



Australian Government

**THE FISHERIES
RESEARCH
AND DEVELOPMENT
CORPORATION**

Annual Operational Plan

2009-10

The Fisheries Research and Development 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.

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.

Stakeholders

Stakeholders in the FRDC are the fishing industry and the Australian Government. 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 (R&D). These arrangements are addressed in this Plan. In addition the Legislation recognises that the people of Australia ultimately are the principal beneficiaries of much of the work of the FRDC.

Portfolio Minister

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



Staff

The FRDC Board

Mr Peter Neville	Chair
Mr Stuart Richey AM	Deputy Chair
Dr Ray Johnson	Director
Dr Paul McShane	Director
Mr Frank Prokop	Director
Mr Richard A Stevens OAM	Director
Mr Richard N Stevens	Director
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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 1989)* and is responsible to the Minister for Agriculture, Fisheries and Forestry.

The FRDC's role 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.

The "fishing industry" is defined in *the PIERD Act 1989* 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.

FRDC therefore invests in R&D undertaken across the whole value-chain of the industry "from capture to cuisine". The FRDC provides research administration and services using a value adding model. Unlike a simple 'granting', this involves significant management and commissioning of R&D through a variety of flexible approaches. These include open call applications; formal Memorandum of Understandings (MOU's) and partnership agreements with industry sectors; specific Subprograms tailored to industry sectors; or activities, short-term Tactical Research Funding, and specifically targeted commissioned R&D. While 'granting' research and development funding can be carried out at minimal cost, the costs of running a value added service are significantly higher, but the approach does provide a greater return on investment. The FRDC is able to achieve this result through its continual investment in systems and procedures that deliver best practice in integrated project, financial and human resource management.

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 1989* – see Attachment 2. 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	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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, Communications and Accountability	

These challenges describe those factors that, during the next twenty 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 R&D on outcomes and not simply inputs.

Requirement for an annual operational plan

Section 25 of the *Primary Industries and Energy Research and Development Act 1989* (the *PIERD Act 1989*), under which the Fisheries Research and Development Corporation (FRDC) is established, requires that an Annual Operational Plan (AOP) be prepared for each financial year.

This AOP gives effect to the FRDC's R&D Plan (*Investing for Tomorrow's Fish: the FRDC's Research and Development Plan 2005 to 2010*) for the financial year 2009-10, under which all activities for the year will be funded. It is based on the FRDC's capacity to fund new and continuing projects to the value of \$26 million. The AOP takes into account the Australian Government's and other stakeholders' R&D priorities.

Structure of this plan

Pages in [this AOP](#)

In accordance with sub-section 25 (2) of the *PIERD Act 1989*, this plan:

- specifies the broad groupings of R&D activities that FRDC proposes to fund, wholly or partly, during 2009-10; 21-28
- describes how and to what extent funding those activities will give effect to the R&D plan in force during that financial year; and 8; 16-17 and 21-28
- particularly pursues the strategies outlined in the R&D Plan and helps to achieve the planned outcome described in the R&D Plan. 21-28

The plan also provides an estimate of:

- the total amounts likely to be spent by FRDC in respect of each broad grouping of R&D activities the FRDC proposes to fund during the financial year; 11; 34-39
- the total of all other amounts likely to be spent during the financial year; and 11; 34-39
- the total of all income other than that paid to FRDC by the Australian Government. 11; 34-39

Note: The above points are an edited version of sub-section 25 (2) of the PIERD Act 1989.

Planning, operating and reporting framework

This Annual Operational Plan aligns to the FRDC's Strategic R&D Plan 2005-2010 and is consistent with the outcome, outputs and performance measures specified in the 2009-10 Portfolio Budget Statements.

The FRDC will report on its achievement against the outcome specified in this AOP in its 2009-10 Annual Report, taking account of all reporting requirements existing at the time.

Editor's notes:

Figures presented in the body of this plan have been rounded as such totals may not always agree.

The 2009-10 Portfolio Budget Statements were reformatted by the Department of Finance and Deregulation and included some changes in terminology. Consequently there may be some misalignment between these documents.

Executive Summary

The FRDC is the national body charged with funding priority R&D within the fishing industry, meeting the Government's priorities and pursuing the adoption of that R&D for the industry's and Government's (community) benefit.

It is uniquely placed, in that it deals with the Australian Government, industry and the research providers around Australia on both a strategic and operational basis. The FRDC is ideally situated to communicate and network with partners to leverage, and broker knowledge to get the best results in both Government and industry priority areas.

The FRDC thus plays a leadership role in fisheries R&D through:

- National priority setting;
- Project planning, management and extension across government agencies and industry nationally;
- Facilitation and partnership activities among research providers;
- Collaboration across other Research and Development Corporations (RDC's), independent agencies/States;
- Leverage of investment funds across Australia.

The FRDC provides research administration and services using a value adding model. Unlike a simple 'granting' model, this involves significant management of R&D through a variety of flexible approaches to match our stakeholder's needs.

The business environment of the FRDC is unique in that a large component of the research undertaken involves a shared natural resource. This results in a very high component of R&D being undertaken as "public good" research for the benefit of the whole community, to ensure sustainability of the fisheries and the supporting ecosystem.

To ensure the FRDC meets stakeholder needs, and increases the speed of output delivery, it will continue to improve the way it invests in, and manages R&D. This will involve reviewing our current funding mechanisms to ensure they are flexible and tailored to meet stakeholders' needs.

The Australian Fishing Industry

The commercial fishing industry is Australia's sixth most valuable food-based primary industry with a landed value of more than \$2.1 billion a year (ABARE – Fishing Industry Statistics 2007). In addition more than 3.4 million Australians recreationally fish each year spending an additional \$1.5 billion (DAFF – National Recreational and Indigenous fishing industry survey). For indigenous communities, the fishing industry not only provides a significant role in culture and subsistence, but also a way of generating income. Key issues affecting recreational fishing rates include access to the resource (body of water) and environmental conditions. For indigenous communities, the fishing industry not only provides a significant role in culture and subsistence, but also an avenue for income.

Fish stocks are a valuable, community-owned, renewable resource. However, they are limited and vulnerable. Therefore, it is important they are managed using the best possible information available at the time.

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.

However, the FRDC must also invest in industry development activities that aim to assist all sectors of the fishing industry to be more sustainable, efficient, profitable and productive.

The Year Ahead

The business environment

FRDC's stakeholders will see another year where change is almost certain. Three key issues – the fallout from the global financial crisis (including fuel prices and exchange rates), potential global food crisis and climate change will continue to heavily impact on the sustainability and profitability of the industry. The recreational sector will continue to be scrutinised and will need to work collaboratively with other sectors to ensure access to recreational fish stocks and fishing areas. In 2009-10 the key drivers and issues for the fishing industry are likely to be:

- Fallout from the global financial crisis (reduced access to capital, lower interest rates, reduced demand for premium seafood, reduced export markets);
- Climate change (changes in recruitment patterns, increased sea temperature, volatile weather patterns);
- Resource access (new aquaculture developments, Marine Protected Areas (MPAs) etc);
- Pressure on fish stocks;
- Skilled labour shortages;
- Aquatic animal health and biosecurity;
- Value adding and market promotion;
- Increased competition in world markets (tariffs and trade barriers);
- Price competition in the domestic market;
- Rising import costs.

FRDC will invest in activities that address the above issues for each sector of the fishing industry so that they become more productive and sustainable.

Priority areas for 2009-10

In 2009-10 the FRDC will develop its 2010-2015 R&D Plan in consultation with its key stakeholders. The development of a new R&D Plan will involve an examination of the strengths and weaknesses of the current operating environment and threats and opportunities going forward. This will enable the development of a plan which will focus FRDC strategic research development and extension investments in the highest priority areas to best meet stakeholder needs.

Innovation has become a key focus for the FRDC. The FRDC will move to fund more projects that deliver revolution, over investing in projects that deliver evolution in knowledge and adoption.

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

The target areas for the FRDC's investment in 2009–10 are:

Industry and fisheries managers' adoption of co-management fisheries principles - FRDC's 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 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 ferrying 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 opportunities ahead, understanding the needs of stakeholders, 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 are to be prioritised and high priorities to be further considered for 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 delivered.

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 collection of recreational data.

Research to assist Australian seafood companies' access new markets - FRDC is partnering with the Seafood Cooperative Research Centre to develop new markets in China and 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, Atlantic Salmon resistance to amoebic gill disease are the focus for the twelve months.

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

Research to facilitate cost effective biosecurity measures for industry - Research will be delivered to improve biosecurity for abalone virus and pearl disease control.

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

Climate change – poses both challenges and opportunities for Australia's wild fisheries and aquaculture sectors. FRDC has been participating in the development of an effective strategic framework to enhance each sector's adaptive capacity, mitigate against, and take advantage of further climate change. This builds on the vast bank 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 Research and Development Corporations (RDCs) in the collaborative research initiative Climate Change Research Strategy for Primary Industries (CCRSPI), to examine and respond to (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 co-ordinate fisheries climate change R&D with Australian, 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 FRDC aims to have completed BCA on 18 R&D subprograms comprising over 200 projects which will deliver a total R&D portfolio assessment.

Strategic investment in issues facing the recreational and indigenous fishing sectors will be coordinated with input from key stakeholder groups. Recfishing Research will provide the central point from which R&D projects will be identified for the recreational sector.

The Commonwealth and Queensland Governments have spent \$10.7 million restructuring the Tropical Rock Lobster fishery. As a result of the restructure the Indigenous commercial sector now holds 53 per cent of the Australian component of the fishery. FRDC is working with managers and the indigenous sector to develop a business plan on how to further develop the fishery and increase indigenous employment. The FRDC will also look to establish strategic partnerships with indigenous groups in regions such as the Torres Strait, to identify and invest in projects relevant to the indigenous sector.

Investment in social capital, skills and personal development has been identified by the Australian Government and industry as a factor limiting development. This will be a key area of focus for the FRDC in 2009–10, with the ongoing implementation of the People Development Program, which will guide investment in the people, communities and networks that constitute the fishing industry. Significantly, the program will aim to maximise its return to industry through working collaboratively with other RDCs to fund activities in this area.

Demand for R&D funds

Demand for FRDC investment in R&D continues to grow. This is because of increasing stakeholder awareness of the challenges and the ability of the FRDC to assist in addressing them. Translating these demands into R&D projects is challenging because of the need to balance stakeholder expectations with outcomes that are timely and address the need. For example:

- Fisheries managers and the fishing industry often have conflicting views on R&D priorities – managers need timely data on the environment (recruitment, status of stocks, and climatic changes), whereas fishers are interested in remaining in business and being profitable;
- The recreational fishing sector continues to grow. This will ultimately have an impact on both the environment and fishers access to resources (MPA's, bag limits, and seasonal closures). This will require research that not only addresses the need of the recreational sector but also balances the need for all sectors. Some current co-management projects are looking to address these issues; and
- Many fisheries researchers and institutes are driven by the need to publish research or gain access to external funding. Both drivers lead to a focus on undertaking research with less emphasis on extension.

The FRDC's Board and staff continually monitor the external environment for such conflicts and work hard to mitigate them through development of partnerships or focusing research on achieving outcomes that meet their needs. The FRDC will be increasing its emphasis on measurement of outcomes and adoption of R&D results in the future.

In early 2009, FRDC will commence writing the 2010 to 2015 R&D Strategic Plan. The development of a new Strategic R&D Plan will allow FRDC to examine the current operating environment and come up with a Plan which will maximise FRDC's ability to invest strategically in RD&E activities.

As part of the development, FRDC will consult widely with its stakeholders to ensure that all aspects of the environment are taken into consideration. FRDC will factor in broader activities such as the development of the National Primary Industries RD&E Framework and the ongoing establishment of an ongoing evaluation program that will use the RDCs framework as a base from which to review FRDC investment.

Annual Operational Plan 2009-10 Budget

REVENUE	\$	\$
Australian Government 0.5% 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	
ACT	20,000	
NSW	400,000	
NT	595,000	
QLD	675,000	
SA	1,650,000	
Tas	1,300,000	
Vic	325,000	
WA	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 expense		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		3,165,000
TOTAL EXPENDITURE		25,940,000
NET RESULT FOR THE YEAR		8,083

FRDC Program and Sector Investment Forecast 2009-10

Investment Strategy	Primary governance arrangements	Provider selection process	TOTAL SPEND (\$ million) Estimate of 2009-10
<i>National Open Call</i> November 01 - Annual cycle	Fisheries Research Advisory Bodies (FRABs) → Board	Nationally competitive open tender	\$12.0
<i>Tactical Research Fund</i> (quarterly closes, rapid, catalyst)	FRABs → Board	Nationally competitive open tender	\$1.65
<i>People Development Program</i> FRDC Initiatives	People Development Steering Group (with FRAB input) FRABs → Board	Open and closed tender and commissioned (Note: in addition to FRDC initiated investment, approximately 75% of people development expenditure is managed in conjunction with the National open call and Tactical Research Fund processes)	\$2.2
<i>National initiatives</i> (e.g. health, nutrition, energy efficiency, ESD, etc.)	Subprograms; Representative bodies (Recfish Australia, NAC and Commonwealth Fisheries Association); AFMF; FRABs; → Board	Open tender and commissioned	\$1.0
<i>Major sector partnerships</i>	Industry Partnership Agreements (referencing industry sectors R&D plans) Seafood CRC Board Subprogram plans (driven by subprogram steering committee) Partnerships → Board	Open and closed tender and commissioned	\$5.0
TOTAL PROJECT SPEND (\$ million)			\$21.85

Partnerships

The FRDC works with its partners to establish strategic R&D directions; disseminate the results; and assist when appropriate, commercialisation.

The FRDC has many partners in both the research funding and service provision areas, with one of our newest partners being the Seafood Co-operative Research Centre (SCRC). The FRDC, as a core participant of the SCRC, will invest over \$24 million cash and \$1.4 million in-kind, over its seven year life. The mission of the SCRC 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 program, 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.

This innovative approach to investment provides the FRDC with a great deal of flexibility, while at the same time enabling it to work as a "virtual" organisation many times its size.

During 2009-10 the FRDC will continue to monitor its investment in the Seafood CRC (SCRC) to maximise investment opportunities and ensure minimal duplication of effort.

The FRDC will work with SCRC, Seafood Services Australia (SSA) and Seafood Experience Australia (SEA) to address market trade and access development to increase the industry's export capacity; as well as funding specific R&D projects targeted at export growth and product diversification. Further, the FRDC will work with SEA to further develop and implement a platform for promoting and marketing seafood.

Consultation with representative organisations

The FRDC has three representative organisations with which it will consult over the course of 2009-10. They are:

- Australian Recreational and Sport Fishing Industry Confederation (trading as Recfish Australia)
- the National Aquaculture Council (NAC).
- the Commonwealth Fisheries Association (CFA).

Under section 15(2) of *the PIERD Act 1989* and the Guidelines on Funding of Consultation Costs by Primary Industries and Energy Portfolio Statutory Authorities, the FRDC may meet travel and other expenses incurred in connection with consultation between the FRDC and each of its representative organisations. The FRDC estimates that it will spend \$30,000 in 2009-10.

Consultation with levy organisations – Australian Prawn Farmers Association

The FRDC administers a research and development levy on behalf of the Australian Prawn Farmers Association (APFA). The FRDC's investments in prawn farming research and development is driven by the APFA's R&D Plan. FRDC and the APFA enjoy a very close and collaborative working relationship. The table below outlines the financial record of the relationship:

Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
APFA contribution	\$225,249	\$144,884	\$129,851	\$115,319	\$130,000	\$130,000
FRDC expenditure on aquaculture prawn projects	\$227,901	\$837,872	\$162,688	\$356,465	\$275,000	\$200,000

The APFA has been consulted in the development of this AOP. FRDC is investing with APFA in three strategic areas:

- Domestication and selective breeding for *Penaeus monodon* and *Fenneropenaeus merguensis*.
- Improving supply chain efficiency and promotion of best practice across the industry.
- Assessing the potential of bacterial flocs to improve pond productivity.

Government coordination and collaboration

The FRDC will work with the Minister for Agriculture, Fisheries and Forestry and the Department of Agriculture Fisheries and Forestry (the Department) to ensure the FRDC delivers results in line with the Australian Government's National and Rural R&D priorities – see *Australian Government Research Priorities* section below. The process for determining and responding to Government priorities is a key strategic issue for the FRDC, and is achieved through a multi-tiered approach to consultation across Government.

The FRDC is one of 15 Research and Development Corporations (RDCs). During the year FRDC will partner with the other RDCs on a number of activities. Most significantly, these will include climate change (see above), evaluation of R&D (see below) and the development of a National Primary Industries Research, Development and Extension (RD&E) Framework. Not only will FRDC partner the RDCs on this project but it will work more broadly with the Primary Industries Standing Committee participants (Commonwealth and State Governments). The FRDC will continue to participate in the CRRDCC, Executive Directors, Business managers and Communications Managers meetings. It will also assist in coordinating with other RDC sponsors of initiatives such as Taste for Excellence (chef, waiter and restaurateur competition) primary producer's tour. In addition, FRDC will continue to provide advice and services in relation to project management and the FRDC project management software - OmniFish.

The Rural Research and Development (R&D) Council was established by the Minister for Agriculture, Fisheries and Forestry in early 2009. The FRDC will seek to build a strong relationship with the Council and assist by providing information as required.

Australian Government research priorities

In 2007 the Australian Government updated its Rural Research Priorities. The new set of Rural Research Priorities build on those first introduced by the Australian Government in 1994 and complement the Australian Government's National Research Priorities. They take into account the recommendations of several policy reviews, including the 2006 Agriculture and Food Policy Reference Group Report (better known as the Corish Report), which emphasised innovation and leading edge R&D as a foundation for the long term success of agricultural and food industries.

The new Rural Research Priorities aim to foster innovation and guide R&D effort in the face of continuing economic, environmental and social change. The rural sector needs to be well positioned to respond to, and manage, change to maintain and improve its long term profitability, competitiveness and sustainability. Climate variability and climate change will be a major focus for all RDC's for the first time. This Australian Government recognises the significant risk that climate change poses for agriculture, fisheries and forestry and the need to work on ways to mitigate the impact on Australian primary producers.

This will mean RDCs will need to not only identify the issues associated with climate change, but drive innovation and productivity increases, through smart investment and encouraging adoption of R&D outputs. These priorities will be addressed along with those associated with export development and enhanced biosecurity arrangements as they apply to the primary industries sector.

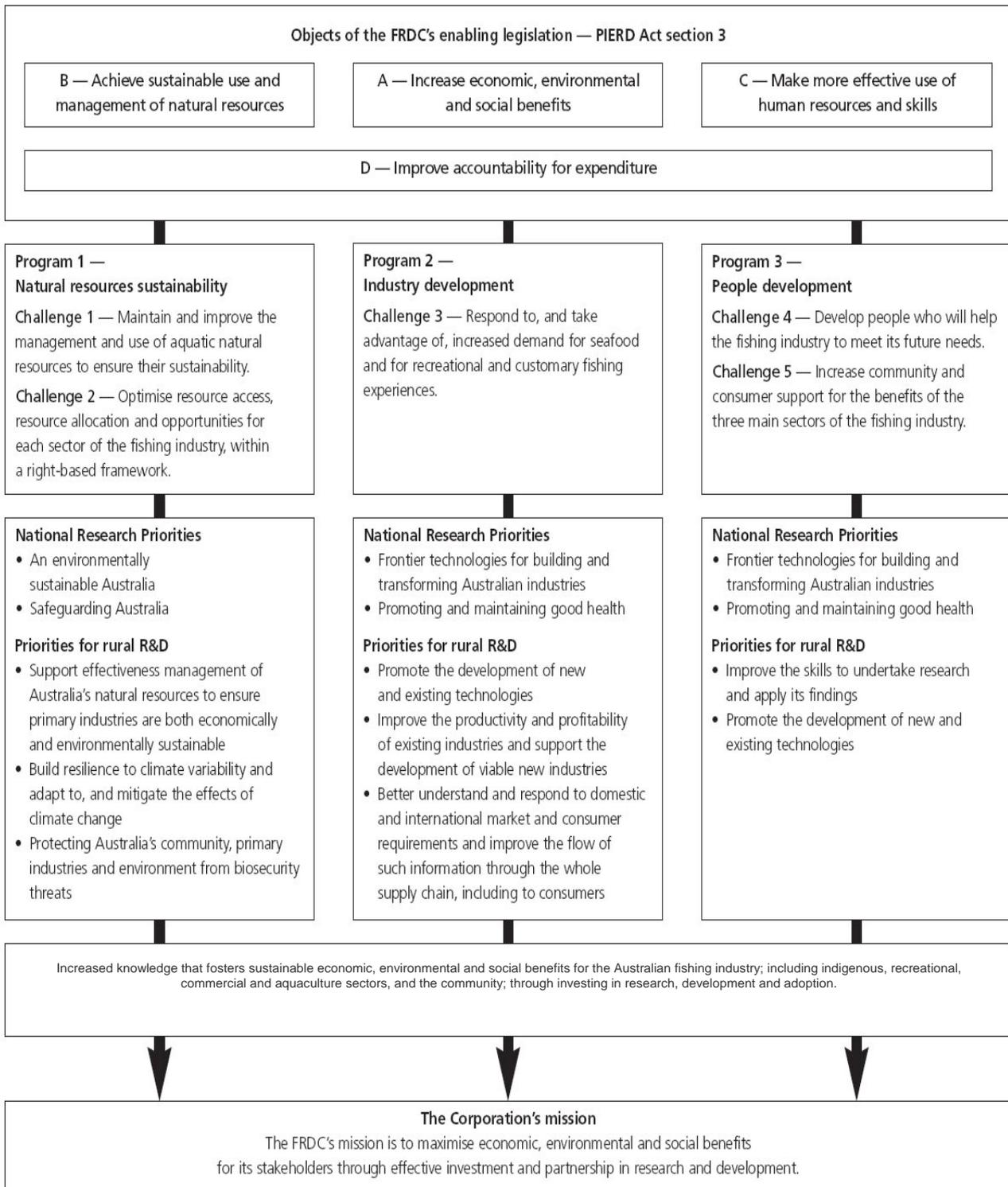
The Rural R&D Priorities complement the National Research Priorities and are a part of a whole-of-government effort to identify and implement broad priorities for science and innovation that will build scale and focus activity in priority areas.

FRDC is addressing all government research priorities within the framework of its R&D programs. The priorities align well to the FRDC's four legislated objects (section 3 of *the PIERD Act 1989*) as shown in *Figure 1: FRDC's framework for integrating legislative, government and industry priorities*.

Integration of the planned outcome with legislative, government and industry priorities

The FRDC’s objectives, derived from section 3 of *the PIERD Act 1989*, are incorporated in its vision, mission and planned outcomes. As reflected in Figure 1 (below), the FRDC’s three R&D programs mirror the industry development, natural resources sustainability and people development themes of 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 to many of its kindred organisations. It has also facilitated a triple-bottom-line; ecologically sustainable development approach to all funded activities.

Figure 1: FRDC’s framework for integrating legislative, government and industry priorities



A planned outcome — the focus for R&D programs

One of the advantages of the outcome–outputs system is that the FRDC’s efforts are focused, not on the goods and services produced and its R&D partners, but on actual impacts of those goods and services in the economic, environmental and social contexts in which the FRDC operates. In essence, the planned outcome is based upon things that will make a real difference to Australia’s fisheries resources and fishing industry. In turn, a good outcome can only be achieved through good R&D outputs.

The management processes for encouraging the transformation of R&D outputs into outcomes are focused in Program 4, Management and Accountability. The FRDC concentrates on high-priority activities and containment of total program support costs has been aided by best practice information technology and continual improvement of management processes within a quality management system certified to standard AS/NZS ISO 9001:2008.

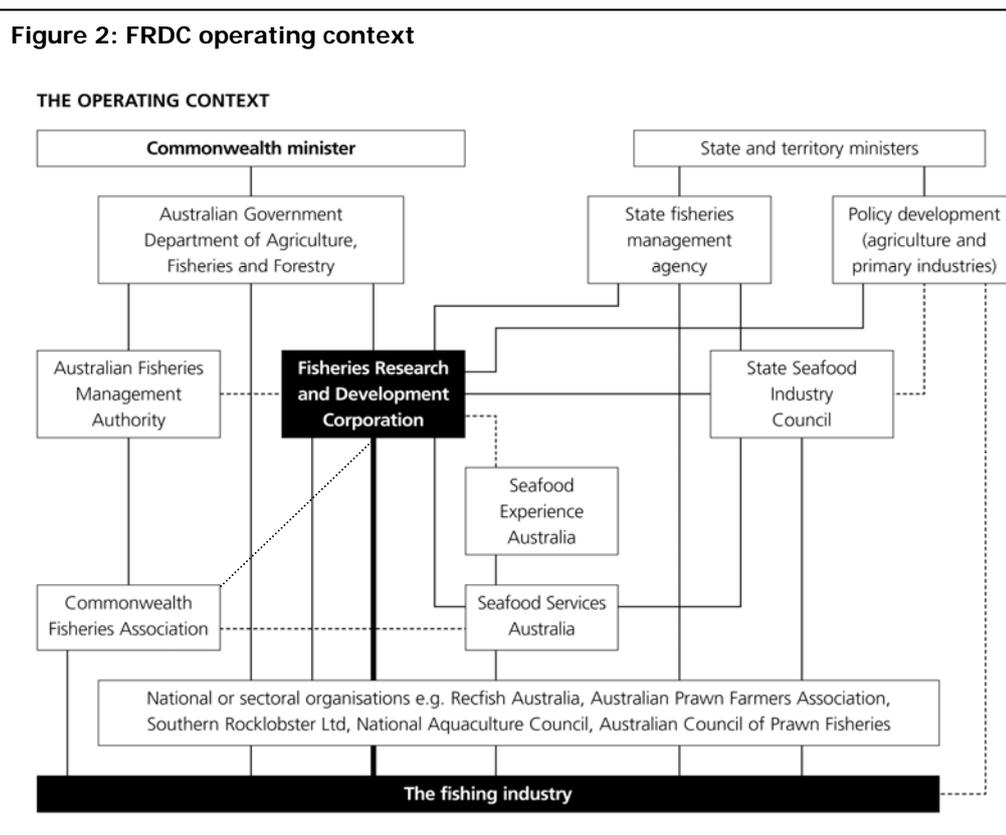
External planning and review of R&D activities

To ensure a balanced portfolio, and to align with Australian Government and industry research priorities, the FRDC determines the balance between projects funded within the R&D programs. Accordingly, each year, as part of preparing the AOP and funding round processes, the FRDC reviews its strategic assessment of the business environment. The investment planning is done with reference to the priorities of the Australian Government, the states and the Northern Territory, the combined priorities as determined through the Australian Fisheries Management Forum (AFMF) and the FRABs.

The review of R&D activities may highlight actual or potential changes to the business environment that prompt the FRDC to adjust the balance — or to address gaps — in the R&D portfolio. As a result of the current strategic assessment of the business environment, the funding targets for the FRDC within its three main R&D programs in 2009-10 are:

- **Program 1 (Natural Resources Sustainability):** 45%
- **Program 2 (Industry Development):** 45%
- **Program 3 (People Development):** 10%

Performance indicators for the planned outcome and outputs for 2009-10 are contained in the following pages. The effectiveness in encouraging the transformation of R&D outputs into an outcome is a significant component of Program 4, Management and Accountability.



Achievement of the FRDC outcome through R&D outputs

FRDC is responsible for investing in and delivering information to stakeholders. It provides research and development (R&D) services in response to demands from industry and governments (stakeholders). Knowledge generated by FRDC's investment in R&D assists stakeholders to meet a range of economic, social and environmental objectives for the fishing industry. The competing demands of stakeholders for the limited resources available to FRDC are considered through strategic planning and associated stakeholder consultative processes to develop balanced investment R&D programs.

Knowledge arising from R&D is provided to stakeholders to inform their decision making and assist with achieving their objectives. In 2009-10 FRDC will work with partner organisations and stakeholders to ensure a greater emphasis is placed on dissemination and adoption of R&D outputs to stakeholders – through the use of new information technologies.

Identification and measurement of the FRDC outcome

In 2007 the Productivity Commission published a report titled "Public support for Science and Innovation". While the report made no specific recommendation, the authors commented on what was seen as best practice in science investment. The report reinforced the collective need of the RDCs to measure the benefits of the government's investment in them. As a result, a new performance matrix is being developed collaboratively by the RDCs that will quantify the value of RDC R&D investment.

Over the next year each R&D Corporation will undertake a series of benefit cost analysis (BCAs) that will provide a holistic picture of the worth of each individual FRDC's investment, as well as for the whole RDC model. An element of this will be to identify the 'public benefit' and private benefit research arrangements including the spill over impacts. By the end of 2009-10 FRDC aims to have completed BCA on 18 R&D subprograms comprising over 200 projects which will deliver a total R&D portfolio assessment.

In addition, the FRDC Board assesses its investment and performance against the National and Rural Research Priorities, industry priorities, the Australian Fisheries Management Forum and the Fisheries Research Advisory Bodies in each jurisdiction.

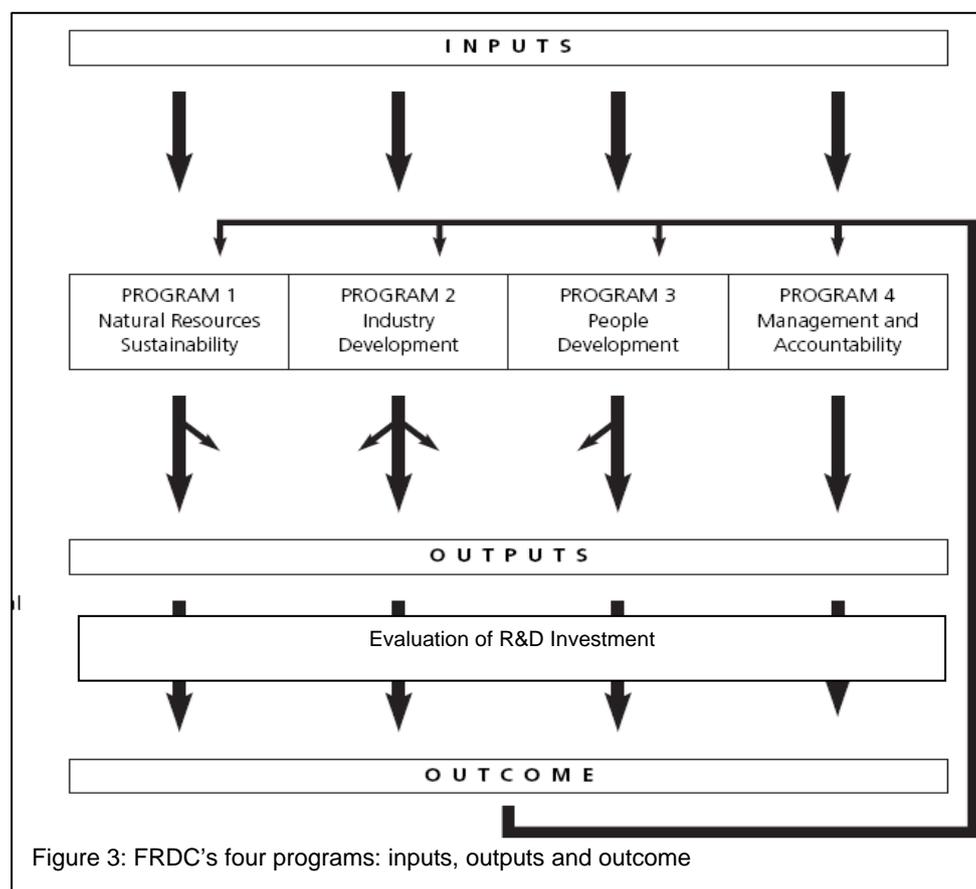


Figure 3: FRDC's four programs: inputs, outputs and outcome

Investing for Outcomes

Program 1 – Natural resources sustainability

Australian Government priorities addressed in program 1

The Fisheries Research and Development Corporation provides R&D services to meet the demands of industry, federal, state and territory government agencies for knowledge and information to assist with managing fisheries and aquaculture activities.

National research priority	Priority for rural R&D
An environmentally sustainable Australia	Natural Resource Management Climate Variability and Climate Change
Safeguarding Australia	Biosecurity

Challenge 1: Natural resources sustainability – the challenge is to maintain and improve the management and use of aquatic natural resources to ensure their sustainability.

*Significant drivers facing industry**

- Need to assess the impacts of climate change on fisheries.
- Fish stocks considered overfished will need to be recovered by implementing appropriate management measures.
- All sectors will be expected to contribute increasingly to the costs of management and research.
- Ecosystem-based fisheries management will require greater understanding of the impacts of commercial, recreational and indigenous fishing.
- Environmental certification will be routinely required for all sectors.
- Policy and strategies will need to address illegal, unregulated and unreported fishing and trading.
- Desire of indigenous fishers to be actively engaged in fisheries management.

Priorities for 2009-10

- Provide a leadership role in coordinating climate change research and development projects for fisheries.
- Measure and mitigate the interactions of fishing and non-fishing activities on the aquatic environment and fish stocks.
- Meet the regulatory requirements of natural resource and environmental legislation such as the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) and improve fisheries environmental management performance.
- Develop spatially explicit management models for fish stocks.
- Develop and implement industry-based environmental management systems.

* Significant Drivers Facing industry – The Annual Operating Plan for 2009-10 provides a short list of the most pressing issues. A full list of all the issues identified by the seafood industry can be found in *The Fisheries Research and Development Corporation's Investing for Tomorrow's Fish Research and Development Plan 2005-10*.

Challenge 2: Resource access and resource allocation – the challenge is to optimise resource access, resource allocation and opportunities for each sector of the fishing industry, within a rights-based framework.

Significant drivers facing industry*

- Allocation of access to fisheries resources between sectors will move away from methods based on historic catch to ones that seek to maximise economic and social returns to both the community and the industry.
- Spatial management, including the declaration of marine protected areas, will be used increasingly to protect biodiversity in ecosystems and preserve representative habitats.
- Demand for better fishing experiences by the recreational sector, and in particular the tourism component, will require greater emphasis on the maintenance and optimum utilisation of fish stocks.
- Demands for resource access to meet environmental and social needs will be increasingly competitive.

Priorities for 2009-10

- Determine the types of environmental, social and economic costs and benefits that arise from different closure systems, and their effectiveness in achieving multiple natural resource management objectives.
- Develop processes to inform and define inter-sector resource allocation.
- Develop methods for adjustment to address re-allocation between the three sectors.
- Develop a better research-based process for defining marine protected areas.
- Definition of property rights and its importance in inter and intra-sectoral resource management decisions.

Deliverables and Services for 2009-10

Provide investment in R&D that addresses:

- Fisheries management and industry adaptation to climate change, to ensure sustainable fisheries and aquaculture.
- Fisheries to become co-managed.
- The development of socio-economic assessments for incorporation into fisheries resource allocation processes within a sustainability framework.
- The development of information on spatial management.

Key Performance Indicators for 2009-10

KPIs will be measured by reports on improvements in performance and adoption, including:

- The adoption of climate change and adaptation solutions.
- The adoption of co-management principles by fisheries.
- The number of reports on improved performance.
- Agencies increased use of reports.

Key performance Indicators	2009-10	2010-11	2011-12	2012-13
Improved understanding of the impacts of climate change that lead to adaptation by fisheries management and industry.	2 reports	2 reports	2 reports	2 reports
Improved adoption of co-management fisheries principles by industry and fisheries managers.	2 fisheries	1 fishery	2 fishery	1 fishery
Improved sustainability performance due to the use of social and economic R&D outputs.	1 fishery/ agency reports on performance	1 fishery/ agency reports on performance	1 fishery/ agency reports on performance	1 fishery/ agency reports on performance
Increased use of spatial R&D outputs by fisheries managers	1 agencies report on use	2 agencies report on use	3+ agencies report on use	3+ agencies report on use

Program 1: Challenge 1 and 2 – Examples of new projects to be funded in 2009-10

Project Id	Project Title	Cost (\$)
2009/012	Population biology of albacore tuna in the Australian region	235,918
2009/016	Rebuilding Ecosystem Resilience: Assessment of management options to minimise formation of 'barrens' habitat by the long-spined sea urchin (<i>Centrostephanus rodgersii</i>) in Tasmania - Supplementary Funding	428,550
2009/018	Identifying factors affecting the low western rock lobster puerulus settlement in recent years	408,402
2009/019	Evaluating the potential use of change-in-ratio and index removal techniques for determining harvest rates and efficiency increases in the Western Rock Lobster Fishery	130,250
2009/020	Evaluation of population genetic structure in the western rock lobster	165,985
2009/021	Movement patterns and stock structure of Australian sardine (<i>Sardinops sagax</i>) off South Australia and the East Coast: implications for future stock assessment and management.	248,798
2009/024	Mapping the distribution and movement of gulper sharks, and developing a non-extractive monitoring technique, to underpin a stock rebuild within a multi-sector fishery region off southern and eastern Australia	867,796
2009/029	Ecological risk assessment for effects of fishing on habitats and communities	120,425
2009/031	Taking female mud crabs (<i>Scylla serrata</i>): assessment of risks and benefits.	68,085
2009/037	Sustaining productivity of tropical red snappers using new monitoring and reference points	102,481
2009/038	Aboriginal fisheries in New South Wales: determining catch, cultural significance of species and traditional fishing knowledge needs.	84,916
2009/040	Fish stocking programs: are there long term genetic and ecological impacts?	598,522
2009/041	Fisheries Social Sciences Research Coordination Program	342,504
2009/044	Aquatic Animal Health Subprogram: surveys of ornamental fish for pathogens of quarantine significance	453,137
2009/046	PIRSA Initiative II: carrying capacity of Spencer Gulf - hydrodynamic and biogeochemical measurement modelling and performance monitoring	1,169,821

Program 2 – Industry Development

Australian Government priorities addressed in program 2

National research priority	Priority for rural R&D
Promoting and maintaining good health	Productivity and Adding Value Supply Chain and Markets
Frontier technologies for building and transforming Australian industries	Innovation Skills Technology

Challenge 3: Response 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.

Significant drivers facing industry*

- Supply chain efficiency will need to improve and, for example, eliminate unnecessary handling.
- Traceability will need to be improved through the use of new technologies.
- Climate change is impacting on the fishing industry on a number of levels and the industry will need to reduce production costs, such as fuel, through gear, engine and vessel configuration changes.
- Increasingly, aquaculture investment will be based on the demand for seafood, driven by consumer preferences.
- Industry will need to develop and expand on its seafood promotion capabilities to deal with the competition that seafood is facing from other foods on domestic and international market.
- Seafood producers will need to make themselves better informed about ever-changing consumer preferences.
- Industry will need to respond to consumers' concerns about food safety and labelling and their growing interest in all the characteristics of the products they buy.

Priorities for 2009-10

- Increase the profitability of businesses supporting the three sectors of the fishing industry.
- Develop aquaculture capacity to produce more fish for consumption or for fishing experiences.
- Assist the fishing industry to reduce production costs, such as fuel, through gear, engine and vessel configuration changes.
- Develop systems to increase market intelligence.
- Develop innovative processes for value-adding through product development.
- Develop efficient, market-based supply chains that add value to product.
- Improve fishing practices to increase survival of released fish.

* Significant Drivers Facing industry – The Annual Operating Plan for 2009-10 provides a short list of the most pressing issues. A full list of all the issues identified by the seafood industry can be found in *The Fisheries Research and Development Corporation's Investing for Tomorrow's Fish Research and Development Plan 2005-10*.

Deliverables and services for 2009-10

- Provide investment in R&D that helps industry to:
- adapt to climate change
- deliver increased aquaculture production
- develop value-added seafood products.
- implement cost reduction technologies, including fuel efficiencies.

Key Performance Indicators for 2009-10

KPIs will be measured by reports on improvements in performance and adoption by:

- Industry sector adoption of research
- Research contribution to increased aquaculture production
- New value added products developed
- Number of new projects finalised

<i>Key performance Indicators</i>	<i>2009-10</i>	<i>2010-11</i>	<i>2011-12</i>	<i>2012-13</i>
Industry uses the results of the FRDC's R&D to adapt to climate change	1 sector adopting research findings	2 sector adopting research findings	2 sector adopting research findings	2 sector adopting research findings
Increased aquaculture production	2% increase per year			
New value added products for the seafood sector (in conjunction with the Seafood CRC).	1 new product developed			
The FRDC funds R&D that helps industry reduce its cost structure.	2 new projects finalised			

Program 2: Challenge 3 – Examples of new projects to be funded in 2009-10*

Project Id	Project Title	Cost (\$)
2009/212	Innovative production research hub (getting the most from collaboration)	411,153
2009/213	Emerging and Developing Aquaculture Program	560,000

* In addition to the projects outlined above it is important to recognise that a number of FRDC Program 2 projects will be funded as part of the agreement with the Seafood CRC and will not show up in this table.

Program 3 – People development

The Fisheries Research and Development Corporation helps to improve the industry and researcher capacity to respond to future demands through the development and support of people; and provides community access to research findings.

Australian Government priorities addressed in program 3

National research priority	Priority for rural R&D
Frontier technologies for building and transforming Australian industries	Innovation Skills Technology
Promoting and maintaining good health	Productivity and Adding Value Supply Chain and Markets

Challenge 4: People development – the challenge is to develop people who will help the fishing industry to meet its future needs.

Significant drivers facing industry*

- There is a shortage of industry leaders in all sectors of the fishing industry.
- There is a shortage of opportunities for people in industry to develop skills that are going to directly improve their effectiveness.
- Labour shortages resulting from increased competition from other sectors.
- Industry needs to invest in staff retention strategies as there is a high turnover of fisheries management staff, which leads to less informed staff being called upon to make decisions on complex issues.
- The fishing industry will need to learn from other industries that have embraced a knowledge and innovation culture, and seek to profit from new opportunities to grow their businesses.

Priorities for 2009-10

- Implementation of the FRDC's people development program
- Provide knowledge and processes that help to develop a market-based culture in the industry.
- Develop mechanisms to deliver better measurement and adoption of R&D results by industry.
- Enhance industry leadership, for all sectors, through appropriate training.
- Enhance opportunities for information and technology transfer within and between sectors.
- Promote an environment for adoption of business best practice.
- Foster an environment that encourages innovation and R&D adoption.

* Significant Drivers Facing industry – The Annual Operating Plan for 2009-10 provides a short list of the most pressing issues. A full list of all the issues identified by the seafood industry can be found in *The Fisheries Research and Development Corporation's Investing for Tomorrow's Fish Research and Development Plan 2005-10*.

Challenge 5: Community and consumer support – increase community and consumer support for the benefits of the three sectors of the fishing industry.

*Significant drivers facing industry**

- The community is having a greater say in the use and management of all natural resources. Industry needs to engage with community representatives so that a good understanding of viewpoints can develop.
- The community is very concerned with environmental issues and how natural resources are being accessed and utilised.
- Consumer education is important in developing new markets and expanding existing markets.
- Consumers are becoming more aware of the role that seafood can play in their health.
- The community perception of the fishing industry is poor, despite the large investment in research which has led to significant changes in how the industry operates.
- Government and communities recognise aquaculture as a sustainable way of producing fish.

Priorities for 2009-10

- Develop relationships with community groups that can assist the fishing industry.
- Increase consumers understanding of the health benefits of eating seafood.
- Address animal welfare and biosecurity issues.
- Educate the community about fisheries and aquaculture management and its contribution to Australia.
- Communicate the benefits of government and industry investment in R&D.
- Contribution to the biosecurity review.

Deliverables and services for 2009-10

- Invest in a bursary program to support personal and professional development activities, including support for indigenous development
- Sponsor the development of fishing industry people, students and researchers through the National Seafood Industry Leadership Program, the Australian Rural Leadership Program, and other programs.
- Ensure R&D results are disseminated to key stakeholders and the community.

Key Performance Indicators for 2009-10

KPIs will be measured by reports on improvements in performance and adoption by:

- Industry sector adoption of research
- Research contribution to increased aquaculture production
- New value added products developed
- Number of new projects finalised

<i>Key performance Indicators</i>	<i>2009-10</i>	<i>2010-11</i>	<i>2011-12</i>	<i>2012-13</i>
Fishing industry participation in the scholarship and bursary programs	10 participants complete programs	10 participants complete programs	10 participants complete programs	10 participants complete programs
Improved leadership skills of fishing industry people, researchers and other stakeholders.	10 participants complete course			
Media and industry reports of R&D attributable to FRDC investment.	20 reports per year	20 reports per year	25 reports per year	25 reports per year

Program 3: Challenge 4 and 5 – Examples of new projects to be funded in 2009-10*

Project Id	Project Title	Cost (\$)
2009/300	Empowering industry R&D: developing an industry driven R&D model for the Australian fishing and seafood industry - partnerships to improve efficiency, profitability and performance.	445,600
2009/302	Linking careers, research and training - a pilot for the seafood industry	103,750
2009/303	Australasian Aquaculture 2010 to 2014	320,000
2009/308	To develop the MDCA network and promote FRDC principles	183,250
2009/310	National Seafood Industry Leadership Program: 2009-2011	276,179
2009/311	The three M's project - mentors, mentorees and mentoring seafood project	106,499
2009/312	Educating though Escape with ET	291,200

* In addition to the projects outlined above it is important to recognise that as part of the FRDC People Development Program a number of personal and professional development activities/projects – including scholarships and bursaries are not shown in this table. Anticipated 2009-10 investment in these activities is \$255,000.

Program 4 - Management, Communications and Accountability

The FRDC delivers R&D services efficiently, effectively and ethically.

FRDC's ISO-certified quality management system encompasses all these activities. As a quality organisation the FRDC recognises the importance of reporting on the efficiency with which its research investments are delivered, as well as on their effectiveness. FRDC will work with the department and the other RDCs to develop an approach to measuring efficiency that will be incorporated into its performance measurement framework.

Most of Program 4 outputs do not lead directly to the FRDC outcome but enhance the delivery and management of Programs 1–3 (the three R&D programs), as shown in figure 3: frdc's four programs: inputs, outputs and outcome, on page 16.

Management and accountability Elements

Since management and accountability arrangements contribute to the planned outcome of FRDC R&D programs, they are crucial to the FRDC's effectiveness and efficiency. The elements are detailed below.

Corporate Governance

FRDC aims to have a best practice system of corporate governance. These governance requirements are established under legislation and adopted practices and are documented through a range of policies and processes which the FRDC regularly updates and reports to Government each year through its annual report. FRDC is subject to both internal audit and external audit.

Business Planning

FRDC aims to have a clearly defined and implemented Corporate Plan and business strategy aligned to government and industry needs which are understood and supported by stakeholders. Complementing this process the FRDC maintains a five-year Strategic Research and Development Plan *Investing for Tomorrow's Fish* 2005-2010 thus ensuring on-going research and development builds on, and drives innovation in the fishing industry.

FRDC finances and maintains an Australia-wide based system of Fisheries Research Advisory Boards (FRABs) which assist in determining research priorities and assessments and provide stakeholder engagement for the FRDC.

Information Management Systems

FRDC aims to provide business systems that meet the requirements both of the organisation and its stakeholders. Investment in this area has recently been increased to update the web-based capacity to handle an increasingly complex array of project management systems and reporting requirements. Increasingly the FRDC is being engaged to manage the activities of other organisations under the enhanced systems. FRDC over the next twelve months will integrate its website, as a mechanism to promulgate its research reports, with the RDCs and Primary Industry agencies collaborative research website – Australian Agriculture and Natural Resources Online (AANRO).

Quality System

FRDC aims to be recognised as a quality-driven organisation, through quality leadership, continuous improvement and appropriate accreditation. The FRDC is an accredited organisation under ISO9001:2008 and maintains the complete set of processes and procedures required for that accreditation

Corporate Communications

FRDC aims to inform all stakeholders of its goals, strategies and achievements; and provide them access to information that will help them. A wide range of corporate communication avenues are used including printed publications (FISH Magazine), web-based, e-mail and all media outlets. Direct communication through committees and meetings are used, while regional and port visits are regularly involved.

Risk Management

FRDC aims to ensure its risks and opportunities are identified, assessed and appropriately managed. It maintains a Risk Management Committee and at each Board meeting a Risk Register and profile is discussed and updated. Activities required to mitigate risk are then actioned through this process. As a matter of practice external personnel are engaged in this process and attend such meetings.

Finance and Administration

FRDC aims to have best practice accounting and investment functions, managed in accordance with board and statutory requirements. The FRDC is subject to satisfying all Government requirements; legislative and policy based, and is subject to audit by the Australian National Audit Office.

Human Resources Management

FRDC aims to have best practice in human resources management clearly focused on delivering the FRDC's business objectives.

Deliverables and services for 2009-10

- Meet statutory and Australian Government requirements.
- Undertake benefit cost analyses to quantify the effectiveness of the FRDC's investments.
- Provide access to information through website, publications and reports.
- Support workshops, forums and conferences to encourage debate, discussion and adoption of research funded by the FRDC.

Key Performance Indicators for 2009-10

KPIs will be measured by reports on performance against requirements and better practice.

<i>Key performance Indicators</i>	<i>2009-10</i>	<i>2010-11</i>	<i>2011-12</i>	<i>2012-13</i>
Maintain ISO9001:2008 accreditation.	100%	100%	100%	100%
Submit planning and reporting documents in accordance with legislative and Australian Government requirements and timeframes.	100%	100%	100%	100%
Implement best practice governance arrangements to promote transparency, good business performance, and unqualified audits.	100%	100%	100%	100%
Minimise administrative costs as a percentage of total expenditure.	Under 15%	Under 15%	Under 15%	Under 15%
Demonstrate the benefits of R&D investments by positive benefit cost analysis results.	100%	100%	100%	100%

The FRDC Governance framework

Element	Scope
Enabling legislation	<i>The PIERD Act 1989</i> which sets out the legislative framework and rules for the establishment and operation of the FRDC.
Governance legislation	<i>The Commonwealth Authorities and Companies Act 1997</i> (CAC Act), which specifies requirements for good governance and accountability.
Priorities of key stakeholders	Australian Government National and Rural Research Priorities. The R&D priorities of representative organisations: Recfish Australia, Commonwealth Fisheries Association and National Aquaculture Council.
Annual report	Requirement of various legislation; Reports to the Australian Parliament and FRDC stakeholders on R&D activities during the financial year and on measures to ensure good governance.
Quality management system	Systematic, ISO-certified processes CAS/NZS ISO 9001:2008 designed to meet or exceed the expectations of stakeholders and other people and organisations with which FRDC does business. Incorporates management of FRDC policies.
R&D planning and priority-setting	FRDC works with nation-wide Fisheries Research Advisory Bodies (FRABs) to undertake planning for R&D in consultation with governments, AFMF, industry, stakeholders and research providers. Priorities for R&D at state, regional or fishery level are significantly determined by the FRABs, managed subprograms and other priority-setting structures, with the FRDC determining the balance between projects funded within the R&D programs.
Board governance	Key functions include overseeing corporate governance, including the systems and processes used to direct and control its operations and investment decisions. This is enhanced by the Board's spread of skills and experience and ongoing development in directorship.
Performance monitoring	Includes monitoring and measuring of performance to continually improve the FRDC's effectiveness and efficiency.
Reporting to stakeholders	Includes consultation with, and formal reporting to the three representative organisations; reporting of R&D investment activities via FISH; and participation in conferences, workshops and other activities.

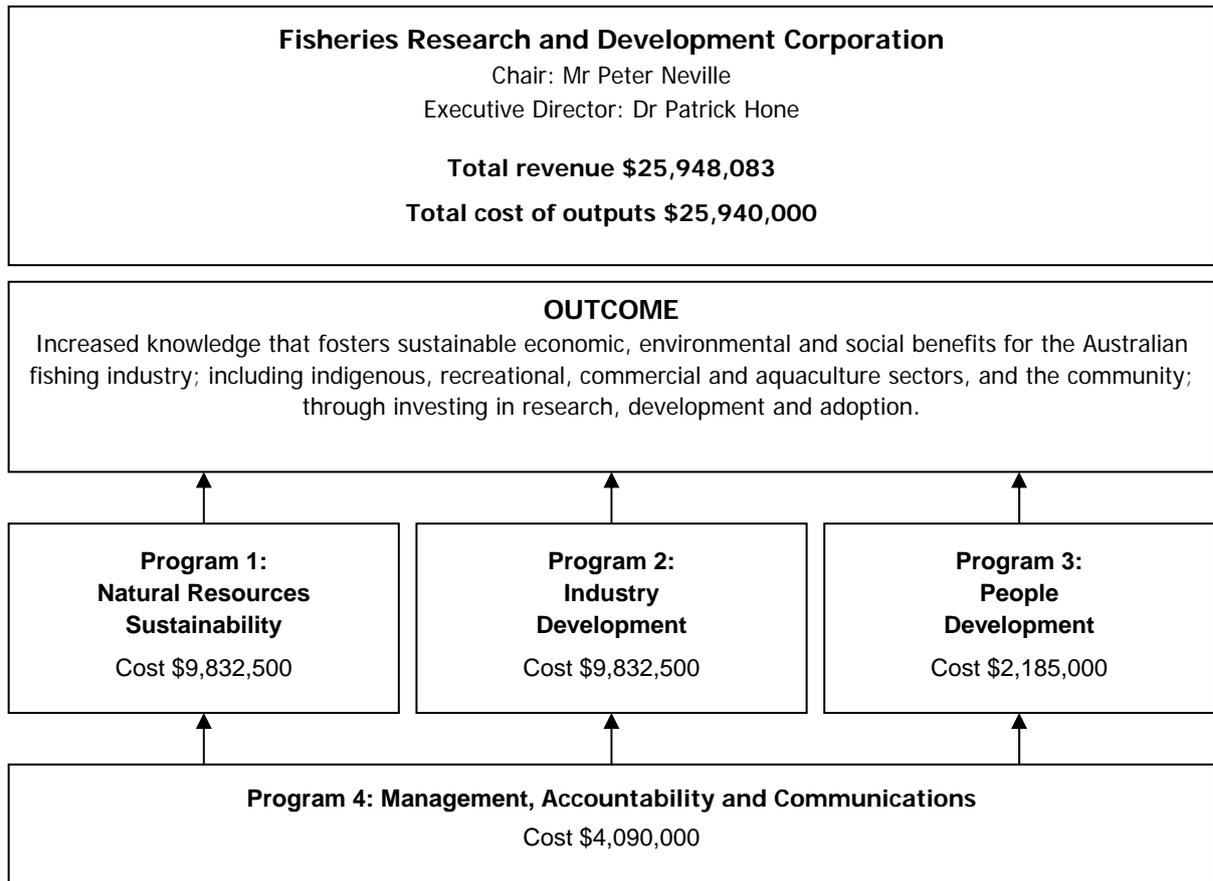
Budget Statements for 2009-10

Resources for 2009-10

Summary of outputs and contribution to outcome

The relationship between activities of the FRDC and the outcome is summarised below.

Contributions to outcomes



Comprehensive Income Statement (Showing Net Cost of Services)

for the period ended 30 June

	Estimated actual 2008-09 \$'000	Budget estimate 2009-10 \$'000	Forward estimate 2010-11 \$'000	Forward estimate 2011-12 \$'000	Forward estimate 2012-13 \$'000
EXPENSES					
Employee benefits	1,615	1,915	1,847	1,933	2,023
Supplier	803	825	875	885	895
Grants	23,400	21,850	23,300	23,350	23,850
Depreciation and amortisation	547	575	540	540	510
Other	685	775	805	755	785
Total expenses	27,050	25,940	27,367	27,463	28,063
LESS:					
OWN-SOURCE INCOME					
Revenue					
Sale of goods and rendering of services	550	140	140	140	140
Interest	270	250	250	250	250
Industry Contributions	7,340	7,365	7,780	7,500	7,687
Other revenue	2,305	705	1,135	862	449
Total revenue	10,465	8,460	9,305	8,752	8,526
Total own-source income	10,465	8,460	9,305	8,752	8,526
Net cost of (contribution by) services	16,585	17,480	18,062	18,711	19,537
Revenue from government	16,591	17,488	18,083	18,729	19,575
Surplus (Deficit)	6	8	21	18	38
Surplus (Deficit) attributable to the Australian Government	6	8	21	18	38

Budgeted departmental balance sheet (as at 30 June)

	Estimated actual 2008-09 \$'000	Budget estimate 2009-10 \$'000	Forward estimate 2010-11 \$'000	Forward estimate 2011-12 \$'000	Forward estimate 2012-13 \$'000
ASSETS					
Financial assets					
Cash and equivalents	5,051	5,632	6,167	6,443	6,779
Trade and other Receivables	2,160	1,802	1,458	1,465	1,407
Other investments	5	5	5	5	5
Total financial assets	7,216	7,439	7,630	7,913	8,191
Non-financial assets					
Infrastructure, plant and equipment	206	79	38	8	3
Intangibles	2,702	2,694	2,625	2,495	2,405
Total non-financial assets	2,908	2,773	2,663	2,503	2,408
Assets held for sale					
Total assets	10,124	10,212	10,293	10,416	10,599
LIABILITIES					
Provisions					
Employees	382	390	402	418	426
Total provisions	382	390	402	418	426
Payables					
Suppliers	289	296	302	340	370
Grants	270	251	300	315	395
Other	257	341	334	370	397
Total payables	816	888	936	1,025	1,162
Total liabilities	1,198	1,278	1,338	1,443	1,588
Net assets	8,926	8,934	8,955	8,973	9,011
EQUITY*					
Reserves	94	94	94	94	94
Retained surpluses	8,832	8,840	8,861	8,879	8,917
Total equity	8,926	8,934	8,955	8,973	9,011
Current assets	7,211	7,434	7,625	7,908	8,186
Non-current assets	2,913	2,778	2,668	2,508	2,413
Current liabilities	1,163	1,239	1,295	1,391	1,533
Non-current liabilities	35	39	43	52	55

*'Equity' is the residual interest in assets after deduction of liabilities.
Prepared on Australian Accounting Standards basis.

*Equity should be read in the context of the FRDC's approach to risk management - the FRDC is framing its AOP against a very uncertain and volatile environment. Additionally, the number is low compared to other RDCs, and sits against a background of contractual commitments of over \$55m.

Budgeted departmental statement of cash flows (as at 30 June)

	Estimated actual 2008-09 \$'000	Budget estimate 2009-10 \$'000	Forward estimate 2010-11 \$'000	Forward estimate 2011-12 \$'000	Forward estimate 2012-13 \$'000
OPERATING ACTIVITIES					
Cash received					
Goods and services	550	140	140	140	140
Revenues from Government	16,591	17,488	18,083	18,729	19,575
Interest	270	250	250	250	250
Other	9,457	8,328	9,056	8,315	8,380
Total cash received	26,868	26,206	27,529	27,434	28,345
Cash used					
Employees	1,615	1,915	1,847	1,933	2,023
Suppliers	649	818	869	847	865
Grants	23,434	21,869	23,251	23,335	23,770
Other	432	583	597	663	936
Total cash used	26,130	25,185	26,564	26,778	27,594
Net cash from or (used by) operating activities	738	1,021	965	656	751
INVESTING ACTIVITIES					
Cash used					
Purchase of property, plant and equipment	50	50	80	80	65
Other	370	390	350	300	350
Total cash used	420	440	430	380	415
Net cash from or (used by) investing activities	-420	-440	-430	-380	-415
Net increase or (decrease) in cash held	318	581	535	276	336
Cash at the beginning of the reporting period	4,733	5,051	5,632	6,167	6,443
Cash at the end of the reporting period	5,051	5,632	6,167	6,443	6,779

Appendix 1 - Australian Government Research Priorities

In 2007 the Australian Government updated its Rural Research Priorities. The new set of Rural Research Priorities build on those first introduced by the Australian Government in 1994 and complement the Australian Government's National Research Priorities. The government requires FRDC to incorporate them into its planning and report activities against them. This section sets out those priorities and shows the predicted FRDC expenditure against both sets of priorities.

FRDC aligning the needs of stakeholders

The Government Priorities provide an over-arching framework for public investment in research and development activities. FRDC incorporates these priorities into its planning, reporting and investment activities. This is clearly articulated in the following FRDC documents:

- FRDC Strategic R&D Plan
- Annual Operational Plan; and
- FRDC Annual Report

More information

The **National Research Priorities** can be viewed at http://www.dest.gov.au/sectors/research_sector/policies_issues_reviews/key_issues/national_research_priorities.

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 following table)

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

2009–10 Total investment — Government research priorities attributed to each R&D Program (\$ and %)

2009-10 Total investment — Rural Research Priorities

<i>Rural Research and Development Priorities (RRDP)</i>	Program 1: Natural Resource Sustainability		Program 2: Industry Development		Program 3: People Development		Total expenditure	
	\$000	%	\$000	%	\$000	%	\$000	%
Productivity and Adding Value	391	2	2,592	12	185	1	3,168	15
Supply Chain and Markets	239	1	2,229	10	134	1	2,602	12
Natural Resource Management	8,344	38	1,104	5	444	2	9,892	45
Climate Variability and Climate Change	684	3	300	1	114	1	1,098	5
Biosecurity	321	1	477	2	122	1	920	4
Innovation Skills	275	1	519	2	450	2	1,244	6
Technology	624	3	1,296	6			1,920	9
Other research	400	2	400	2	200	1	1,000	5

2008-09 Total investment — National Research Priorities

<i>National Research Priorities (NRP)</i>		Program 1: Natural Resource Sustainability		Program 2: Industry Development		Program 3: People Development		Total expenditure	
		\$000	%	\$000	%	\$000	%	\$000	%
An environmentally sustainable Australia	A1	339	2					339	2
	A2	390	2	1,807	8	257	1	2454	11
	A3								
	A4		0	210	1			210	1
	A5	8,615	39	831	4	316	1	9762	45
	A6								
	A7	631	3	90	0	100	0	821	4
Promoting and maintaining good health	B1								
	B2								
	B3	133	1	463	2	223	1	819	4
	B4	75	0	508	2	269	1	852	4
Frontier technologies for building and transforming Australian industries	C1	307	1	966	4			1273	6
	C2	214	1	1,410	6			1624	7
	C3								
	C4	243	1	426	2			669	3
	C5	348	2	1,162	5	543	2	2053	9
Safeguarding Australia	D1								
	D2								
	D3	320	1	529	2	124	1	973	4
	D4								
	D5								

Notes: (a) When looking at the R&D expenditure estimates across RRP and NRP, note that expenditure estimates differ for similarly themed priorities as a result of differences between descriptors. (b) National Research Priorities and their associated Goals are listed above.

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