

A Review of People Development in the Australian Fishing Industry

Final Report



Australian Government
**Fisheries Research and
Development Corporation**

A report prepared for the Fisheries Research and Development
Corporation (FRDC)

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Contents

Contents	2
1 Executive summary and recommendations	4
1.1 Executive Summary	4
1.2 Recommendations	6
2. Our approach to the project	15
2.1 Introduction	15
2.2 Terms of Reference	16
2.3 Conduct of the study	17
2.4 Structure of the report	17
3. The fisheries context for people development.....	19
3.1 The commercial sector.....	19
3.2 The recreational sector	20
3.3 The Indigenous sector	20
3.4 The people development implications	20
3.5 The challenge of small business.....	22
4. Models of people development in non- fisheries and international contexts	24
4.1 The Cooperative Venture for Capacity Building.....	24
4.2 Exploring capacity building	24
4.3 The CVCB learning model	26
4.4 Other RDC projects.....	27
4.5 The New Zealand seafood industry experience	28
4.6 The implications for the FRDC.....	31
5. Embracing the vocational education and training (VET) system	33
5.1 What is VET?	33
5.2 The fishing industry and VET	33
5.3 New Apprenticeships in the fishing industry	34
5.4 The Seafood Industry Training Package	36
5.5 Accessing VET intelligence.....	39
5.6 Promoting the fishing industry in the schools	41
5.7 The implications for the FRDC.....	42
6. A sectoral analysis of current and emerging people development needs	43
6.1 The aquaculture sector	43
6.2 The recreational fishing sector.....	45
6.3 The Indigenous fishing sector.....	47
6.4 The community and environmental interests	49
6.5 Focussing on the supply chain.....	51
6.6 Engaging the retail sector	54
6.7 Managing change in the wild-catch sector.....	56
6.8 Skilling the government sector.....	58
6.9 The higher education sector	59
6.10 Developing industry leaders.....	61
7. A framework for FRDC people development.....	67
8. Making it happen – an operational plan	71
8.1 The planning process.....	71
8.2 Building capability within the FRDC to manage people development initiatives	72
8.3 A strategy-based approach to funding people development	73

8.4	Enhancing the FRDC people development budget	75
8.5	Constructing an operational plan for people development	77
8.6	Governance of the people development plan	83
8.7	A communications strategy	84
Appendix A – List of people and organisations contacted.....		87
Appendix B – List of references.....		90

1

Executive summary and recommendations

1.1 Executive Summary

The Fisheries Research and Development Corporation (FRDC) has a longstanding commitment to investing in people development to support the fishing industry (commercial, recreational and Indigenous sectors) to enhance its learning, innovation and professionalism. To date, this investment has been primarily in the form of the sponsorship of leadership development and scholarships and other awards in higher education.

The FRDC is now seeking to take a more strategic approach to funding its people development program to ensure that its investments are closely aligned with broader industry priorities and needs. A more strategic approach will assist the creation of a learning culture within the industry so that FRDC investments will encourage a broader interest in learning and development beyond the immediate funding recipients.

The consultants have made a wide range of recommendations that cover the needs of all sectors of the industry. However, while the needs of the different sectors vary, we believe that there is a good deal of commonality. The common thread is that there is an urgent need to build capability at the local and regional levels to address real and practical issues that are impacting on industry development. We believe that the Australian fishing industry, and the FRDC in particular, can learn much from the Cooperative Venture for Capacity Building (CVCB) approach of the other Australian RDCs and the Industry Development Framework (IDF) of the NZ Ministry of Fisheries. The focus of these activities is to build models of good practice and practical resources to address regional issues in a cooperative or team-based approach.

A cooperative approach in the commercial fishing sector at the regional level is also an important ingredient in the industry's challenge to improve the value of Australian seafood through a whole-of-chain approach to the production and marketing of seafood. Building value at each stage will require the development of capability to establish networks and cooperative ventures that will advantage the individuals and the industry as a whole.

An effective people development program will benefit from a move to a strategy-based (rather than a project-based) approach to funding. This approach is underpinned by endorsement of an operational plan that clearly identifies broad objectives (or challenges) and action strategies that will determine funding priorities. Projects may be initiated by the FRDC, or proposed by external stakeholders, that will support the achievement of the strategies. Similarly, all FRDC research and development projects should contain a discrete people development

component to ensure that the project has identified a clear strategy for building capability to apply the outcomes.

The consultants also believe that a strategy-based approach will help address the largely uncoordinated and fragmented nature of people development that is now occurring across the industry. The FRDC can work with the peak bodies (ASIC, NAC, SSA, Indigenous councils, Recfish Australia, AFISC) to ensure an industry-wide approach to people development that is soundly based on agreed priorities and is best placed to lever investment by all levels of government.

One clear priority is to seek greater access to vocational education and training (VET) funding for the fishing industry. A coordinated approach that builds on the labour market intelligence of AFISC and its state/territory counterparts is the preferred way of identifying needs and funding impediments. The FRDC can then support the peak industry bodies to make the high level approaches to government that are required to influence policy makers. A stronger involvement in VET will also require the industry to embrace the Seafood Industry Training Package as the basis of competency standards across all sectors of the industry.

Finally, it is crucial that the FRDC takes steps to invest in building its own capability to manage an effective people development program on behalf of the industry. The FRDC will require some immediate support as well as take steps to ensure that it can sustain the program in the longer term. The FRDC will also require the input of key stakeholder groups on a continuing basis to ensure that its people development strategies continue to reflect the priorities and needs of the broader industry.

The specific recommendations of this review are listed in section 1.2 below.

1.2 Recommendations

Recommendation 1

That the FRDC adopt as its major focus for people development the fostering of cooperative ventures and other innovative people development initiatives at the local and regional level. This approach will build on the work of the rural RDCs and NZ Ministry of Fisheries to develop the capability of individuals and teams to identify and address real industry problems at the local level. In particular, we recommend that the FRDC review and adopt/adapt the:

- research outputs of the CVCB to date
- New Zealand Industry Development Framework (IDF) and Tools for Collective Action.

Recommendation 2

That the FRDC examine the benefits and costs of joining the CVCB in its next term of operation with a view to:

- taking advantage of the generic resources developed during the first term
- working collaboratively with CVCB members on industry-specific projects of relevance to the fishing industry.

Recommendation 3

That the FRDC collaborate with other peak industry bodies (ASIC, NAC, Indigenous councils, AFISC) to make a formal approach to the Federal Government to propose ways to address the industry's impediments to accessing VET programs and resources. In particular:

- The FRDC should, in the first instance, commission the development of a strategy paper on behalf of key stakeholders to use as a basis for representations to the Government.

Recommendation 4

That the FRDC seek to build close and continuing relationships with key stakeholders in the VET sector through cross-representation on committees and working groups. By establishing these networks, FRDC will be in a better position to:

- access the available VET intelligence
- support initiatives to obtain a significantly greater share of VET resources for the industry
- lever funds within the VET sector to support regional skills development initiatives
- encourage the adoption of the Seafood Industry Training Package as the industry's standards for workforce competence, particularly through the recognition of the skills of existing workers.
- better promote the industry through VET in schools initiatives. (eg ready to use resources for teachers about: key issues, ESD, recreational fishing, Australia's fisheries, showcase fisheries, aquaculture, mariculture)

Recommendation 5

That the FRDC seek to facilitate the rapid growth of the aquaculture sector by supporting the NAC's strategic people development plans. This support could include:

- further collaboration with NAC to lever funding
- specific localised initiatives (including with Indigenous communities) in concert with NAC that are consistent with the FRDC's focus on communities of practice.

Recommendation 6

That the FRDC provides ongoing support to the recreational sector through sponsorship of workshops and resource development to build the coverage and capability of its network to enhance the contribution of the sector in its roles to:

- advocate on behalf of recreational fisheries

- represent the sector in resource management forums
- demonstrate to the community the importance of resource sustainability.

Recommendation 7

That the FRDC examine innovative ways to support Indigenous Australians and their communities to take advantage of opportunities to sustain their customary practices and access commercial business ventures that are consistent with the sustainability of the resources. Some particular strategies could include:

- fostering a better community understanding of customary fishing activity
- developing and engaging Indigenous people who can better influence the fisheries management debate, including through Indigenous leadership programs
- facilitating the development of business case proposals for entry into commercial activities in order to lever mainstream and Indigenous-specific funding sources
- mentoring in small business development skills where commercial business proposals are approved.

Recommendation 8

That the FRDC examine ways to support the community and environmental stakeholders in the co-management system by:

- developing both representational networks and capability in terms of a sound and balanced appreciation of resource management issues
- seeking proposals for additional collaborative projects in localised and good practice activities (see Recommendation 1)

Recommendation 9

That the FRDC give a priority within its people development program in the commercial sector to building collaborative business relationships in the supply chain. It should focus on regional initiatives such as:

- development of teams and networks to address local and regional initiatives
- development of mentors and champions to drive these regional initiatives
- conduct of additional innovative pilots of cooperative ventures across other sectors.

Recommendation 10

That the FRDC continue to seek ways to build capability within the retail sector of the fishing industry, recognising that improved quality and professionalism will occur through business development initiatives on the ground. Some initiatives could include:

- local workshops with a business development theme
- a business development kit
- a pilot program to demonstrate the benefits of improved marketing using a group of interested retailers
- engagement with the supermarket sector to identify opportunities to reinforce the specialised nature of seafood retailing.

Recommendation 11

That the FRDC support the wild-catch sector by building capability to take advantage of the change process to enhance commercial viability. The focus should be on fostering innovation and good practice at the regional level by initiatives such as:

- extension and mentoring
- developing local champions or “shining lights”
- building supply chain relationships

- enhancing small business management.

Recommendation 12

That the FRDC seek ways to assist the government sector to build capability in fisheries co-management and administration. Some initiatives may include:

- a review of skills needs in the sector
- industry-government exchanges
- influencing higher education teaching and research priorities to increase the supply of graduates qualified in fisheries management and other disciplines in demand by government agencies.

Recommendation 13

That the FRDC direct its people development investment within the higher education sector in a more strategic way to address market failure and skills shortages. For example, the FRDC could:

- promote post-graduate scholarships directly to undergraduates in particular disciplines that are judged to be in demand by industry or government
- seek membership of course advisory groups at particular universities to influence undergraduate offerings.

Recommendation 14

That the FRDC review its current investment in national leadership development (including the ARLP and Advance in Leadership) in terms of:

- the quantum of funds invested, particularly in the context of other recommendations of this review that propose a more regional focus
- the selection processes used to provide sponsorship, particularly to the ARLP, to ensure participants have a demonstrated commitment to leadership at the local/regional level
- the outcomes of the investment, in terms of performance in post-program leadership roles
- a more comprehensive approach to national leadership development that may include:
 - mentoring at the local level prior to a national role
 - structured leadership development programs
 - post-program activities to provide opportunities for ongoing application of knowledge and skills

Recommendation 15

That the FRDC redirect its leadership development program to support capacity building at the local and regional level to identify and address real problems and issues. In doing so, the FRDC should broaden its support for leadership development to include:

- development of toolboxes and other resources to facilitate local delivery
- team-based approaches to leadership, including within and across sectors and the supply chain.

Recommendation 16

That the FRDC insist that all leadership development programs involving an FRDC investment be mapped to the SITP competency standards and that appropriate qualifications or Statements of Attainment be issued to participants who successfully complete the programs.

Recommendation 17

That the FRDC adopt a strategic framework for the People Development Program that includes the following key elements:

- some guiding principles for people development investments
- an implementation strategy through an operational plan
- ongoing evaluation and review of its processes and projects to achieve continuous improvement.

Recommendation 18

That the FRDC build capability to develop and manage a people development operational plan through:

- engaging an expert project manager (ie. sub-program manager) to oversight the day-to-day activity, for at least 2-3 years
- overseeing the activity within an existing FRDC business unit
- professional development of existing FRDC staff over time through involvement with the project manager and other relevant strategies.

Recommendation 19

That the FRDC manage its investments in people development through a “strategy-based” approach, rather than a reliance on one-off project proposals that may be subject to annual funding rounds. The FRDC should use the “challenges” and action “strategies” identified in the operational plan as a basis for:

- seeking innovative proposals, particularly at the regional level

- assessing and evaluating proposals
- revising its application form and advice to applicants.

Recommendation 20

That the FRDC give consideration to increasing its expenditure target for Program 3: People Development. However, this decision should await:

- endorsement of a sub program plan that has wide stakeholder support
- demonstration that the outcomes of the plan are making an appropriate contribution to the FRDC's overall goals.

Recommendation 21

That the FRDC seek stakeholder support for an operational plan along the lines of the draft plan proposed by this review.

Recommendation 22

That the FRDC establish a process for governance of the development and implementation of the operational plan, particularly through the appointment of a steering committee that would achieve stakeholder involvement and support.

Recommendation 23

That the FRDC conduct a strategic review of its communication and information dissemination systems with a view to strengthening its role in knowledge transfer, through a:

- user-driven approach to website design
- range of approaches that reflect the learning styles and preference of the broad industry membership

- more strategic approach to conference sponsorship that ensures knowledge transfer to industry practitioners is the overriding objective.

2. Our approach to the project

2.1 Introduction

This report presents a range of practical proposals and recommendations to the Fisheries Research and Development Corporation (FRDC) to assist it to make strategic investments in people development in the Australian fishing industry. The report is timely as the industry has undergone profound change during the last decade as a result of the introduction of ecologically sustainable development, spiralling costs and industry restructuring. Such change has placed considerable pressure on the industry to stay profitable and internationally competitive. In order to respond to the challenges effectively the industry needs to develop the capabilities of its people by placing a high value on learning, innovation and professionalism.

The capability of the industry's workforce has also been identified as a significant issue in the realisation of the strategic plans of the FRDC as it seeks "...to maximise economic, environmental and social benefits for its stakeholders through effective investment in research and development." (FRDC, 2005, p.9) As a result, the FRDC Board is keen to review and enhance its current people development initiatives.

The review has been conducted by CIT Solutions Pty Ltd, the commercial arm of the Canberra Institute of Technology which provides specialist consultancy and training and assessment services to government, the private sector and international clients. The project team worked under the direction of a Project Steering Committee, comprising:

Patrick Hone, (Chair): Executive Director, FRDC

David Bateman: Sunfish Queensland

Rory Byrne: Executive Director, Seafood Training Tasmania

Wayne Gibbons:

John Harrison: Chief Executive Officer, Recfish Australia

Angus Nicholls:

Ross Ord: Aquaculture EMS Coordinator, SSA

Roy Palmer: Seafood Services Australia

Harry Peters:

John Roach: Chair, Master Fish Merchants Association

Bob Seamark:

John Wilson: Business Development Manager, FRDC

2.2 Terms of Reference

The project team was required to:

- describe and evaluate the current people development activities that are available to the Australian fishing industry
- include an assessment of FRDC's current people development investment including its investment in leadership programs
- describe, in consultation with key stakeholders and with due consideration of the anticipated operating environment, the Australian fishing industry's future people development needs
- recommend changes that will improve people development for the Australian fishing industry and in particular provide advice on where FRDC should focus its investment
- develop a draft operational plan which will be used to drive the implementation of the review's recommendations for FRDC. The Plan will address planning, investing, management and governance processes.

For the purposes of the review the industry is seen to encompass the commercial, recreational and customary sectors and the project team was requested to take account of the views of fishers, fisheries managers, researchers, special interest groups and the general community.

The fishing industry is defined broadly as including any industry or activity carried out in, or from, Australia with taking; culturing; processing; preserving; storing; transporting; marketing; selling of fish or fish products.

In summary, this report canvasses people development issues in the Australian fishing industry in its broadest sense, including the:

- commercial sector
 - commercial wild-catch
 - aquaculture
 - post-harvest (up to and including retailing)
- recreational sector
- Indigenous sector
 - customary fishing
 - commercial fishing
 - recreational fishing.

2.3 Conduct of the study

The project was conducted in five stages, some of which occurred in parallel. The stages were:

- Project planning and research. This included a review of relevant literature and published materials from within Australia and overseas. The research included some interviews with key personnel and stakeholders to canvas views and gain initial input into the issues.
- A one-day industry workshop held in Canberra at the end of October 2005. The workshop was attended by a wide cross-section of industry stakeholders and was designed to canvass issues to guide the project team in the conduct of the broader consultations and preparation of its findings.
- Consultations with all interest groups to canvass the proposed approaches as widely as possible. The consultations took place in face-to-face meetings in Canberra and by telephone in all States and the Northern Territory.
 - a full list of the individuals and organisations contacted by the project team is presented in Appendix A.
- Evaluation of information gleaned from literature, publications and consultations, and the preparation of an “emerging issues” paper. The paper was formally presented to the Project Steering Committee during a teleconference link.
 - a full list of references consulted during the review is presented in Appendix B.
- Preparation of the final report and its delivery to the Project Steering Committee and Board of the FRDC.

The project team held teleconferences with the Project Steering Committee at stages 1, 2 and 4. While the report was drafted and finalised with the benefit of valuable advice and insight from members of the Project Steering Committee, the views expressed in the report are those of the project team.

2.4 Structure of the report

The format of the report follows a systematic approach in which the key issues underlying the project brief are unravelled, formal recommendations are outlined and strategies for implementation of the recommendations are provided. All recommendations are placed adjacent to the relevant findings of the project.

In turn:

- Section 1 presents an executive summary of the findings and recommendations.

- Section 2 outlines the background to the project, the methodology used to research the issues and prepare the report, the context for the review and the major implications for people development.
- Section 3 examines the dynamic and rapidly changing environment in which the Australian fishing industry is operating and the major implications for people development.
- Section 4 explores models of people development in a range of non-fisheries (particularly rural) and international contexts that may be helpful in informing future people development in the fishing industry.
- Section 5 examines the current involvement of the fishing industry in vocational education and training (VET) and proposes strategies for increasing access to VET systems and resources.
- Section 6 undertakes a sectoral analysis of current and emerging people development needs in the industry, including:
 - aquaculture
 - recreational fishing
 - Indigenous fishing
 - community and environmental interests
 - post-harvest sector, including the supply chain
 - government fisheries management
 - higher education
 - leadership development.
- Section 7 prepares a strategic framework for the FRDC to consider its people development investments.
- Section 8 provides an operational plan that will provide a basis for the implementation of the FRDC's priority people development strategies.

At relevant stages of the report, case studies of relevant developments and issues are provided to inform the reader of structures and approaches that have worked in relevant contexts.

Appendix A provides a list of people and organisation contacted by the consultants during the review.

Appendix B lists references, including websites that were accessed in compiling the report and its findings.

3. The fisheries context for people development

The commercial fishing industry in Australia faces a particularly challenging environment. High fuel prices, unfavourable exchange rates, fluctuations in overseas markets and increased import competition have combined in recent years to place considerable pressure on the profitability of operators. This economic pressure is compounded by sustainability pressures, given that many of the wild fish stocks harvested by Australian fisheries are in an “overfished” status.

In addition to these commercial interests, there is an increasing number of Australians who wish to share in these community assets, and their broader ecosystems, as part of leisure and recreational activities. Finally, there are many Indigenous Australians who seek to exercise their traditional and customary rights to the fisheries resources, as well as participate in commercial fishing activity.

While this situation is not unique to Australia, there is a substantial challenge ahead for fisheries managers, scientists, industry and other community interest groups to cooperatively manage these natural resources in a way that is both efficient and sustainable. There are many prerequisites to successfully achieving this objective over the longer term. One of these is that all of the stakeholders have the skills, knowledge and vision to play their part in meeting the challenge. (AFMA, 2005)

The commissioning of this review of people development in the Australian fishing industry by the FRDC should be seen in this context.

3.1 The commercial sector

The commercial fishing industry is Australia’s fourth most valuable food-based primary industry – after beef, wheat and milk. The value of production is in excess of \$2.2 billion (at “landed/farm gate” value) and represents seven percent of the gross value of Australia’s food production.

The industry has some significant contrasts. On the one hand, it has a sharp focus on high-value species for the international market place in which it has earned a reputation for environmental management, food safety and quality. On the other hand, many of the wild-catch fisheries that supply the domestic market are overfished (or at risk of being so) and are characterised by high levels of government intervention management. There is also a lack of integration of supply chain management with the result that the value of production is not optimised.

The low unit value of domestic seafood and the relatively high costs of production and transport have important implications:

- an inability to compete with products imported from countries with low production costs
- relatively low earnings for labour and a difficulty in competing with other industries for quality skilled labour. The problem is compounded by a high labour turnover and a lack of obvious career paths to attract and retain quality people.

The aquaculture sector is one of Australia's fastest-growing primary food industries and currently accounts for around 30 percent of the landed value of all commercial sector seafood production. The sector has a diverse resource base of species being farmed and has embraced many new efficient technologies such that its output is expected to exceed the value of wild-catch production over the next decade.

3.2 The recreational sector

Recreational fishing is an important leisure activity for around 3.4 million Australians. It is a large and widely dispersed sector that spends around \$1.8 billion per year on fishing-related items. Estimates of the national employment generated by this expenditure range between 27,000 and 54,000 jobs.

An important feature of the recreational fishing sector is that many of its benefits flow to regional areas.

3.3 The Indigenous sector

Fishing by Aboriginal and Torres Strait Islander peoples covers the full spectrum of fishing practices: customary, recreational and commercial. It is widely recognised that many Indigenous communities have developed in close and interdependent relationship with aquatic resources through their customary fishing practices over many years. However, it is only in recent years that these customary rights and responsibilities have been recognised in law. The close dependence of Indigenous Australians on aquatic resources is most clearly seen in remote northern Aboriginal communities and in the Torres Strait where the per capital consumption of seafood can be up to 10 times the average for Australia as a whole.

In addition to using customary and recreational methods, Indigenous Australians are involved in commercial fisheries, both in the wild-catch and aquaculture sectors: (FRDC, 2005)

3.4 The people development implications

If the fishing industry is to meet its strategic challenge of delivery economic, environmental and social benefits to the Australian community, there is clearly a need to develop the capabilities of people at all levels. This is the essence of the FRDC's strategic people development challenge.

The Australian fishing industry is a complex one that has a range of environmental and economic challenges that will require a high level of professionalism and skill across all sectors and at all levels.

Some of the key issues that have an important bearing on people development are:

- the challenge of the move from single species management toward ecologically sustainable development (ESD). The adoption of ecosystem management poses particular problems for natural resource managers as there is a poor understanding of how ecosystems work. There is a need for all stakeholders (commercial, Indigenous, recreational and community) to work together to ensure the sustainability of both wild fisheries and aquaculture resources. This will require people who understand the ESD approach and can communicate the positions of their sector to fisheries managers and the community at large.
- concerns of overfishing of some wild-catch resources and the desire to reduce impacts on many other stocks. The changing landscape of management of the wild-catch resources will result in smaller fleets of operators who can manage this change to achieve a more efficient production with a higher value of output.
- the need to increase the value of the fisheries production by placing a greater focus on value-adding and marketing in an integrated whole-of-chain approach to management of the industry's resources. Most of the producers in the industry are viewed as price "takers", rather than as price "makers", and this has major implications for survival in the competitive food industry.
- a commercial sector that is characterised by a high proportion of small business, many operating on mobile vessels and working on an irregular basis depending on seasonal, weather and fish migrating patterns.
- an industry generally that has wide regional distribution, mainly around Australia's coastline, with the obvious implications for the development of skills. This means that the seafood industry is an important source of income and employment to many regional communities. As well, it is likely that local issues will be significant factors to influence fisheries management strategies. Consequently, people development at a regional or community level will be an important ingredient in the achievement of an efficient national industry.
- A high proportion of people within the industry are from non-English speaking backgrounds, some with low levels of language and literacy skills, particularly in the wholesale and retail sectors.

3.5 The challenge of small business

“There is a tendency for training to be seen as a cost, not an investment. Many small business owners and managers regard training as irrelevant to their business needs with courses too general and not sufficiently focussed on the practical problems of running a small business. This general attitude is often compounded by the absence of management education and training in owners/managers, pressures of time and financial viability and the absence of specialist training personnel in small firms. It is not surprising that there is a lack of awareness in the small business sector of the value and benefits of training”. (Kearns, 1995.

The attitude to training of small business is well documented and the fishing and trading sectors are no different. Although these attitudes are well known to training providers and regulators, they are not necessarily understood and acted upon.

The National Centre for Vocational Education Research (NCVER 1998a) has explored small business in terms of attitude to training and how it becomes involved in training. The key findings as they affect fishing and trading sectors are that small business:

- prefers short training developed to meet their specific needs
- is most likely to train when faced with a crisis, government regulation or a change to business environment. An awareness of training options and the value of training are not, by themselves, an inducement to train.
- wants training that helps them to learn in places, at times and in ways that suit them. That is, they prefer a learning style that is problem-based, practical and integrated with their business.

The conclusions from this general study are supported in more specific assessments in the rural and fisheries sectors. For example, the NCVER in its outlook for training in the agricultural, forestry and fishing industries found that employees identified improved relevance of training and flexibility in delivery arrangements as areas most in need of improvement (NCVER 1998b). Similarly, a survey of 54 businesses to study perceptions of training for businesses in the seafood industry found that respondents would prefer training to be delivered on the job, in a flexible format and in a system that made it easy to participate (Victorian Food Industry Training Board, 1998).

These research findings are just as compelling and relevant in 2006.

This is not to say that the small business operators in the fishing industry do not conduct training. The industry has a long tradition of training on-the-job in which operational skills are handed down from the owner/operator to the crew. The challenge is to devise learning strategies that complement and extend this training to ensure that the industry is equipped to maximise the economic returns available to the

industry at a time of competing imports and higher externally imposed costs of production.

4. Models of people development in non-fisheries and international contexts

In order to guide the FRDC in the formulation of its people development strategies, the consultants have researched initiatives and activities of other similar organisations within Australia and in New Zealand.

4.1 The Cooperative Venture for Capacity Building

The most notable initiative in people development is the Cooperative Venture for Capacity Building (CVCB) for Innovation in Rural Industries. The CVCB was established in 2001 by research and development corporations to enhance capacity building in rural industries in Australia. A unique feature of the CVCB is the commitment of its partners to combine their resources, experiences and information to achieve their goals.

The partners in the CVCB are the:

- Australian Wool Innovation
- Dairy Australia
- Grains Research and Development Corporation
- Grape and Wine Research and Development Corporation
- Land & Water Australia
- Meat & Livestock Australia
- Murray-Darling Basin Commission
- Rural Industries Research and Development Corporation
- Sugar Research and Development Corporation
- Department of Agriculture, Fisheries and Forestry.

4.2 Exploring capacity building

One of the early initiatives of the CVCB was to explore the concept of “capacity building”. The outcomes are highly relevant for those charged with people development in the fishing industry. The relationship between education (and training) and extension and capacity building is examined and the following implications drawn:

- Extension and education programs per se are unlikely to stimulate action if they fail to complement existing action and intentions.
- Action is more likely to be stimulated by expectations within a person’s communities of practice than by external ones. For

example, for a farmer - those within his or her communities of practice, which are likely to differ from those that a commercial or government agent belongs to.

- Programs based on a provider-user perspective are inherently unequal in terms of power relations and are likely to distort mutual perceptions and expectations. “Providers” are best seen as providing access to the resources needed to improve a problematic situation.
- The initial goals of action taking to improve a problematic situation will vary among stakeholders – for example, an increase in financial capital for commercial agents, physical and financial capital for farmers, social capital for community groups, and human capital for educators.
- Participation in capacity building is likely to be stimulated by incentives tailored to meet the initial goals of different stakeholders – for example, a tax incentive of access to infrastructure funds for those seeking an increase in physical or financial capital.
- Participation with other stakeholders in a joint effort to resolve a problematic situation provides a context for generating shared increases in the stock of human, social, financial, physical and natural capital.
- Leadership is the key to the initiation of joint efforts to resolve problematic situations and may come from within any one or more of the stakeholder groups.
- Facilitative leadership is essential for building and maintaining a pattern of reflective practice among stakeholders in a joint effort to resolve a problematic situation and learn from the experience – about the situation, about how to handle it and similar ones, and about themselves. (Macadam et al, 2004)

Other researchers for the CVCB have also provided further insight into capacity building:

“... capacity building occurs when relevant communities of practice consciously use their stock of capital to improve a problematic situation, and improve the stock in the process. What a community of practice has in common is what its members do, that is, their practice and the values and beliefs that underpin it. Internal leadership plays a large part in determining whether the communities of practice are outward looking and progressive, or insular and reactionary” (Coutts, Roberts, 2005)

Communities of practice are seen as an important prerequisite to building capacity – that is, involving the people and organisations whose practices and capital are integral to improving a particular situation. This is no mean feat as the members of the community may dislike or distrust each other. The challenge is to engage the members.

The Business Plan for the CVCB envisages that the research and development corporations can make a significant contribution to capacity building in four “key result areas”:

- **What works and why** – To identify current “best practices” in rural extension/education and training to assist in the design and delivery of learning.
- **Foster involvement** – To improve understanding of non-participation in learning activities and what is needed to involve current non-participants to increase accessibility of learning activities and involvement of the farming community.
- **Optimising institutional arrangements** – To promote and rethink rural extension/education through government, industry, and community groups so they respond to new and changing environments and enhance rural learning and practice.
- **Professional support for rural educators** – To enhance the capacity of rural service providers to deliver and enable effective learning activities.

The CVCB identified and commissioned some core projects to progress these key result areas.

The consultants believe that these key result areas represent important challenges for people development in the fishing industry. Therefore, they heavily influence many recommendations made throughout this report.

4.3 The CVCB learning model

While many of the CVCB research projects will be of interest to the FRDC, the work examining preferred learning models is particularly relevant. For example, a report presented in July 2005 (Andrew, et al) *Fostering involvement – how to improve participation in learning* goes to the heart of a major impediment to learning and development in the fishing industry. The Report:

- examines factors that inhibit farmers’ participation in learning activities, with a view to developing new processes for encouraging participation, extension and learning.
- identifies four primary factors influencing participation which are highly relevant to the fishing industry
- provides strategies to encourage participation and learning and a guide to increasing participation in learning activities that will also inform the fishing industry. For example, the guide covers the following:
 - expressing the benefits of learning in terms that have meaning for individual farmers

- localising learning
- intervening in group and individual learning settings
- time and costs for farmers as central factors in determining interactions
- two-way and open interaction
- extension officers' training supporting a greater understanding of social learning and the farmer context
- building relationships with individuals
- follow-up on what is needed
- monitoring and revising learning programs as change occurs in an area.

A range of “factsheets” have also been produced, covering issues such as:

- What works and why in extension.
- Designing, implementing and evaluating capacity building project.
- Training for capacity building.

In summary, the clear message is that most business operators in the rural (and fishing) industries will learn best when:

- the issues are localised and relevant
- learning is an integral part of business development
- information is provided by people with known credibility in a community of practice context.

4.4 Other RDC projects

As well as the “flagship” projects funded by the CVCB as a whole, individual members of the CVCB have commissioned projects that will also inform people development in the fishing industry. For example:

- the Grape and Wine RDC has:
 - developed a program of one-day seminars under the “Research to Practice” banner to deliver in regional areas to foster and enhance practical applications of its investment in research activities
 - encouraged and facilitation through sourcing and providing technical information in a variety of delivery modes. Other outcomes include the provision of easy access to information,

development of easy to use knowledge tools and communication to industry of this information and how to access it.

- implemented targeted “technology adoption” activities driven by regional industry members who develop plans and priorities relevant to their locality. (Grape and Wine RDC, 2004)
- the Rural Industries RDC has:
 - documented the experience of 30 outstanding industry champions to celebrate their success and assist others to learn from their experience. Others are added to the list as part of the corporation’s support for emerging rural industries. (Hyde, 2000)
 - developed and evaluated a computer-based learning program to demonstrate the fundamentals of accounting to improve the decision making and management skills in small business
 - funded work to identify rural school-community partnerships that will build community capacity. The report identified the value of vocational education in schools as an important vehicle for building community capacity (Kilpatrick, et al, 2002)
 - conducted one-day capacity building workshops as part to explain what capacity building is; why agencies and organisations are doing it; when, and when not, to do it; and how to do it. The workshops were aimed at extension officers, community and industry development officers, relevant agencies and government departments, private sector organisations, universities and RDCs.
- The Sugar RDC has funded a large number of projects under its Strategy D1: Enhance people’s capacity to learn and change. (eg. Building young farmer’s capacity to change). They also commissioned studies into accredited training needs for the industry and community engagement processes.
- Dairy Australia has funded the appointment of a research fellow in adult learning and extension. They have also funded projects such as: Farmlets as learning platforms, A learning framework for regional and national dairy systems R&D.

4.5 The New Zealand seafood industry experience

The New Zealand Seafood Industry Council (SeaFIC) is developing an Industry Development Framework (IDF) that contains recommendations in three areas:

- opportunities for increasing wealth
- retaining existing value

- building on industry support services.

One of the major findings of the IDF report was that in order to take advantage of many industry development opportunities, the industry needs more effective ways of working collectively. This finding is one of the key drivers behind a related industry initiative – the Tools for Collective Action project.

The outcome is a 12 – step “Toolbox” that is seen as important for building a robust structure on which successful collective action can take place. The building blocks are:

1. Establish a mandate
2. Identify the benefits and ensure they outweigh the costs
3. Establish a clear purpose
4. Define the key participants and stakeholders
5. Ensure sufficient resources are available
6. Identify potential risks and ensure they are managed from the outset
7. Define roles and tasks well
8. Create a transparent governance structure
9. Establish a process for ongoing monitoring
10. Establish a mechanism to ensure compliance with the rules
11. Establish conflict resolution procedures that are clear and fair
12. Establish a process for reviewing the performance of the collective action.

The context for the toolbox rings equally true for the Australian fishing industry. The NZ Quota Management System was expected to reduce the volume of seafood exports. The question then was – Is the seafood industry maximising the *value* of its products? The short answer was a resounding NO! In the publication *Seafood New Zealand* the deputy chief executive of the Ministry of Fisheries (Stan Crothers) picks up the point of the Tools for Collective Action:

“The big question is: how can this country grow the value of its export products? In terms of the seafood industry, we need to maximise every last ounce of value out of our sustainably caught fish. This requires people in the private sector to work cooperatively and collectively.

Fundamentally, at an individual level, [fishers] are utilising a common pool resource, in some ways competing for the fish. Therefore, people have been very competitive so what has developed is a competitive way of operating. It works against co-operative behaviour.

Through a project such as (the Toolbox), we can identify constraints to working cooperatively and then try to resolve them”. (Seafood New Zealand, October, 2004, p.11-12)

SeaFIC has now sought proposals from across the industry for pilot projects to test the Toolbox. To date, six projects have been supported:

1. The New Zealand Mussel Industry Council will explore the institutional arrangements needed to support export price-sharing initiatives.
2. The New Zealand Mussel Industry Council will research and develop an audit/monitoring system with the aim of binding members to planned arrangements for environmental management and correct implementation.
3. The Northland Aquaculture Collective aims to bring in an independent facilitator to develop and represent the views of the collective in the creation of new aquaculture management areas (AMAs).
4. The Eel Enhancement Company will seek expert advice to review different organisational and governance models and options for eel ITQ holders.
5. The management group for crayfish in management area 5 (CRAMAC5) will explore dispute resolution options.
6. The management group for paua in area 7 (PAUAMAC7) will seek to create a fisheries plan for the top of the South Island involving wide consultation with quota holders and expert advice on fisheries management.

In the words of the New Zealand Deputy Executive Director of Fisheries:

“You can’t get collective action by regulation. You can’t regulate for it. All you can do is facilitate work by industry for industry, and that’s what we’re doing”.

4.6 The implications for the FRDC

One of the significant features of the people development work of the non-fisheries RDCs, as well as the New Zealand fisheries, is the focus of effort on the development of people and teams at the local or regional level. Given that the Australian fishing industry has a strong regional presence, much of the work described in the above section is highly relevant to the Australian fishing industry, and the FRDC in particular.

In a tactical context, the FRDC needs to give serious consideration as to whether it will join the CVCB. The current CVCB agreement expires in June 2007 and is likely to be extended for another term. The focus of the current phase of CVCB has been on broad capacity building issues. Should it be funded for another term, it is understood that the members will be seeking to develop initiatives that achieve capacity building within specific industry sectors.

While the consultants are not privy to the financial costs of the FRDC joining the CVCB in a second term, there are clearly benefits available to it. The CVCB is essentially a “community of practice” that seeks to address common issues that are also relevant to the fishing industry. A greater focus on specific industry issues will also enable the FRDC to:

- take advance of the more generic work done to date
- join forces with other RDCs on specific projects, rather than tackle them on their own.

The New Zealand Tools for Collective Action initiative should also be examined for relevance and application in the Australian context, particularly as they are a major competitor in seafood marketing in the Pacific region. The key features are:

- centralised resources development
- promotion of good practice in a solutions-based approach
- local development and delivery of people development ideas (eg monitoring, communities of practice, development of champions).

There is no doubt that the fishing industry can learn from the work completed to date by its sister RDCs and New Zealand fisheries. It will be in the interests of the industry that the FRDC examines this large body of research and development work and seeks to draw comparisons and conclusions that will inform future people development strategies in its industry.

The significant finding from this review is our proposal that the FRDC consider a significantly greater focus of its people development

activities on building capability at the local or regional level. To date, much of FRDCs people development contribution has focussed on individuals at the national level. In this context the FRDC would foster the development of local champions and teams to address real and practical issues that are impacting on industry development. The networks and relationships would be both horizontal and vertical within the value chain to ensure that the team approach involves all relevant stakeholders. In this way it would also be possible to review outcomes of FRDC investment in terms of the resolution of particular problems.

Clearly, it is not practical for the FRDC to fund activities in every locality. The strategic approach is for the FRDC to use its resources to fund (and lever other funds) for activities that:

- develop resources that will be adopted and adapted to facilitate learning
- stimulate the emergence of “champions” (or change agents) to steer the application of good practice within local communities
- encourage innovation and good practice in one location as a means of demonstrating the business and industry advantages that will be applicable in a broader context.

Recommendation 1

That the FRDC adopt as its major focus for people development the fostering of cooperative ventures and other innovative people development initiatives at the local and regional level. This approach will build on the work of the rural RDCs and NZ Ministry of Fisheries to develop the capability of individuals and teams to identify and address real industry problems at the local level. In particular, we recommend that the FRDC review and adopt/adapt the:

- research outputs of the CVCB to date
- New Zealand IDF and Tools for Collective Action.

Recommendation 2

That the FRDC examine the benefits and costs of joining the CVCB in its next term of operation with a view to:

- taking advantage of the generic resources developed during the first term
- working collaboratively with CVCB members on industry-specific projects of relevance to the fishing industry.

5. Embracing the vocational education and training (VET) system

5.1 What is VET?

Most people will undertake some form of vocational education and training during their lives. It may be:

- an apprenticeship
- a traineeship
- skills-based training in the workplace
- a TAFE certificate or diploma course
- a course delivered by a private training provider, such as a business college.

In the Commonwealth sphere, all apprenticeships and traineeships are referred to as “New Apprenticeships”.

The distinguishing feature of VET is that it involves a program to develop skills and knowledge which has a practical application in the workplace. Other key features about VET are that it is:

- closely associated with industry – in that industry is a major beneficiary of the productivity gains that result
- specifically related to a task or job in a particular area of employment
- usually delivered through a combination of learning on and off-the-job, although some courses may be totally based on-the-job or totally in an off-the-job setting
- skills based, in that it involves learning of specific skills for a particular area of work.

In 2005/06 the Federal Government will spend \$2.5 billion on VET. The primary vehicles for delivery are the:

- TAFE system
- New Apprenticeships.

The State/Territory governments also inject considerable funding, particularly for the maintenance of the TAFE system.

It is estimated that, in 2006, 1.7 million Australians will enrol in publicly funded VET programs, an increase in 35% over 10 years. (source:

DEST, Budget Information 2005 at a Glance,
www.dest.gov.au/portfolio_department/dest_information).

5.2 The fishing industry and VET

The fishing industry is a very poor relation when it comes to sharing in the public VET resources. The National Centre for Vocational Education Research, which provides statistical services to the government, publishes information on New Apprenticeships activity in a range of categories (ie by industry, occupation, Training Package). The level of fishing industry activity is too small to be identified in any of the above categories. While some industry employees will be counted in the food and other industries, the fact remains that on any count the industry suffers from a disproportionately small share of government VET funding. (NCVER, 2005).

While access to public resources is an issue across the whole VET sector, a particularly glaring issue is apparent in the Federal Government's flagship training system, New Apprenticeships.

5.3 New Apprenticeships in the fishing industry

The New Apprenticeship system is the Australian Government's major vehicle for achieving structured entry-level training of the nation's workforce. The system has its origins in the former apprenticeship system that was established to promote and regulate the training of tradespeople. Since the 1980s the system has been expanded to embrace almost all industries and entry-level occupations.

Public funding for New Apprenticeships comes in two main forms:

- financial incentives to employers to engage and retain trainees
 - these can amount to several thousand dollars per trainee over the life of the training contract
- funding to training providers to cover the cost of formal training (on or off-job)
 - this funding is provided through the State/Territory Training Authorities (STAs) under the "User Choice" banner.

There are significant impediments to the uptake of New Apprenticeships in the fishing industry, particularly in the wild-catch sector. They include:

- the casual/part-time/seasonal nature of much of the industry means that it is difficult to plan and make commitments for a structured training program
- the wide dispersal of the industry around the Australian coastline creates a "thin" training market with practical impediments to structured on/of job training
 - consequently, delivery and assessment of training is mostly fully on-job with doubts about the rigor of the training provided under New Apprenticeships

- a lack of formal employment contract in the wild-catch sector, as payment for services is generally on a “share of catch” basis
 - New Apprenticeship rules require that there be a formal contract of training between an employer and employee, based on an industrial award or other workplace agreement.

While some attempts have been made to overcome these impediments for example, by using a third party (eg. where a Group Training Company acts as the (nominal) employer), the arrangements are cumbersome and require a continuity of employment.

It is timely for the key industry stakeholders to take steps to address their disproportionately low share of VET funding provided by the Commonwealth through the Department of Education, Science and Training (DEST). In particular, it is vital that the fishing industry seek greater flexibility in the application of New Apprenticeships rules. Through the Commonwealth’s “Skilling Australia” and “National Skills Shortages Strategy” the Government is seeking to ensure that Australia’s training system is more responsive to the ever-changing needs of industry. In particular, the latter strategy seeks to develop practical strategies to address current and future skills needs in regional areas.

Under the “Guiding Principles for Proposed Changes” to vocational education and training, the government has identified three guiding principles:

1. Industry and business needs must drive training policies, priorities and delivery.
2. Better quality training and outcomes for clients, through more flexible and accelerated pathways, must be assured.
3. Processes should be simplified and streamlined. (DEST, 2005, p VI)

The objective is that industry and business will directly influence training policy and delivery – including through a direct line of advice to a new Ministerial Council overseeing the operation of the training system.

The consultants believe that the time is right for key industry stakeholders in the commercial sector (ASIC, FRDC, NAC, AFISC) to commission a strategy paper to develop a formal proposal for change to be put to the Federal Minister for Vocational and Technical Education. The paper would highlight current impediments in the system and propose changes to New Apprenticeship arrangements to enable greater uptake by the fishing industry.

The development of a strategy paper should take into account the current “Industry Champions” project being conducted by ASIC. This project is backed by a substantial DEST grant and aims to promote apprenticeships as a means to improve business performance and address current and future skills shortages in the seafood industry. It

will provide resources and support to employers and supervisors to implement or increase New Apprenticeships in their businesses. Between March and June 2006, a number of industry “champions” will volunteer to learn about New Apprenticeships and how these can be implemented in their own businesses. In return, the champions will seek opportunities to share what they learn with other seafood businesses and networks.

One resource will capture on CD the case studies of businesses that have successfully used New Apprenticeships. An interesting feature of the CD is that the wild-catch business portrayed on the CD uses a structured training model that is at variance to the traditional New Apprenticeship system.

While the wild-catch company trains their staff to the Certificate III in Fishing Operations, they do so under a “Cadetship” and do not receive funding under New Apprenticeships. The major impediment to alignment with New Apprenticeships is that payment is made via a share of catch, rather than a set wage.

Recommendation 3

That the FRDC collaborate with other peak industry bodies (ASIC, NAC, Indigenous councils, AFISC) to make a formal approach to the Federal Government to propose ways to address the industry’s impediments to accessing VET programs and resources. In particular:

- The FRDC should, in the first instance, commission the development of a strategy paper on behalf of key stakeholders to use as a basis for representations to the Government.

5.4 The Seafood Industry Training Package

A Training Package describes the skills and knowledge needed to perform effectively in the workplace. Each Training Package is developed through a comprehensive national research and consultation process involving diverse stakeholders and it is validated by the industry or industry sector prior to endorsement. Endorsed Training Packages cover most Australian industries and industry sectors.

Training Packages do not prescribe how an individual should be trained. Teachers and trainers develop learning strategies – the “how” – depending on learners’ needs, abilities and circumstances. Therefore Training Packages provide flexibility to meet the needs of individual enterprises, while still providing for national recognition and portability of qualifications.

Training Packages are developed by industry through Industry Skills Councils (ISCs) or by enterprises to meet the identified training needs of specific industries or industry sectors.

The Industry Skills Councils have two key roles:

- providing accurate industry intelligence to the VET sector about current and future skill needs and training requirements
- supporting the development, implementation and continuous improvement of quality nationally recognised training products and services, including Training Packages.

The Seafood Industry Training Package (SITP) was developed by the fishing industry's ISC - then called Seafood Training Australia (STA). The package brings together the competency standards, qualifications and assessment guidelines to make training smoother, better and smarter for employers, employees and people wanting to train for work in the Seafood Industry. Together, these three components are known as the endorsed components of the Training Package.

The SITP contains:

- Competency standards – these describe the skills and knowledge needed to work effectively in the Seafood Industry. These are “packaged” together to make up qualifications.
- Qualifications – the package has 23 qualifications covering work at different levels across 6 streams:
 - aquaculture
 - fishing operations
 - fishing charter operations
 - fisheries compliance
 - seafood processing
 - seafood sales and distribution.

These are nationally recognised qualifications that recognise skills gained on the job, through a formal course, or a combination of both.

In addition to the endorsed Training Package, STA produced a range of support materials to promote and assist in the adoption of the package throughout the industry. Examples of these materials include:

- online teaching and learning resources
- learning guides
- assessment resources

- log books
- CD ROMs and videos
- careers, training and qualifications flyers
- resource generator website.

With some exceptions, the seafood industry has not embraced the package to the same extent as other industries have embraced theirs. Some exceptions have been in the post-harvest and aquaculture sectors where structured training (including use of Farmbis funding) and New Apprenticeships are used, particularly in aquaculture. Even in these sectors, the casual and seasonal nature of the employment tends to discourage structured training around formal qualifications.

While it is unlikely that the fishing industry will fully embrace the qualifications framework within the SITP, there seems to be broad support for the package at the unit of competency level. The SITP seems to capture both the “common” and “technical” skills sets required across all sectors of the industry. The consultants understand that the Federal and State governments are examining the funding of VET on the basis of skills sets, rather than just on the completion of full qualifications. This approach will be very attractive to the fishing industry.

It is appropriate that key stakeholder groups encourage their members to adopt the standards within the SITP and achieve formal recognition for the workplace skills and knowledge acquired by the industry’s workforce. Recognition of skills can be achieved regardless of how those skills were acquired and, therefore, there is no necessity to attend off-job training to be recognised as competent.

An effort to promote the recognition of skills may go some way towards addressing the perceived poor “training culture” within the industry. It seems that the only significant interest in certification is when there is a statutory obligation to do so (eg skippers, engineers). Ironically, in most situations the statutory licensing process does not involve assessment against SITP qualifications or skills sets. The licensing agencies use assessment processes that are not competency-based and assessment criteria that are unique to the agency. However, we support a recent initiative to seek alignment of licence assessment with the SITP. The FRDC could consider funding a project to accelerate this process. (Baisden, 1999)

It is likely that a project to promote skills recognition would attract government support. The Australian Government has already invested several million dollars in the SITP to provide a national basis for the development and delivery of vocational training in the industry. Recognition of skills will go some way to ensuring that there is an appropriate return on this investment by the industry.

5.5 Accessing VET intelligence

The Commonwealth and State/Territory governments have provided substantial funding over many years to support industry-based structures to research and provide advice about industry skill needs. The current structures are called Industry Skills Councils (ISCs).

The Agri-Food Industry Skills Council (AFISC) was established in 2004/5 to develop solutions for the skill and workforce shortages that are facing the meat, seafood, rural, food processing and racing industries.

- It replaced a number of Industry Training Advisory Bodies (ITABs), including Seafood Training Australia (STA).
- The Seafood Standing Committee has been established under AFISC to focus on issues specific to the industry.

A casualty of the rationalisation of the ITAB networks was the state/territory network that previously existed under STA. This network has not been fully retained and, as a consequence, there are serious doubts about the ongoing availability of quality intelligence on state and regional education and training issues.

In June 2005 AFISC published a high level review of these skills and workforce issues facing the agrifood industry and the five industry sectors which make up the AFISC. The review identified as its most urgent task the development of strategies and solutions to address the major skills challenges confronting the agrifood industry, (AFISC, 2005). A later update by the Seafood Standing Committee of AFISC (August 2005) looked further at the issue of skills shortages (St Clair, et al, 2005).

The 2005 AFISC Industry Skills Report (and August 2005 update) identified developing “people capacity” as a key challenge for the seafood industry. It identifies specific skills shortages at all levels of the industry (although not across all regions), including:

- workplace environmental management
- food safety skills
- seafood processing skills (managers, supervisors, attendants)
- product and industry promotion
- occupational health and safety skills
- leadership and mentoring skills – succession planning
- quality assurance
- business management skills.

In addition, the August 2005 report identified the following strategies to address the above skills shortages:

- Strategy One: Nationally planned risk management training and support programme targeted at business owners.
- Strategy Two: National seafood industry leadership development program to be implemented at the state level.
- Strategy Three: Promotion of the seafood industry as an attractive career.
- Strategy Four: Develop a range of resources that support the promotional strategy developed in Strategy 3 including promotion of career paths in the seafood industry.
- Strategy Five: Develop technical and other skills in existing workers.
- Strategy Six: Implementation of taster program for school students.
- Strategy Seven: Implementation of introductory/induction programmes.
- Strategy Eight: General induction/taster program for mature people.
- Strategy Nine: Promotion of the seafood industry to younger school children.

There is little doubt that AFISC and the existing state/territory network is a valuable source of intelligence and advice about people development issues in the fishing industry. AFISC also acts as a conduit for the Australian Government sponsorship of VET activity in the industry. For these reasons the consultants recommend that the FRDC establishes formal links with AFISC and, where possible, with the remaining state/territory skills councils. Despite the reduced government funding in this area in recent years, AFISC and its state/territory counterparts invest considerable effort in researching the learning needs of the industry. There is no other authoritative source of intelligence in this area.

The consultants note that close formal links previously existed between the FRDC and STA on people development issues. This relationship should be rekindled, particularly through the AFISC Seafood Standing Committee. FRDC could consider seeking membership on the Committee.

There may also be advantages to FRDC in establishing a dialogue with DEST, similar to the arrangements that currently work with DAFF. The purpose of this move is to build a working relationship with key DEST officials in connection with FRDC people development initiatives. There is no doubt that DEST has considerable capacity to provide financial support to organisations who present innovative proposals to address skills development issues, particularly in connection with the government's new "Skilling Australia" policy. In this way, FRDC funds

could be used to lever larger financial contributions from DEST. It is also likely that any approaches to DEST will be more convincing if done in conjunction with ASIC.

5.6 Promoting the fishing industry in the schools

An increasing focus of vocational education and training policy is to promote industry training in secondary schools. The major objectives are to create an awareness/interest in particular industry and occupational pathways and to commence basic induction as early as possible. While the fishing industry has some notable examples of programs to introduce VET in schools, more could be done to place the career prospects of the industry before Australia's school population. For example, the:

- FRDC/PIRSA publication "The Story of Seafood" could be a useful resource to schools.
- former STA website lists many other resources that have been produced to support VET in schools activities (eg flyers produced under the NAC Action Agenda)
- existing training advisory bodies in the states/NT could be commissioned to support this initiative.
- current work within the University of Tasmania to attract science graduates to careers in agriculture is worth following. The project involves introducing career and research opportunities to students at secondary school. A substantial DEST grant has been provided to fund a six month national scoping study.

An example of how an aquaculture program was integrated into mainstream curriculum in a USA school was reported by Ross Ord in 2001 (Ord, 2001). The Booker T. Washington school in New Orleans has an agriculture program with a heavy emphasis on aquaculture. Features of the program include the:

- the integration of academic subjects into the aquaculture program
- the aquaculture program qualifies students for College graduation
- the program is self-supporting – students raise funds for tanks etc by providing shrubs/greenery for school graduations etc
- the product (catfish and bass) are used by hospitality students in their training
- the by-product (fertilised water) was directed to a hydroponic greenhouse for use by agriculture students.

5.7 The implications for the FRDC

The key issue arising from our examination of the VET sector is that the FRDC must seek to build relationships with the existing networks and funding bodies within the sector. The message is to avoid duplication of what others are doing in the sector by accessing the available sources of intelligence and to facilitate access to government resources. The FRDC needs to develop a close working relationship with AFISC and the state-level VET networks in a two-way process:

- FRDC involvement in AFISC committees
- AFISC involvement in FRDC committees.

The review has flagged a range of important VET initiatives that will enhance people development in the industry. However, these will only succeed when the stakeholder relationships in VET are securely established.

Recommendation 4

That the FRDC seek to build close and continuing relationships with key stakeholders in the VET sector through cross-representation on committees and working groups. By establishing these networks, FRDC will be in a better position to:

- access the available VET intelligence
- support initiatives to obtain a significantly greater share of VET resources for the industry
- lever funds within the VET sector to support regional skills development initiatives
- encourage the adoption of the Seafood Industry Training Package as the industry's standards for workforce competence, particularly through the recognition of the skills of existing workers.
- better promote the industry through VET in schools initiatives. (eg ready to use resources for teachers about: key issues, ESD, recreational fishing, Australia's fisheries, showcase fisheries, aquaculture, mariculture)

6. A sectoral analysis of current and emerging people development needs

6.1 The aquaculture sector

Aquaculture in Australia is growing rapidly and is considered to have the potential to achieve annual sales of \$2.5 billion by 2010, well in excess of the value of the wild-catch sector. In order to realise this outcome, the industry established the Aquaculture Action Agenda in 2000. The aim of the Action Agenda was to:

- identify impediments to growth for specific industry sectors and to remove them
- find out where the opportunities lie and take advantage of them.

The National Aquaculture Council (NAC) was established to support development and implementation of the Action Agenda. (NAC, 2005).

The growth of aquaculture has significant implications for employment and training. The industry is located across regional Australia and makes an important contribution to employment and economic development of many rural communities. It accounts for nearly 30,000 jobs directly and indirectly.

The Action Agenda (Item 9: Making the most of education, training and workplace opportunities) identifies five key “performance indicators”.

- increase the take-up by aquaculture workers in continual learning and recognised training programs as a means to raise the skill base and productivity and profitability of aquaculture enterprises
- establish “industry champions” in education and training to advocate best practice in:
 - education and training
 - research and development
 - ecological sustainable development.

The NAC commissioned a report into “Education and Training Needs to 2010: Current Gaps and Future Opportunities”. The report’s assessment of current and projected needs revealed:

- a likely increase in technology-based skills as the industry moved to increase efficiency in production
- little understanding of current training pathways, including the SITP, and a general disengagement from training
- an inadequacy in the currently available course content and pathways to meet the projected needs in human capital

development, business management, marketing and promotion, environmental management

- an under emphasis by universities in the sector's priority needs, including aquaculture engineering/technology.

The key recommendations of the report were to:

- utilise focus group engagement at the local level to enable experienced industry members to engage the grass roots
- extend the Advance in Leadership program to allow mentored support for aquaculture industry participants, who will then act as key drivers engaging grass roots participation in education and training
- support the engagement of industry to recognise the opportunity cost of participation away from the workplace
- develop centres of excellence in engineering, biotechnology and aquatic health management, including the provision of bridging or short courses to support industry participants to access higher education
- develop a network of assessors to provide a small pool of proactive individuals to link training providers with industry. (McShane, 2004)

In addition to the above findings, the AFISC has identified some skills shortages in the areas of farmhands, supervisors, managers and occupational divers, although the shortages are not uniform across states and territories.

The consultants note that the major findings of the research commissioned by the NAC are also reflected in issues raised during this consultancy. In other parts of this report we make comments and/or recommendations about these issues as they are also relevant to the broader fishing industry.

Recommendation 5

That the FRDC seek to facilitate the rapid growth of the aquaculture sector by supporting the NAC's strategic people development plans. This support could include:

- further collaboration with NAC to lever funding
- specific localised initiatives (including with Indigenous communities) in concert with NAC that are consistent with the FRDC's focus on communities of practice.

6.2 The recreational fishing sector

Representing the interests of the recreational fishing sector presents one of the major challenges in the co-management model of fisheries management. Recreational and sport fishing make a valuable contribution to Australian society and to the national economy and the interests of this sector have an important claim in managing fish resources.

In one important respect, the recreational sector has interests that closely mirror the interests of other groups at the co-management table. The fisheries resource, and the aquatic and marine environment generally, must be managed effectively and efficiently to maximise the benefit to all people who have a concern, as well as to ensure preservation and the health of the resource.

The 3.4 million recreational fishers are widely distributed around Australia and only a small number are members of organised fishing clubs. Therefore, the key challenge is to establish and maintain a strong and informed network to provide representational and advocacy roles. The main issues are that there:

- is a very small group of paid officials (outside of government), mainly located within the national (Recfish Australia) and state confederations (eg Sunfish in Queensland).
- are obvious problems in attracting, educating and retaining an extensive network of volunteers.

The network needs members who can represent the sector at three levels:

- at the national and state levels to provide advocacy and input to government decision making
- at the fishery (or ecosystem) level to represent the sector in resource management and other roles (eg management advisory committees (MACs))
- at the local level to provide education and information to communities, schools and the angling public. For example, the NSW Fishcare volunteer program trains and supports volunteers to provide clinics to educate the recreational fishing public about sustainable fishing practices. Similar programs operate in most other states.

The essence of the problem confronting the recreational sector is that it needs to provide a level of input that is commensurate with the commercial sector, but without the infrastructure and people resources available to the latter group. The consequence is that many advocacy and educative roles depend on the identification and development of a large network of volunteers.

While the people development needs of the recreation sector will largely overlap with the needs of other sectors, the strategies adopted must acknowledge the special needs of a largely voluntary network. Some possible strategies suggested by the recreational fishing sector are:

- local workshops to encourage interest at the grassroots and identify future leaders
- national workshops for identified leaders to develop understanding of key national issues and to provide skills training (eg communications, governance, planning).
- development of modular training packages on key topics (eg land rights, ecosystem management, environmental legislation)
- succession training, using mentors. For example, Recfish Australia proposes a Young Leadership Program in which existing mentors and potential future leaders will meet in a workshop environment and undertake practical activities that also reflect their passion for fishing activity.
- MAC-style training, preferably at both local and higher levels.

The FRDC has provided some support to the sector to help develop its capability to provide an effective voice in the co-management of fishing resources. There would also seem to be scope to provide additional financial assistance to enable the sector to address its identified future people development needs. To this end, the FRDC has recently established a “recfish services” R&D committee to formalise input to the FRDC’s decision making processes.

Recommendation 6

That the FRDC provides ongoing support to the recreational sector through sponsorship of workshops and resource development to build the coverage and capability of its network to enhance the contribution of the sector in its roles to:

- advocate on behalf of recreational fisheries
- represent the sector in resource management forums
- demonstrate to the community the importance of resource sustainability.

6.3 The Indigenous fishing sector

Aboriginal and Torres Strait Islander peoples hold a range of interests in fisheries and aquaculture, which many have sought to have recognised and protected by participating in government inquiries and consultation processes that have occurred over the last decade or so. The extent to which these interests have been accommodated in law and policies varies markedly around the country. In addition, although there are many common aspirations amongst Aboriginal and Torres Strait Islander peoples, there is also considerable diversity. This reflects in part the heterogeneity of indigenous cultures and their geographic locations. (Sutherland, 1996)

Despite their obvious interests, little progress seems to have been made by government agencies in assessing Indigenous rights and interests in fisheries issues, including by current or proposed management regimes. The major exception appears to be in the Torres Strait and the Northern Territory.

The *Native Title Act 1993* recognises the rights and interests of Indigenous Australians in “hunting, gathering and fishing”. However, the representation of Indigenous people on Commonwealth and state fisheries management bodies is very limited.

There also seems to be a genuine interest amongst Indigenous communities in commercial fisheries development and resource sharing. However, high-cost, potential high-return fisheries are difficult for Indigenous fishers to enter, although similar constraints also face non-Indigenous interests. The major focus on Indigenous activity in the commercial arena has been on the aquaculture sector. The sector is one that “...could provide significant benefits to Indigenous Australians, most notably by helping communities achieve economic independence, providing employment opportunities and forced security for isolated communities” (Lee, et al, 2001, p.2)

Several Commonwealth and state/territory agencies have provided resources and other assistance to coordinate and support Indigenous involvement in commercial aquaculture for some years. For example, DAFF has established an Indigenous Aquaculture Unit and provided leverage funding to support a number of initiatives with some success.

Advancing the interests of Indigenous Australians in the fishing industry has been hampered by a range of issues, most notably a lack of:

- formal infrastructure to represent their interests. For example, the lack of a peak body means that there is not a vision for the future advancement of Indigenous interests in the industry.
- understanding of the nature, dimensions and characteristics of Indigenous fisheries and their interaction with other commercial and recreational fisheries. A clearer picture of this situation would need to precede any substantial investment in Indigenous people development in relation to non-commercial fishing.

- the information may include Indigenous harvest rates, as well as the cultural and spiritual values of traditional target species and habitats
- it was also felt that this information could be presented in a form that would better inform the non-Indigenous population of the background to Indigenous cultural fishing activity.

The NSW “Indigenous Fisheries Strategy and Implementation Plan” (December 2002) could be the basis of a broader national strategy fostered by the FRDC. The strategy seeks to protect and enhance the traditional cultural fishing activities of Indigenous communities, as well as to ensure Indigenous Australians are actively involved in the stewardship of fisheries resources”.

- the Strategy has a range of “key platforms”, key strategies, specific initiatives and key result areas to provide a framework for achieving progress in this neglected area of fisheries management.

As well, a DAFF-commissioned report to develop a national aquaculture strategy for Indigenous communities in Australia (Lee, et al, 2001) proposed some specific education and training initiatives, including development of:

- a dedicated, nationally accredited Indigenous training program in aquaculture
 - note that some specialist educators in the industry question the need for a dedicated program.
- resources to advise Indigenous people about entering into a career in aquaculture
- guidelines to facilitate business negotiations between the aquaculture industry and Indigenous communities.
- strategies to ensure maximum access to the vocational education and training (VET) system.

The FRDC could also seek ways to foster development of Indigenous leaders in the fishing industry. For example, it could:

- establish partnership arrangements with the Australian Indigenous Leadership Centre (AILC), which provides nationally accredited Certificate and Diploma-level courses.
- sponsor programs to provide mentoring for Indigenous Australians in areas such as small business development.

Recommendation 7

That the FRDC examine innovative ways to support Indigenous Australians and their communities to take advantage of opportunities to sustain their customary practices and access commercial business ventures that are consistent with the sustainability of the resources. Some particular strategies could include:

- fostering a better community understanding of customary fishing activity
- developing and engaging Indigenous people who can better influence the fisheries management debate, including through Indigenous leadership programs
- facilitating the development of business case proposals for entry into commercial activities in order to lever mainstream and Indigenous-specific funding sources
- mentoring in small business development skills where commercial business proposals are approved.

6.4 The community and environmental interests

Under the co-management model, fisheries management decisions increasingly take social and economic impacts into consideration, as well as sustainability and environmental issues. It is clearly in the industry's interests to develop an ability to respond positively and clearly communicate its position.

A community communication plan is essential for the seafood industry to approach the many challenges it faces in addressing current community attitudes and perceptions about the industry.

The FRDC has invested heavily in surveying community perceptions of seafood and the fishing industry (eg Aslin, et al, 2003), as well as producing resources to enhance the positive image of the industry and its products. A notable project was the work of the Women's Industry Network Seafood Community (WINSC) to produce a range of resources to assist industry representatives to advocate for and represent their community groups' interests.

There may be value in re-packaging and redeveloping some of the resources to support the work of industry leaders and advocates. For example, there is valuable advice about:

- developing networks
- working with the media

- lobbying and representation
- presentations, meetings and proposals
- using communication technologies
- fisheries management
- the fishing industry generally.

The consultants have canvassed ideas elsewhere in this report to guide the FRDC in assisting the industry to better connect with its community at the local and regional level. (eg see Section 4)

Finally, it is important to recognise that the co-management model identifies the interests of the community, and its environmental advocates, in the development of natural resources. The people that represent these interests have a legitimate need to develop capability to develop and present their positions to ensure a properly balanced debate. Like their recreational fishing counterparts, these people are often volunteers who do not necessarily have a well developed understanding of the scientific, economic and social dynamics of ecosystem management.

The consultants note the environmental interest groups contacted also expressed concern that the commercial sector is not well equipped to look after a public resource. They contend that many commercial fishing representatives on MACs and other forums consider issues from the narrow perspective of their own business and are reluctant to accept the findings of research studies. Environmental groups consider this shortcoming has the potential to undermine the professionalism of the co-management approach. They stress the need:

- for more leadership development to develop “champions” who can use team building and networking skills to persuade their broader industry membership.
- to change the way issues, new methods and research findings are communicated to the industry. It is not appropriate to expect industry and community people to read research papers – the focus should be on taking the simple messages to the industry by using industry champions and extension activities. FRDC has a role to play in this area.

Some respondents to the review stressed a need for the fishing industry to seek more ways to work collaboratively with the environmental stakeholders in the co-management system. They see a need for greater focus on the commonality of purpose of the commercial sector and the community and environmental groups to achieve resource and ecosystem sustainability.

The OceanWatch initiative is perhaps the best known example of such a collaborative approach. OceanWatch is an environmental, non-

government organisation sponsored by the commercial seafood industry. The SeaNet program operated by OceanWatch provides an extension service that is focussed on supporting regionally-based industry to enhance the ecological sustainability of fishing.

The clear message that the consultants took from consultation with the environmental sector is that all of the ecosystem stakeholders have a strong desire to achieve sustainability. The consultants believe that it is in the interests of the fishing industry that environmental stakeholders are supported in their efforts to develop a sound and balanced understanding of resource management issues. Many of the arguments are basically the same as those in support of the recreational sector.

Recommendation 8

That the FRDC examine ways to support the community and environmental stakeholders in the co-management system by:

- developing both representational networks and capability in terms of a sound and balanced appreciation of resource management issues
- seeking proposals for additional collaborative projects in localised and good practice activities (see Recommendation 1).

6.5 Focussing on the supply chain

It is a widely held view that the fishing industry must pay greater attention to strategies that will increase the value of seafood produced. In the face of declining wild-catch production, many industry leaders see the need for the industry to become a price “maker” rather than a price “taker”. This requires that the industry looks at ways to increase value all along the supply chain.

The National Food Industry Strategy (NFIS), launched in 2002 with in excess of \$100 million of Commonwealth funds, represents an important platform for enhancing the value of Australian seafood. The strategy was updated in October 2005 to focus on “...*the overriding objective...to create sustainable competitive advantage through innovation along the value chain.*” (NFIS Council paper, November 2005)

A major challenge is to ensure that the fishing industry is a leading participant in the National Food Industry Strategy (NFIS), with the object of:

- creating innovation in the value chain to arrest the stagnant or declining unit value of seafood production (ABARE report, 2004).
- reducing the fragmented and disjointed nature of the chain, to recognise that the best strategy for every business along the chain is to work together, not just add costs along the way.
- creating in the future new “cooperatives” built on trust and a realisation of the mutual benefits, particularly in the international marketplace.

Capacity building is seen to be a key ingredient in the success of NFIS. It is clearly recognised that:

- there needs to be people with leadership capability and vision all the way up the chain
- strong networks will be essential to ensure cooperation and integration of the value chain.

The NFIS commissioned a report in November 2004 to examine models adopted in other areas on long term capacity building. The report concluded that the innovative capacity of the Australian food industry depends on the complex interaction between:

- the level and range of capabilities at the individual company level
- the efficiency and effectiveness of networking and clustering arrangements within the industry and beyond to other industries and knowledge-producing agents
- the success of public policy in creating favourable conditions for innovation. (KPA Consulting, 2005, p16/17)

One of the key proposals for the NFIS over the next five years to improve the skills of the food industry workforce is to develop a food centre of excellence in human capital. The role envisaged for such a centre would encompass:

- (a) developing and brokering a coordinated and comprehensive education and training effort to suit the needs of the industry with various levels of education and training providers
- (b) developing industry learning and adoption programs (ie. dissemination of learning from a range of programs and activities such as NFIS Ltd, government agencies and others)
- (c) funding and coordination of scholarships and student industry placements
- (d) career development and mentoring initiatives for the food industry (similar to activities undertaken in the UK and for the Australian retail sector), and
- (e) development of an Australian food industry leadership

program (based on the Rural Leadership Program).

One of the most common challenges facing food businesses (particularly small to medium enterprises with limited resources to devote to capability-building) is knowing what support, information, research and education is available and how to access it. The working group recommended that a “Food Web Portal” be established to provide Australian food businesses with ready access to an array of information to assist with running their business. (source NFIS website)

The FRDC has already established working relationships with the NFIS and should be well placed to promote the interests of the fishing industry as the capacity building initiatives of the NFIS proceed. We understand that the FRDC and NFIS are currently undertaking a case study to build better supply chain relationships in the rock lobster fishery.

Seafood Services Australia (SSA) – a company set up by the FRDC and ASIC – will play a pivotal role in this area. Its mission is “...to be a catalyst for sustainable development of the seafood industry”. (Fast Facts on SSA)

SSA seeks to help seafood businesses and organisations to:

- become more competitive in domestic and global markets
- follow sustainable, responsible environmental practices.

SSA’s priority business includes:

- seafood products, processes and supply chains
- systems and standards for the safety and quality of seafood
- systems and standards for environmental management
- trade and market development and
- occupational health and safety.

SSA has an existing role in supporting training organisations and providers. For example, it seeks to help industry people to:

- identify training needs, priorities and opportunities
- develop for access training resources
- access training programs and funds. (Fast Facts on SSA).

SSA has planned a significant part in the introduction of EMS and food quality/safety systems across all sectors of the industry. In this way it has been a major vehicle for people development in key strategic area affecting the industry.

SSA also administers the Seafood Industry Development Fund to provide grants of up to \$30,000 to assist businesses with innovative proposals to enhance their business performance and the seafood industry as a whole. The consultants believe that the Fund could be a valuable resource for people development proposals, particularly those that seek to lever mainstream government funding sources.

As a consequence, the consultants believe that SSA is well placed to take a leading role in the promotion of people development in areas consistent with its priority business areas.

Recommendation 9

That the FRDC give a priority within its people development program in the commercial sector to building collaborative business relationships in the supply chain. It should focus on regional initiatives such as:

- development of teams and networks to address local and regional initiatives
- development of mentors and champions to drive these regional initiatives
- conduct of additional innovative pilots of cooperative ventures across other sectors.

6.6 Engaging the retail sector

“If the retail sector remains unassisted by government and industry and left to itself much of the good work done by farmers and fishers to improve their fish quality or marketing practices is lost or even undone.” (Ruello, 2005, p.120)

In a major FRDC-sponsored report on the retail sale and consumption of seafood in Melbourne, Ruello and Associates concluded that the poor business practices of the retail sector undermine consumer confidence and trust in the fishing industry. They saw the retail sector as in need of strengthening, with greater communication flow (with the supply chain) and business knowledge, to ensure a boost in the consumer confidence in the Australian industry.

Most industry stakeholders agree that there is a disconnect between the retail sector and the rest of the fishing industry. Any benefits of wild-catch restructuring and improved quality of landed fish will be dissipated if the frontline retail sector is not engaged, particularly as many small seafood retailers do not see themselves as part of the industry.

The growth in the market share of the two big Australian supermarkets is also a major factor impacts on the retail sector. It is estimated that within five years these chains will buy 80% of their seafood direct from the producers, bypassing wholesalers (R&D News, October 2005). To accompany this move, the supermarkets have flagged an intention to:

- expand and improve in-store presentation
- employ knowledgeable staff to communicate with seafood customers.

The domestic retail sector is seen as the “poor relation” of the export market sector. Surveys have found that at least 25% of small seafood retail businesses need help with business management that is tailored to the industry (Ruello, 2005). The key people development need was identified as on-site “business improvement” programs for seafood retailers. The advice was to avoid a promotions strategy based on “training”. It was considered unlikely that small business people would attend lengthy off-job courses. The better approach was seen as extension activity at the shop front – a face-to-face approach that acknowledged the low literacy and multi-lingual environment of many learners.

It is not the responsibility of FRDC to fund these programs across the board. However, a trial program involving a group of retailers in, say, Melbourne or Sydney may provide a clear demonstration of the bottom-line benefits of a more professional approach to convince others to follow suit.

There is a clear need for the development of quality training resources that would comprise a business development kit for seafood retailers. The kit could comprise:

- information on Australian fish resources, fishing and aquaculture
- more product knowledge, especially how to value add in house
- succinct reliable information on seafood safety and labelling requirements
- more marketing skills and knowledge particularly an understanding of consumer concerns regarding fish retailing and resource allocation
- timely news on issues affecting the (Victorian) seafood supply chains
- business benchmarking information and business review assistance. (Ruello, 2005).

An interesting recent development has been the formation of the Leadership Group for Australian Seafood Industry Promotion. The Group was formed in 2005 to progress strategy formulation and to continue work on establishing an entity to take responsibility for promotion of Australia’s premium seafood.

The Leadership Group consists of several of Australia's seafood industry leaders, each with expertise in a wide range of fisheries and aquaculture supply chain issues. The leadership group was formed from a unification of the work undertaken by the Seafood Enterprise Alliance (SEA) – a group within the National Food Industry Strategy (NFIS), the National Aquaculture Council (NAC) and the Australian Seafood Industry Council (ASIC).

The purpose of promoting Australian seafood is to increase consumption and consumer preference for “premium” product. It is recognised that customers pay higher prices for better product. *“Australian product is definitely the best – and importantly, we have the means to prove it and are now developing the mechanisms to do so.”* (ASIC communication, October 2005)

Recommendation 10

That the FRDC continue to seek ways to build capability within the retail sector of the fishing industry, recognising that improved quality and professionalism will occur through business development initiatives on the ground. Some initiatives could include:

- local workshops with a business development theme
- a business development kit
- a pilot program to demonstrate the benefits of improved marketing using a group of interested retailers
- engagement with the supermarket sector to identify opportunities to reinforce the specialised nature of seafood retailing.

6.7 Managing change in the wild-catch sector

While the wild-catch sector is often portrayed as being in decline and outdated, increasingly, leading individuals and enterprises in the commercial wild-catch sector are improving quality and are value-adding by developing new products and processing techniques. They are becoming more strategic and are opening up new markets, developing niche products and marketing more efficiently. Consequently, they are earning better returns on their investment.

The commercial wild-catch sector is increasing its contribution to fisheries R&D, recognising that profits, sustainability and future access to resources depend on the outcomes of its contribution. The sector is strengthening its role in R&D planning and adoption of R&D results. Oceanwatch also plays an important role in facilitating adoption of improved fishing technology.

The consultants believe that these developments will need to become more universal for the sector to demonstrate that it is a professional custodian of the common property resource. In this context, a common theme in many of the consultations was the need for development of change management skills. The issue was raised in two contexts:

- a need to cope with the continual changes brought about by technology, government processes and the broader small business management matters affecting commercial operators. While many were competent in their vocation, it was commonly felt that better business management skills would be beneficial to the individual and the industry generally.
- the major structural changes impacting on the wild catch sector at both the Commonwealth and state levels. The view expressed is that the benefits of reducing effort to address resource pressures will be dissipated if there is not a commensurate attempt to build business efficiencies and product value on the part of the smaller commercial fleets.

Many respondents drew comparisons with the facilities and resources available to assist the agricultural sectors to manage their businesses and to adjust to ever-changing circumstances. Typically, the people development solution revolved around the provision of short courses at the local level and/or provision of extension services, with the support of industry champions.

- The NZ fisheries model (outlined earlier) that engages professional facilitators to link with industry to support groups of operators to address change and resolve issues is a novel approach worth consideration. (see Section 4.5)

The Federal Government's recently announced Seafood Industry Partnerships project may go some way to providing a lead in these directions. It will target in particular:

- understanding social and cultural impediments to change
- business quota and marketing training
- supply chain analysis.

While the funding is modest (\$480,000 from the Government), there should be ways to develop pilot approaches and to lever off this program to ensure a sustained process to address these key people development issues.

In summary, the consultants believe that the most significant strategic issue confronting the wild-fish sector is to manage the change process. In the face of increasing operational costs, pressures on returns from other domestic and international suppliers of seafood, and the impact of regulation, the challenge is to build a wild-catch sector that is efficient and professional, while continuing to be environmentally responsible.

Recommendation 11

That the FRDC support the wild-catch sector by building capability to take advantage of the change process to enhance commercial viability. The focus should be on fostering innovation and good practice at the regional level by initiatives such as:

- extension and mentoring
- developing local champions or “shining lights”
- building supply chain relationships
- enhancing small business management.

6.8 Skilling the government sector

*“We trust the government more than we trust each other.”
(respondent during consultations)*

The co-management model for the management of Australia’s fisheries also highlights the importance of developing the competence of fisheries managers within government. While these public employees are ultimately accountable through government and parliament to the broader community, they have a crucial role to play in ensuring a balance between conservation and development.

The role of fisheries managers is continually changing as fisheries services are devolved or delivered under collaborative arrangements. Achieving their fisheries management goals requires new ways of working that involve leadership, networking, analysis of information, strategy formulation and communication.

The turnover of fisheries management staff in state and Federal agencies is high and new recruits will not necessarily have the required technical knowledge and skills. There is a responsibility on agencies to provide:

- induction training and ongoing professional development to ensure an appropriate skills mix for the changing fisheries management environment
- a planned approach to career development to ensure improved retention of skilled managers.

Most government agencies recruit university graduates at entry level. There should be scope for the FRDC to influence the higher education

to increase the supply of graduates qualified in fisheries management and other disciplines in demand.

Government agencies have introduced a range of learning and development initiatives to address these skills and knowledge needs, including:

- leadership development (industry and organisational)
- graduate development programs and cadetships
- fisheries management courses.

A work exchange program has also been proposed (Davis, 2005) as a way of achieving a closer understanding of the perspectives and drivers of the government and non-government sectors.

Recommendation 12

That the FRDC seek ways to assist the government sector to build capability in fisheries co-management and administration. Some initiatives may include:

- a review of skills needs in the sector
- industry-government exchanges
- influencing higher education teaching and research priorities to increase the supply of graduates qualified in fisheries management and other disciplines in demand by government agencies.

6.9 The higher education sector

The maintenance and improvement of aquatic natural resources to ensure their sustainability is a key challenge for all parties involved in fisheries management. The increasing scrutiny of a wider range of stakeholders means that fisheries managers and the industry are required to work towards proving the sustainability of those resources.

The FRDC has been a key player in this field through its investment and partnership in research and development. One form of investment has been the enhancement of the scientific skill base. In particular, the FRDC has demonstrated a long-standing commitment to the development of researchers and scientific research within Australia's higher education sector. The funding takes the form of sponsored research, scholarships, fellowships and awards, particularly in the marine science disciplines.

While there is wide support within the industry for the fostering of scientific skills development, there have been suggestions that the FRDC takes a more strategic position with respect to its investment. The preferred approach is that funding be demand (rather than supply) driven so that sponsorship targets areas of emerging need or where there is evidence of “market failure”. This is seen as avoiding “cost shifting” of research funding from the declining traditional sources available to universities. Some suggested areas of need are economic/social research, biotechnology, fisheries management, aquatic health management and environmental science.

Other issues raised during the consultations were that:

- FRDC scholarships be closely aligned with industry skills-in-demand. It is also envisaged that such scholarships could be offered to support study and applied research in areas other than the sciences and possibly outside of the higher education sector.
 - An interesting example of a change of focus is the appointment by Dairy Australia of a research fellow in adult education and extension.
- Priority for funding should be focused on particular institutions that are seen as “centres of excellence” to avoid dilution of effort.
 - However, the consultants are aware that there are many higher education institutions offering relevant fisheries programs and the identification of preferred institutions would be difficult and controversial.
- the FRDC seek to influence undergraduate programs to address areas of skills shortage, including through seeking membership on course advisory structures within key universities.

The establishment by the Commonwealth of Cooperative Research Centres (CRCs) provides an important new source of funding for scientific and technological research. Two CRCs have been established in aquaculture and a bid for a new CRC for the seafood industry is currently under development. The proposed new CRC would target the promotion of the health benefits of Australian seafood. (Aquafood CRC Bid Consortium, 2005)

Recommendation 13

That the FRDC direct its people development investment within the higher education sector in a more strategic way to address market failure and skills shortages. For example, the FRDC could:

- promote post-graduate scholarships directly to undergraduates in particular disciplines that are judged to be in demand by industry or government

- seek membership of course advisory groups at particular universities to influence undergraduate offerings.

6.10 Developing industry leaders

The input of a wide range of community and industry interest groups is often the most important component of a successful fisheries co-management plan. Many of the representatives of these interest groups are involved in a voluntary capacity, usually at some personal cost to themselves. Few of the participants have scientific backgrounds, an understanding of how government works, or knowledge of how fisheries policy is set.

The fishing industry has long recognised the need to develop and nurture industry leaders who can be called upon to represent their interest group in fisheries management forums or in other advocacy roles. Leadership development is not seen as a national issue, there is a recognised need for industry leaders at the state, regional and local community levels.

The industry has made a determined effort in recent years to address this issue through access existing leadership development programs (eg in higher education institutions and the rural sector) and by the development of tailor-made programs the FRDC has been active in this area by:

- sponsorship of participants to the Australian Rural Leadership Program (ARLP)
- investment in the development and delivery of the Advance in Seafood Leadership Development Program.

The ARLP is a challenging 19-month program, involving seven sessions and 60 contact days, including an extended outdoor experiential learning session. Graduates enter into a mutual obligation with the Australian Rural Leadership Foundation to make ongoing commitments to the Foundation, and vice versa. The FRDC has sponsored 18 participants over the 13 ARLP programs conducted since 1994. The current percapita sponsorship cost is around \$50,000.

- some feedback received by the consultants questioned the value of a percapita investment of this size by the FRDC
- a cursory assessment of the post-program activity of ARLP graduates from the fishing industry indicate that a little over one half have played significant leadership roles in the industry since graduation.

The Advance in Seafood Leadership Development Program equips members of the seafood industry with skills, networks and a “big picture” perspective, giving them the opportunity to represent their industry and make a contribution at a national level in the future. The program comprises three residential sessions over 6 months with participants making a commitment to undertake a significant industry project during that time. The program design focuses on creating effective linkages between existing leaders and participants through mentoring, industry panel sessions and participation at business dinners.

While the program is focussed on developing national leaders, the program provider has delivered similar programs at a state and regional level within the financial backing of the FRDC. We understand some of the participants are eligible for Farmbis funding for attendance at these programs.

The FRDC’s investment in leadership is a substantial portion of its people development program, with close to \$160,000 allocated in the 2006/07 budget for:

- ARLP sponsorship (2 participants per year)
- Advance in Leadership (1 course of 15 people)
- Leadership mentor and support (3 scholarships per year)
- Alumni for leaders.

While there is widespread support for the conduct of leadership development programs, and the FRDC’s investment to date in the ARLP and Advance in Leadership programs, many respondents raised issues that the FRDC will need to address. For example:

- Many respondents see a pressing need for such investment at all levels – national, state and regional.
 - While FRDC funds leadership development at the national level, access to financial support at lower levels (say, through Farmbis) was seen as problematic, particularly for those stakeholders outside of the commercial sector (ie environmental, recreational).
- Some respondents questioned the profile of recent participants on the Advance in Leadership program, with a large proportion of participants from the government sector.
 - The common view was that representatives from the commercial sector, and small business in particular, are seldom in a position to leave their workplaces to attend a substantial off-job program.
 - It is not clear to the consultants that the full range of benefits of leadership development to both the industry and individual are clearly demonstrated to the potential target group in the commercial sector.

- Some graduates from the Advance in Leadership program questioned the content of the curriculum, claiming that the substantial breadth and depth of the material covered:
 - : required a pace of delivery that was beyond the capacity of some participants to absorb the learning
 - : left too little time for building networks, reflection and development of practical solutions to problems.

Some leadership programs currently exist that cater for the development needs of leaders at a regional, state and national level. The consultants are aware of others under development, particularly to cater for specific regional areas.

A full-scale evaluation of the programs was beyond the scope of this consultancy. However, the FRDC should review its future role as a sponsor of leadership development programs to ascertain the impact and relevance of the investment. In developing an investment strategy, it will need to examine the:

- outcomes of the programs, particularly in terms of whether the graduates have both the interest and opportunity to apply the new skills and knowledge in a broader industry context
- appropriate structure and coverage of programs
- level of industry support for the programs
- extent to which it wishes to commit to recurrent funding of this type.

In undertaking an evaluation, should have a close look at:

- whether the high per capita investments result in benefits to either the industry generally, or individual organisations, or preferably both.
 - The FRDC could consider incorporating some practical post-program activity within the program if it believes that some participants are not provided with opportunities to apply their learning.
 - As well, the FRDC could seek to involve interested graduates in its own conferences, committees, etc.
- the structure of the program in terms of its focus on individual development
- the consultants see merit in the model presented to the dairy industry (Phillips and Smallridge, 2001) in which the focus is on the development of effective teams, rather than being on the development of individuals.

- the current approach is consistent with the NFIS endeavours to promote a strategic approach to the whole-of-chain cooperation in order to enhance the value of the food industries.

With respect to the ARLP, the per capita cost of FRDC sponsorship is significantly higher than the Advance in Leadership program. If the FRDC decided to continue with this arrangement there is a need to ensure that the selection of participants is carefully managed to ensure that the investment in leadership development pays dividends in terms of future industry involvement of the graduates. For example, the FRDC should ensure that candidates have already demonstrated leadership potential in a local or regional fishing industry context.

The FRDC could consider sponsorship of resource development as a way of extending support for the conduct of state/regional leadership development. For example, many industry members who enter leadership/representational roles at the lower level require knowledge-based resources. These may cover issues such as communication, meeting procedures, governance, ecosystem management, Indigenous culture, financial management, business planning, etc.

- While the FRDC would retain copyright, the use of the resources could be approved at no cost for legitimate educational purposes.
- This initiative would also go some way to addressing the needs of members of MACs (commercial, recreational, Indigenous and environmental) who do not have ready access to such information in a relevant and plain English form.

Leadership development approaches at the local level do not need to reflect the heavy emphasis on formal off-job sessions that is a feature of the national approach. Delivery methods should reflect the 24/7, small business nature of much of the industry. Unless the delivery approach is sympathetic to these needs it will not succeed in attracting the younger industry members (including women), some of whom will need to eventually feed into the national level roles.

The approaches could be varied, to include secondments, mentoring, exchanges, and experiential learning that are all tailored to the needs of individuals, rather than being one-size-fits-all. The timing and location of the learning could also be varied to suit the audience.

The key challenge seems to be to take leadership development to the individual in their local environment, to allow them to prepare for positions of higher authority in a way that suits their personal and business situation and their preferred learning style. While the existing programs will provide some of what is needed, a more flexible model could be offered that:

- is sequential and recognises that national leaders should evolve out of regional leadership roles

- has stand-alone components but builds on “enabling” or lower level programs where there is an obvious articulation
- includes components which between them cover the majority of skills and knowledge required by stakeholders at some time in their career
- caters for the requirements of the commercial, Indigenous and recreation sector and encourages cross-sector understanding and networking
- is not hierarchical but includes a requirement for participants engaging in some components to satisfy entry requirements – perhaps by completing an entry-level program (to set and maintain standards).

A more flexible model, such as that outlined above, would also include a variety of delivery approaches (depending on the availability and interests of the participant) and be offered over extended periods. It may involve a mix of off-job development, mentoring, coaching and self-directed learning.

There was wide support for the maintenance of the leadership graduates’ alumni. Apart from ensuring continued sharing of ideas and experiences, the alumni may be a way of monitoring ongoing engagement in leadership roles.

There was also considerable interest in the revival of the MAC training programs. While the leadership initiatives will address some of this need, there remains a dearth of quality resources available to support new and inexperienced MAC members.

There was also a wide consensus that any leadership development sponsored by the FRDC, including MAC education, be formally recognised. The SITP has leadership competencies at the “strategic” and “industry” levels to cater for this need. There is a case that FRDC-sponsored leadership programs lead to recognition against these units. The units were created specifically for this purpose.

Recommendation 14

That the FRDC review its current investment in national leadership development (including the ARLP and Advance in Leadership) in terms of:

- the quantum of funds invested, particularly in the context of other recommendations of this review that propose a more regional focus
- the selection processes used to provide sponsorship, particularly to the ARLP, to ensure participants have a demonstrated commitment to leadership at the local/regional level

- the outcomes of the investment, in terms of performance in post-program leadership roles
- a more comprehensive approach to national leadership development that may include:
 - mentoring at the local level prior to a national role
 - structured leadership development programs
 - post-program activities to provide opportunities for ongoing application of knowledge and skills

Recommendation 15

That the FRDC redirect its leadership development program to support capacity building at the local and regional level to identify and address real problems and issues. In doing so, the FRDC should broaden its support for leadership development to include:

- development of toolboxes and other resources to facilitate local delivery
- team-based approaches to leadership, including within and across sectors and the supply chain.

Recommendation 16

That the FRDC insist that all leadership development programs involving an FRDC investment be mapped to the SITP competency standards and that appropriate qualifications or Statements of Attainment be issued to participants who successfully complete the programs.

7. A framework for FRDC people development

It is widely recognised that the Australian fishing industry does not possess a well developed learning culture. The consequence is that learning and people development does not receive the same vigour and attention by business managers as other management tasks. Yet, well managed, learning and development can deliver the right people with the right skills at the right time to enable fisheries organisations to achieve their business objectives and plans. A higher profile of people development will also ensure that the industry is better positioned to respond to change and innovation that is necessary to ensure it is competitive in both domestic and international markets.

The primary responsibility for people development in the fishing industry, as with all industries, is that of the business manager. While the FRDC and government can play an important role, ultimately the business manager in each company/organisation with their employees in terms of the:

- capabilities required in the organisation to realise the business plans
- professional development required by staff members to enhance their personal competence and career aspirations.

Capability building at both the industry and organisation levels requires a systematic approach to learning and development that ensures it is an integral part of strategic planning. A strategic approach to people development will contain the following features. It will:

- align and integrate their learning and development initiatives with corporate and business planning by reviewing existing activities and initiating new learning programs to support corporate plans
- support these initiatives by taking steps to enhance the learning culture
- encourage managers to invest in, and be accountable for learning and development
- focus on the business application of training rather than the type of training by examining all appropriate learning options – de-emphasising classroom training and allowing staff time to process what they have learned on the job consistent with adult learning principles
- evaluate learning and development formally, systematically and rigorously as a primary vehicle for continuous improvement.

The consultants propose that the fishing industry, and the FRDC, build on these features and adopt a framework for managing learning and development. While each industry sector and organisation will have

differences in approach according to their context, there are some common processes (or principles) that should be observed and which reflect better practice approaches.

An effective strategic framework for the FRDC could involve a set of:

- guiding principles
- implementation strategies
- review and evaluation systems to achieve continuous improvement.

Guiding principles		Elements
1.	Align people development with industry strategic needs and directions	<ul style="list-style-type: none"> • identify industry directions • identify industry people development needs • differentiate needs by industry sector (eg. commercial, recreational, Indigenous) • differentiate needs by industry sub sector (eg. Atlantic salmon, prawn farmers, charter boat operators)
2.	Create a learning culture within the industry	<ul style="list-style-type: none"> • lead by example • promote and recognise learning • value learning as an investment
3.	Identify and support innovative people development options	<ul style="list-style-type: none"> • ensure relevance • ensure flexibility, variability, innovation in design/delivery • identify funding options
4.	Integrate people development with all industry development projects	<ul style="list-style-type: none"> • incorporate people development activity into all projects • ensure all learning has a work focus, where appropriate • follow-up pilot projects to ensure uptake

Implementation strategy		Elements
5.	Manage the people development operational plan	<ul style="list-style-type: none"> • prepare operational plan • set appropriate KPIs • incorporate evaluation and refinement • maintain stakeholder consultation • monitor and report outcomes

Continuous improvement		Elements
6.	Evaluate and refine people development strategies and activities	<ul style="list-style-type: none"> • ensure people development investments meet business/industry needs • improve integration of industry development strategies • use participant reactions to improve • measure industry capacity improvements

This framework will ensure that FRDC takes a hands-on role in people development activities within a process that is strategically conceived and managed. For example, in considering proposals to invest in people development, the FRDC will:

- align people development with industry needs and directions
 - This principle ensures that the FRDC undertakes intelligence gathering and seeks to continue to align people development with industry priorities, at least annually.
- seeks to create a learning culture within the industry
 - This principle demonstrates that learning is a key aspect of industry and business development and that people development projects must demonstrate that the learning will go beyond the immediate funding recipients.
- identify and supports innovative people development options
 - this principle will acknowledge the FRDC's desire to fund innovative people development proposals in their own right where they have a clear advantage to the industry
- integrate people development with all industry development projects
 - This principle will ensure that the FRDC will look to build learning and knowledge transfer in to all projects as a means of achieving a demonstrable link between research, industry development and capability building.
- manage an operational plan for the achievement of people development strategies
 - This plan will ensure that the industry's people development needs are clearly articulated and strategies are implemented to make it happen.
- uses the framework as the basis of evaluation of its projects and their outcomes

- This ensures that the design and implementation of people development in the industry is subject to ongoing scrutiny in order to achieve continuous improvement in processes and projects.

In the following section, we identify processes and implementation strategies that will form part of the FRDC operational plan for the management of its people development activities.

Recommendation 17

That the FRDC adopt a strategic framework for the People Development Program that includes the following key elements:

- some guiding principles for people development investments
- an implementation strategy through an operational plan
- ongoing evaluation and review of its processes and projects to achieve continuous improvement.

8. Making it happen – an operational plan

In reviewing people development for the FRDC, the consultants were requested to develop a draft operational plan which will be used to drive the implementation of the review's recommendations. The plan will address planning, investing, management and governance issues that will enable the FRDC to achieve effective and efficient people development outcomes on behalf of its industry.

8.1 The planning process

"Your plan is not a crystal ball. It is the framework within which you co-ordinate work and test the impact of changes".

(Cecil Buton and Norma Michael, 1995, A Practical Guide to Project Planning).

Planning is a key component of the FRDC's work. The *FRDC Research and Development Plan 2005-2010* seeks to evaluate the long-term requirements for research and development to "...support a profitable, competitive, resilient and sustainable Australian fishing industry" (FRDC, 2005). As the principal source of information about the FRDC's policies, programs and operations, the plan:

- describes the FRDC
- defines its business environment
- lays down, against the business environment, the FRDC's planned outcomes for the period 2005 to 2010
- outlines the framework for R&D investment that will address national strategic challenges and priorities, and contribute to achieving its planned outcomes.

In addition to the R&D plan, the FRDC prepares an annual operational plan which specifies the broad groupings of research and development activities proposed to be funded during a financial year to give effect to the R&D plan. The FRDC's achievements against its planned outcomes are reported in annual reports.

In making its recommendations on people development, this review proposes initiatives that will impact on both the R&D plan (particularly on Program 3: People Development) and the current and future operational plans.

8.2 Building capability within the FRDC to manage people development initiatives

The recommendations of this review and the operational plan flowing from them will require both leadership and capability within the FRDC if significant improvement in people development activity is to take place. Implementation of the plan will not happen on its own; the FRDC will need to invest resources to make it happen.

It is highly desirable that the FRDC has access to a people development project manager who possesses some (or all) of the following attributes:

- a knowledge of the fishing industry and the interests of the key stakeholder groups
- experience in the design and development of human resource development strategies, including in the VET competency-based context and higher education sector
- sound communication and networking skills to ensure a collaborative approach to people development initiatives.

The FRDC could consider the appointment of a suitably qualified project manager on a fixed-term project basis. However, unlike most other project activity, it is highly desirable that this project is not managed at arms length. The project manager should be appointed to work within existing FRDC structures to:

- receive ongoing direction and support from FRDC management in the implementation of the operational plan
- achieve a transfer of knowledge to other FRDC staff to enable continuity of people development activity beyond the life of the project.

Regardless of the preferred management arrangements, there is a strong case for the maintenance of a Steering Committee over the life of the project. The wide range of issues and stakeholders will necessitate a structured arrangement for input to the plans and evaluation of the outcomes. The Steering Committee would need to meet at least annually to ensure continuous interest and involvement.

One option is to assign the role of managing the people development operational plan to SSA, given its industry development focus. However, the location of the resource in Canberra has some advantages in terms of proximity of some of the major funding agencies.

Recommendation 18

That the FRDC build capability to develop and manage a people development operational plan through:

- engaging an expert project manager (ie. sub-program manager) to oversight the day-to-day activity, for at least 2-3 years
- overseeing the activity within an existing FRDC business unit
- professional development of existing FRDC staff over time through involvement with the project manager and other relevant strategies.

8.3 A strategy-based approach to funding people development

The consultants believe that the traditional project-based approach for the funding of research and development projects will not suit the people development strategies suggested in this report.

There are three avenues through which the FRDC funds research and development proposals:

1. FRDC's Annual Competitive Cycle – this is the avenue for most of the FRDC's research and development funding. To apply for funding the project proponent must seek the support of the Fisheries Research Advisory Body (FRAB) in their state/territory. The application is then submitted to the FRDC for evaluation. The FRDC Board will evaluate applications for research and development funding outside of the annual competitive cycle only when it is urgent and a considered to be a priority issue.
2. FRDC Initiated research and development – there are a number of ways for FRDC to initiate research and development:
 - commissioning a research provider
 - forming a collaborative research team
 - requesting tenders, or
 - forming a joint venture entity.
3. Seafood Industry Development Fund – the Seafood Industry Development Fund (SIDF), managed by Seafood Services Australia Limited (SSA), provides funding of up to \$30,000 for short term, market-focussed projects:

The FRDC focus on an annual funding round may not be in the best interests of the people development program (Program 3 of the FRDC

five-year plan). While this approach may suit scientific research planning cycles for Program 1 (natural resource sustainability) and, possibly to a lesser extent, Program 2 (Industry development), the funding of people development is more dynamic in nature. In particular, the fast changing nature of market forces in the industry will necessitate responses that cannot fit into annual cycles.

FRDC could consider a move to a more “strategy-based”, as opposed to “project-based”, model for the investment of its people development and relevant industry development funds. Project proposals will still be developed, but in the context that projects are aspects to address one or more of the FRDC’s people and industry development strategies.

The strategies will be identified in the Annual Operational Plan as addressing particular strategic challenges in the People Development Program. In this way, all FRDC people development investments will have a clear strategic focus on achieving one or more of the identified challenges.

A strategy-based approach will likely mean that several projects may be funded over time to achieve particular strategies (and challenges). As well, it is likely that FRDC will commission more projects as a means of achieving particular strategies by ensuring they are done at the right time and by the people in the best position.

Many respondents to the review also considered that more could be done to ensure that mainstream FRDC projects, including those in Programs 1 and 2, have a specific people development component. In particular, project sponsors should be required to identify industry and/or people development aspects of their proposed work to ensure that, where practical, their results are passed on to the broader target group through communication and education/extension. The current FRDC application form, and the criteria applied to the evaluation, do canvass issues about the end use of the research. However, the respondents felt that practical details of knowledge transfer activities should also be a discrete requirement of the application.

It may be that some of the communication/education/extension activities are funded as a separate project, depending on the skills and interests of the project staff. In other situations the industry and people development activities will be an integral part of the original project. A practical example of the linking of scientific research and people development is the work of OceanWatch, through its SeaNet program that is primarily funded through the Natural Heritage Trust. OceanWatch has worked in collaboration with a number of FRDC funding recipients. These include:

- FRDC project 2005/061: Gear Interaction of Non-Targeted Species in the Lakes and Coorong Commercial and Recreational Fisheries of South Australia
- FRDC project 2005/053: Reducing the Impact of Queensland’s Trawl Fisheries on Protected Sea Snakes

- FRDC project 2003/013: Sea Turtle Mitigation Workshops
- FRDC project 2001/006: Promoting industry uptake of gear modifications to reduce bycatch in the South-East and Great Australian Bight Trawl Fisheries
- FRDC project 2005/054: Collaborative Extension for Adoption of Square Mesh Codends in Select Prawn Trawl Fisheries.

Recommendation 19

That the FRDC manage its investments in people development through a “strategy-based” approach, rather than a reliance on one-off project proposals that may be subject to annual funding rounds. The FRDC should use the “challenges” and action “strategies” identified in the operational plan as a basis for:

- seeking innovative proposals, particularly at the regional level
- assessing and evaluating proposals
- revising its application form and advice to applicants.

8.4 Enhancing the FRDC people development budget

The FRDC set an expenditure target of 5% of its annual research and development budget to activities associated with Program 3: People Development. The program covers two of the FRDCs strategic challenges:

- Challenge 4: People development
- Challenge 5: Community and consumer support.

The consultants understand that the FRDC has not met this expenditure target in recent years. However, the expenditure in Program 3 does not take account of the enhancement of human capital that occurs through the FRDC investment in Programs 1 and 2. In these programs the FRDC:

- funds practical people development activities as an integral part of scientific research and industry development
 - The examples of SeaNet involvement provided in section 8.3 of this report are relevant people development activities.
- contributes to more than 322 research and development positions.

- This includes a range of postgraduate scholarships from honours, masters to PhD.

Some respondents to this review believe that the 5% expenditure target should be increased. However, the consultants feel that such a decision would be premature ahead of:

- the establishment of a people development operational plan that would clearly identify relevant challenges and priority strategies
- a demonstration over time that the operational plan is capable of delivering outcomes that enhances the FRDC's overall goals.

Regardless of the restructuring of Program 3, the FRDC should move quickly to enhance the people development dimension of all projects in Program 2 and 3. All respondents believed that more could be done to enhance people development within existing projects, including by making it a discrete requirement. It was felt that FRDC project outcomes did not always reach a broader audience. Printed reports and other material did not necessarily ensure that benefits flowed through to industry. The FRDC needed to determine in collaboration with project proponents the appropriate communication and learning strategies on a case-by-case basis. This could mean additional funding for extension, pilots, etc.

- some respondents saw the FRDC providing a “clearing house” mechanism for the production and dissemination of people development resources. While the industry has identified areas where learning resource development was needed, there was also a concern about the lack of accessibility of existing resources.

Recommendation 20

That the FRDC give consideration to increasing its expenditure target for Program 3: People Development. However, this decision should await:

- endorsement of a sub program plan that has wide stakeholder support
- demonstration that the outcomes of the plan are making an appropriate contribution to the FRDC's overall goals.

8.5 Constructing an operational plan for people development

In proposing an operational plan for people development for the FRDC the consultants have examined the following components of a typical plan:

- mission (or goal)
- objectives (or strategic challenges)
- strategies (or actions)
- timeframes
- performance measures (or KPIs).

Challenge 4 – People development in the FRDCs research and development plan 2005-2010 identifies the challenge as follows:

“Develop people who will help the fishing industry to meet its future needs.

The commercial, recreational and customary sectors of the fishing industry need to be driven increasingly by a culture that is market-focused and places high value on learning, innovation and professionalism.” (FRDC, 2005, p.87)

The challenge also identifies a “Reference Point” as follows:

“To ensure that the fishing industry meets its strategic challenges and reaches its potential to deliver economic, environmental and social benefits, there is a need to develop the capabilities of the people to whom the industry entrusts its future and to improve communication between them.”

The consultants believe that these statements constitute the “mission” or “goal” of an operational plan. We feel that they succinctly capture the essence of the people development challenge and should be retained.

Within the current R&D plan, Challenge 4 specifies “action by all sectors” that lists nine specific areas of future FRDC activity that are deemed relevant to achieving the people development challenge. These actions constitute the “objectives” or “strategic challenges” of an operational plan and the consultants propose that the FRDC revises its people development objectives in line with the recommendations in this report. These challenges will then flow into the people development operational plan.

A draft operational plan for people development for, say, 2006-2007 is shown below:

Draft People Development Operational Plan 2006-2007

People development goal: To ensure that the fishing industry meets its strategic challenges and reaches its potential to deliver economic, environmental and social benefits, there is a need to develop the capabilities of the people to whom the industry entrusts its future and to improve communication between them.

Strategic challenges	Action strategies	Timeframe	Performance measures
1 Foster cooperative ventures to build capability at local and regional levels	1.1 Examine costs and benefits of joining CVCB	March-June 06	Formal decision
	1.2 Utilise the CVCB resources developed in first round to inform people development activities	June-Dec 06	Evaluation report and strategies to adopt/adapt resources
	1.3 Consider collaborations with other RDCs on relevant projects within CVCB	June 06-07	Joint venture agreements on particular projects
	1.4 Establish consultative process with the industry's peak bodies (ASIC, NAC, AFISC, Recfish) to coordinate priority setting, project design and approach to government	March-Dec 06	Formal processes established
2 Seek a greater share of vocational education and training (VET) resources for the fishing industry	2.1 Collaborate with peak industry bodies to develop strategies to enhance access to New Apprenticeships and other VET programs	June-Aug 06	Formal reports of meetings of key stakeholders
	2.2 Develop strategy paper for presentation to government	June-Aug 06	Strategy paper

	2.3	Establish formal linkages with AFISC and state/territory VET networks to secure up to date labour market intelligence and determine appropriate VET strategies	March-June 06	Formal agreements on collaboration and memberships of committees and other forums
	2.4	Establish links with DEST and other relevant Federal Government funding agencies	June-Dec 06	Presentations to officials
	2.5	Expand the industry's promotional activities within the schools	June-Dec 06	Promotional resources and communications with schools
3	3.1	Negotiate with NAC on strategies to enable FRDC input to people development within Action Agenda	March-June 06	Identification of specific people development priorities of relevance to FRDC
	3.2	Fund specific initiatives within Action Agenda that address practical local or regional issues	June-July 06	Specific funding agreements
4	4.1	Negotiate with the sector on funding priorities to build capability at national and regional levels	March-June 06	An agreement on funding priorities
	4.2	Fund specific workshops and other capacity builders initiatives	June 06-July 07	Calendar of workshops, seminars, etc
	4.3	Identify and/or develop specific resources to support the learning process	June 06-July 07	Catalogue of available resources developed

5	Support innovative ways to assist Indigenous Australians to sustain customary practices and access commercial business opportunities	5.1	Foster a better understanding of customary fishing activity	June 06-July 07	Research reports prepared
		5.2	Identify and access development opportunities for Indigenous leaders	June 06-Dec 06	Programs identified and sponsorships arranged
		5.3	Support Indigenous Australians to develop business case proposals	June 06-July 07	Business cases prepared
		5.4	Provide mentoring support to Indigenous business operations	June 06-July 07	Mentoring contracts approved
6	Support environmental and community stakeholders in the co-management system to achieve common understanding and goals	6.1	Negotiate with key stakeholders to identify strategies to build capability of networks	Mar-Dec 06	Formal meetings and agreements with key groups
		6.2	Seek opportunities to work collaboratively on local and regional joint projects	June 06-July 07	Joint venture proposals approved
7	Identify collaboration in the supply chain as a priority within the people development program in order to enhance the value of Australian seafood	7.1	Work with NFIS, SSA and other industry stakeholders to identify priority projects	Mar 06-June 06	Formal agreement on priority areas
		7.2	Sponsor new innovations in supply chain collaboration	June 06-Dec 06	New sponsorship agreements in place
		7.3	Seek regional and local proposals to develop supply chain networks and teams	June 06-July 07	Pilot programs in place
		7.4	Support the development of local mentors and champions	June 06-July 07	Local people identified and development opportunities identified

8	Build the capability of the seafood retail sector to market and promote quality products	8.1	Sponsor development of business development kit	June-Dec 06	Development of kit
		8.2	Sponsor local workshops in key retail centres	Dec 06-July 07	Several workshops conducted and evaluated
		8.3	Conduct a pilot business development program to demonstrate benefits of increased professionalism in retail	Dec 06-July 07	Pilot program conducted and evaluated. Benefits promoted to wider audience
9	Ensure that the government sector can access qualified personnel in fisheries management and administration	9.1	Conduct review of skills needs	June-Dec 06	Report on skills gaps
		9.2	Foster exchanges of personnel with non-government sector	June 06-July 07	Exchanges negotiated and in place
		9.3	Influence higher education sector to address skills gaps	June 06-July 07	Formal negotiations with institutions
10	Redirect investment within the higher education sector in a more strategic way to address market failure and skills shortages	10.1	Undertake a detailed examination of priority skills needs	Mar-June 06	Report on priority skills needs
		10.2	Identify priorities for scholarships and other awards and promote availability	June-Dec 06	Priority list of awards to be offered
		10.3	Seek membership of course advisory groups in key institutions	June 06-July 07	Memberships arranged

11	Promote quality assured leadership development at all levels within the industry to address needs and ensure a logical progression into national leadership roles	11.1	Evaluate current leadership programs to obtain more outcomes-focussed approach	March-June 06	Formal report of evaluation and decisions on future investments
		11.2	Increased investment in capacity building of local and regional teams	June 06-July 07	Conduct of pilot programs
		11.3	Development of resources to support delivery of regional leadership programs	June 06-July 07	Tool kit available
		11.4	Complement formal accreditation of FRDC-sponsored leadership programs against SITP standards	Mar-Dec 06	Issue of formal qualifications for Statements of Attainment
12	Build the capability of the FRDC to plan, implement and review its people development program to maximise the impact of its available resources	12.1	Appoint a program manager to plan and implement the program	March-June 06	Appointment of program manager
		12.2	Undertake professional development within FRDC to ensure ongoing capability	June 06-July 07	PD plans for FRDC staff
		12.3	Adopt a strategy-based approach to people development funding, through operational planning processes	June 06-July 07	Revised processes within FRDC
		12.4	Build people development outcomes into all FRDC projects through revised application and assessment processes	June 06-July 07	Revised processes with FRDC
		12.5	Enhance the communication and information dissemination systems of the FRDC to ensure knowledge transfer	June 06-July 07	Enhanced website and other communication strategies

Recommendation 21

That the FRDC seek stakeholder support for an operational plan along the lines of the draft plan proposed by this review.

Recommendation 22

That the FRDC establish a process for governance of the development and implementation of the operational plan, particularly through the appointment of a steering committee that would achieve stakeholder involvement and support.

8.6 Governance of the people development plan

It is important that the FRDC be clear about the management structure for the plan that identifies the specific players, their responsibilities and the interaction between them for the life of the plan.

While we do not propose a strict model of governance, there are some general principles that should be considered. They are:

- ultimate responsibility and accountability for the plan must be clearly defined and accepted at an appropriate level in the FRDC organisation
 - The appropriate level is generally a managerial level that has responsibility for managing the resources of the plan. This role is sometimes called the sponsor. We suggest that the sponsor be a program manager within FRDC.
- representatives from other stakeholders should be included in the decision making process for the plan
 - This is best achieved by establishing a steering committee.

An effective steering committee that achieves industry ownership and endorsement is crucial for the success of the operational plan. The primary function of the committee is to take responsibility for the development and implementation of the plan. Members of the steering committee should ensure that stakeholder issues are addressed so that the plan remains under control. Without that support the project manager could spend a disproportionate amount of time on these issues to the detriment of the implementation of the plan.

In practice, the steering committee's role will involve five main functions:

- approval of the plan and changes to it

- monitoring and review of the plan
- assistance to the project manager when required, particularly to draw in resources and other support
- resolution of plan conflicts
- formal acceptance of the plan's deliverables at the end of the timeframe.

8.7 A communications strategy

Effective reporting and communication is a vital element for success in the development and implementation of an operational plan. The stakeholders are more likely to take “ownership” and provide valuable information if they are kept informed.

We suggest that the FRDC plan and prepare a communications strategy at the outset. The flow should answer the questions:

- Who needs what information?
- When will they need it?
- How should it be given to them?

The communications strategy for the people development operational plan will also bring into focus the importance to the FRDC of its communication and information services to disseminate the outcomes of all its research and development activity. Communication of information is, of course, an essential element of building the capability of people in the industry. Knowledge transfer is crucial to all FRDC investments in research and development and, in essence, its “reason for being”.

The consultants believe that the FRDC could do much more to build its website as a central focus for all knowledge and information available about research and development. If people development is to have a stronger focus on regional development, the internet will become the key medium for knowledge transfer.

While the current FRDC website has a substantial body of information about FRDC specific activities, particularly on project development and outcomes, we think that it should become a resource on industry and people developments across all sectors of the industry.

This would require a website that is more user-driven, in which good practice developments in one sector or region are showcased and accessed by people in other sectors and regions. As part of our prepared “strategy-driven” approach, regional communities would be invited to propose innovative ways to build on the strategies in ways that are relevant to problems or issues in their context.

The key to this approach is a navigation system for the website that will take the user to current developments of relevance to their sector. They would be able to locate:

- contact details for funding recipients for current and past projects so that knowledge networks can be built more readily
- a clear rationale for particular industry and people development strategies
- plain English outlines of project outcomes
- biographies and contact details sector leaders or champions who could provide further advice
- ideas for local initiatives that could help solve local problems. For example, links to the NZ Ministry of Fisheries and CVCB websites.

The website could also be used to provide information about:

- resources that have been developed to address particular people development needs
- expertise that is available in particular localities and disciplines (a capability register)
- employment opportunities (an employment register)

The consultants acknowledge that the dissemination of information via the internet will not suit everyone in the fishing industry. The FRDC already has a range of other effective communication strategies, such as:

- sale of publications
- newsletters
- brochures and leaflets.

The key issue is that the dissemination medium be selected to suit the learning preference and business practicalities of the audience. For example,

- the Ruello report stresses the importance of communication to the multicultural retail sector through low key, small “t” training, under the banner of business development. The preferred approach is to take the information to the business.
- the OceanWatch “recipe cards” initiative seized upon a need to get the environmental message out to the broader community via fresh seafood and takeaway shops. The recipe cards contained simple messages to convey the environmental concerns of the industry.

The FRDC has invested significant funds in the sponsorship of industry conferences and other forums. These investments can be an effective way of:

- promoting project outcomes
- disseminating models of good practice
- providing opportunities to develop emerging leaders.

While the consultants are not in a position to evaluate the FRDC's investments in its range of conference activities, we believe that the FRDC should apply the criteria put forward in the people development framework presented in Section 7 of this report. In other words, the conference should:

- be aligned with the industry's strategic needs and directions
- contribute to development of a learning culture
- offer innovative ways to support people development.

In other words, conference expenditure should be about supporting the transmission of knowledge to industry, not providing a forum to debate scientific research methods and findings.

Recommendation 23

That the FRDC conduct a strategic review of its communication and information dissemination systems with a view to strengthening its role in knowledge transfer, through a:

- user-driven approach to website design
- range of approaches that reflect the learning styles and preference of the broad industry membership
- more strategic approach to conference sponsorship that ensures knowledge transfer to industry practitioners is the overriding objective.

Appendix A – List of people and organisations contacted

Surname	First name	Organisation	Job role
Ah Kee	Dennis	DAFF	Indigenous Aquaculture
Armstrong	Brad	WAFIC	Program Manager
Barnett	Russell	Venture Consultants	Principle Consultant
Bateman	David	Sunfish	Executive Director
Bennison	Simon	National Aquaculture Council Inc	Chief Executive Officer
Blewitt	Arthur	Agri-Food Council	Chief Executive Officer
Brown	Jane	Agri-Food Council	Senior Manager
Breen	Martin	ARLP	
Buxton	Colin	University of Tasmania	Academic
Byrne	Rory	ST(TAS)	Training Manager
Carter	Chris	University of Tasmania	Teacher
Cartwright	Ian	University of Tasmania	Teacher
Clarke	Steve	ARLP	
Cody	Mark	Primary Skills Training Council (SA)	Executive Officer
Dundas-Smith	Peter	Former E.D. FRDC	Consultant
Fisher	Jane	RIRDC	Senior Research Manager
Gillanders	Sandra	Business Solutions Consulting	Principal Consultant
Hadden	Kate	Tiwi Land Council	Secretary
Harrison	John	Recfish Australia	Chief Executive Officer
Hocking	Doug	Dept. of Primary Industry	Deputy Dir/Gen

Surname	First name	Organisation	Job role
Hone	Patrick	FRDC	Executive Director
Hurry	Glenn	DAFF	Group Manager
Judd	Murray	DEST	Program Manager
Kessler	Megan	Nature Conservation Council of NSW Inc.	Fisheries & Marine Networker
Kitchener	Michael	Master Fish Merchants' Association of Aust.	Executive Officer
Knuckey	Ian	South East Fishery (SEF) Industry Dev. Subprogram	Subprogram Leader
Lawrence	Anissa	Ocean Watch	Chief Executive Officer
Leadbitter	Duncan	Marine Stewardship Council	Regional Director – Asia Pacific
Lemerle	Caroline	RIRDC	General Manager
Lewis	Tom	Rural Development Services	Senior Consultant
Loveday	Ted		
Macdonald	Neil	SAFIC	General Manager
McIlgorm	Alistair	NMSC	Director
McLoughlin	Richard	AFMA	Chief Executive Officer
McShane	Paul	AMC	Academic
Mieglich	Dianah	Women's Industry Network	President (SA)
Nelle	Susan	NFIS	Managing Director
Nicholls	Angus	Ocean Fresh Fisheries	Manager
O'Sullivan	David	DOS Aqua	Training Provider
Ord	Ross	Seafood Services Aust.	Aquaculture EMS Coordinator
Palmer	Roy	Tigrey P/L	Director
Pennington	Bob		
Perkins	Martin		

Surname	First name	Organisation	Job role
Perryman	Nev	ARLP	
Procok	Frank	Recfishwest	Executive Director
Roach	John	Master Fish Merchants' Association of Aust.	Chair
Ruello	Nick	Ruello & Associates	Principal
Sawynok	Bill		
Schiller	Karin	Queensland Seafood Industry Association	Chief Executive Officer
Schnier	Stephen	Southern Cross University	Indigenous academic
Schumaker	Bruce	NSW Recfish Advisory Council	Chair
Shaw	Jenny	ARLP	WA Fisheries (Aquaculture)
Short	Graham	WAFIC	Chief Executive Officer
Sim	Sih Yang	DAFF	Aquaculture
Smallridge	Martin	Seafood Council (SA)	General Manger
St Clair	Marianne	NT ITAB	Executive Officer
Turk	Graham	Sydney Fish Market	Managing Director
Wakefield	Ian	AWU(TAS)	Union Manager
Way	Amanda	Clearwater Industries	Business Manager
Wilson	John	FRDC	Business Development Manager

Appendix B – List of references

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