



Australian Government

**Fisheries Research and
Development Corporation**

Annual Operational Plan

2010-11

FRDC Vision

The vision of the Fisheries Research and Development Corporation is a vibrant Australian fishing and aquaculture industry, supporting and adopting world-class research to achieve prosperity; and wisely using the natural resources on which it depends.

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 influence the FRDC in its priority setting processes, and assist in the conduct of its business and the adoption of its research and development. 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
Ms Heather Brayford	Director
Ms Renata Brooks	Director
Mr Brett McCallum	Director
Dr Daryl McPhee	Director
Dr Keith Sainsbury	Director
Mr Richard Stevens OAM	Director
Dr Patrick Hone	Executive Director

The FRDC Staff

Mr John Wilson	Business Development Manager
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Australian Government
Fisheries Research and Development Corporation

16 April 2010

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

Dear Minister,

I am pleased to submit for your approval the annual operational plan of the Fisheries Research and Development Corporation (FRDC) for the financial year 2010–11. This is required under sections 25 and 26 of the Primary Industries and Energy Research and Development Act 1989.

In developing the plan, the FRDC has been conscious of the need to facilitate performance reporting, as required under the Commonwealth Authorities and Companies Act 1997. This is consistent with the corporation's responsibility to plan and report in an 'outcomes and outputs' framework.

The 2010–11 financial year will be the first under the FRDC's new five-year strategic R&D plan, *Investing for tomorrow's fish: the FRDC's Research, Development and Extension Plan 2010–2015*.

The research activities outlined in this annual operational plan will contribute to implementing the strategies and achieving the objectives set out in the plan and align with the National Research, Development and Extension Framework for Fisheries and Aquaculture.

Figure 2: FRDC's framework for integrating legislative, government and industry priorities indicates how the FRDC has aligned with the Australian Government's National Research and Rural R&D Priorities, including the government's focus on climate change and productivity.

Yours sincerely

PETER NEVILLE
Chairman

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Executive Summary

The Fisheries Research and Development Corporation (FRDC) is the national body charged with planning, funding and managing Research, Development and Extension (RD&E) for the fishing industry, delivering against the Government's priorities, and pursuing the adoption of RD&E for industry and community benefit.

It is uniquely placed, in that it deals with the Australian Government, industry and the research partners 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 from research and development for both Government and industry and the community.

The FRDC plays a leadership role in fisheries RD&E through:

- national leadership and priority setting;
- project planning, management and extension across government agencies and industry nationally;
- facilitation and partnership activities with research partners;
- collaboration across other Research and Development Corporations (RDCs), independent agencies/States and international organisations;
- leverage of investment funds across Australia.

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 RD&E 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 RD&E. This will involve reviewing our current funding mechanisms to ensure they are flexible and tailored to meet stakeholders' needs.

The business environment

In 2010-11 the FRDC will commence the 2010-2015 RD&E Plan (the RD&E Plan).

The plan outlines the key areas of focus for the FRDC over the next five years. Natural resource sustainability and industry development remain key priorities. People development and an extension and adoption program will run across the major programs.

The new RD&E Plan aligns with the Primary Industry Standing Committee (PISC) National Fishing and Aquaculture RD&E Strategy. This alignment ensures a common framework that will encourage coordination among the different Commonwealth, state government agencies, Research and Development Corporations (RDCs), industry and university sectors. This will help to boost the profitability, productivity and sustainability of Australia's fisheries.

The FRDC will continue to take a leadership role in driving issues of national significance such as climate change. It will also assist at the local level by focusing on extension and adoption of research with stakeholders.

Innovation remains a key focus for FRDC investment. The FRDC will strive to fund more projects that will deliver substantial change, over investing in projects that deliver gradual incremental increases 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 global financial trends including the strength of the Australian dollar and its impact on the gross value of production. All of which ultimately affect the amount of funds available and the priorities for stakeholders.

Priority areas for 2010-11

The priority target areas for the FRDC's investment, based on advice from Minister Burke, FRDC's representative bodies and industry in general, are:

Biosecurity and aquatic animal health – FRDC has a strong health program led by its Aquatic Animal Health Subprogram. Key areas of focus in 2010-11 will be the continued work on addressing Atlantic Salmon resistance to amoebic gill disease, indentifying the causative agent for Southern Bluefin Tuna six week mortality syndrome, characterisation of abalone herpes-like virus infections in abalone (Abalone Viral Ganglioneuritis - AVG), and the development of a number of polymerase chain reaction (PCR) testing protocols, including for an unknown disease agent in Pearl oysters. In addition to biosecurity research on developing improved diagnostic and pest detection, FRDC has a significant investment with DAFF on surveys of ornamental fish for pathogens of quarantine significance.

Climate change FRDC has commenced a coordinated funding program (Department of Climate Change and Energy Efficiency (DCCEE), Department of Agriculture Fisheries and Forestry (DAFF) and participating state Government Agencies) to enhance the fishing industries capacity to adapt, 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 continue to 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 the positive and negative impacts of climate change on primary industries.

Community resilience and development – The recently established social science research coordination program will be undertaking a gap and needs analysis on social research that will assist fisheries managers achieve triple bottom line requirements. These needs will be prioritised for future investment.

Consumers and markets –Increasing consumer satisfaction, building markets and improving supply chains are critical to improving productivity. FRDC is partnering with Seafood Services Australia to address trade and market access issues in a number of international markets including china, India and the European Union.

Ecologically Sustainable Development – Ecologically Sustainable Development (ESD) is now accepted as the foundation for natural resource management in Australia. A substantial amount of work is now being done to develop the methods to measure and assess the performance of fisheries across the full range of ESD issues. FRDC in partnership with the Australian Fisheries Management Forum (AFMF) will develop a program to support research on harvest strategies that explicitly include environmental, economic and social indicators. FRDC will also look to further the work that has been already undertaken on Ecosystem Based Fisheries Management.

Extension and Adoption – FRDC will develop an extension and adoption plan to facilitate the transfer of knowledge to its stakeholders. This will include the development of an extension network and a range of information resources for industry. It will also look to fund research to better target extension activities.

Governance & regulatory systems – To improve management outcomes and reduce costs, FRDC is trialling alternative co-management arrangements with three fisheries jurisdictions; Commonwealth, Queensland and Western Australia. *Resource access and allocation* – Delivery of performance indicators for spatial management will be completed. Work will continue on developing data collection techniques for recreational fishers and how this can be incorporated into management models for the future.

Habitat and ecosystem protection – By-catch and by-catch reduction will continue to be an area in which a range of activities is undertaken. Activities are underway to reduce the interaction and impacts between fishers and sea snakes, seals and Threatened, Endangered and Protected species (TEP).

Maximising value from aquatic resources – Food security continues to be a strong focus for the FRDC. Investment will aim to optimise use of wild resources and build on increasing capacity in the aquaculture

sector. Research in Western Australia will target underutilised fish stocks and improved retail chains. Social and personal values – recreational and customary is also a focus here.

People development – Professional development awards and leadership programs will build leadership, professionalism and cross-sectoral understanding, and enhance opportunities for young people, Aboriginal and Torres Strait Islanders, and women to participate and reach their potential. Opportunities to develop and share knowledge and skills will be provided through visiting experts program, travel awards and conferences. Further, FRDC is leading a change in culture on workforce training and will invest in workforce attraction and retention strategies, including industry and research connections with the education sector.

Productivity and profitability – FRDC and its industry partners have a considerable investment in the Seafood Cooperative Research Centre (71% of all SCRC funds). The SCRC is targeting more efficient value chains, developing USA and China market programs for rocklobster, abalone and prawns. Adoption of the benchmarking research undertaken for prawn, oyster, abalone and barramundi industries is planned as part of the SCRC technology transfer program. Through the Aquaculture Innovation Hub, Emerging Species Program and the SCRC, new species, hatchery methods and husbandry practices are to be developed to increase production.

In addition, FRDC will lead, participate in, and develop the following joint Rural RDC and government initiatives:

Fishing and Aquaculture RD&E Strategy – 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 co-ordinated approach to rural research, development and extension. FRDC has led the development of the Fishing and Aquaculture RD&E Strategy and will take a lead role in its implementation, in partnership with the Australian Fisheries Management Forum and FRDC's Representative Bodies and its other stakeholders.

One of the primary goals of the strategy is to better coordinate RD&E investment, human capability and infrastructure. More work is needed to build the necessary partnerships and processes to achieve this goal. The strategy will continue to adapt to ensure stakeholder priorities – Commonwealth and state government and industry sector plans are monitored and the strategy updated to reflect these.

Rural R&D Council – FRDC will work with the Council of Rural RDC (CRRDC) to ensure that the proposed national plan being developed by the Rural R&D Council delivers desirable outcomes to government, industry and other stakeholders. Integral to this development will be the implementing of the CRRDC strategic plan and the RD&E Framework for all rural sectors; and in particular the fishing and aquaculture sector.

Collaboration – FRDC's investment policy includes financial incentives for collaboration between research organisations, sectors and across other relevant RDCs. FRDC has agreed to provide further incentives as part of the implementation of the Fishing and Aquaculture RD&E Strategy to encourage national and regional collaboration and specialisation, and ensure the outcomes of research undertaken in one location are widely available.

Harmonisation – In partnership with the Canberra based RDCs, FRDC is working to harmonise services to reduce administrative costs and ensure efficient delivery of RD&E investment. Some of these shared services will have efficiency benefits for non-Canberra based RDCs.

Productivity Commission (PC) – FRDC will work with the PC to ensure it has access to the best available data on Fishing Aquaculture RD&E investment and FRDC's role in that process. FRDC will be providing suggested improvements to the RDC funding model that will deliver improved outcomes for government and industry.

Evaluation of RD&E outcomes - The FRDC, as part of the CRRDC, is working collaboratively to implement a framework of Benefit Cost Analysis (BCA) to evaluate research and development activities undertaken. By the end of 2010-11 FRDC will have completed BCAs on all the clusters required to assess the economic benefit of FRDC's investment over the last 5 years. This will enable FRDC to deliver a total RD&E portfolio assessment for the last 5 years. FRDC intends to continue a rolling series of BCAs to ensure that this assessment is maintained and informs the FRDC board on the optimal RD&E investment strategy.

In addition the FRDC will continue to work with all relevant government agencies, other RDCs and the Rural Research and Development Council.

Estimates of income and expenditure

The FRDC's total income in 2010–11 is forecast to be \$24,703,188, consisting of:

- Australian Government contributions of \$16,548,188.
- Levy contributions of \$7,785,000.
- Other income, including interest and royalties, of \$370,000.

In addition to these totals FRDC entered into an agreement with the DCCEE and DAFF during the 2009-10 financial year to manage a \$5.5 million investment in marine and aquaculture climate change research. These funds are expected to be spent between 2010 and 2012.

The FRDC Board has approved an annual expenditure of \$20,300,272 million in 2010–11 on RD&E expenditure between its five programs. The following are the proposed percentage targets for each program:

Program 1 (Environments):	40%
Program 2 (Industries):	35%
Program 3 (Communities):	5%
Program 4 (People):	10%
Program 5 (Extension and Adoption)	10%

These figures are indicative only. Changes in the FRDC's operating environment may require the corporation to vary the total expenditure or specific allocations to secure its objectives.

Annual Operational Plan 2010-11 Budget

REVENUE		\$	\$
	Australian Government 0.5% AGVP	11,032,125	
	Australian Government matching of industry contributions	5,516,063	
Total revenues from the Australian Government			16,548,188
Contributions revenue			
	AFMA	670,000	
	ACT	20,000	
	NSW	340,000	
	NT	595,000	
	QLD	645,000	
	SA	1,550,000	
	Tas	1,300,000	
	Vic	265,000	
	WA	800,000	
	Other project related income	1,600,000	
Total contributions revenue			7,785,000
Other revenue			
	Interest	250,000	
	Sales of goods and services	115,000	
	Other income	5,000	
Total other revenue			370,000
TOTAL REVENUE			24,703,188
EXPENDITURE			
Projects expenditure			
	Environments	8,120,109	40%
	Industries	7,105,095	35%
	Communities	1,015,014	5%
	People	2,030,027	10%
	Extension and adoption	2,030,027	10%
Total programs			20,300,272
Made up of:			
	Forecast payments against existing contracts	15,482,158	
	Forecast payments against new contracts	4,818,114	
Communications			920,000
	Other goods and services expense		
Management and accountability			
	Employees		1,835,186
	Suppliers		960,000
	Depreciation and amortisation		685,000
	Net write down of assets		0
	Other expenses		
Total Programs support			3,480,186
TOTAL EXPENDITURE			24,700,458
NET RESULT FOR THE YEAR			2,729

Expected carryover of cash (\$6.3m) and net receivables (\$3.7m) from previous financial year

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, development and extension activities in Australia. This includes providing leadership and coordinating the monitoring, evaluating and reporting on RD&E 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 RD&E priorities.

The FRDC's primary revenue comes from the Australian Government and the fishing and aquaculture industry; in addition it manages significant contributions by stakeholders in FRDC-funded projects. The FRDC's primary revenue source is based on:

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

FRDC invests in RD&E 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' model, the FRDC undertakes significant management and commissioning of RD&E through a variety of flexible approaches. This includes open call and tactical research applications; formal partnership agreements with industry sectors and state governments; and coordination programs to address significant cross-sectoral issues. While running a simple 'granting' model for 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 that deliver best practice in integrated project, financial and human resource management.

Board and staff

A Chair and a board of directors govern the FRDC, while an Executive Director (ED) leads the corporation's business activities. The Board oversees corporate governance, sets strategic direction and monitors the ongoing performance of the FRDC and the ED. The FRDC Board and the ED are responsible for managing and evaluating the organisation and its investments and for reporting to Government and the fishing industry.

Fisheries Research Advisory Bodies

The FRDC supports a network of Fisheries Research Advisory Bodies (FRABs) covering Commonwealth fisheries and the fisheries of each state and the Northern Territory. The FRABs have an extremely important role in optimising the efficiency of the FRDC's planning and investment processes. In the 2009-10 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.

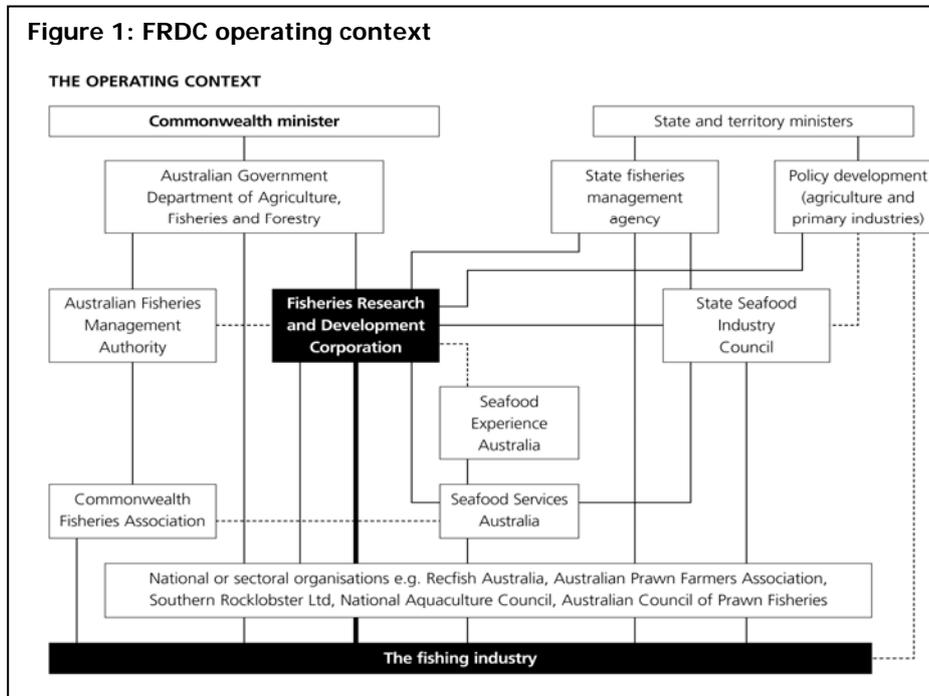
Relationships with stakeholders

The FRDC also maintains strong relationships with its other stakeholders: research partners, including state departments, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), universities, cooperative research centres (CRCs), other rural RDCs and companies; industry groups; and co-investors in the private sector.

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. It will continue to create and nurture new relationships to meet changing priorities e.g. extension; social; people development; indigenous communities.

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. Much of this work is done via collaboration with the Seafood CRC, Seafood Services Australia (SSA) and Seafood Experience Australia.



The Australian Fishing Industry

The Australian fishing industry comprises three main sectors – the commercial sector, which is comprised of wildcatch commercial fishing, aquaculture, and the through-chain activities undertaken by seafood importers, processors, manufacturers, handlers and retailers; recreational fishing, which includes the tackle, tour guides and charter sectors; and customary fishers. While there are common, national issues, each sector faces unique challenges and has specific research, development and extension needs, and these vary around Australia.

The "fishing industry" is defined in the FRDC Regulations 1991 under *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.

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 economic and community development.

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

Performance evaluation

Evaluating the impact of RD&E investments and reporting to stakeholders on performance are part of the FRDC's core business. The FRDC continually assesses the performance of programs and projects against its strategies and stakeholders' priorities by:

- periodically surveying research partners, representative organisations and the Australian Government to measure their satisfaction with the effectiveness of FRDC activities
- conducting impact assessments to evaluate the benefits that FRDC-supported RD&E is delivering to the fishing industry, as well as the benefits that flow on to the wider community
- conducting evaluations of milestone reports submitted for each FRDC project.

In March 2007 the CRRDC commenced an ongoing program of independent evaluation of the collective investment by the 15 RDCs. The results for the first year of analysis were released in December 2008 and showed significant benefits from the investment by the RDCs.

In December 2008, the CRRDC released the first year of results of this ongoing evaluation of the investment return. The 2008 report showed that over a 25 year timeframe, for every \$1.00 invested there was an average return of \$11.00, in 2007 dollars.

There were 59 individual programs evaluated in 2009, representing \$676 million in RDC investments. These programs cover applied research, extension, capacity building, and information management. The programs were independently evaluated using a standardised cost benefit analysis methodology that was applied consistently across the RDCs. The results show a strong return on investment, with a benefit cost ratio of 2.36 after five years and 5.56 after 10 years. The return rises to 10.51 after 25 years. That is, for every \$1.00 invested, \$10.51 is returned after 25 years, largely consistent with the results from 2008.

Importantly, these results show that pay back on the investment dollar is quick, with 60 per cent of projects showing a positive net present value by year five and 77 per cent positive by year 10.

Extension and Adoption

Knowledge arising from R&D should be used to help stakeholders inform their decision making, assist with achieving their objectives and improve productivity.

The FRDC will establish in the first half of 2010-11 an explicit Extension and Adoption Plan for Fisheries and Aquaculture. Central to the plan will be the development of an extension network that will assist identifying potential extension gaps and identify opportunities, prioritise and commission activities.

In 2010-11 FRDC will work with partner organisations and stakeholders to ensure a greater emphasis is placed on extension and adoption of R&D outputs to stakeholders. The FRDC will continue to develop a number of information delivery mechanisms and explore a wide range of alternative approaches of delivery, such as mobile communication technologies. It will work on converting information resources, such as clusters of research projects, into formats suitable for use by fisher and aquaculturists alike. The objective is to improve the accessibility of information. This will include converting existing hardcopy information into packages of content suitable for delivery via the FRDC and AANRO website or others as deemed efficient, such as YouTube for videos.

The FRDC will also look outside existing knowledge pathways for innovative ways of taking world's best practice research and develop it into material that is easy to access and can be disseminated to Australian stakeholders. Existing partnerships with organisations such as the United Kingdom's Seafish and New Zealand Crop and Food Research Centre and Seafood Industry Council will form the basis of an international seafood information hub that will underpin access to identified priority areas.

RD&E Priorities

The FRDC works with its primary partners the Australian Government and fishing industry to establish strategic RD&E directions; disseminate the results; and assist when appropriate, commercialisation.

In addition the FRDC partners many other organisations in both the research funding and service provision areas. In particular the FRDC has a strong linkage with 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 goal of FRDC's investment in the SCRC is to assist end-users of its research to deliver safe, high-quality, Australian seafood and increase the profitability and value of the industry. These priorities align with the FRDC's RD&E Program 2: Industries. This partnership is one innovative way the FRDC extends its activities further along the value chain and enhances its focus on development.

Australian Government research priorities

The FRDC will work closely with the Minister for Agriculture, Fisheries and Forestry and the Department of Agriculture, Fisheries and Forestry (the Department) to ensure it delivers results in line with the Australian Government's National and Rural R&D priorities – see *Australian Government Research Priorities* section on page ##.

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

FRDC has developed explicit programs (e.g. Climate Change) to ensure the delivery of the government priorities into its planning and reporting systems, addressing most of these priorities within the framework of its RD&E programs. The priorities also closely align to the FRDC's four legislated objects (section 3 of *the PIERD Act 1989*) as shown in *Figure 2: FRDC's framework for integrating legislative, government and industry priorities*.

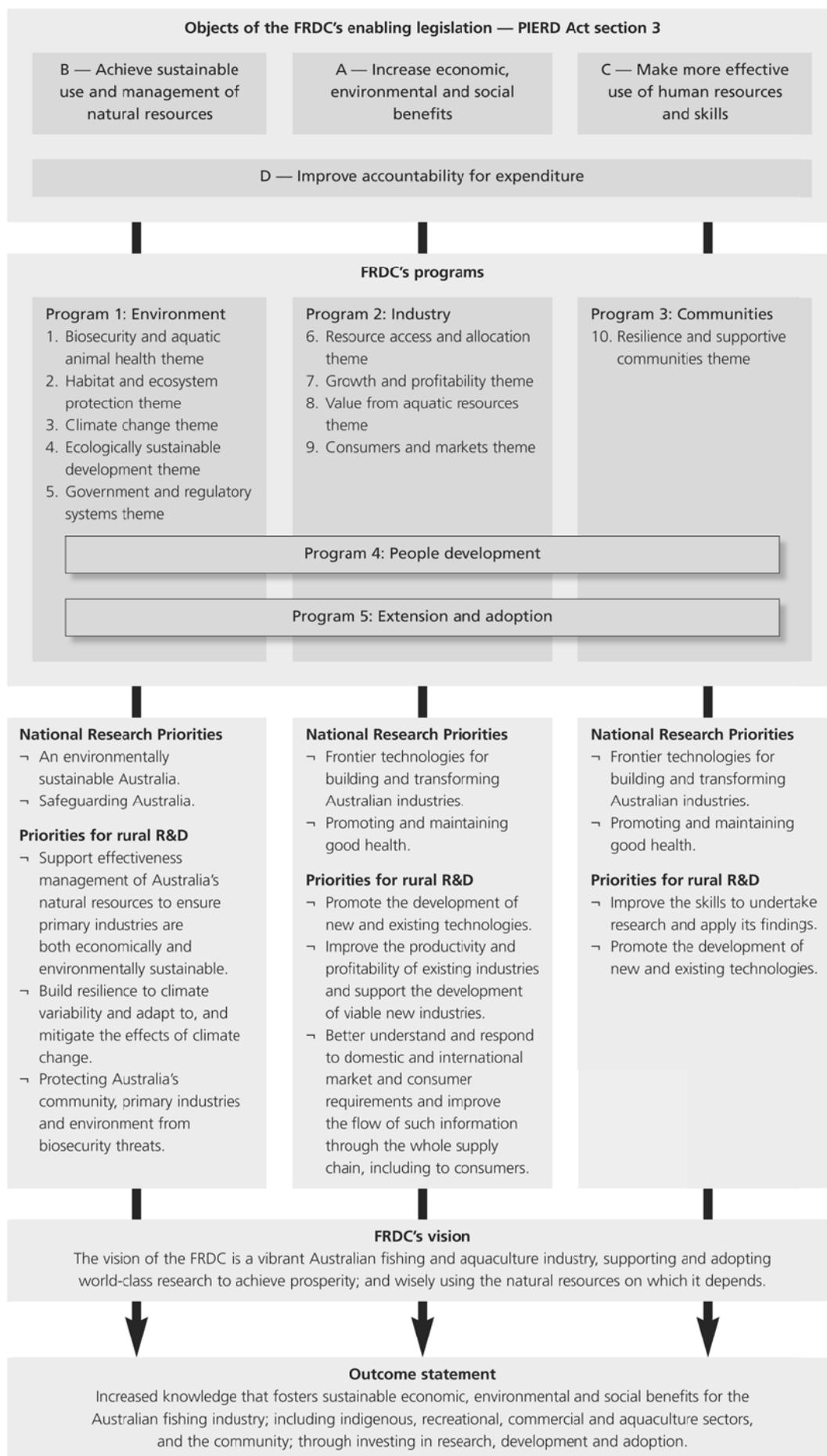
Integration of the planned outcome with legislative, government and industry priorities

The FRDC's objectives, derived from section 3 of *the PIERD Act 1989*, are incorporated in its vision and planned outcome. The FRDC's RD&E programs mirror the core themes of sub-sections 3(a), (b) and (c) of the Act. This alignment has brought simplicity and robustness to the FRDC's RD&E planning, implementation and reporting, and to many of its kindred organisations. It has also facilitated a triple-bottom-line; ecologically sustainable development approach to funded activities.

Stakeholder research priorities

One of the primary challenges for the FRDC is to gain a solid understanding of the needs and priorities of its stakeholders – many of whom come from a diverse range sectors and operations. FRDC in developing the National RD&E Strategy and its RD&E Plan has consulted widely with a majority of these groups. In addition FRDC has undertaken industry research to build on this knowledge.

To ensure a balanced portfolio, and to align with industry research priorities, project applications are screened by the FRABs and where possible industry is directly engaged and integrated into the project.

Figure 2: FRDC’s framework for integrating legislative, government and industry priorities.

Consultation with representative organisations

The FRDC has three representative organisations with which it will consult over the course of 2010-11. They are the:

- Australian Recreational and Sport Fishing Industry Confederation Inc (trading as Recfish Australia)
- National Aquaculture Council Inc (NAC).
- Commonwealth Fisheries Association Inc (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 has budgeted \$30,000 on such consultation in 2010-11.

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 RD&E Plan. FRDC and the APFA enjoy a very close and collaborative working relationship. The APFA has nominated that the majority of its investment is to be through a co-investment with the Seafood CRC. The APFA has a lead role with FRDC in ensuring its priorities are met. The table below outlines the financial record of the relationship:

Year	2006-07	2007-08	2008-09	2009-10	2010-11
APFA contribution	\$129,851	\$115,319	111,436	\$130,000	\$125,000
FRDC expenditure on aquaculture prawn projects	\$162,688	\$356,465	\$319,161	\$200,000	\$200,000

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

- Research that improves price / kg;
- Research that improves growth per week; and
- Research that improves days to harvest / standing crop capacity.

Planned Outputs for 2010-11

Environments

Australia's maritime zone is one of the largest in the world covering about 13.6 million square kilometres: Commonwealth, 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.

Investment Budget for 2010-11

During 2010–11, \$8.1 million (about 40 per cent of the total RD&E investment) will be invested in RD&E activities within this program.

Strategies	Research area	Performance indicator	Targets
Biosecurity and aquatic animal health	<p>Enhancing our knowledge of pests and diseases of commercial consequence</p> <p>Reducing pest and disease impacts on fishing and aquaculture businesses and the environment</p> <p>Developing capability, technology and processes to detect, prevent and respond to aquatic animal health pathogens and minimise risks through translocation</p> <p>RD&E to support changes to APVMA policies and processes that provide for improved access to fit for purpose chemicals</p>	<p>Documentation and dissemination of pest and diseases of significance.</p> <p>Development of diagnostic tests for key species and dissemination of test.</p> <p>Development of techniques and technologies to mitigate and minimise disease and pest species.</p>	<p>Development of online diseases database.</p> <p>Development of diagnostic tests.</p>
Habitat and ecosystem protection	<p>Understanding key food webs that support fisheries production and resilient aquatic ecosystems.</p> <p>Mitigating impacts of fishing on threatened, endangered and protected species.</p> <p>Reducing by-catch and discards, and better utilisation of previously discarded catch.</p> <p>Designing improved and standardised environmental monitoring and management systems and technologies</p> <p>Understand human impacts on catchment and aquatic habitats.</p>	<p>Improved sustainability performance from the use of RD&E outputs.</p> <p>Invest in innovative technologies to reduce fishery take and interaction with by-catch and TEP species.</p>	<p>Two projects on TEP species</p> <p>Development of innovative trawl technologies</p>

Strategies	Research area	Performance indicator	Targets
Climate change	<p>Understanding risk, opportunities and impacts of climate change on fisheries and aquaculture.</p> <p>Understanding the sensitivity and impacts of climate change on ecosystems, fish stocks and fishing communities</p> <p>Understanding the adaptive capacity of stakeholders – both management and industry.</p> <p>Developing tools to assist fisheries and aquaculture businesses and management to adapt to climate change.</p> <p>Understanding and reducing the carbon foot print of industry.</p>	<p>Improved understanding of the impacts of climate change that lead to adaptation by fisheries management and industry.</p> <p>Mitigation methods developed to reduce carbon foot-print and green house gas emissions of fishing industry.</p>	<p>Two reports outline adaption measures are used by industry</p> <p>One approach for reducing industry carbon foot-print developed and used by industry</p>
Ecologically Sustainable Development	<p>Developing and implementing efficient and effective data collection and monitoring processes.</p> <p>Developing technologies and models to underpin harvest strategy development and delivery and evaluation for data poor fisheries.</p> <p>Understanding the influence of oceanographic and ecological factors on fisheries e.g. recruitment of fish stocks.</p> <p>Developing technologies and processes to better understand the impacts of aquaculture systems and to quantify carrying capacity.</p> <p>Developing practical tools for EBFM, and incorporating them into fisheries management plans.</p>	<p>Development of mechanism and technology to collect effective data.</p> <p>Improved knowledge of the relationship between oceanographic processes and known biological processes.</p> <p>Better understanding of EBFM for Australian fisheries.</p>	<p>One fishery incorporating oceanographic processes in fisheries management</p> <p>Assessment methods for data poor fisheries extended to relevant stakeholders</p>

Strategies	Research area	Performance indicator	Targets
Governance & regulatory systems	<p>Integrating social, environmental and economic considerations into fisheries management strategies</p> <p>Developing performance indicators - including social, ecological and economic.</p> <p>Developing delegation and accountability governance models.</p> <p>Developing tools and techniques to support flexible, adaptive and more responsive fisheries management</p> <p>Integrating monitoring and reporting systems so as to reduce costs and complexity.</p> <p>Developing efficient multi-fishery and multi-sector management arrangements in Australia's bioregions</p> <p>Involving communities in fisheries management at the local and regional level (e.g. monitoring and decision making and implementation).</p> <p>Developing and implementing cost effective compliance systems, including targeting and performance assessment.</p>	<p>Improved adoption of co-management fisheries principles by industry and fisheries managers.</p> <p>Increased use of spatial RD&E outputs by fisheries managers.</p> <p>Further develop community based monitoring programs</p> <p>Improved remote electronic technologies developed for effective compliance.</p>	<p>Two fisheries adopt co-management arrangements.</p> <p>One agency reports on use of spatial management.</p> <p>One remote electronic tool developed and trialled.</p>

Examples of projects funded in 2010-11

Project Id	Project Title	Cost (\$)
2010/001	Predicting the impacts of shifting recreational fishing effort towards inshore species	326,923
2010/003	Spatial and temporal dynamics of Western Australia's commercially important sharks	526,749
2010/004	Passive acoustic techniques to monitor aggregations of sound producing fish species	141,000
2010/005	The biological oceanography of Western Rocklobster larvae	388,324
2010/006	Innovative monitoring and estimating fishing mortality of major target species and species of conservation interest in the Queensland east coast shark fishery	454,608
2010/007	Utilising innovative technology to better understand Spanish mackerel spawning aggregations and the protection offered by marine protected areas	321,707
2010/013	Towards understanding Greenlip Abalone population structure	447,518
2010/016	Assessing the impacts of gillnetting in Tasmania: implications for by-catch and biodiversity	390,730
2010/023	El Nemo South East: Quantitative testing of fisheries management arrangements under climate change using Atlantis	338,203
2010/042	Improving gear selectivity in Australian mud crab fisheries	73,000
2010/044	Quantitatively defining proxies for biological and economic reference points in data poor and data limited fisheries	320,429

Industries

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.

Investment Budget for 2010-11

During 2010–11, \$7.1 million (about 35 per cent of the total RD&E investment) will be invested in RD&E activities within this program.

Strategies	Research area	Performance indicator	Targets
Resource access and allocation	<ul style="list-style-type: none"> Developing and implementing methods for defining access rights and allocating shares. Developing and applying methods for valuing the resource for all sectors. Developing and applying adjustment and re-allocation mechanisms between sectors. 	<ul style="list-style-type: none"> Progression to formal processes for the allocation of resources. Recognition of rights and roles of user all groups. Improved understanding of fisheries adjustment processes. 	Two new projects to look at allocation and access issues.
Maximising value from aquatic resources	<ul style="list-style-type: none"> Enhancing fisheries through improved productivity of natural systems. Replacing /optimising the use of fish meal in aquaculture diets. Enhancing the recreational fishing experience through stock enhancement and the application of structures to enhance recruitment, including artificial reefs and snags. Understanding the environmental interactions of stock enhancement technologies. Enhancing fishing activities in Aboriginal and Torres Strait Islander communities. 	<ul style="list-style-type: none"> Reduced reliance on imported fishmeal in aquaculture. Improving knowledge of stock enhancement practices. Develop and document knowledge of customary fishing practices. 	One new diet tested.

Strategies	Research area	Performance indicator	Targets
Growth and profitability	<p>Developing improved business models, and building business modelling skills.</p> <p>Developing new business opportunities and new products, including non-seafood products such as bio-actives and fuels.</p> <p>Domestication technologies for aquaculture species, particularly breeding genetics for disease resistance and growth, climate change and market attributes.</p> <p>Supporting operational efficiencies:</p> <ul style="list-style-type: none"> • Fuel efficiency • Hull design • Anti-foulant technologies • Reducing fresh water use in the processing sector • Gear technologies to reduce costs • Technological development for cost-effective compliance 	<p>New value added products for the seafood sector (in conjunction with the Seafood CRC).</p> <p>Increased aquaculture production.</p> <p>Business opportunities scoped.</p> <p>Develop genetic lines to improve aquaculture productivity, including disease resistance.</p> <p>Scope new potential species for aquaculture.</p> <p>Scope new methods increasing operational efficiencies in fishing activities.</p>	<p>One new product developed</p> <p>5% Increase in production.</p> <p>Two new business opportunities developed.</p> <p>One species scoped and promoted for aquaculture development.</p>
Consumers and markets	<p>Developing knowledge of consumer trends and needs.</p> <p>Maximising trade and market access opportunities.</p> <p>Understanding and responding to the needs of the consumer, including credence values, chain of custody and food safety.</p> <p>Improving supply chain efficiencies.</p> <p>Introducing consumers to new products.</p>	<p>Market and consumer research undertaken.</p> <p>Improved supply chain knowledge and processes.</p> <p>Develop strategies and process to assist with transformation seafood products for of retail outlets.</p>	<p>Market research undertaken on one market.</p> <p>One supply chain mapped and recommendations made.</p>

Examples of projects to be funded in 2010-11

Project Id	Project Title	Cost (\$)
2010/200	Innovative development of the Octopus tetricus fishery in Western Australia	382,500
2010/202	Tackling a critical industry bottleneck: developing methods to avoid, prevent and treat biofouling on mussel farms	397,824
2010/203	Atlantic Salmon Aquaculture Subprogram: oxygen regulation in Tasmanian Atlantic salmon	157,921
2010/207	Management of 'tough fish syndrome' in tropical Saddletail Snapper to re-instil market confidence	178,107
2010/212	Further development of commercialization of Artemia culture	200,000

* 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.

Communities

The fishing industry forms an integral part of many rural and regional communities. For the long term sustainability of the fishing industry, it is important the interactions and co-dependence between the community and industry understood.

Investment Budget for 2010-11

During 2010–11, \$1.0 million (about 5 per cent of the total RD&E investment) will be invested in RD&E activities within this program.

Strategies	Research area	Performance indicator	Targets
Consumers and lifestyles	Understanding the behaviours, motivations and expectations of fishers and aquaculturalists. Understanding and communicating the benefits and value of fishers and fishing (commercial, recreational and customary) in the community, family and at the individual levels.	FRDC Social Science subprogram identifies key research areas. Community surveys undertaken.	One report published.
Community resilience and development	Developing pathways to regional employment and community development (this is relevant to all of Recreation, Wild Catch, and Indigenous sectors). Understanding the capacity of society to accept and incorporate greater levels of fishing and aquaculture activity, and how to assess and increase this carrying capacity. Understanding the nature and resilience of industry (social, demographic, economic and attitudinal). Understanding and predicting industry and community responses to changes in management approaches.	Establish sub program of activity on social impacts of fishing industry. Media and industry reports of RD&E attributable to FRDC investment.	One social research project commissioned. 10 articles developed.

Examples of projects to be funded in 2010-11

Project Id	Project Title	Cost (\$)
2010/205	Identifying the key social and economic factors for successful engagement in aquaculture ventures by indigenous communities	125,098
2010/304	Impact of management changes on the viability of Indigenous commercial fishers and the flow on effects to their communities: case study in NSW	72,087

People

People are the cornerstone of any industry. For the fishing industry, it is vital that it continues to attract and develop 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 development for all levels of industry.

Investment Budget for 2010-11

During 2010–11, \$2.0 million (about 10 per cent of the total RD&E investment) will be invested in RD&E activities within this program.

Strategies	Research area	Performance indicator	Targets
People development	Developing leadership skills across all stakeholder groups. Developing new bursaries to help strengthen the governance and representational capabilities of industry organisations. Investing in projects that will improve the level of succession planning being undertaken within the Australian seafood industry. Development of improved business skills and business modeling capability within the Australian seafood industry. Investing in strategic media and communications training for the Australian seafood industry. Building stakeholder capacity to move toward co-management of fisheries.	Diverse range of high standard applicants to participate in leadership programs. Fishing industry uptake of development awards. Improved leadership skills of fishing industry people, researchers and other stakeholders.	15 participants complete leadership courses 15 participants participate in bursary program 15 mentoring partnerships formalised

Examples of new projects to be funded in 2010-11

Project Id	Project Title	Cost (\$)
2010/301	People Development Program: Sponsorship for 2010 Australian Society for Fish Biology Conference and Symposium	20,000
2010/302	Equipping the Mud Crab industry with innovative skills through extension of best practice handling	182,914
2010/306	Empowering industry through improved understanding of stock assessments and harvest strategies	229,608

Extension and Adoption

Knowledge arising from R&D will be used and transformed into appropriate mediums to support stakeholder decision making, assist with achieving their objectives, and inform the broader community.

Investment Budget for 2010-11

During 2010–11, \$2.0 million (about 10 per cent of the total RD&E investment) will be invested in RD&E activities within this program.

Strategies	Research area	Performance indicator	Targets
Extension and Adoption	<p>Understanding and designing appropriate communication and adoption and engagement system for all sectors.</p> <p>Identifying and understanding factors that drive adoption of new practices and innovation and how these can be influenced.</p> <p>Capturing and transferring knowledge from domestic and international sources to industry and managers.</p> <p>Building understanding between stakeholders, including researchers, managers, fishers and NGOs.</p> <p>Promoting the health benefits of seafood.</p> <p>Evaluating the impacts and value of the Extension and Adoption program to continually improve performance.</p>	<p>Media and industry reports of RD&E attributable to FRDC investment.</p> <p>Improved ability to prioritise issues for extension activities.</p> <p>Continued rollout of final reports onto the FRDC website.</p>	<p>20 media stories per year.</p> <p>Extension network established.</p> <p>80% of completed final reports accessible via internet.</p>

Examples of new projects to be funded in 2010-11

Project Id	Project Title	Cost (\$)
2010/208	Australian Fisheries Statistics (2009 – 2013)	536,665
2010/211	Recfishing Research - addressing recreational fishing research priorities and improving extension	361,880
2010/305	Extension of R&D project outputs to seafood industry across Australia	269,362

Management and Accountability

The FRDC delivers RD&E services ethically, efficiently and cost effectively.

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 DAFF and the other RDCs to develop an approach to measuring efficiency that will be incorporated into its performance measurement framework.

Management and accountability Elements

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

Corporate Governance

The 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

The FRDC maintains a 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 ### Insert new title - *Investing for Tomorrow's Fish* 2010-2015 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 FRABs which assist in determining research priorities and assessments and provide stakeholder engagement for the FRDC.

Information Management Systems

The 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 a mechanism to promulgate its research reports; in addition it will work with the RDCs and Primary Industry agencies to place this information on the collaborative research website – Australian Agriculture and Natural Resources Online (AANRO).

Quality System

FRDC aims to be recognised as a quality-driven organisation, through leadership, continuous improvement and appropriate accreditation. The FRDC is an accredited organisation under ISO9001:2008 and maintains the 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 is used, while regional and port visits.

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 best 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 2010-11

- 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 2010-11

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

<i>Key performance Indicators</i>	<i>2010-11</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%
Projects focus on the FRDC Board's assessment of priority research and development issues.	95%	95%	95%	95%
Projects are assessed as meeting high standards/peer review requirements for improvements in performance and likely adoption	95%	95%	95%	95%
Implement best practice governance arrangements to promote transparency, good business performance, and unqualified audits.	100%	100%	100%	100%
Demonstrate the benefits of RD&E investments by positive benefit cost analysis results.	100%	100%	100%	100%

Budget Statements for 2010-11

Excerpt from 2010-2011 Portfolio Budget Statements

Table 1.1: Agency Fisheries Research & Development Corporation Resource Statement — Budget Estimates for 2010-11 as at Budget May 2010

Source	Estimate of prior year amounts available in 2010–11 \$'000	Proposed at Budget 2010–11 \$'000	Total Estimate 2010–11 \$'000	Actual available appropriation 2009–10 \$'000
Opening balance/Reserves at bank	6,393	-	6,393	3,677
REVENUE FROM GOVERNMENT				
Special Appropriations ¹ (Department of Agriculture Fisheries & Forestry)				
Primary Industries and Energy Research and Development Act 1989, s. 30A(3) - Fisheries R&D Corporation	-	16,548	16,548	16,494
Total special appropriations		16,548	16,548	16,494
Total funds from Government	-	16,548	16,548	16,494
FUNDS FROM INDUSTRY SOURCES				
Levies ²	-	120	120	130
<i>less amounts paid to the CRF</i>	-	(120)	(120)	(130)
Industry contributions	-	8,314	8,314	10,295
Total	-	8,314	8,314	10,295
FUNDS FROM OTHER SOURCES				
Interest	-	250	250	250
Sale of goods and services	-	115	115	140
Other	-	650	650	1,594
Total	-	1,015	1,015	1,984
Total net resourcing for agency	-	25,877	32,270	32,450

CRF - Consolidated Revenue Fund

¹ FRDC is not directly appropriated as it is a CAC Act body. Appropriations are made to FMA Agency DAFF which are then paid to FRDC and are considered 'departmental' for all purposes.

² The levies collected are remitted to DAFF and transferred to the CRF. An equivalent amount to the FRDC management levy is paid by DAFF to FRDC under a special appropriation under the PIERD Act 1989.

READER NOTE: ALL FIGURES ARE GST EXCLUSIVE.

Table 2.1 provides an overview of the total expenses for outcome 1 by program.

	2009–10 Estimated actual expenses \$'000	2010–11 Estimated expenses \$'000
Outcome 1: 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.		
Program 1.1: Fisheries Research & Development Corporation		
Revenue from Government	16,494	16,548
Revenues from industry sources	11,365	7,785
Revenues from other independent sources	395	370
Total for Program 1.1	28,254	24,703
Outcome 1 Totals by Resource type		
Revenue from Government	16,494	16,548
Revenues from industry sources	11,365	7,785
Revenues from other independent sources	395	370
Total expenses for Outcome 1	28,254	24,703
	2009–10	2010–11
Average Staffing Level (number)	12	11

Table 3.2.2: Budgeted departmental balance sheet (as at 30 June)

	Estimated actual 2009–10 \$'000	Budget estimate 2010–11 \$'000	Forward estimate 2011–12 \$'000	Forward estimate 2012–13 \$'000	Forward estimate 2013–14 \$'000
ASSETS					
Financial assets					
Cash and equivalents	6,393	7,512	8,293	7,797	7,992
Trade and other receivables	3,726	2,502	2,390	2,693	2,815
Investments	5	5	5	5	5
Other	-	80	-	-	-
Total financial assets	10,124	10,099	10,688	10,495	10,812
Non-financial assets					
Infrastructure, plant and equipment	142	67	43	18	8
Intangibles	2,378	2,118	1,622	1,587	1,022
Total non-financial assets	2,520	2,185	1,665	1,605	1,030
Total assets	12,644	12,284	12,353	12,100	11,842
LIABILITIES					
Payables					
Suppliers	220	185	177	195	202
Grants	60	50	60	80	65
Other	1,542	1,214	1,259	948	669
Total payables	1,822	1,449	1,496	1,223	936
Provisions					
Employees	438	448	458	468	478
Total provisions	438	448	458	468	478
Total liabilities	2,260	1,897	1,954	1,691	1,414
Net assets	10,384	10,387	10,399	10,409	10,428
EQUITY*					
Reserves	95	95	95	95	95
Retained surpluses	10,289	10,292	10,304	10,314	10,333
Total equity	10,384	10,387	10,399	10,409	10,428

* 'Equity' is the residual interest in assets after deduction of liabilities.

Prepared on Australian Accounting Standards basis.

Table 3.2.4: Budgeted departmental statement of cash flows (for the period ended 30 June)

	Estimated actual 2009–10 \$'000	Budget estimate 2010–11 \$'000	Forward estimate 2011–12 \$'000	Forward estimate 2012–13 \$'000	Forward estimate 2013–14 \$'000
OPERATING ACTIVITIES					
Cash received					
Goods and services	140	115	115	115	115
Receipts from government	16,494	16,548	16,687	16,822	16,912
Interest	250	250	250	250	250
Other	11,889	8,964	8,777	8,152	8,843
Total cash received	28,773	25,877	25,829	25,339	26,120
Cash used					
Employees	1,915	1,865	1,930	2,037	2,053
Suppliers	957	995	983	967	988
Grants	21,850	20,300	20,900	21,240	21,285
Other	1,035	1,248	885	1,261	1,249
Total cash used	25,757	24,408	24,698	25,505	25,575
Net cash from or (used by) operating activities	3,016	1,469	1,131	(166)	545
Cash used					
Purchase of property, plant and equipment	50	100	100	80	100
Other	250	250	250	250	250
Total cash used	300	350	350	330	350
Net cash from or (used by) investing activities	(300)	(350)	(350)	(330)	(350)
Net increase or (decrease) in cash held	2,716	1,119	781	(496)	195
Cash at the beginning of the reporting period	3,677	6,393	7,512	8,293	7,797
Cash at the end of the reporting period	6,393	7,512	8,293	7,797	7,992

Prepared on Australian Accounting Standards basis.

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 RD&E 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 RD&E 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.
RD&E planning and priority-setting	FRDC works with nation-wide Fisheries Research Advisory Bodies (FRABs) to undertake planning for RD&E in consultation with governments, AFMF, industry, stakeholders and research partners. Priorities for RD&E 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 RD&E 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 RD&E investment activities via FISH; and participation in conferences, workshops and other activities.

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. More information on priority setting can be found on page ## of this document.

The following table outlines the FRDC anticipated expenditure against the National and Rural Research Priorities. These have been mapped against the five FRDC programs.

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

The **Rural Research Priorities** can be viewed at 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

Total investment 2010–11 — Government research priorities attributed to each RD&E Program (\$ and %)

Rural Research Priorities

<i>Rural Research and Development Priorities (RRDP)</i>	Program 1: Environments		Program 2: Industries		Program 3: Communities		Program 4: People		Program 5: Extension and Adoption		Total expenditure
	\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$000
Productivity and Adding Value	406	2%	2,030	10%	203	1%	203	1%	203	1%	3,045
Supply Chain and Markets	203	1%	1,827	9%	203	1%	203	1%	203	1%	2,639
Natural Resource Management	5,887	29%	812	4%	203	1%	406	2%	609	3%	7,917
Climate Variability and Climate Change	406	2%	203	1%	203	1%	406	2%	203	1%	1,421
Biosecurity	203	1%	406	2%	203	1%	203	1%	203	1%	1,218
Innovation Skills	203	1%	406	2%	0		406	2%	203	1%	1,218
Technology	406	2%	1,015	5%	0		203	1%	203	1%	1,827
Other research	406	2%	406	2%	0				203	1%	1,015
									TOTAL		20,300

National Research Priorities

<i>National Research Priorities (NRP)</i>		Program 1: Environments		Program 2: Industries		Program 3: Communities		Program 4: People		Program 5: Extension and Adoption		Total expenditure
		\$000	%	\$000	%	\$000	%	\$000	%	\$000	%	\$20,300
An environmentally sustainable Australia	A1	406	2%					203	1%			609
	A2	406	2%	1,421	7%					406	2%	2,233
	A3											
	A4			203	1%			406	2%			609
	A5	5,684	28%	812	4%	406	2%			406	2%	7,308
	A6											
	A7	406	2%			203	1%					609
Promoting and maintaining good health	B1											
	B2							203	1%			203
	B3	203	1%	406	2%			203	1%	203	1%	1,015
	B4			406	2%	203	1%			203	1%	812
Frontier technologies for building and transforming Australian industries	C1	203	1%	812	4%					203	1%	1,218
	C2	203	1%	1,218	6%					203	1%	1,624
	C3											
	C4	203	1%	406	2%			406	2%			1,015
	C5	203	1%	1,015	5%					406	2%	1,624
Safeguarding Australia	D1											
	D2					203	1%	609	3%			812
	D3	203	1%	406	2%							609
	D4											
	D5											

Notes: (a) When looking at the RD&E 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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