worked together to develop a corporate plan for the Corporation. The plan aims to identify the key issues that face the FRDC, and outline a work program to minimise or mitigate against negative risks and take advantage of opportunities.

To increase the effectiveness and ensure views of stakeholders are heard, the FRDC Board and staff use a range of mechanisms. These include Fisheries Research Advisory Bodies (FRABs), sector industry bodies, and other R&D corporations through the Council of Rural Research and Development Corporations' Chairs (CRRDCC).

Fisheries Research Advisory Bodies

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. In the 2008–09 funding round approximately 95 per cent of all open call applications were submitted through, or reviewed by, the FRABs.

The FRABs represent all sectors of the fishing industry, fisheries managers and researchers, and most also include environmental and other community interests. Their Chairs at 30 June 2008 were as follows.

Chairs of FRABs 2008–09

Commonwealth	Mr Ian Cartwright
New South Wales	Professor Derek Anderson
Northern Territory	Ms Heather Brayford
Queensland	Mr James Fogarty (interim)
South Australia	Professor Anthony Cheshire
Tasmania	Mr Ian Cartwright
Victoria	Mr Ross Hodge
Western Australia	Mr Angus Callander

For further information on the FRABs — www.frdc.com.au

Sector industry bodies

The FRDC has continued to build partnerships with individual industry sectors. These partnerships offer both parties a number of advantages. For industry they provide more involvement in determining and undertaking R&D. For the FRDC they provide a more certain flow of funds and a greater understanding of the fishing industry.

Other consultation structures

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

Information management systems

OmniFish and FRDC's online application program FishNet are at the heart of FRDC processes and constitute a fully integrated funding application, and project and financial management system.

In 2008–09 the FRDC has upgraded its IT infrastructure — hardware and software. These upgrades will ensure the FRDC remains at the leading edge of technology. Key changes that have been made include moving from the document management system Hummingbird to Microsoft Office SharePoint Server (MOSS). This change will better enable the connectivity of the FRDC's program management system (OmniFish) and provide a platform for a total digital solution. The upgrading will continue through the first half of the 2009–10 financial year.

Quality system

The FRDC is a certified AS/NZS ISO 9001:2008 organisation and undertakes both internal and external audits annually with a recertification audit of its quality system triennially, the last being held on 12 and 13 November 2007. In 2009 audits were held on 4 August (internal) and 14 October (external) and provided valuable information to feed into the FRDC's monitoring and continual improvement processes.

The FRDC aims to meet or exceed the expectations of its stakeholders and organisations with whom it does business and operates on a continual improvement philosophy. The FRDC's quality management system encompasses the features of a service charter.

Corporate communications

Communication is integral to how the FRDC does business. FRDC works closely with a broad section of the fishing industry, which provides a first hand opportunity to hear what our stakeholders think and what information they need. However to ensure the FRDC is hearing from a cross section of all our stakeholders it undertakes an independent survey every two years. The results of which are available from the FRDC website — **www.frdc.com.au**

The last survey was undertaken in 2008. The results highlighted four key areas on which the FRDC should focus its communication activities. They were:

- stakeholder engagement
- project extension (fishers and community)
- website
- *FISH* magazine.

In 2008–09, FRDC's *FISH* magazine was again a major tool for communicating and helping extend research findings for the Corporation. The publication is now the leading fisheries research magazine in Australia and has gained widespread recognition for its quality. However, FRDC continues to look for opportunities to improve and the stakeholder research identified some areas where this could be achieved. In June 2009, FRDC combined *FISH* with another of its communications activities *Escape with ET* to disseminate DVD copies of the research stories covered in series 9 of the show.

Extension with industry is a high priority for the FRDC. The stakeholder survey identified a number of avenues as preferred methods for people to receive information on R&D. These include the development of a series of summation articles by bringing together multiple research projects and working with state/sector industry councils, through to face to face extension activities. During 2009–10 FRDC will start implementing a number of these options. *Escape with ET* continues to provide a strong vehicle through which FRDC can communicate to the broader Australian community about the breadth and value of fisheries research being undertaken.

The FRDC website was promoted widely over the 2008–09 year, which saw an increase in the number of people visiting the website. Species fact sheets remain by far the most popular area of the website, with the events calendar growing in popularity along with online viewing of *FISH* magazine. The main feature added to the site this year was the inclusion of streaming video from the *Escape with ET* program. However, stakeholder feedback indicated that the website needed updating. As a result a full review was undertaken with a redeveloped site launched in August 2009.

Another key activity in 2008–09 was the maintenance of industry relationships that underpin FRDC's partnership approach to R&D. Staff maximised their time and opportunities by networking with researchers, industry and government colleagues at many meetings over the course of the year. Board visits to Cairns, Hobart and Perth during the year reiterated the FRDC's commitment to our stakeholders.

Risk management

There was no incidence of fraud during 2008–09.

The Board reviewed and approved a revised 2008–09 risk management framework at its February 2009 meeting. All staff participated in an internal risk workshop on 8 December 2008 which was used to update the Corporation's risk register. Additionally the Board reviews the highest ranked risks at every meeting.

The FRDC participated in ComCover's Risk Management Assessment Service which provided an independent review of the FRDC's existing risk framework, involving staff surveys, a review of the documentation and on site interviews. Overall, the assessment provided evidence of a solid risk management framework.

In addition, the FRDC participated in the 2008–09 ComCover's annual benchmarking survey of risk management achieving a rating of six and a half out of ten. The average for the participating government agencies was six out of ten and for small agencies such as the FRDC, the average was five out of ten.

Risk management is incorporated into FRDC 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. FRDC participated in the Australian Institute of Criminology survey during the year.

All new directors and staff undergo 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 detailed in this annual report. All directors also receive appropriate updates on the duties and responsibilities of directors from the Australian Institute of Company Directors.

Indemnities and insurance premiums for officers

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.

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

Finance and administration

The 27 August 2009 audit report by the Australian National Audit Office confirmed that the FRDC's 2008–09 financial statements gave a true and fair view of the financial position of the Corporation and there were no findings associated with the audit.

FRDC also holds a share in Australian Seafood Co-products (ASCo) which is a company developed to look at alternate uses for fish processing waste. During the year ASCo has been finalising an agreement with Incitec Pivot to produce the organic fertiliser Biophos.

The FRDC is a significant contributor to the Seafood CRC. In total over $137 million will be invested by industry and the Australian Government over the next seven years of which FRDC will invest $24.5 million. FRDC works collaboratively with the Seafood CRC to maximise the investment opportunities for both organisations.

The FRDC has continued to build partnerships with individual industry sectors. It currently invests in and partners entities such as Southern Rocklobster Ltd, Australian Southern Bluefin Tuna Industry Association, Tasmanian Salmonid Growers Association, Australian Prawn Farmers Association and the Australian Barramundi Farmers Association. These partnerships offer both parties a number of advantages. For industry they provide more involvement in determining and undertaking R&D. For the FRDC 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 is shown in table 4 — Industry contributions, maximum matchable contributions by the Australian Government and returns on investment, 2008–09.

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. Compliance with this policy is evidenced in the Statement of Financial Position in the Corporation's monthly financial statements.

See also Note 1.7 of the financial statements (page 98).

Agreements and contracts

Each year the FRDC engages companies, research institutions, and government agencies to undertake research. The process for applying for funding is clearly outlined on the Corporation's website. Each organisation selected is directly engaged under contract for that project. A list of projects approved by the FRDC Board is published in *FISH* magazine and is available on the website — **www.frdc.com.au**

Consultancy services and selection of suppliers

During the year, the FRDC engaged six 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	Business Generation
Nature and purpose of consultancy	FRDC corporate planning
Cost (exclusive of GST)	$17,500
Name of consultant	Forestier & Co. Interiors
Nature and purpose of consultancy	Quality consultant — provision of advice; and updating of quality management system to current standard
Cost (exclusive of GST)	$19,950
Name of consultant	Oakton AA Services
Nature and purpose of consultancy	Internal auditing services
Cost (exclusive of GST)	$25,364
Name of consultant	Solved at McConchie
Nature and purpose of consultancy	Records management services — development of policy and audit of records
Cost (exclusive of GST)	$14,880
Name of consultant	Blake Dawson Waldron
Nature and purpose of consultancy	Legal advice
Cost (exclusive of GST)	$94,282
Name of consultant	DLA Phillips Fox
Nature and purpose of consultancy	Legal advice
Cost (exclusive of GST)	$13,350

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
$50,000 to $100,000	Selective tender, with at least three written quotations
Less than $50,000	Competitive tender is not required

Human resources management

The FRDC sets strategic directions with key stakeholders, then directly engages partner organisations from all over Australia to undertake the (R&D) activities. As a result, the Corporation has linkages to many research organisations across Australia. This approach to project management provides the FRDC with a great deal of flexibility, but at the same time gives it the capacity of an organisation many times its size.

To put this into perspective, the FRDC currently has over 100 partner organisations that employ over 200 principal investigators, and many more researchers, communicators and technicians. And that's not to mention the hundreds of industry people who work on numerous projects.

Staff

In 2008–09, the FRDC operated with 11.1 full-time-equivalent staff members (on average). The FRDC staff are the Corporation's most important resource and a key factor in the ongoing success of the organisation.

All staff are employed under terms and conditions determined by the FRDC. As part of ensuring staff activities align with the organisation, each staff member has in place a Performance Appraisal and Development plan (PAD). 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.

Staff changes during 2008–09

Those that left the FRDC were: Projects Manager — Research, Justin Fromm, on 31 October 2008, Office Administrator, Alison Garth, on 20 February 2009 and Projects Manager — Research, Ana Rubio, on 31 March 2009. New members of staff are: Projects Manager — Research, Kylie Giles, commenced on 23 February 2009, Projects Manager-Research, Dr Carolyn Stewardson commenced on 4 May 2009, Projects Manager — People Development, Neil Garbutt commenced on 22 June 2009.

Helping develop staff

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

During 2008–09, one staff member continued a diploma of government financial management and one completed a degree in commerce and commenced certified practising accountant study. Staff also 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, the Australian Society of Certified Practising Accountants, World Aquaculture Society, Australian Society of Fisheries Biologists, Public Relations Institute of Australia, the Institute of Public Administration Australia and the Australian Institute of Management.

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 on the code during induction training.

Occupational health and safety

No injuries occurred on FRDC premises during 2008–09.

The FRDC's working environment is reviewed periodically by occupational health and safety consultants. Occupational Rehabilitation Physiotherapist's provide ergonomic assessments to staff in their immediate working environment and provide training in workplace health and prevention of injury. Staff were also provided the opportunity to access influenza vaccinations.

Disabilities

The FRDC implements the Commonwealth Disability Strategy on two levels: as a provider of services resulting from R&D, and as an employer.

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 practices, 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.

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 eleven, seven are female.

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 and the attendant emphasis on continual improvement.

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 Corporation's general governance arrangements are largely established by legislation and government policies, procedures and reporting requirements. In addition to the requirements of the PIERD Act, which includes an annual operational plan, a research and development plan and an annual report, the Corporation also operates under the provisions of the CAC Act which applies high standards of accountability for statutory authorities.

The Board and staff are strongly committed to ensuring good corporate governance. In doing so, the focus is on structures, processes, controls, behaviour and transparency. To support the FRDC's high level of commitment to these principles, a full list of FRDC policies and copies of the financial statements are available from the FRDC website — **www.frdc.com.au**

Representative organisations

The FRDC reported to its representative organisations — Recfish Australia, the National Aquaculture Council and the Commonwealth Fisheries Association.

Under section 15(2) of the PIERD Act and the *Guidelines on funding of consultation costs by primary industry 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 2008–09 the FRDC incurred $14,330 in such expenses; budgeted expenditure during 2009–10 is expected to be $30,000. This is an increase from the 2007–08 Annual Operational Plan of $10,000 due to the appointment of two new representative bodies — the National Aquaculture Council and the Commonwealth Fisheries Association and the requirement to consult on the development of a new R&D Strategic Plan.

This support is governed by *Guidelines on funding of consultation costs by primary industry and energy portfolio statutory authorities* which were issued by the Hon. John Anderson MP, Minister for Primary Industries and Energy in July 1998. These guidelines require the FRDC to provide details of all project related activities and costs in which the representative organisations have an interest. The full list of projects is located at appendix E on page 138.

Enabling legislation

The FRDC was formed as a statutory corporation on 2 July 1991 under the provisions of the PIERD Act. It 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 figure 2 on page 12, the Corporation'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.

More information about the FRDC's legislative foundations can be found in appendix C starting on page 132.

Responsible minister and exercise of ministerial powers

The Hon. Tony Burke MP is the Minister for Agriculture, Fisheries and Forestry.

Ministerial directions

The PIERD 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 one ministerial directive during 2008–09, relating to the Australian Bargaining Framework.

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 PIERD 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.
- On 23 September 2008 the Minister notified the Corporation under section 143 of the PIERD Act requiring the Corporation to comply with the Australian Government Bargaining Framework when exercising their power to engage employees.

Government policy

The FRDC during 2008–09 complied with all relevant Australian Government policy requirements, including:

- Commonwealth Fraud Control Guidelines 2002.
- Cost recovery policy.
- Australian Government Property Ownership Policy 2005.
- Protective Security Manual 2005 as a general policy of government.

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 is outlined in table 1: Financial indicators of R&D investment (see page iv).

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.

The FRDC adheres to the policy. 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.

Freedom of information

During 2008–09, the FRDC did not receive any inquiry pursuant to the *Freedom of Information Act 1982* (FOI Act).

The FRDC is required to comply with the FOI Act. In many cases 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.

To seek access to FRDC documents, please contact the FRDC's Business Development Manager during normal business hours. Contact details for the FRDC are shown on the inside back cover of this report.

The Board

The Board comprises up to nine directors who are appointed in accordance with sections 17 and 77 of 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. All directors except the Executive Director are appointed on a part-time basis.

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

The Board ensures that FRDC staff is provided with strong leadership, and that their qualifications, skills and experience are enhanced with formal, and on-the-job, training. This includes a formal induction process on the FRDC and a two-day workshop run by the Australian Institute of Company Directors. In addition the FRDC Board meets outside Canberra three times a year in regions key to the fishing industry. This provides directors with the opportunity to liaise and discuss issues with relevant industry stakeholders, as well as see first hand, fishing industry in action.

Details of the directors who held office during the year are shown on the following pages.

BOARD MEMBERS VISIT THE AUSTRALIAN ANIMAL HEALTH LABORATORY (AAHL) IN VICTORIA. PICTURED (FROM LEFT) ARE: RICHARD A. STEVENS, STUART RICHEY, PATRICK HONE, PETER NEVILLE, NICK MOODY (AAHL), FRANK PROKOP, JOHN WILSON (FRDC BUSINESS DEVELOPMENT MANAGER), DEBORAH MIDDLETON (AAHL ACTING DIRECTOR) AND JOANNE SLATER (FRDC AQUATIC ANIMAL HEALTH SUBPROGRAM COORDINATOR).

PETER NEVILLE

STUART RICHEY

PATRICK HONE

Directors' biographies

Mr Peter Neville: Chairman

Appointed as Chairman 1 September 2007. Chair of the Remuneration Committee; and member of the Finance, Audit and Risk Management Committee (from 1 September 2007).

Peter Neville is a former Deputy Director-General of the Queensland Department of Primary Industries and Fisheries, and was actively involved in introducing reforms into fisheries management in Queensland. Peter now consults on fisheries management, business analysis, environmental and strategic planning. Peter is the Chairman of the Southern Bluefin Tuna Management Advisory Committee of the Australian Fisheries Management Authority.

Mr Stuart Richey AM: Deputy Chairman

Appointed as a director from 1 September 2003, re-appointed from 28 September 2006. Chair of the Finance, Audit and Risk Management Committee; and member of the Remuneration Committee.

Stuart Richey is Managing Director of the Richey Fishing Company and has been actively involved in the fishing industry for more than 30 years with extensive experience across most sectors of the industry. Stuart is also Chairman of the Northern Prawn Management Advisory Committee 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

Appointed Executive Director from 21 April 2005.

Patrick Hone has extensive knowledge of all sectors of the fishing industry. Over the last 11 years he has played a key role in the planning, management and funding of fisheries related research and development in Australia. He has a PhD in the development of aquaculture feed, and has been involved in the development of several significant aquaculture industry developments including Southern Bluefin Tuna, Pacific Oyster, abalone and mussel aquaculture.


RAY JOHNSON


PAUL McSHANE


FRANK PROKOP

Dr Ray Johnson: Director (non-executive)

Appointed as a director from 28 September 2006.

Ray Johnson has combined a research career with high-level business achievement in the agribusiness and retail sectors. He has travelled extensively and has intimate knowledge of the Australian and international agriculture and agribusiness sectors, and the commercial application of R&D.

Dr Paul McShane: Director (non-executive)

Appointed as a director from 28 September 2006.

Paul McShane is a research scientist and former Vice President of International and Development at the Australian Maritime College, Tasmania. He is presently Chief Research Officer of the Monash Sustainability Institute, Monash University. He has held senior management positions in marine research agencies in Victoria, South Australia and New Zealand. Paul brings to the Board skills and experience in technology transfer, conservation and management of natural resources, environmental and ecological matters and administration of research and development.

Mr Frank Prokop: Director (non-executive)

Appointed as a director from 28 September 2006.

Frank Prokop is the Executive Director of Recfishwest and former president of Recfish Australia. He has served on numerous state and Commonwealth fisheries advisory bodies. He has strong recreational fishing knowledge as well as expertise in fisheries and aquaculture production, conservation and management of natural resources, science, technology transfer, environmental and ecological matters, administration of research and development, business and financial management, and economics and sociology.


RICHARD A. STEVENS


RICHARD N. STEVENS


ROBERT SELDON

Mr Richard A. Stevens OAM: Director (non-executive)

Appointed as a director from 28 September 2006. Member of the Finance, Audit and Risk Management Committee; and member of the Remuneration Committee.

Richard A. Stevens consults on fisheries management and government relations to public and private clients. He is currently a Commissioner of the Australian Fisheries Management Authority and a Board member of the Queensland Rural Adjustment Authority. He also chairs fishery management advisory committees in Queensland (reef and harvest) and the Northern Territory (mud crab and Spanish Mackerel).

Mr Richard N. Stevens: Director (non-executive)

Appointed as a director from 28 September 2006.

Richard N. Stevens is R&D Manager with the Western Australian Fishing Industry Council. He was a founding director of Seafood Services Australia and former Chair of The Food Centre of Western Australia and retains a strong interest in the Australian Seafood CRC, established in July 2007. He has experience in marine biology, fisheries management and managing private and public enterprises including owner/operators of seafood businesses. He contributes broad skills including experience in fish production, processing and marketing, science, technology transfer, administration of research and development, and business and financial management.

Independent committee member

Mr Robert Seldon

Appointed as an independent member of the Finance, Audit and Risk Committee from August 2008.

Robert Seldon has more than 40 years experience in merchant banking, including 15 years as chief executive of a major US banking subsidiary in Australia. He has had substantial exposure to both food and agribusiness activities, with an active participation in the provision of advice on mergers and acquisitions within that sector. He is currently Deputy Chair of Horticulture Australia Ltd and Chair of that company's Finance and Risk Committee. He was formerly a Director of the Australian Fisheries Management Authority and also Chair of their Finance and Audit Committee.

Board committees

Currently the Board has two committees:

- The Finance, Audit and Risk Management Committee (Chair Stuart Richey; members Peter Neville and Richard A. Stevens). The Board at the 12 August 2008 meeting agreed to appoint Mr Robert Seldon to the Committee as an independent member.
  - The Finance, Audit and Risk Management Committee comprises at least two non-executive directors and the Business Development Manager. The Committee provides a forum for the effective communication between the Board and the external and internal auditors. It also oversees the FRDC Risk Management Framework.
- The Remuneration Committee (Chair Denis Byrne / Peter Neville; members Stuart Richey and Richard A. Stevens).
  - The Remuneration Committee comprises the FRDC Chair (Chair of the Committee) and two non-executive directors elected by the Board.
  - The Committee reviews the remuneration packages of the Executive Director and senior management on annual basis and makes recommendations to the Board. The packages will be reviewed with due regard to performance and other relevant factors including market relativity.

For more information on the terms of reference for these committees visit the FRDC website — www.frdc.com.au

Attendance at Board meetings held during 2008–09

On the opposite page are tables showing attendance at Board meetings held during 2008–09. 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.

TABLE 6A: ATTENDANCE BY DIRECTORS AND OFFICER AT BOARD MEETINGS

	12 Aug 2008	23 Sep 2008	7 Nov 2008	3 Dec 2008	17 Feb 2009	21 Apr 2009	10 Jun 2009
		Tel. conf.	Tel. conf.				
Mr Peter Neville	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mr Stuart Richey	Yes	No	Yes	Yes	Yes	Yes	Yes
Dr Patrick Hone	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dr Ray Johnson	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dr Paul McShane	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mr Frank Prokop	Yes	Yes	No	Yes	Yes	Yes	Yes
Mr Richard A. Stevens	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mr Richard N. Stevens	Yes	Yes	Yes	Yes	Yes	Yes	No
Mr John Wilson (Corporate Secretary)	Yes	Yes	Yes	Yes	Yes	Yes	Yes

TABLE 6B: ATTENDANCE BY DIRECTORS, INDEPENDENT MEMBER AND OFFICER AT FINANCE, AUDIT AND RISK MANAGEMENT COMMITTEE MEETINGS

	28 Jul 2008	11 Aug 2008	26 Nov 2008	16 Feb 2009	17 Apr 2009
	Tel. conf.		Tel. conf.		Tel. conf.
Mr Peter Neville	Yes	Yes	Yes	Yes	No
Mr Stuart Richey	Yes	Yes	Yes	Yes	Yes
Dr Patrick Hone	Yes	Yes	Yes	Yes	Yes
Mr Richard A. Stevens	Yes	Yes	Yes	Yes	Yes
Mr Robert Seldon	No*	No*	Yes	Yes	Yes
Mr John Wilson	Yes	Yes	Yes	Yes	Yes

* Robert joined the FRDC Finance, Audit and Risk Management Committee as an independent member from August 2008.

TABLE 6C: ATTENDANCE BY DIRECTORS AT REMUNERATION COMMITTEE MEETINGS

	9 Jun 2009	25 Jun 2009
		Tel. conf.
Mr Peter Neville	Yes	Yes
Mr Stuart Richey	Yes	Yes
Dr Patrick Hone	Yes	Yes
Mr Richard A. Stevens	Yes	Yes

[FISHERIES RESEARCH AND DEVELOPMENT CORPORATION]

Auditor-General's report

2008–09

F2008/1836

27 August 2009

Dr Patrick Hone
Executive Director
Fisheries Research and Development Corporation
PO Box 222
DEAKIN WEST ACT 2606

Dear Dr Hone

FISHERIES RESEARCH AND DEVELOPMENT CORPORATION
FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2009

Our audit of the financial statements for the year ended 30 June 2009 of the Fisheries Research and Development Corporation has now been completed. In accordance with section 26(2) of the *Auditor-General Act 1997*, I have the pleasure in attaching for your information a copy of the unqualified auditor's report together with the associated financial statements.

Yours sincerely

Alana Foster
Executive Director

Delegate of the Auditor-General

GPO Box 707 CANBERRA ACT 2601
19 National Circuit BARTON ACT
Phone (02) 6203 7300 Fax (02) 6203 7777

585937v1 FRDC Audit Report to CEO 2008-09

Australian National
Audit Office

INDEPENDENT AUDITOR'S REPORT

To the Minister for Agriculture, Fisheries and Forestry

Scope

I have audited the accompanying financial statements of the Fisheries Research and Development Corporation for the year ended 30 June 2009, which comprise: a Statement by the Directors including the Executive Director; Income Statement; Balance Sheet; Statement of Changes in Equity; Cash Flow Statement; Schedule of Commitments, Schedule of Contingencies and Notes to and forming part of the financial statements, including a Summary of significant accounting policies.

The Responsibility of the Directors for the Financial Statements

The Directors are responsible for the preparation and fair presentation of the financial statements in accordance with the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*, including the Australian Accounting Standards (which include the Australian Accounting Interpretations). This responsibility includes establishing and maintaining internal controls relevant to the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

Auditor's Responsibility

My responsibility is to express an opinion on the financial statements based on my audit. I conducted my audit in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing Standards. These auditing standards require that I comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Fisheries Research and Development Corporation's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Fisheries Research and Development Corporation's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Directors, as well as evaluating the overall presentation of the financial statements.

GPO Box 707 CANBERRA ACT 2601
19 National Circuit BARTON ACT
Phone (02) 6203 7300 Fax (02) 6203 7777

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Independence

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

Auditor's 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*, including the Australian Accounting Standards; and

(b) give a true and fair view of the matters required by the Finance Minister's Orders including the Fisheries Research and Development Corporation's financial position as at 30 June 2009 and its financial performance and cash flows for the year then ended.

Australian National Audit Office

Alana Foster
Executive Director

Delegate of the Auditor-General

Canberra
27 August 2009

[FISHERIES RESEARCH AND DEVELOPMENT CORPORATION]

Financial statements

for the year ended 30 June 2009

STATEMENT BY THE DIRECTORS INCLUDING THE EXECUTIVE DIRECTOR

In our opinion, the attached financial statements for the year ended 30 June 2009 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* (CAC Act).

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..... 27 August 2009

Peter Neville
Chair

Signed..... 27 August 2009

Stuart Richey AM
Chair Finance, Audit and Risk Management Committee

Signed..... 27 August 2009

Patrick Hone
Executive Director

Signed..... 27 August 2009

John Wilson
Chief Financial Officer

INCOME STATEMENT

for the year ended 30 June 2009

	Notes	FRDC 2009 $	Consolidated 2008 $	FRDC 2008 $
INCOME				
Revenue				
Revenue from Government	5A	**16,298,959**	16,284,991	16,284,991
Contributions	5B	**11,932,794**	9,645,455	9,577,232
Sale of goods and rendering of services	5C	**212,025**	436,166	336,436
Interest	5D	**431,563**	227,525	221,186
Other revenue	5E	**1,434**	64,168	7,668
Total revenue		**28,876,775**	26,658,305	26,427,513
Total income		**28,876,775**	26,658,305	26,427,513
EXPENSES				
Employee benefits	6A	**1,631,795**	1,738,610	1,529,270
Suppliers	6B	**1,175,887**	1,146,553	1,003,751
Depreciation and amortisation	6C	**554,483**	467,203	464,902
Projects expenditure	6D	**23,618,702**	17,370,177	17,346,453
Cost of sales	5C	**0**	64,652	0
Losses from disposal of assets	6E	**0**	700	700
Other expenses	7	**771,116**	781,762	735,205
Total expenses		**27,751,984**	21,569,657	21,080,281
Loss on deconsolidation	1.2	**0**	95,424	0
Surplus (deficit)		**1,124,791**	4,993,224	5,347,232

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

BALANCE SHEET

as at 30 June 2009

	Notes	FRDC 2009 $	Consolidated 2008 $	FRDC 2008 $
ASSETS				
Financial assets				
Cash and cash equivalents	8A	**3,677,468**	0	4,733,622
Trade and other receivables	8B	**4,149,605**	0	1,971,476
Other investments	8C	**5,001**	0	5,001
Other financial assets	8D	**80,000**	0	0
Total financial assets		**7,912,074**	0	6,710,099
Non-financial assets				
Infrastructure, plant and equipment	9A,C	**226,296**	0	343,235
Intangibles	9B,C	**2,561,115**	0	2,691,844
Total non-financial assets		**2,787,412**	0	3,035,079
Total assets		**10,699,486**	0	9,745,178
LIABILITIES				
Payables				
Suppliers	10A	**179,531**	0	135,477
Projects	10B	**52,657**	0	304,419
Other payables	10C	**1,707,593**	0	1,707,593
Total payables		**1,939,781**	0	2,147,489
Provisions				
Employee provisions	11A	**421,921**	0	384,697
Total provisions		**421,921**	0	384,697
Total liabilities		**2,361,702**	0	2,532,186
Net assets		**8,337,783**	0	7,212,992
EQUITY				
Reserves		**94,965**	0	94,965
Retained surplus		**8,242,818**	0	7,118,027
Total equity		**8,337,783**	0	7,212,992
Current assets		**7,827,073**	0	6,705,098
Non-current assets		**2,872,413**	0	3,040,080
Current liabilities		**1,238,813**	0	785,623
Non-current liabilities		**1,122,889**	0	1,746,563

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

STATEMENT OF CHANGES IN EQUITY

for the year ended 30 June 2009

	Consolidated						FRDC					
	Retained earnings		Asset revaluation reserves		Total equity		Retained earnings		Asset revaluation reserves		Total equity	
	2009	2008	**2009**	2008	**2009**	2008	**2009**	2008	**2009**	2008	**2009**	2008
Opening balance	**$**	$	**$**	$	**$**	$	**$**	$	**$**	$	**$**	$
Balance carried forward from previous period	**0**	3,832,396	**0**	86,413	**0**	3,918,809	**7,118,027**	3,478,388	**94,965**	86,413	**7,212,992**	3,564,801
Adjustment for errors (refer Note 1.21)	**0**	(1,707,593)	**0**	0	**0**	(1,707,593)	**0**	(1,707,593)	**0**	0	**0**	(1,707,593)
Adjustment for changes in accounting policies	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0	**0**	0
Adjusted opening balance	**0**	2,124,803	**0**	86,413	**0**	2,211,216	**7,118,027**	1,770,795	**94,965**	86,413	**7,212,992**	1,857,208
Income and expense recognised directly in equity												
Revaluation adjustment	**0**	0	**0**	8,552	**0**	8,552	**0**	0	**0**	8,552	**0**	8,552
Sub-total income and expenses recognised directly in equity	**0**	0	**0**	8,552	**0**	8,552	**0**	0	**0**	8,552	**0**	8,552
Surplus (deficit) for the period	**0**	4,993,224	**0**	0	**0**	4,993,224	**1,124,791**	5,347,232	**0**	0	**1,124,791**	5,347,232
Total income and expenses	**0**	4,993,224	**0**	8,552	**0**	5,001,776	**1,124,791**	5,347,232	**0**	8,552	**1,124,791**	5,355,784
Transfers between equity components	**0**	(7,118,027)	**0**	(94,965)	**0**	(7,212,992)	**0**	0	**0**	0	**0**	0
Closing balance at 30 June	**0**	0	**0**	0	**0**	0	**8,242,818**	7,118,027	**94,965**	94,965	**8,337,783**	7,212,992

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

CASH FLOW STATEMENT

for the year ended 30 June 2009

	Notes	FRDC 2009 $	Consolidated 2008 $	FRDC 2008 $
OPERATING ACTIVITIES				
Cash received				
Receipts from Government		**16,298,959**	16,284,991	16,284,991
Contributions		**11,442,947**	11,329,227	11,113,128
Goods and services		**212,025**	345,117	336,436
Interest		**431,563**	227,525	221,186
Net GST received		**1,292,863**	1,310,904	1,310,904
Other cash received		**1,434**	7,668	7,668
Total cash received		**29,679,791**	29,505,432	29,274,313
Cash used				
Employees		**(1,594,571)**	(1,731,105)	(1,528,282)
Suppliers		**(1,211,832)**	(1,586,268)	(1,152,604)
Project expenditure		**(26,851,610)**	(20,562,760)	(20,562,760)
Other cash used		**(771,116)**	(735,205)	(735,205)
Total cash used		**(30,429,129)**	(24,615,338)	(23,978,851)
Net cash flows from or (used by) operating activities	12	**(749,338)**	4,890,094	5,295,462
INVESTING ACTIVITIES				
Cash used				
Purchase of infrastructure, plant and equipment		**(54,235)**	(116,931)	(116,931)
Purchase of intangibles		**(252,580)**	(798,071)	(798,071)
Proceeds from subsidiary withdrawn on deconsolidation		**0**	(158,088)	0
Total cash used		**(306,815)**	(1,073,090)	(915,002)
Net cash flows from (or used by) investing activities		**(306,815)**	(1,073,090)	(915,002)
Net increase (or decrease) in cash held		**(1,056,154)**	3,817,004	4,380,460
Cash and cash equivalents at the beginning of the reporting period		**4,733,622**	916,618	353,162
Cash and cash equivalents at the end of the reporting period	8A	**3,677,468**	4,733,622	4,733,622

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

SCHEDULE OF COMMITMENTS

as at 30 June 2009

	FRDC 2009 $	FRDC 2008 $
BY TYPE		
Commitments receivable		
GST recoverable on premises commitments	10,934	20,144
GST recoverable on project commitments	4,607,915	5,576,049
Total commitments receivable	4,618,849	5,596,193
Other commitments		
Operating leases [1]	120,274	221,581
Project commitments [2]	50,687,066	61,336,541
Total other commitments	50,807,340	61,558,122
Net commitments by type	46,188,491	55,961,929
BY MATURITY		
Operating lease commitments		
One year or less	111,022	106,359
From one to five years	9,252	115,222
Over five years	0	0
Total operating lease commitments	120,274	221,581
Other commitments		
One year or less	31,239,373	36,845,652
From one to five years	19,381,693	22,639,101
Over five years	66,000	1,851,788
Total other commitments	50,687,066	61,336,541
Net commitments by maturity	46,188,491	55,961,929

NB: Commitments are GST inclusive where relevant.

Operating leases are effectively non-cancellable and are made up of:

1. The lease for office accommodation on premises at 25 Geils Court, Deakin, which expires 31 July 2010. Lease payments are subject to an annual increase in accordance with upwards movements in the Consumer Price Index. The initial period of office accommodation lease is still current and may be renewed for up to five years at FRDC's option, following a once-off adjustment to rental to current market level.
2. Project commitments comprise the future funding of approved projects that are 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 where amounts were payable, but 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.

SCHEDULE OF CONTINGENCIES

as at 30 June 2009

	Seafood CRC Company Ltd Commonwealth Agreement	
Contingent liabilities	**2009**	2008
Balance from previous period	**18,041,542**	0
New	**0**	18,041,542
Expired	**(6,930,047)**	0
Total contingent liabilities	**11,111,495**	18,041,542

Details of contingent liabilities are disclosed in Note 20: Contingent liabilities and assets.

At 30 June 2009, the FRDC had no contingent assets.

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

Notes to and forming part of the financial statements for the year ended 30 June 2009

Index to the notes to the financial statements

Note 1: Summary of significant accounting policies

1.1 Basis of preparation of the financial report

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

The continued existence of the FRDC in its present form, and with its present programs, is dependent on Government policy and on continuing appropriations by Parliament for the FRDC's administration and programs.

The financial statements and notes have been prepared in accordance with:

- ¬ Finance Minister's Orders (FMOs) for reporting periods ending on or after 1 July 2008; and
- ¬ Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board (AASB) that apply for the reporting period.

The financial report has been prepared on an accrual basis, and is in accordance with historical cost convention, except for certain assets at fair value. Except where stated, no allowance has been made for the effect of changing prices on the results or the financial position.

The financial report is presented in Australian dollars, and values are rounded to the nearest dollar unless otherwise specified.

Unless an alternative treatment is specifically required by an accounting standard or the FMO, assets and liabilities are recognised in the balance sheet when, and only when, it is probable that future economic benefits will flow to the entity and the amounts of the 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.

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

1.2 Principles of consolidation

As per a decision of the FRDC board, and pursuant to section 2.6 of the Constitution of Seafood Services Australia (SSA), the Fisheries Research and Development Corporation resigned as a member of SSA effective on 31 October 2007. No financial consideration passed between the parties as a result of this action.

The financial operations of SSA were consolidated with FRDC (the parent entity) from 1 July 2007 up to 31 October 2007. With effect from 1 November 2007, the financial operations of SSA were deconsolidated from the parent entity.

In the following financial statements where reference is made to the consolidated entity, it refers to both FRDC and SSA. Any specific reference to FRDC or SSA relates to the individual entity.

All inter-entity balances and transactions between FRDC and SSA, including any unrealised profits or losses, have been eliminated on consolidation. Accounting policies in the subsidiary (SSA), have been changed where necessary to ensure consistencies with those policies applied by the parent entity.

Consolidated comparatives for 2007–08 are included in these financial statements as per AASB 101 Presentation of Financial Statements.

1.3 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.

1.4 New accounting standards

Adoption of new Australian Accounting Standard requirements

No accounting standard has been adopted earlier than the application date as stated in the standard. Of the new standards, amendments to standards, amendments to standards and interpretations issued by the Australian Accounting Standards Board that are applicable to the current reporting period, none have had a material financial impact on the Corporation.

Future Australian Accounting Standard requirements

Of the new standards, amendments to standards and interpretations issued by the Australian Accounting Standards Board that are applicable to future periods, none will have a material financial impact on the Corporation.

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 FRDC.

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 impairment allowance account. Collectability of debts is reviewed at balance date. Allowances 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 Financial Instruments: Recognition and Measurement.

Refunds from research organisations are taken to account when received.

Revenues from government

Funding received or receivable from agencies (appropriated to the agency as a CAC Act body payment item for payment to the FRDC) is recognised as revenue from Government, unless they are in the nature of an equity injection.

1.6 Gains

Sale of assets

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

1.7 Employee benefits

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 of balance date 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 will act so as to ensure that its 'financial assets' (cash, receivables and investments) 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 of the FRDC is estimated to be less than the annual entitlement for sick leave.

The leave liabilities are calculated on the basis of employees' remuneration at the estimated remuneration rates that applied at the time the leave is taken, 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.

The liability for long service leave has been determined by reference to the shorthand method set out in the FMOs. The estimate of the present value of the liability takes into account attrition rates and pay increases through promotion and inflation.

All leave provision calculations are based on remuneration packages as at 1 July 2009 — see Note 11: Provisions. Directors remuneration is at Note 13 and Executive remuneration is at Note 15.

Separation and redundancy

Provision is made for separation and redundancy benefit payments. The FRDC recognises a provision for termination when it has developed a detailed formal plan for the termination and has informed those employees affected that it will carry out the terminations.

Superannuation

Employees of the FRDC 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 of the Australian Government. 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. This liability is reported by the Department of Finance and Deregulation as an administered item.

The FRDC makes employer contributions to the employee superannuation schemes at rates determined by an actuary to be sufficient to meet the current cost to the Australian Government of the superannuation entitlements of the FRDC's employees. The FRDC accounts for the contributions as if they were contributions to defined contribution plans.

The liability for superannuation recognised as at 30 June represents outstanding contributions for the final fortnight of the year.

1.8 Leases

A distinction is made between finance leases and operating leases. Finance leases effectively transfer from the lessor to the lessee substantially all the risks and rewards incidental to ownership of leased non-current assets. An operating lease is a lease that is not a finance lease. In operating leases, the lessor effectively retains substantially all such risks and benefits.

Where a non-current asset is acquired by means of a finance lease, the asset is capitalised at either the fair value of the lease property or, if lower, the present value of minimum lease payments at the inception of the contract; and a liability is recognised at the same time and for the same amount.

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 does not currently have any finance leases.

1.9 Projects

The FRDC recognises project liabilities through project agreements that 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 to the FRDC's satisfaction.

1.10 Borrowing costs

The FRDC incurred no borrowing costs during the year.

1.11 Cash

Cash and cash equivalents includes notes and coins held and any deposits in bank accounts with an original maturity of 3 months or less that are readily convertible to known amounts of cash and subject to insignificant risk of changes in value. Cash is recognised at its nominal amount.

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.

1.12 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.

1.13 Financial assets

The FRDC classifies its financial assets in the following categories:

- ¬ at fair value through profit or loss;
- ¬ held to maturity investments;
- ¬ available for sale; and
- ¬ loans and receivables.

The classification depends on the nature and purpose of the financial assets, and is determined at the time of initial recognition.

Financial assets are recognised and derecognised at trade date.

Effective interest method

The effective interest method is a method of calculating the amortised cost of a financial asset, and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset, or, where appropriate, a shorter period.

Income is recognised on an effective interest rate basis, except for financial assets which are recognised at fair value through profit or loss.

Financial assets at fair value through profit or loss

Financial assets are classified as financial assets at fair value through profit or loss where the financial assets:

- ¬ have been acquired principally for the purpose of selling in the near future;
- ¬ are a part of an identified portfolio of financial instruments that the FRDC manages together and has a recent actual pattern of short-term profit-taking; or
- ¬ are derivatives that are not designated and effective as a hedging instrument.

Assets in this category are classified as current assets.

Financial assets at fair value through profit or loss are stated at fair value, with any resultant gain or loss recognised in profit or loss. The net gain or loss recognised in profit or loss incorporates any interest earned on the financial asset.

Available-for-sale financial assets

Available-for-sale financial assets are non-derivatives that are either designated in this category or not classified in any of the other categories. They are included in non-current assets unless management intends to dispose of the asset within 12 months of the balance sheet date.

Available-for-sale financial assets are recorded at fair value. Gains and losses arising from changes in fair value are recognised directly in the reserves (equity) with the exception of impairment losses. Interest is calculated using the effective interest method, and foreign exchange gains and losses on monetary assets are recognised directly in profit or loss. Where the asset is disposed of, or is determined to be impaired, part (or all) of the cumulative gain or loss previously recognised in the reserve is included in profit for the period.

Where a reliable fair value can not be established for unlisted investments in equity, instruments cost is used. FRDC has no such instruments.

Held-to-maturity investments

Non-derivative financial assets with fixed or determinable payments and fixed maturity dates that the group has the positive intent and ability to hold to maturity, are classified as held-to-maturity investments. Held-to-maturity investments are recorded at amortised cost using the effective interest method less impairment, with revenue recognised on an effective yield basis.

Loans and receivables

Trade receivables, loans and other receivables that have fixed or determinable payments that are not quoted in an active market are classified as loans and receivables. They are included in current assets, except for maturities greater than 12 months after the balance sheet date. These are classified as non-current assets. Loans and receivables are measured at amortised cost using the effective interest method less impairment. Interest is recognised by applying the effective interest rate.

Impairment of financial assets

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 asset's carrying amount, and the present value of estimated future cash flows discounted at the asset's original effective interest rate. The carrying amount is reduced by way of an allowance account. The loss is recognised in the income statement.
- *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 expenses, is transferred from equity to the income statement.
- *Available for sale financial assets (held at cost)* — if there is objective evidence that an impairment loss has been incurred 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.

1.14 Financial liabilities

Financial liabilities are classified as either financial liabilities at fair value through profit or loss or other financial liabilities.

Financial liabilities are recognised and derecognised upon trade date.

Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss are initially measured at fair value. Subsequent fair value adjustments are recognised in profit or loss. The net gain or loss recognised in profit or loss incorporates any interest paid on the financial liability.

Other financial liabilities

Other financial liabilities, including borrowings, are initially measured at fair value, net of transaction costs.

Other financial liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis.

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period.

Supplier and other payables are recognised at amortised cost. Liabilities are recognised to the extent that the goods or services have been received (and irrespective of having been invoiced).

1.15 Contingent liabilities and contingent assets

Contingent liabilities and contingent assets are not recognised in the balance sheet but are reported in the relevant schedules and notes. They may arise from uncertainty as to the existence of a liability or asset or represent an asset or liability in respect of which the amount cannot be reliably measured. Contingent assets are disclosed when settlement is probable but not virtually certain, and contingent liabilities are disclosed when settlement is greater than remote.

1.16 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. Financial assets are initially measured at their fair value plus transaction costs where appropriate.

Assets acquired at no cost, or for nominal consideration, are initially recognised as assets and income 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 authority's accounts immediately prior to the restructuring.

1.17 Property, 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

Fair values for each class of asset are determined as shown below:

Asset class	*Fair value measured at*
Leasehold improvements	Depreciated replacement cost
Infrastructure, plant and equipment	Market selling price

All infrastructure, plant and equipment assets were reviewed for fair value as at 30 June 2009 by the Australian Valuation Office, and are recorded in the financial statements at valuation.

Following initial recognition at cost, property plant and equipment are carried at fair value less subsequent accumulated depreciation and accumulated impairment losses. Valuations are conducted with sufficient frequency to ensure that the carrying amounts of assets do not differ materially from the assets' fair values as at the reporting date. The FRDC has independent valuations annually for the relevant assets.

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 operating result. Revaluation decrements for a class of assets are recognised directly through the operating result 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.

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Depreciation and amortisation

Depreciable property, plant and equipment assets are written-off to their estimated residual values over their estimated useful lives to FRDC using, in all cases, the straight-line method of depreciation.

Depreciation rates (useful lives), residual values and methods are reviewed at each reporting date and necessary adjustments are recognised in the current, or current and future reporting periods, as appropriate.

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

	2009	2008
Infrastructure, plant and equipment	3 to 5 years	3 to 5 years
Computer software developed in-house	10 years	10 years
Leasehold improvements	Lease term	Lease term

The aggregate amount of depreciation allocated for each class of asset during the reporting period is disclosed at Note 9C.

Impairment

All assets were assessed for impairment at 30 June 2009. Where indications of impairment exist, an impairment adjustment is 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. The 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.

1.18 Intangibles

The FRDC's intangibles comprise of internally developed software for internal use. This asset is carried at cost less accumulated amortisation and accumulated impairment losses.

Internally developed software is amortised on a straight-line basis over its anticipated useful life. Since 30 June 2002 the useful lives of that software has been 10 years.

All software assets were assessed for indications of impairment as at 30 June 2009. None were found to be impaired.

1.19 Taxation / competitive neutrality

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
- for receivables and payables.

1.20 Comparative figures

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

1.21 Adjustment arising from the Department of Agriculture, Fisheries and Forestry GVP overpayments to the FRDC

The Department of Agriculture, Fisheries and Forestry (DAFF) inadvertently used an incorrect formula to determine the Gross Value of Production (GVP) for fisheries for the financial years between 2001–02 and 2006–07. The incorrect GVP determinations were then used to calculate payments made to the Fisheries Research and Development Corporation (FRDC) under section 30A of the *Primary Industries and Energy Research and Development Act 1989*. This section relates to the Australian Government contribution to the FRDC of 0.50% of the total GVP; and the government contributing matching state/territory payments up to 0.25% of the individual state/territory GVPs.

Upon finding the error, the correct GVP formula was retrospectively applied to GVP data to calculate the amounts that should have been paid to the FRDC over this period. As a result, it was identified that DAFF made an overpayment of government contributions to the FRDC. The Australian Government Solicitor (AGS) subsequently confirmed that the overpayment represented an amount owing to the Commonwealth. DAFF and the FRDC have agreed the value of the debt at $1,944,024 ($1,371,565 in relation to 0.50% GVP; and $572,459 in relation to the matching contributions). DAFF and the FRDC have also agreed that the debt will be repaid over six years and FRDC has recognised it as other payables at Note 10C. The error was discovered by DAFF in 2007–08 and the GVP payments were correctly made in that year.

In addition and in accordance with AASB 139 Financial Instruments: Recognition and Measurement, the debt has been recognised initially at its fair value, and has been discounted to represent a present value of the future cash flows. Accordingly, the opening balance of total equity as at 1 July 2007 has been adjusted by $1,707,593 (discounted present value) in the statement of changes in equity. In the comparative balances in the balance sheet, the retained surplus has been restated from $8,825,620 to $7,118,027 and other payables have been restated from zero to $1,707,593.

Because the DAFF debt has been discounted, there will be an expense recognised in the income statement in future periods as each debt repayment is made. The quantum of that expense will be the difference between the nominal and discounted value.

Note 2: Reporting of outcome

Note 2A: Outcome of the FRDC

The FRDC is structured to meet the following outcome:

> *Increased knowledge that fosters sustainable economic, environmental and social benefits for the Australian fishing industry; including indigenous, recreational, commercial and aquaculture sectors, and the community; through investing in research, development and adoption.*

The FRDC is a co-funded partnership between its two stakeholders, the Australian Government and the fishing industry.

The role of the FRDC is to invest in fisheries research and development (R&D) activities in Australia. This includes providing leadership and coordinating the monitoring, evaluating and reporting on R&D activities; and facilitating its dissemination, extension and commercialisation. The FRDC achieves this through coordinating government and industry investment, based on a collaborative approach involving stakeholders to establish and address R&D priorities.

Note 2B: Net cost of outcome delivery

	Outcome	
	2008–09	2007–08
	$	$
Expenses		
Departmental	**27,751,984**	21,080,281
Total expenses	**27,751,984**	21,080,281
Other external income		
Departmental		
Contributions	**11,932,794**	9,577,232
Sale of goods and services	**212,025**	336,436
Net (loss)/gain from disposal of assets	**0**	0
Interest	**431,563**	221,186
Other revenue	**1,434**	7,668
Total other external income	**12,577,816**	10,142,522
Net cost/(contribution) of outcome	**15,174,167**	10,937,759

Note 2C: Revenues and expenses by output

	Output	
	2008–09	2007–08
	$	$
Departmental expenses		
Employees	**1,631,795**	1,529,270
Suppliers	**1,175,887**	1,003,751
Depreciation and amortisation	**554,483**	464,902
Projects expenditure	**23,618,702**	17,346,453
Write-down and impairment of assets	**0**	0
Loss from disposal of assets	**0**	700
Other	**771,116**	735,205
Total departmental expenses	**27,751,984**	21,080,281
Funded by:		
Departmental income		
Revenues from government	**16,298,959**	16,284,991
Contributions	**11,932,794**	9,577,232
Sale of goods and services	**212,025**	336,436
Net (loss)/gain from disposal of assets	**0**	0
Interest	**431,563**	221,186
Other revenue	**1,434**	7,668
Total departmental income	**28,876,775**	26,427,513

Note 3: Economic dependency

The FRDC was established as a statutory corporation on 2 July 1991, under the provisions of the *Primary Industries and Energy Research and Development Act* (PIERD Act). It is responsible to the Minister for Agriculture, Fisheries and Forestry, and is dependent on appropriations from the Parliament of Australia for its continued existence and ability to carry out its normal activities.

Note 4: Events after the balance sheet date

No reportable events have occurred after the balance sheet date.

Note 5: Income

Revenue

Note 5A: Revenue from government

	FRDC 2009 $	Consolidated 2008 $	FRDC 2008 $
Department of Agriculture, Fisheries and Forestry			
CAC Act body payment for 0.50% of GVP *	**10,996,373**	10,900,915	10,900,915
Other			
– matching of industry contributions	**5,302,585**	5,384,076	5,384,076
Total revenue from government	**16,298,959**	16,284,991	16,284,991

* GVP is the average gross value of fisheries production for the current year and the two preceding financial years.

The Australian Government's contribution of 0.50% of GVP is made on the grounds that the FRDC exercises a stewardship role in relation to fisheries resources on behalf of the Australian community.

The matching of industry's contribution (up to 0.25% of GVP) 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 public 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 available from the Corporation's website.

Note 5B: Contributions

Fisheries managed by:			
Australian Fisheries Management Authority	**2,310,540**	1,415,712	1,415,712
Australian Capital Territory	**229,058**	242,601	242,601
New South Wales	**240,282**	425,766	425,766
Northern Territory	**701,870**	627,688	627,688
Queensland	**650,295**	629,569	629,569
South Australia	**2,050,187**	1,528,093	1,528,093
Tasmania	**1,299,896**	1,212,836	1,212,836
Victoria	**226,502**	262,111	262,111
Western Australia	**1,810,437**	1,124,998	1,124,998
Sub-total	**9,519,068**	7,469,374	7,469,374
Projects			
Project funds received from other parties	**2,332,202**	2,075,954	2,007,731
Project refunds of prior years expenditure	**81,524**	100,127	100,127
Sub-total	**2,413,726**	2,176,081	2,107,858
Total contributions revenue	**11,932,794**	9,645,455	9,577,232

Industry's contributions 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.

NOTE 5: INCOME (CONTINUED)

Note 5C: Sale of goods and rendering of services

	FRDC 2009 $	Consolidated 2008 $	FRDC 2008 $
Provision of goods — external parties	**212,025**	436,166	336,436
Total sale of goods and rendering of services	**212,025**	436,166	336,436
Cost of sales SSA			
Cost of goods sold (publications, CD ROMs)	**0**	64,652	0
Total sale of goods and rendering of services	**0**	64,652	0

No meaningful cost of sales figure can be determined due to the nature of these sales.

Note 5D: Interest

Deposits	**431,563**	227,525	221,186
Total interest	**431,563**	227,525	221,186

Note 5E: Other revenue

Miscellaneous	**1,434**	64,168	7,668
Total other revenue	**1,434**	64,168	7,668

Note 6: Expenses

Note 6A: Employee benefits

The basis for employee remuneration is detailed at Note 1.7

Wages and salaries	**1,207,717**	1,347,546	1,173,204
Leave and other entitlements	**15,342**	27,704	21,188
Superannuation	**355,579**	363,360	334,878
Other employee benefits/recruitment costs	**53,157**	0	0
Total employee benefits	**1,631,795**	1,738,610	1,529,270

NOTE 6: EXPENSES (CONTINUED)

Note 6B: Suppliers

	FRDC 2009 $	Consolidated 2008 $	FRDC 2008 $
External service providers	**677,912**	447,902	392,198
Asset purchases less than $5,000	**17,398**	18,064	18,064
Insurance	**23,415**	21,912	17,456
Office supplies	**32,930**	81,994	69,292
Property	**28,138**	42,387	40,265
Rent	**99,576**	101,328	95,328
Representation	**17,616**	15,285	15,285
Telecommunications	**55,651**	66,179	60,037
Training	**23,315**	43,516	21,829
Travel	**146,716**	216,998	185,865
Other	**53,220**	90,988	88,133
Total supplier expenses	**1,175,887**	1,146,553	1,003,751

All supplier goods and services were supplied by external entities.

Note 6C: Depreciation and amortisation

Depreciation:			
Infrastructure, plant and equipment	**171,174**	128,729	126,428
Total depreciation	**171,174**	128,729	126,428
Intangibles:			
Computer software	**383,309**	338,474	338,474
Total amortisation	**383,309**	338,474	338,474
Total depreciation and amortisation	**554,483**	467,203	464,902

Note 6D: Projects expenditure

Projects			
Natural Resources Sustainability	**11,974,420**	8,698,575	8,698,575
Industry Development	**9,765,428**	7,574,637	7,550,913
People Development	**1,878,854**	1,096,965	1,096,965
Total project expenditure	**23,618,702**	17,370,177	17,346,453

Note 6E: Losses from disposal of assets

Infrastructure, plant and equipment			
Carrying amount of assets disposed of	**0**	700	700
Total losses from assets disposals	**0**	700	700

Note 7: Other expenses

	FRDC 2009 $	Consolidated 2008 $	FRDC 2008 $
Communications			
Annual Report	**30,730**	40,911	40,911
Australian Agricultural Natural Resource on-line (ANRO)	**9,620**	4,377	4,377
Fisheries Research Advisory Bodies	**125,042**	278,501	278,501
Joint Research & Development Corporation activities	**33,532**	25,721	25,721
Media activities	**22,138**	17,512	17,512
Other stakeholder consultation	**87,837**	22,369	5,072
FISH magazine	**312,916**	301,730	301,730
R&D Plan	**22,598**	234	234
Representative organisations consultation (1)	**14,330**	1,888	1,888
Website	**39,592**	14,702	14,702
Sponsorship	**20,015**	18,309	18,309
Other	**52,766**	55,508	26,248
Total other expenses	**771,116**	781,762	735,205

(1) Representative organisations consultation relates to expenses incurred by the FRDC in accordance with section 15 of the PIERD Act.

Note 8: Financial assets

Note 8A: Cash and cash equivalents

Cash at bank	**2,243,038**	0	1,033,322
Cash on hand	**0**	0	300
Deposits on call	**1,434,430**	0	3,700,000
Total cash and cash equivalents	**3,677,468**	0	4,733,622

Temporarily surplus funds are placed on deposit at call with the 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 8: FINANCIAL ASSETS (CONTINUED)

Note 8B: Trade and other receivables

	FRDC 2009 $	Consolidated 2008 $	FRDC 2008 $
GST receivable from the Australian Taxation Office	**177,631**	0	72,712
Other receivables	**3,971,973**	0	1,898,764
Total trade and other receivables (net)	**4,149,605**	0	1,971,476

All receivables are current assets.

Receivables are aged as follows:

Not overdue	**4,060,497**	0	1,917,561
Overdue by:			
Less than 30 days	**68,544**	0	53,915
30 to 60 days	**20,564**	0	0
61 to 90 days	**0**	0	0
More than 90 days	**0**	0	0
Total receivables (gross)	**4,149,605**	0	1,971,476

All receivables are with entities external to FRDC.

Note 8C: Other investments

Shares in other company — unlisted	**5,001**	0	5,001
Total other investments	**5,001**	0	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 8D: Other financial assets

Prepaid sponsorships	**80,000**	(†)	0	0
Total other financial assets	**80,000**		0	0

(†) Prepaid sponsorships are amounts paid to sponsor Seafood Industry Victoria for *Seafood Directions 2009*. The outstanding balance at 30 June 2009 was $80,000.

Note 9: Non-financial assets

Note 9A: Infrastructure, plant and equipment

	FRDC 2009 $	Consolidated 2008 $	FRDC 2008 $
Infrastructure, plant and equipment:			
¬ at fair value	**398,170**	0	469,663
¬ accumulated depreciation	**(171,874)**	0	(126,428)
Total infrastructure, plant and equipment (non-current)	**226,296**	0	343,235

All revaluations are conducted in accordance with the revaluation policy stated at Note 1. On 30 June 2009, an independent valuer, the Australian Valuation Office, conducted a review of the fair value of the FRDC's infrastructure, plant and equipment.

No indicators of impairment were found for infrastructure, plant and equipment.

Note 9B: Intangibles

Computer software at cost:			
Internally developed — in use	**3,950,799**	0	3,698,219
Total computer software	**3,950,799**	0	3,698,219
Accumulated amortisation	**(1,389,683)**	0	(1,006,375)
Total intangibles (non-current)	**2,561,115**	0	2,691,844

No indicators of impairment were found for intangible assets.

Note 9C: Analysis of property, plant and equipment and intangibles

TABLE A — Reconciliation of the opening and closing balances of property, plant and equipment and intangibles (2008–09)

	Infrastructure, plant and equipment $	Intangibles $
As at 1 July 2008		
Gross book value	576,846	3,698,219
Accumulated depreciation/amortisation	(233,610)	(1,006,375)
Net book value 1 July 2008	343,235	2,691,844
Additions:		
by purchase	54,235	252,580
Revaluations through equity	0	0
Depreciation/amortisation expense	(171,174)	(383,309)
Disposals	0	0
Net book value 30 June 2009	226,296	2,561,115
Net book value as of 30 June 2009 represented by:		
Gross book value	398,170	3,950,799
Accumulated depreciation/amortisation	(171,874)	(1,389,683)
	226,296	2,561,115

NOTE 9: NON-FINANCIAL ASSETS (CONTINUED)

TABLE A — Reconciliation of the opening and closing balances of property, plant and equipment and intangibles (2007–08)

	Infrastructure, plant and equipment $	Intangibles $
As at 1 July 2007		
Gross book value	603,810	2,900,148
Accumulated depreciation/amortisation	(258,930)	(667,901)
Net book value 1 July 2007	344,880	2,232,247
Additions:		
by purchase	116,931	798,071
Revaluations through equity	8,552	0
Depreciation/amortisation expense	(126,428)	(338,474)
Disposals	(700)	0
Net book value 30 June 2008	343,235	2,691,844
Net book value as of 30 June 2008 represented by:		
Gross book value	469,663	3,698,219
Accumulated depreciation/amortisation	(126,428)	(1,006,375)
	343,235	2,691,844

In accordance with the FRDC's accounting policy (refer Note 1.17), items under the property, plant and equipment heading were reviewed for fair value, effective 30 June 2009, by the Australian Valuation Office.

Note 10: Payables

Note 10A: Suppliers

	FRDC 2009 $	Consolidated 2008 $	FRDC 2008 $
Trade creditors	147,361	0	108,169
FBT payable	435	0	(3,273)
PAYG payable	31,735	0	30,581
Total supplier payables	179,531	0	135,477

All supplier payables are current liabilities.

Settlement is usually made net 30 days.

Note 10B: Project payables

Project creditors	52,657	0	304,419
Total project creditors	52,657	0	304,419

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 which were unpaid at the end of the period. Settlement is usually made within 60 days.

Note 10C: Other payables

Debt payable to the Department of Agriculture, Fisheries and Forestry	1,707,593	0	1,707,593
Total other payables	1,707,593	0	1,707,593

Other payables — Debt to the Department of Agriculture, Fisheries and Forestry is represented by:

Current	631,117	0	0
Non-current	1,076,476	0	1,707,593
Total other payables	1,707,593	0	1,707,593

The debt payable to the Department of Agriculture, Fisheries and Forestry represents recovery of GVP overpayments to the FRDC (refer Note 1.21).

Note 11: Provisions

Note 11A: Employee provisions

	FRDC 2009 $	Consolidated 2008 $	FRDC 2008 $
Leave	**421,921**	0	384,697
Total employee provisions	**421,921**	0	384,697
Employee provisions are represented by:			
Current	**375,507**	0	345,727
Non-current	**46,413**	0	38,970
Total employee provisions	**421,921**	0	384,697

Note 12: Cash flow reconciliation

Reconciliation of cash and cash equivalents as per balance sheet to cash flow statement			
Report cash and cash equivalents as per:			
Cash flow statement	**3,677,468**	4,733,622	4,733,622
Balance sheet	**3,677,468**	0	4,733,622
Difference	**0**	† 4,733,622	0

† The comparison 2008 financial year represents the SSA deconsolidated from the parent entity with effect from 1 November 2007 refer Note 1.2.

Reconciliation of operating result to net cash from operating activities:			
Operating result	**1,124,791**	4,993,224	5,347,232
Depreciation/amortisation	**554,483**	467,203	464,902
Net write-down of non-current assets	**0**	0	0
Revaluation of assets	**0**	0	0
(Gain)/loss on disposal of assets	**0**	700	700
Loss on deconsolidation	**0**	95,424	0
Increase/(decrease) in inventories	**0**	5,462	0
Increase/(decrease) in net receivables	**(2,258,129)**	475,438	483,710
Increase/(decrease) in supplier payables	**44,055**	(311,473)	(148,853)
Increase/(decrease) in other payables	**0**	45,218	0
(Increase)/decrease in employee provisions	**37,224**	7,505	988
Increase/(decrease) in project payables	**(251,763)**	(888,607)	(853,217)
Net cash from/(used by) operating activities	**(749,338)**	4,890,094	5,295,462

Note 13: Directors remuneration

The number of directors of the FRDC included in these figures are shown below in the relevant remuneration bands:

	FRDC 2009	Consolidated 2008	FRDC 2008
$NIL – $14,999	**0**	12	1
$15,000 – $29,999	**6**	6	6
$30,000 – $44,999	**0**	1	1
$45,000 – $59,999	**1**	1	0
$265,000 – $279,999	**0**	1	1
$280,000 – $294,999	**1**	0	0
Total number of directors of the FRDC	**8**	21	9
Total remuneration received, or due and receivable, by directors of FRDC	**$498,958**	$554,437	$485,382

Note 14: Related party disclosures

The directors of the FRDC during the year were:

Dr P. Hone	Executive Director
Dr R. Johnson	Director
Dr P. McShane	Director
Mr P. Neville	Chair (Chair Remuneration Committee) (Member Finance, Audit and Risk Management Committee)
Mr F. Prokop	Director
Mr S. Richey AM	Director (Deputy Chair) (Chair Finance, Audit and Risk Management Committee) (Member Remuneration Committee)
Mr R.A. Stevens OAM	Director (Member Remuneration Committee) (Member Finance, Audit and Risk Management Committee)
Mr R.N. Stevens	Director

The aggregate amount of remuneration of directors is disclosed in Note 13.

NOTE 14: RELATED PARTY DISCLOSURES (CONTINUED)

Transactions with director-related parties

The FRDC's practise is to disclose all transactions with an entity with whom a director has a close association. This means that directors who sit on an entity's committee have attributed to them all the transactions of that entity.

Director	Organisation and position held	Nature of interest	Income received from entity $	Expenditure paid to entity $
Dr P. Hone	CRC for Sustainable Aquaculture of Finfish *Director (Ceased 24 December 2008)*	Research projects or work undertaken by the organisation	2,006,102	0
	Seafood CRC Company Ltd *Director*	Research projects or work undertaken by the organisation	197,649	3,719,208
Dr P. McShane	Southern Rock Lobster Limited *Consultant (Ceased 30 September 2008)*	Research projects or work undertaken by the organisation	0	495
	Spencer Gulf and West Coast Prawn Fishermens Association *Consultant*	Research projects or work undertaken by the organisation	0	82,588
Mr P. Neville	Southern Bluefin Tuna Management Advisory Committee (AFMA) *Chair*	Research projects or work undertaken by the organisation	2,427,786	401,385
	P.J. Neville and Associates *Principal*	Research projects or work undertaken by the organisation	0	700
Mr F. Prokop	Recfishwest *Executive Director*	Research projects or work undertaken by the organisation	1,100	70,400
	Recfish Australia *Executive Director of Recfishwest, a member organisation of Recfish Australia*	Research projects or work undertaken by the organisation	43,346	205,841

All transactions were conducted under normal terms and conditions and include GST.

NOTE 14: RELATED PARTY DISCLOSURES (CONTINUED)

Transactions with director-related parties

Director	Organisation and position held	Nature of interest	Income received from entity $	Expenditure paid to entity $
Mr S. Richey AM	Australian Fisheries Management Authority *Chairman of Northern Prawn Management Advisory Committee*	Research projects or work undertaken by the organisation	2,427,786	401,385
	Tasmanian Aquaculture and Fisheries Institute (TAFI) University of Tasmania *Spouse of Director*	Research projects or work undertaken by the organisation	0	2,490,083
Mr R.A. Stevens OAM	Australian Fisheries Management Authority *Commissioner*	Research projects or work undertaken by the organisation	2,427,786	401,385
	Department of Employment, Economic Development and Innovation — Fisheries (QLD) *Chair of Harvest Fishery Management Advisory Committee*	Research projects or work undertaken by the organisation	568,636	957,940
	Recreational Survey for the Greater Sydney Region (NSW DPI) *Chair*	Research projects or work undertaken by the organisation	135,491	756,965
	Department of Regional Development, Primary Industry, Fisheries and Resources (NT) *Chair, Mud Crab and Spanish Mackerel Fishery MACs*	Research projects or work undertaken by the organisation	806,620	176,416
Mr R.N. Stevens	Seafood CRC *Member of Research & Adoption Committee (Ceased 20 February 2009)*	Research projects or work undertaken by the organisation	174,451	2,145,562
	Western Australian Fishing Industry Council *R&D Manager*	Research projects or work undertaken by the organisation	597,073	169,448

All transactions were conducted under normal terms and conditions and include GST.

Note 15: Executive remuneration

The number of senior executives who received or were due to receive total remuneration of $130,000 or more:

	FRDC 2009	FRDC 2008
$130,000 to $144,999	**0**	1
$145,000 to $159,999	**1**	1
$170,000 to $184,999	**1**	0
$230,000 to $244,999	**1**	1
Total	**3**	3
The aggregate amount of total remuneration of senior executives shown above.	**$561,489**	$532,232
The aggregate amount of separation and redundancy/termination benefit payments made during the year to the executives shown above.	**Nil**	Nil

Note 16: Remuneration of auditors

	FRDC 2009 $	Consolidated 2008 $	FRDC 2008 $
Financial statement audit services are provided to the FRDC by the Auditor-General.			
Auditing the financial statements	**23,500**	55,000	48,500
Amounts received or due and receivable by the external auditors	**23,500**	55,000	48,500

RSM Bird Cameron were contracted by the Australian National Audit Office (ANAO) to provide audit services on the ANAO's behalf. Fees for these services are included above. No other services were provided by the ANAO or their contractors RSM Bird Cameron.

Note 17: Average staffing levels

	2009	2008	2008
The average staffing levels for the FRDC during the year were:	**11.1**	17.5	11.5

Note 18: Financial instruments

Note 18A: Categories of financial instruments

	FRDC 2009 $	FRDC 2008 $
Financial assets		
Cash and cash equivalents		
Cash at bank	**2,243,038**	1,033,322
Cash on hand	**0**	300
Deposits on call	**1,434,430**	3,700,000
Investments	**0**	0
Shares	**5,001**	5,001
Other	**80,000**	0
Receivables		
Other receivables	**3,971,973**	1,898,764
Carrying amount financial assets	**7,734,443**	6,637,387
Financial liabilities		
Other financial liabilities		
Trade creditors	**147,361**	108,169
Projects	**52,657**	304,419
Other payables	**1,707,593**	1,707,593
Carrying amount financial liabilities	**1,907,611**	2,120,181

Note 18B: Net income and expenses from financial assets

Loans and receivables		
Interest revenue (see Note 5D)	**431,563**	221,186
Net gain/(loss) loans and receivables	**431,563**	221,186
Net gain/(loss) from financial assets	**431,563**	221,186

Note 18C: Fair value of financial instruments

	Carrying amount 2009 $	Fair value 2009 $	Carrying amount 2008 $	Fair value 2008 $
Financial assets				
Cash and cash equivalents				
Cash at bank	**2,243,038**	**2,243,038**	1,033,322	1,033,322
Cash on hand	**0**	**0**	300	300
Deposits on call	**1,434,430**	**1,434,430**	3,700,000	3,700,000
Shares	**5,001**	**0**	5,001	0†
Other	**80,000**	**80,000**	0	0
Receivables				
Other receivables	**3,971,973**	**3,971,973**	1,898,764	1,898,764
Total	**7,734,443**	**7,729,442**	6,637,387	6,632,386
Financial liabilities				
Other financial liabilities				
Trade creditors	**147,361**	**147,361**	108,169	108,169
Project creditors	**52,657**	**52,657**	304,419	304,419
Other payables	**1,707,593**	**1,707,593**	1,707,593	1,707,593
Total	**1,907,611**	**1,907,611**	2,120,181	2,120,181

† The value of shares are carried at cost because they do not have a quoted market price in an active market, and a fair value cannot be reliably measured.

Note 18D: Credit risk

The FRDC is exposed to minimal credit risk as the majority of its receivables are from government agencies, industry, universities and program contributors who have existing relationships with the FRDC.

The FRDC holds no collateral to mitigate against credit risk.

Credit risk of financial instruments not past due or individually determined as impaired

	Not past due nor impaired 2009 $	Not past due nor impaired 2008 $	Past due or impaired 2009 $	Past due or impaired 2008 $
Cash and cash equivalents	**3,677,468**	4,733,622	**0**	0
Investments	**0**	0	**0**	0
Shares	**5,001**	5,001	**0**	0
Other (prepaid sponsorship)	**80,000**	0	**0**	0
Other receivables	**3,971,973**	1,898,764	**89,108**	53,915
Total	**7,734,443**	6,637,387	**89,108**	53,915

Note 18D: Credit risk (continued)

Ageing of financial assets that are past due but not impaired for 2009

	0 to 30 days $	31 to 60 days $	61 to 90 days $	90+ days $	Total $
Other receivables	68,544	20,564	0	0	89,108
Total	68,544	20,564	0	0	89,108

Ageing of financial assets that are past due but not impaired for 2008

	0 to 30 days $	31 to 60 days $	61 to 90 days $	90+ days $	Total $
Other receivables	53,915	0	0	0	53,915
Total	53,915	0	0	0	53,915

Note 18E: Liquidity risk

The FRDC's financial liabilities are project payables, supplier payables, unearned revenue and other payables. The exposure to liquidity risk is based on the notion that the FRDC will encounter difficulty in meeting its obligations associated with these financial liabilities. This is highly unlikely due to government funding and internal policies and procedures put in place to ensure there are appropriate resources to meet financial obligations.

Maturities for financial liabilities in 2009

	On demand 2009 $	Within 1 year 2009 $	1 to 5 years 2009 $	> 5 years 2009 $	Total 2009 $
Other financial liabilities					
Suppliers	0	147,361	0	0	147,361
Projects	0	52,657	0	0	52,657
Other payables	0	631,117	1,076,476	0	1,707,593
Total	0	831,135	1,076,476	0	1,907,611

Maturities for financial liabilities in 2008

	On demand 2008 $	Within 1 year 2008 $	1 to 5 years 2008 $	> 5 years 2008 $	Total 2008 $
Other financial liabilities					
Suppliers	0	108,169	0	0	108,169
Projects	0	304,419	0	0	304,419
Other payables	0	0	1,707,593	0	1,707,593
Total	0	412,588	1,707,593	0	2,120,181

Note 19: Other related parties

On 23 June 2006, FRDC entered into an agreement with the Australian Fisheries Management Authority (AFMA). As part of this agreement, FRDC acts as AFMA's agent to make payments to research providers. FRDC invoices AFMA monthly for payments made to research providers against research projects administered on behalf of AFMA. These activities are not reflected in FRDC's accounts but are disclosed below for information purposes.

Total payments to research providers from 1 July 2008 to 30 June 2009 $3,763,521

This arrangement terminated effective 30 June 2009. As of the 1st July 2009 AFMA is using its own instance of FRDC's project management system, and consequently is no longer making payments from the FRDC's accounting system.

Note 20: Contingent liabilities and assets

The FRDC is a participant in the Seafood CRC Company Ltd (Seafood CRC). The Seafood CRC has signed an agreement with the Commonwealth which commits the FRDC to investing $22,324,123 over the life of the CRC, which finishes in 2013–14. The FRDC recognises commitments as contracts are signed. The FRDC recognises $11,212,628 in Seafood CRC contracts as at 30 June 2009 ($4,282,580 as at 30 June 2008). This leaves a contingent liability at 30 June 2009 of $11,111,495 (30 June 2008 of $18,041,542). As the FRDC commits to further Seafood CRC contracts this contingent liability will reduce.

At 30 June 2009, the FRDC had no contingent assets.

Appendices

Appendix A: The FRDC's principal revenue base

As stipulated in the PIERD Act, and shown in figure 4, the FRDC's primary revenue source is based on:

A. the Australian Government providing unmatched funds equivalent to 0.50 per cent of the average gross value of Australian fisheries production (AGVP) for the current year plus the two preceding years;

B. fishers and aquaculturists providing contributions; and

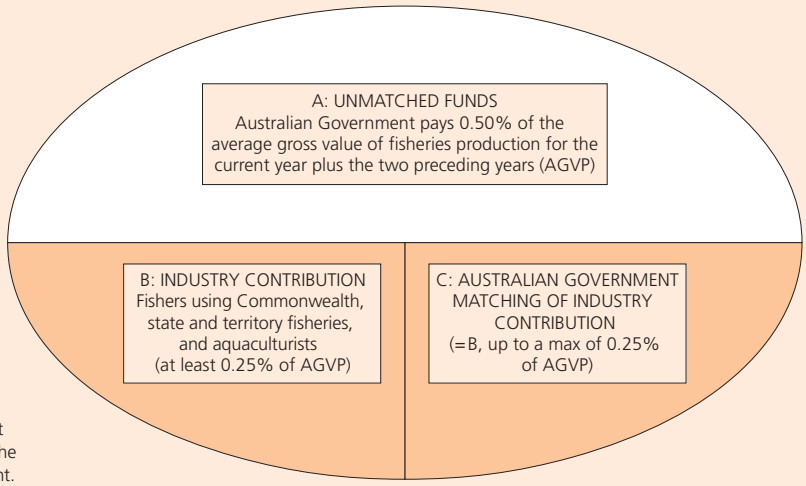
C. the Australian Government matches this amount up to a maximum of 0.25 per cent of AGVP.

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 v.

Details of all FRDC revenue (including investments, royalties, and sales of products, information and services) are in the financial statements starting on page 87.

FIGURE 4: PROPORTIONS OF THE FRDC'S PRINCIPAL REVENUE BASE



In 2008–09, the industry contributed more than 169% 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 the fishing industry, has significance for the FRDC's revenue base. The Australian Government's contribution of 0.50 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 the requirements of Commonwealth legislation. The principal reporting requirements, 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 *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.

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 underlie 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 15–58) 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 through this annual report and in more detail in the 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 146) 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) (PIERD Act).

The FRDC Board is responsible to the Minister for Agriculture, Fisheries and Forestry and, through him, 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 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 description of ministerial powers on the following page 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. 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 the 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;
- appointing directors, other than the Chairperson 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 CAC Act relating to corporate governance and reporting are available to the Minister for Agriculture, Fisheries and Forestry; and the Finance Minister.

Exercise of ministerial powers during 2008–09 is described on page 72.

Appendix D: Government priorities

The National Research Priorities can be viewed at http://www.innovation.gov.au/Section/AboutDIISR/FactSheets/Pages/NationalResearchPrioritiesFactSheet.aspx

The Rural Research Priorities can be viewed at http://www.daff.gov.au/agriculture-food/innovation/priorities

National research priorities and their associated goals (for use with the tables on the following page)

Priority 1 — An environmentally sustainable Australia

A1 Water — a critical resource
A2 Transforming existing industries
A3 Overcoming soil loss, salinity and acidity
A4 Reducing and capturing emissions in transport and energy generation
A5 Sustainable use of Australia's biodiversity
A6 Developing deep earth resources
A7 Responding to climate change and variability

Priority 2 — Promoting and maintaining good health

B1 A healthy start to life
B2 Ageing well, ageing productively
B3 Preventive healthcare
B4 Strengthening Australia's social and economic fabric

Priority 3 — Frontier technologies for building and transforming Australian industries

C1 Breakthrough science
C2 Frontier technologies
C3 Advanced materials
C4 Smart information use
C5 Promoting an innovation culture and economy

Priority 4 — Safeguarding Australia

D1 Critical infrastructure
D2 Understanding our region and the world
D3 Protecting Australia from invasive diseases and pests
D4 Protecting Australia from terrorism and crime
D5 Transformational defence technologies

TABLE 7: 2008–09 TOTAL INVESTMENT — COMPOSITION OF GOVERNMENT RESEARCH PRIORITIES ATTRIBUTED TO EACH R&D PROGRAM ($ AND %)

2008–09 Total investment — Rural Research Priorities								
Rural Research and Development Priorities (RRDP)	Program 1: Natural Resources Sustainability		Program 2: Industry Development		Program 3: People Development		Total expenditure	
	$m	%	$m	%	$m	%	$m	%
Productivity and Adding Value	0.60	2.73	3.00	13.25	0.30	1.36	4.00	17.34
Supply Chain and Markets	0.40	1.80	2.30	9.81	0.30	1.11	2.90	12.72
Natural Resources Management	8.60	37.02	1.70	7.32	0.50	2.30	10.80	46.64
Climate Variability and Climate Change	0.30	1.24	0.10	0.41	0.10	0.59	0.50	2.24
Biosecurity	0.30	1.09	0.90	3.99	0.10	0.42	1.30	5.51
Innovation Skills	0.40	1.84	0.70	3.07	0.10	0.38	1.20	5.29
Technology	0.60	2.73	1.70	7.38	0.05	0.15	2.40	10.26
Other research								
Total	**11.20**	**48.00**	**10.50**	**45.00**	**1.50**	**6.00**	**23.20***	**100.00**

* Figures in this table have been rounded, hence totals may not agree with component figures.

TABLE 7 (CONTINUED)

2008–09 Total investment — National Research Priorities									
National Research Priorities (NRP)		Program 1: Natural Resources Sustainability		Program 2: Industry Development		Program 3: People Development		Total expenditure	
		$000	%	$000	%	$000	%	$000	%
An environmentally sustainable Australia	A1								
	A2								
	A3								
	A4								
	A5	9.60	43.19	2.90	13.17	0.70	3.08	12.50	59.44
	A6								
	A7	0.50	0.23	0.20	0.71			0.70	0.94
Promoting and maintaining good health	B1	0.10							
	B2								
	B3					0.30	1.17	1.50	
	B4			0.80	2.84			0.80	3.80
Frontier technologies for building and transforming Australian industries	C1					0.30	1.52	0.30	1.52
	C2	0.10	0.19	2.50	11.20	0.30	1.51	2.90	12.90
	C3	0.70	0.31	2.00	9.15			2.70	9.46
	C4								
	C5			0.50	2.26			0.50	2.41
Safeguarding Australia	D1								
	D2								
	D3	0.20	1.10	1.30	5.97	0.10	0.64	1.70	7.71
	D4								
	D5								
Total		**10.20**	**45.00**	**10.30**	**42.00**	**1.80**	**8.00**	**23.60**	**100.00**

Figures in this table have been rounded, hence totals may not agree with component figures.

Appendix E: Representative organisations

Guidelines on funding of consultation costs by primary industry and energy portfolio statutory authorities were issued by the Hon. John Anderson MP, Minister for Primary Industries and Energy in July 1998 under the relevant enabling legislation and in association with paragraph 16(1)(b) of the *Commonwealth Authorities and Companies Act 1997* (CAC Act) which obliges directors of a Commonwealth authority to provide the responsible Minister with such reports, documents and information as he or she requires.

As required by Section 5(b) of the Guidelines FRDC is required to report:

> *Where the statutory authority has authorised an industry organisation, with which it has a formal relationship under its enabling legislation, to undertake a discrete project or consultancy on its behalf as per Section 1(b) of these guidelines, then details of the nature, purpose and expected or final outcome of the project or consultancy should be provided concurrently, with details of any consultation funding, in the main body of the annual report.*

The following table is a list of all project payments made to FRDC representative bodies in 2008–09.

NATIONAL AQUACULTURE COUNCIL

2004/241	Coordination of inland saline aquaculture R&D in Australia	$22,000.00
2007/010	Integration of socio-economic sustainability criteria into a reporting framework for the Australian aquaculture industry	$79,761.00
2007/301	Australasian Aquaculture Conference 2008	$17,600.00
2008/354	Tactical research fund: Investigating the establishment of a national aquatic animal health industry reference group	$4,950.00
2009/303	Australasian Aquaculture Conference 2010 to 2014	$66,000.00
Total		**$190,311.00**

RECFISH AUSTRALIA

2007/227	Recfishing Research: National Strategy for Recreational Fisheries Research, Development and Extension	$114,213.00
2008/094	Primary Industries Standing Committee (PISC) and Research and Development Corporations National RD&E Framework	$1,179.92
2008/336	Second Biennial National Recreational Fishing Conference, 2008 Recreational Fishing Awards ceremony and the Second Recfishing Research National Workshop	$74,472.20
2009/314	Strengthening partnerships and relationships within the recreational fishing sector	$6,684.70
Total		**$196,549.82**

Appendix F: Board Selection Committee

Fisheries Research and Development Corporation
Selection Committee

36 The Peninsula
YAMBA NSW 2464

The Hon. Tony Burke MP
Minister for Agriculture, Fisheries and Forestry
Parliament House
CANBERRA ACT 2600

Dear Minister

In accordance with the requirements of Section 141 of the *Primary Industries Research and Development Act 1989* (PIERD Act), I write to inform you of the activities of the Fisheries Research and Development Corporation (FRDC) Selection Committee for the year ending 30 June 2009.

On 5 June 2009 you appointed me as presiding member of the FRDC selection committee and asked me to commence the selection process for seven directors to the FRDC board. The term of the current board expires on 31 August 2009. In accordance with the PIERD Act, I sought nominations from the FRDC's three representative bodies, the Commonwealth Fisheries Association, the National Aquaculture Council and RecFish Australia, for appointment to the selection committee.

The seven board vacancies were advertised in the *Australian Financial Review* on 19 June 2009 and the *Weekend Australian* on 20 June 2009. The period for applications was scheduled to close on 3 July 2009.

In accordance with section 131 of the PIERD act, applicants were asked to address the following selection criteria: fisheries and aquaculture technology and production; administration of research and development; seafood processing and marketing; finance and business management; conservation and management of natural resources; economics; environmental and ecological matters; public administration; science; sociology and technology transfer and commercialisation.

I will report the final stages of the selection process in the financial year 2009–10.

Yours sincerely

The Hon. Harry Woods
Presiding Member

21 July 2009

Appendix G: 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 the FOI Act.

The Commonwealth's FOI legislation is administered by the Privacy and FOI Policy Branch of the Department of the Prime Minister and Cabinet (PM&C). More information is available from the PM&C website — http://www.pmc.gov.au/foi/index.cfm

Role, structure and functions

The FRDC's role is described on page xii of this annual report; its structure and functions and legislation under which it is established are described in appendices A to C.

Documents available for inspection

R&D plan (the FRDC's strategic plan)	File, publication and website *
FRDC policies	Unpublished documents, list on website *
Annual operational plan	File, publication and website *
Project details	Database, files and website *
Project agreements	Files and generic copy on website *
Final reports and non-technical summaries	Publications and website *
R&D funding applications	Files
Annual report	File, publications and FRDC website *
FISH magazine	File, publications and FRDC website *
Administration	Files, unpublished document
Mailing lists	Database

* The FRDC's website address is www.frdc.com.au

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.

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.

List of abbreviations

AFMA	Australian Fisheries Management Authority
AICD	Australian Institute of Company Directors
AGVP	average gross value of fisheries production
AMSA	Australian Marine Sciences Association
ANAO	Australian National Audit Office
AOP	annual operational plan
ASCo	Australian Seafood Co-products
BCA	benefit cost analysis
CAC Act	*Commonwealth Authorities and Companies Act 1997*
CEO	Chief Executive Officer
CRC	cooperative research centre
CRRDCC	Council of Rural Research and Development Corporations' Chairs
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Department of Agriculture, Fisheries and Forestry
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
ESD	ecologically sustainable development
FOI Act	*Freedom of Information Act 1982*
FRAB	Fisheries Research Advisory Body
FRDC	Fisheries Research and Development Corporation
GST	goods and services tax
GVP	gross value of production
ISO	International Organization for Standardisation
IT	information technology
MPA	Marine Protected Area
PIERD Act	*Primary Industries and Energy Research and Development Act 1989*
PIRSA	Primary Industries and Resources of South Australia
R&D	research and development
RD&E	research, development and extension
RDC	research and development corporation
RRDP	rural research and development priorities
SBT	Southern Bluefin Tuna
SSA	Seafood Services Australia Ltd
TRF	tactical research fund
WINSC	Women's Industry Network Seafood Community

Indices

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* (PIERD Act);
- the *Commonwealth Authorities and Companies Act 1997* (CAC Act) and its supporting Commonwealth Authorities and Companies (Report of Operations) Orders 2008 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 and CAC (Report of Operations) Orders 2008

Primary Industries and Energy Research and Development Act 1989

Other reporting requirements

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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.	Yes	Yes
This and the previous annual report.	Yes	Yes
R&D plans for Commonwealth, states, Northern Territory, regions and industry sectors.	Yes	Yes
FISH (published in March, June, September and December, 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.	Yes	Yes
Information on completed projects (final reports and other related products).	Yes (see note 1)	Yes
Non-technical summaries of all final reports of FRDC projects.		Yes
Hyperlinks to other websites containing full final reports and fisheries R&D strategies, and to other important websites.		Yes
R&D funding application details.		Yes
Coming events of significance for the industry.		Yes
Research databases.		Yes

Note 1: Information on completed projects (final reports and other related products) are also available from:

- the National Library of Australia, Parkes ACT 2600;
- the Librarian, CSIRO Marine Research, GPO Box 1538, Hobart Tasmania 7001; and
- state libraries and research institutions that the researcher considers appropriate.

www.frdc.com.au

The FRDC's website (www.frdc.com.au) provides easy access to information and publications, including the items on this page.

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, 2008–09

An electronic version is at the FRDC website — www.frdc.com.au

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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.