

**INCORPORATING  
MAC COMPETENCIES  
INTO THE  
SEAFOOD INDUSTRY  
TRAINING PACKAGE**

Report on a Scoping Exercise to identify  
competencies required by members of  
fisheries management advisory committees  
(MACs)

**Ivan Johnstone  
Graham Evans  
Alistair McIlgorm**

CIT Solutions Pty Ltd  
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# 1. EXECUTIVE SUMMARY

## 1.1 Overview of MACs

Governments intervene to manage the exploitation and conservation of aquatic resources for the benefit of current and future generations. Such management involves balancing an array of complex and sometimes conflicting public policy objectives – canvassing contentious issues such as conservation, development, access rights for fishing and non-fishing activity and resource sharing.

All governments have adopted variations of the so-called ‘co-operative partnership approach’ to involve all key stakeholders in the decision making process. Stakeholders include the industry (commercial, recreational, traditional) as well as conservation, scientific and community interests. The model is based on the belief that, in the absence of private ownership over fish resources, the fishing industry is prone to resource over-exploitation and economic inefficiency. By involving all stakeholders in the development of public fisheries policy, it is widely believed that they will take ownership of the policy and assume greater responsibility for the well being of the individual fisheries.

Most management advisory committees (MACs) are established under Commonwealth or state/territory legislation, or by Ministers of Fisheries under delegations, to provide a source of advice to government. Advisory committees are generally formed to provide advice on fishery management or stock assessment issues. The terms of reference for MACs vary widely between jurisdictions although MACs are generally not decision makers in relation to fisheries management issues. Governments often access other sources of advice in fulfilling their responsibilities under fisheries legislation.

The operation of MACs also varies between jurisdictions. All have executive officers who may be independent or supplied by the relevant fisheries department. Similarly, the chairperson role may be filled by a MAC member or by an independent person chosen for their ability to facilitate the progress of MAC business.

The work of MACs takes place within a context of high uncertainty and risk. Most assessments of fish stocks and fishing impacts are imprecise and heavily qualified, making fisheries management consultation more contentious than it otherwise would be. Such uncertainty creates tension between proponents of conservation and development and between fishery and non-fishery users on the MAC. Some of this tension is bound to explain the wide spread criticism of the operation of MACs encountered during the consultations.

The consultants found that much of this criticism was related to:

- uncertainty and confusion about the roles and responsibilities of MACs and their relationships with government
- dissatisfaction with the outcomes of advice given to government and regulators

- dissatisfaction with the structure of advisory and decision-making bodies by all stakeholders, but for different reasons
- perceived conflicts of interest, particularly where it involves members of committees and regulatory bodies who also trade in fishing rights
- frustration of committee members who receive large amounts of information too late and too poorly summarised to enable adequate preparation for meetings
- accusations of some incorrect or incomplete reporting of meeting outcomes
- inadequate feedback to committee members about the basis of fishery management decisions
- an imbalance of agenda time given to catching issues over issues involving socio-economic and ecological impacts.

While these issues are of genuine concern to those consulted, their resolution is beyond the brief given to the consultants. However, it is noteworthy that no one expressed the view that the decision making process would be better left entirely in the hands of Ministers or the bureaucracy.

The operating environment within which the MACs are working is likely to place even more challenging and complex issues before them in the future. For example:

- many existing fisheries have a level of effort that is in excess of that required to efficiently exploit the resource, requiring continual adjustment of effort to ensure sustainability
- there is a move towards ‘rights based management’ in some fisheries as a means of securing longer term efficiencies and conservation of stocks
- many of the traditional fisheries are facing increasing pressure from non-extractive users, such as those who use the marine environment for pleasure and tourism purposes
- the emergence of strengthened environmental legislation, which requires a more strategic approach to fisheries management assessments, possibly including nominations for endangered species listing and the implementation of marine protected areas.

## **1.2 Project methodology**

The project team conducted the study in three stages:

- research of documentation and preparation of a questionnaire
- interviews with about 100 industry and other stakeholders in all states and territories
- collation and review of material gathered during the research and consultation stages, and preparation of a draft report of findings for consideration by the project steering committee.

The interviews and questionnaire were designed to gain general opinions on the operations of MACs; the skills and qualities that best equip members to participate effectively in them; and how these skills could be best developed.

### **1.3 Competencies required of MAC members**

There is a widely held view that the members of MACs are ill prepared for the effective performance of their roles. However, education and training is not seen as the only, or indeed, the primary means of enhancing the effectiveness of MAC processes. Many of those consulted believe that a more streamlined selection process is the only way to ensure that MAC members have the skills and expertise required.

The draft lists of required knowledge and skills (Appendix One) were validated following the analysis of interview records and questionnaire responses. All items, with the exception of a knowledge of 'marketing' and 'resource economics' and skills in 'public speaking' were generally considered to be either critical or very important for MAC members (Table 3).

The consultants believe that MAC members will be in a position to contribute more constructively to fisheries management debate if they have the following:

- a knowledge of the roles and responsibilities of MAC members
- a basic technical knowledge about how a fishery works and the disciplines that influence the fisheries management outcomes
- an ability to process complex information, particularly scientific reports and analysis, to identify the key points that will inform the MAC debate
- an ability to communicate a point of view effectively
- an ability to negotiate collective outcomes
- an ability to demonstrate leadership
- an ability to develop strategic management plans.

The development of planning skills is a most pressing training need. There appears to be a substantial knowledge gap in committees about developing strategic management plans and the associated objective performance indicators to promote ecologically sustainable outcomes.

To capture the full range of competencies and attributes that reflect the roles, duties and tasks of MAC members and enable them to participate effectively in the management advisory process, the consultants propose four new units of competency for inclusion in the Seafood Industry Training Package.

The four unit titles suggested are:

- Unit 1. Provide expert information to committee process
- Unit 2. Process and analyse information in the best interests of the fishery
- Unit 3. Develop strategic fisheries management options
- Unit 4. Negotiate collective outcomes.

## **1.4 Options for developing the required competencies**

The consultants were asked to gather the views of stakeholders about feasible personal development options.

There was almost universal support for improving the induction of new MAC members. There was wide support for improved written information about the operation of MACs and the basic technical knowledge required to allow meaningful debate of the scientific, economic and environmental issues underpinning most fisheries management advice (we call it a “Survival Kit”). Almost all respondents saw the need for a glossary of technical terminology. Several of those interviewed suggested that an appropriate authority could host a website that provided a library of relevant materials, including examples of good practice management plans from other committees to guide the MACs.

Even with an expanded range of written material on MAC operations and technical information, there is doubt whether many MAC members would use the material to extend their knowledge. The consultants believe that there is no substitute for face-to-face workshop instruction of new members about essential operational and technical knowledge. Indeed, jurisdictions could consider making attendance at a workshop mandatory for intending new members. This should be seen as an essential “flagfall” for preparing new members to perform effectively in the MAC process.

There were also a suggestion made by some respondents that intending MAC members be requested to attend one or two meetings at the MAC in an “observer” capacity, or join a MAC sub-committee, prior to being eligible for full membership.

The Australian Maritime College (AMC), with funding support from the FRDC, has provided formal training programs for all parties involved in the management of fisheries since 1994. Since that time, around 440 people have been trained in a number of locations, as well as at the AMC facility at Beauty Point in Tasmania. The AMC courses have received a high level of approval from those who have participated on them. The broad outcomes of AMC’s own evaluations were confirmed during the consultations conducted by the project team.

Many of those interviewed noted that MAC members would benefit from ongoing development to overcome specific gaps in their knowledge and skills. A wide range of development options was suggested: eg.

- Opportunities for MAC members, not engaged in the catching sector, to go out on boats to gain first hand experience of fishing operations.
- “Port” meetings or workshops to address management issues in a particular fishery and encourage other interested stakeholders to attend and become better informed about the major management issues confronting their fishery.
- The devotion of some time on the agenda of scheduled MAC meetings to identify and address the particular skills or knowledge needs of members.
- Workshops to cover the demand for more comprehensive ecologically sustainable development planning and the likely impact of recent changes to Commonwealth environmental legislation.

In summary, MAC members and stakeholders need to be able to access personal development options that meet their training and information needs, location requirements and budget. This is a very tall order in a very thin and dispersed training market and has significant cost implications. We believe that the role of government is not to underwrite the costs of all MAC training. A more effective use of limited public training resources may be to:

- seed the development of quality support materials for new MAC members (such as a survival kit, glossary of terms and web-based information)
- promote and pilot innovative approaches to people development that are identified by stakeholders and local MACs.

## 2. CONTEXT AND CONDUCT OF THE PROJECT

### 2.1 Setting the scene

*“During the past 10 years, the nature of fisheries management has undergone profound change. As the need for managing on an ecosystem scale has increased, there has been a move away from management approaches that focus on the biology and behaviour of particular species and towards a greater focus on interactions among different species and between fish and their habitats. This ‘ecosystem approach’ to fisheries management has led to other stakeholders having legitimate roles in managing the harvesting of fish and the associated human impacts on their habitats. Accordingly, in some fisheries the result has been a more inclusive “co-management” approach to fisheries management that takes into account the views not only of government agencies responsible for fisheries but also of those responsible for the environment, industry development, science, and regional and urban planning; and industry, community and special-interest groups.”*

Fisheries Research and Development Corporation (2000), *Investing for Tomorrow’s Fish: the FRDC’s Research and Development Plan, 2000 to 2005*, pp. 35.

The management of Australia’s fisheries resources is one of the most challenging areas of public policy. The so-called ‘ecosystem approach’ acknowledges that there is much more to fisheries management than focusing on the commercial wild-catch sector and the fish that it targets. Fisheries management plans increasingly take into account access for recreational and traditional fishers. However, ecologically sustainable development is more than simply resource sharing and the sustainability of particular fish species. It means implementing environmental management systems that assess the impact of fishing on the entire aquatic environment and its other users, while ensuring economic sustainability for the commercial sector.

The complexity of the fisheries management advisory task is increasing with:

- a wide variation between fisheries on the extent and form of “access rights” that control access to fisheries resources of the commercial, recreational and traditional sectors
- the increasing corporatisation of fisheries, especially those with high-value product. The traditional pattern of simple ownership of licences is changing with competition driving an aggregation of “catching right”. MAC representation is reflecting this change with an increasing presence of business managers on committees. Typically, these people perform effectively on the committees, as well as lobbyists, both inside and outside the MAC process.
- the introduction of new Commonwealth environmental protection legislation and international trade regulations. The Commonwealth Wildlife Protection Act has had a new lease of life following the removal of the blanket exclusion of all fish and invertebrates from Schedule 4. This requires the fishery to demonstrate that it is being



managed in an ecologically sustainable way before an export permit can be granted. The new Environmental Protection Biodiversity and Conservation Act (EPBC) promotes ESD and includes a requirement for strategic assessments of fisheries over coming years.

- a generally poor understanding of how fishery ecosystems work and how they are affected by fishing and other uses. As one marine scientist put it to the consultants: *“...we have to use ‘adaptive’ management, rather than ‘reactive’ management which relies on accurate scientific prediction.”*

While the Commonwealth, state and territory governments are responsible for managing Australian fisheries within their jurisdiction, most fisheries management now involves some degree of ‘co-management’. The commercial, recreational and traditional sectors now actively participate with government and the scientific community to manage fisheries. In some situations, representatives of organisations which have an environmental or broader community advocacy role are also being invited to input to the process.

Most of the structures established by government to support the fisheries management process are advisory in nature and relate to a specific fishery. They are widely referred to as ‘management advisory committees’ (or MACs). They provide a forum for discussion of matters relevant to a particular fishery and advise and make recommendations to government.

Despite their advisory role, the responsibilities placed on MAC members are onerous. While all members are usually appointed on the basis of their expertise, there is no doubt that many see their role as a conduit for the flow of information and views from and to their “constituency”. Depending on the stage of development of the fishery, they may have to debate issues concerning access, rights, quotas, user-pays principles, technology and gear limits, economic, political and social impacts, and so on. All of their work is undertaken in a context of considerable scientific uncertainty over the impact of fishing and other uses on the resource and ecosystem generally. The move to having more comprehensive and transparent management plans also requires the MAC member to commit more time and effort to the generation of the plan and to consulting with stakeholders on issues to be addressed in the plan. The growing need to address ESD criteria in a transparent way suggests this trend of increasing workload for advisory members may continue.

In many cases, fisheries management advice ultimately amounts to balancing the risks associated with sustainability of the resource with the commercial, community, political and social interests of the stakeholders. Increasingly, the role of committee members is shifting from a focus on allocation rights to the development of sustainable management plans for a public resource that will satisfy a wide range of fishing and non-fishing users and other interest groups.

There is a widely held view that participants in the MAC process are ill prepared for such a challenging and complex role and that improved training and induction is a key determinant of the effective operation of MACs. Indeed, it is generally acknowledged that there is an urgent need to address representation and leadership skills across Australia’s seafood industry. For this reason, the Fisheries Research and Development Corporation (FRDC)

identified leadership development as a key strategy in its 2000-2005 Research and Development Plan (FRDC, 2000, p. 129).

## 2.2 Project Outline

This report represents the results of a scoping exercise to identify competencies required by MAC members for the effective performance of their roles. In addition to identifying the skills and knowledge required, the project team sought views during the consultations about the preferred option(s) for delivering the associated training.

The ultimate outcome may be the development of a range of training programs and other skill development options that are both accessible and consistent with the identified needs of all stakeholders.

CIT Solutions Pty Ltd was commissioned in September 2001 by Seafood Training Australia (STA) to conduct the scoping exercise. STA saw the project as a first step to the inclusion in the Seafood Industry Training Package (SITP) of a nationally recognised set of competency standards for industry and other members who participate in MACs. Funding support to the project was provided by the FRDC.

The terms of reference required CIT Solutions to:

- identify the skills, knowledge and attitudes required by industry members to participate as effective members of a MAC
- confirm the need for a MAC or series of MAC training programs
- identify suggested unit titles and outline descriptions for the units
- gather the views of members consulted on the preferred option(s) for delivery of MAC training programs.

The review was undertaken by Ivan Johnstone, a senior manager with CIT Solutions, with assistance from Graham Evans and Alistair McIlgorm.

Ivan Johnstone and Graham Evans were previously commissioned by Seafood Training Australia (STA) to develop competencies required by (strategic) fishing industry leaders who undertake high-level representational roles. Strategic industry leadership competencies have now been incorporated into the Seafood Industry Training Package (SITP) and are the basis of a pilot leadership development program offered by the Australian Fisheries Academy.

Alistair McIlgorm has extensive experience in fisheries consultancies and has been a principal architect in the development and delivery of MAC training programs by the Australian Maritime College (1994-2001).

A project steering committee provided general guidance and direction to the project team. The committee comprised:

- Russ Neal, Chief Executive Officer, Australian Seafood Industry Council (Chair)
- Glenn Sant, Director TRAFFIC Oceania
- David Bateman, Sunfish
- Peter Dundas-Smith, Fisheries Research and Development Corporation
- Marc Wilson, Australian Maritime College
- Ross Ord, Seafood Training Australia (Project Manager).

The steering committee approved the project design, methodology and survey instrument on 5 September, 2001. A draft of the project report was reviewed by the steering committee at a meeting in Adelaide on 17 December 2001.

### **2.3 Project methodology**

The project team conducted the study in three stages:

- research of documentation and preparation of a data collection instrument. The project team reviewed STA material on the development of “leadership” competencies, as well as a range of reports and other documents on the operation of fishery management advisory committees. The questionnaire was designed to structure the formal discussion with stakeholders and to quantify responses to likely areas of skills, knowledge and attributes for effective participation in MACs. A copy of the questionnaire is reproduced in Appendix A.
- a program of extensive consultation with industry and other stakeholders in all states and territories including some key regional centres. In seeking a representative sample of all stakeholders, the project team sought face-to-face meetings with representatives from the following interest groups:
  - seafood industry peak bodies
  - state/territory fisheries departments/agencies
  - Commonwealth departments/agencies
  - chairs of MACs
  - participants on state/territory and Commonwealth MACs
  - traditional fishers
  - the Australian Maritime College (AMC)
  - scientists
  - environmental non-government organisations and their MAC representatives
  - recreational fishing organisations and their MAC representatives
  - graduates of AMC management advisory committee training courses.

A full list of persons who met with the project team is shown in Appendix B. Overall, approximately 100 face-to-face meetings were conducted, as well as several presentations at scheduled industry meetings that coincided with the program of visits.

- collation and review of material gathered during the research and consultation stages, and preparation of a draft report of findings for consideration by the project steering committee.

## **2.4 Structure of the report**

The report is presented in five sections. In turn:

- Section 1 presents an overview of our findings
- Section 2 outlines the context of the work and our approach to the design of the study
- Section 3 examines the operation of MACs and the implications for education and training
- Section 4 identifies the knowledge and skills that are required for effective participation in MACs and provides a suggested model for their inclusion in the Seafood Industry Training Package
- Section 5 canvasses feasible skill development options that will offer a range of practical opportunities for induction and training of MAC members.

### 3. THE OPERATION OF MACS AND THE IMPLICATIONS FOR EDUCATION AND TRAINING

*“The AFMA model, and the legislation which underpins it, places a strong emphasis on a co-operative partnership approach among key stakeholders, including fisheries managers, researchers, fishing operators, environment/conservation and recreational fishing interests (where appropriate) and other stakeholders, in the process of developing and implementing fisheries management arrangements. Central to this approach is the establishment and operation of Management Advisory Committees for each major Commonwealth fishery.”*

Australian Fisheries Management Authority (October 2000), *Annual Report 1999-2000*, pp. 4

#### 3.1 What is a MAC?

The term “management advisory committee” covers a range of co-management committees used in the different Australian jurisdictions to consult with stakeholders and to provide advice to the fisheries management process. The role of the Advisory Committees is generally set out in the relevant fisheries legislation for each jurisdiction and usually has core elements such as “...to advise the Minister (Director) of Fisheries on issues which affect the fishery”.

The range of involvement is wide; from committees which provide a forum for the advice of stakeholders on the plans of government, through various levels of consultation, to where stakeholders are involved with government in developing future management policy, particularly in developing management plans for the administration of the fishery. The names of the committees often reflect the degree of their involvement in the co-management process, ranging from Fishery Advisory Committees (NT, Tas), to Management Advisory Committees (NSW, WA, Vic, Qld. and AFMA) and Fishery Management Committees (SA).

These differing degrees of involvement are captured under the name “management advisory committee” (MAC) for the purposes of this study.

For most jurisdictions in Australia MACs are only advisory bodies. There is some limited interest in committees becoming more devolved, particularly in South Australia. The scope of advice sought of MACs is both significant and wide-ranging. For example, in the Fisheries Management Guide No. 2, issued by Fisheries Western Australia, MACs have the function of advising the Minister on the following issues:

- *“the development of proposals in relation to Management Plans*
- *research and development priorities and review*
- *finance and budget planning and review*
- *fisheries management services*
- *extension and publicity, including community awareness programs*

- *compliance and monitoring*
- *performance indicators*
- *strategic plans.” (page 4).*

While there has been some limited experimentation with devolution of the responsibility for decision-making to MACs, the consultants encountered some resistance to the move towards ‘management committees’ becoming more empowered than in advisory structures. For example, some members were concerned about being legally responsible for their decisions if they have more of a company director role within the context of managing a publicly accessed fishery resource.

Such “self-governance”, or corporate fishery resource structures as in New Zealand (Arbuckle, 2001), generate significant human resource issues for stakeholders to become, or to recruit, competent managers and for the management to reflect the public interest, rather than the desires of commercial fishers only. Such a situation is the natural progression of more defined fishery rights, such as Individual Transferable Quota. Only a few fisheries in Australia would be willing or able to contemplate this step (McIlgorm, 1999) and in a recent review of the Commonwealth MAC system there was a noted resistance to moving to more responsible management committees (ACIL, 2001).

### **3.2 What is the role of a MAC member?**

There are a number of identifiable roles for members within the structure of most MACs:

- a chairperson, usually an independent person appointed by the Minister (or AFMA in the case of Commonwealth fisheries), who may not have a detailed knowledge of the particular fishery or of fisheries management principles. The chairs have a key role in ensuring orderly and participatory meetings and in the communication of meeting outcomes to the government and (sometimes) the broader industry.
- industry members, who are drawn from the commercial, recreational and traditional sectors of the industry
- members drawn from other stakeholder groups, including conservation, community and research interests
- government departmental representatives, who provide a conduit for information between the MAC and the department
- executive officers, who are usually provided by the relevant fisheries department, although there are some MACs with contracted executive officer positions. While they are not members, the executive offices play a vital role in supporting the chair in the administration and communication of MAC business.

Appointments of non-government representatives are made following nominations sought through a variety of sources including: public advertising, nomination by interest groups, and direct approach. A universal feature of MAC appointments is that appointment of individual industry members is on the basis of their skills and expertise in a particular fishery and their

ability to complement the skills of other MAC members. They are not seen as representatives or advocates of particular sectors or interest groups.

An illustration of the role envisaged for industry MAC members is provided in the AFMA Fisheries Management Paper No. 1:

*“The role of industry members is to:*

- *contribute knowledge of, and experience in, both the particular fishery and the fishing industry generally to MAC deliberations*
- *contribute fisheries expertise to achieving the best management of the fishery*
- *regularly report to other operators in the fishery on the MAC’s activities including the issues being dealt with and the possible solutions being considered”*  
(AFMA, 1998, p. 7).

While most jurisdictions stress the “expertise-based” nature of appointments, the consultants understand that many industry MAC members make a point of establishing networks and communicating with their constituency in order to canvas advice and other views on key management issues on the MAC agenda.

### **3.3 Implications for Education and Training**

*“...effective training is a key determinant of the effective operation of MACs. There is obviously room for improvement in the performance of MACs, so it follows that training should form part of the solution.”*

ACIL Consulting (January 2001), *Management Advisory Committees: Concept and Conduct, A Report to the Australian Fisheries Management Authority*, p 21.

The Project Team encountered a widely held view that the members of MACs are ill prepared for the effective performance of their roles. With the landscape of fisheries management certain to become even more complex and challenging, in the context of achieving ecologically sustainable development, the demand for higher levels of expertise and knowledge amongst MAC members is sure to increase.

The need for improved people development has been widely canvassed. For example:

- the ACIL Consulting report to AFMA (cited earlier) proposed that *“all MAC members, including the chairman, should participate in a more formal program of induction and training. AFMA should devise the appropriate mix of internal and external tuition”* (Recommendation 9) (ACIL, 2001, p.x). The consultants understand that AFMA has not as yet made a decision on the implementation of this recommendation.
- the FRDC has identified *“the need to develop the capabilities of the people to whom the industry entrusts its future and to improve communication between them”* (FRDC, 2000)
- the Australian Seafood Industry Council, through Seafood Training Australia, in its 1998/99 Strategic Training Plan has identified the need to develop strategies to prepare current and future leaders for representational positions (STA, 1999)

- the Commonwealth Auditor General recommended that *“AFMA strengthen guidance and support for Management Advisory Committee members, particularly new members, to assist them in understanding key aspects of fishery management and their role. This might be achieved through an induction program and ongoing guidance materials”*. Commonwealth Fisheries Management Follow Up Audit (Audit Report no 6, 2001-02, p60)
- The Australian Maritime College has run training courses for fishing industry committees, fisheries officers and fishery administrators since 1981. In the 1994-2001 period, courses for MAC members were held under FRDC sponsorship due to the shortage of training opportunities for MAC members required to participate in the co-management system.
- in a substantial study, *“People Development in the Australian Seafood Industry”* sponsored by the FRDC, Miriam O’Brien concluded that there is an urgent need for the industry to ensure that it has people with the *“...experience, capability and vision to lead the industry”* (O’Brien, 1996, page 9). Of particular significance was the identified need to ensure sufficient people at the regional and local levels who can shape the industry and provide a pool from which national leaders will emerge.

However, education and training is not seen as the only, or indeed, the primary means of enhancing the effectiveness of MAC processes. Many respondents held the view that more streamlined selection processes is the only way to ensure that MAC members have the skills and expertise required.

### **3.4 Impediments to enhanced education and training**

Identification of the need for enhanced education and training of fisheries representatives and leaders does not, by itself, ensure that the need will be met. There is a low training ethos in the seafood industry and the completion of formal training is very low compared with most other industries. There is no reason to believe that the response of the industry to develop its MAC representatives and future leaders will be any different, unless there are positive and practical learning strategies that will address some of the special features of the seafood industry.

The wild-catch sector of the industry is characterised by:

- a high proportion of small business enterprises, with many owner/operated family businesses. The reluctance of small business operators across all industries to embrace structured training is well documented in the literature.
- an unpredictable nature. Its dependence on seasons, weather and an inherently mobile workforce makes the scheduling of shore-based training extremely difficult.
- low levels of formal education and concentrations of people from particular ethnic backgrounds. Experience across all industries suggests that this is likely to mean low levels of literacy and engender a negative attitude towards education and training, particularly if it involves classroom-based modes of delivery.



- high levels of competition among enterprises for what are common property resources. This may constrain operators from assuming broader representational roles beyond their seafood enterprise.

Many of these issues are likely to inhibit most owner/operators from putting their names forward for appointment to MACs. In fact, the consultants found that the MAC representatives who are associated with the catching sector are generally older fishers who still have family fishing business interests but now do less fishing themselves.

## **4. FOCUSSING ON THE SKILLS AND KNOWLEDGE REQUIRED OF MAC MEMBERS**

*A two-level training response is required. In the short term, we need to train committee members about basic fishery management issues and provide them with a toolbox of committee survival skills. In the longer term, we need to train members to develop a more business model of management planning –they need to be able to identify likely risks and likely impacts, develop performance indicators and apply adaptive responses as things happen.*

*(Marine scientist and MAC member)*

While promoting training within the seafood industry presents significant challenges to educators and trainers, few people disagree that the industry's future MAC representatives and leaders need training. However, such concerns about industry leadership are not confined to the seafood industry. The need for stronger leadership development in all of Australia's industries has been a constant theme of a number of major reviews of Australia's economic performance. For example, the Report of the Industry Task Force on Leadership and Management Skills (the Karpin Report) commissioned by the Prime Minister in 1995 recommended the widespread establishment of national and community-based leadership and management programs as a means of raising the profile of leadership and management within industry and its importance to the development of the Australian community and its enterprises.

The challenge for the seafood industry is to:

- identify the skills and knowledge that MAC members need to participate effectively in their role
- devise information and training delivery options that are relevant and accessible to the range of needs of MAC members.

The first of these issues will be addressed in this section of the report and the latter issue will be canvassed in Section 5.

### **4.1 Introducing the Seafood Industry Training Package**

The Seafood Industry Training Package (SITP) provides an ideal way of identifying and documenting the skills and knowledge required of MAC members. The SITP was developed under the auspices of ASIC and maps the skills and knowledge required to undertake work in all sectors of the Australian seafood industry. The SITP was endorsed by the Australian National Training Authority in January 2000.

At the time of endorsement, the SITP did not cover all of the competencies required by industry members to perform representational and leadership roles within the industry. However, ASIC had previously identified this deficiency and commissioned a scoping exercise in 1999 to identify the relevant competencies (Baisden Consulting, 1999).

The report of the scoping exercise identified a wide range of leadership roles and individual development needs through local, regional and national forums and consultation/negotiation processes. Leadership competencies were identified at two levels:

- ‘industry sector’ leader (principally covering MAC membership roles)
- ‘strategic’ industry leader (covering high level strategic and advocacy roles).

As a result of the recommendations of the 1999 scoping report, additional units of competency for strategic industry leaders were endorsed in May 2001 for inclusion in the SITP. Identification of unit titles for MAC membership roles is covered by the terms of reference of this current project (see Section 4.4).

The brief to this project outlined several advantages in extending the scope of the SITP to include the skills and knowledge required to participate effectively as a MAC member. In the view of Seafood Training Australia, the inclusion of the relevant competencies in the SITP would achieve:

- **highly relevant training programs** The content of the ‘MAC’ units of competence to be included in the SITP would be derived through a thorough Australia-wide examination of the skills and knowledge needed by industry members participating in MACs. Persons to be consulted would include representatives from all stakeholder organisations as well as graduates from MAC courses. This would help ensure the training programs based on the units were valid and reliable and the associated assessment would confirm program participants had achieved the competencies.
- **consistent training** A set of units describing the competencies required to participate in a MAC would underpin all related training programs. This would lead to consistency of course programs irrespective of the mode and location of program delivery and the training provider.
- **recognition of programs** Learners who complete a MAC training program based on units of competence from the SITP would be awarded a nationally recognised statement of attainment.
- **a pathway to a vocational qualification** The completion of units of competence could be used as a basis for industry members gaining a nationally recognised vocational qualification. The units of competency addressing MAC requirements would be offered as elective units in the Certificate IV, Diploma and/or Advanced Diploma programs in the SITP. The completion of some additional units in one of the five SITP streams of fishing, aquaculture, seafood processing, seafood sales & distribution and fisheries compliance would qualify the learner for one of the above qualifications if they so choose.

## 4.2 Researching the literature

The consultants identified three possible sources of published information about the desired competencies of industry representatives such as MAC members:

- the general literature on leadership and management
- previous published work on people development within the seafood industry
- fisheries management papers produced by Commonwealth and State/Territory fisheries authorities.

The general literature does not propose a best set of skills and qualities for leaders and industry representatives. Clearly, people who are successful in these roles do not all share the same style or approach. However, in research conducted for the Karpin Report in 1995, a sample of 91 industry leaders identified the following perceived characteristics of ideal leaders (Barraclough, 1995, p. 40):

- people skills
- strategic thinking
- vision
- flexibility and adaptability to change
- self management
- team player
- problem solving and decision making
- ethical/high personal standards.

Similar findings were made during research into the people development needs for the South Australian seafood industry. Phillips and Berry (1998) proposed the following “key learning outcomes” for a development program aimed industry personnel who were required to participate in fisheries management decision making:

- effective leadership (self management)
- effective communication
- industry knowledge/involvement
- collaborative problem solving and decision making
- effective meetings skills
- networking and building constructive working relationships
- succession planning. (Phillips and Berry, 1998, p. 4).

An insight into the skills and knowledge that governments seek in the appointment of MAC members can be gained from an examination of the guidelines on the operation of MACs issued by fisheries authorities in the various jurisdictions. For example, AFMA and Fisheries Western Australia outline similar obligations and responsibilities of MAC members:

*“MAC members must be prepared to meet the following requirements:*

- *be able to put views clearly and concisely*
- *act in the best interests of the fishery rather than as an advocate for any particular organisation, interest group or regional interest*
- *observe confidentiality and exercise tact and discretion when dealing with sensitive issues*
- *avoid pursuing personal agendas or self-interest, but participate in discussion in an objective and impartial manner*
- *not directly or indirectly use information gained in the course of their tasks as a MAC member to gain an advantage, financial or otherwise, for themselves or another party*
- *make the necessary commitment of time to ensure that they are fully informed of matters which are the subject of consideration at a MAC*
- *be committed to decisions taken by the MAC.”*

(source: Fisheries WA, *Fisheries Management Guide* No. 2, August 2000, pp. 9-10).

### **4.3 Consulting MAC members and other stakeholders**

While the project team examined a wide range of published materials, they also consulted widely to gather views directly from stakeholders in both capital and regional centres throughout Australia. As outlined in Section 2.3, the consultants conducted 100 face-to-face interviews with a range of:

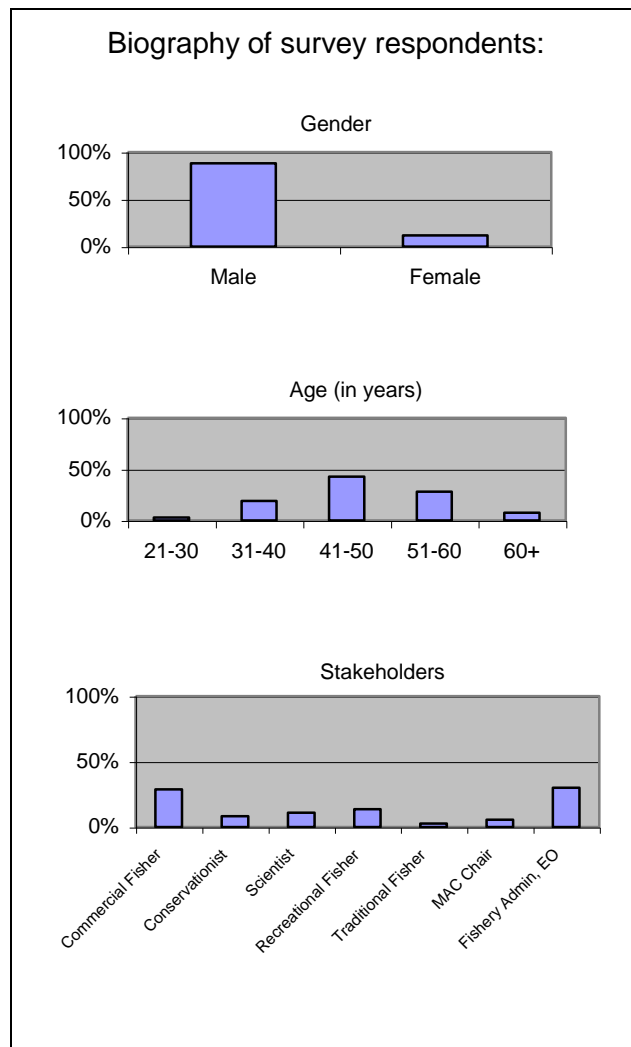
- MAC chairpersons
- MAC members representing the commercial, recreational and traditional sectors
- representatives of non-government organisations, covering both conservation and recreational fishing interests
- representatives of industry boards and councils
- fish cooperative managers
- scientists
- MAC executive officers
- fisheries administrators.

The interviews were designed to obtain information about a range of issues relevant to members' performance in the MAC process. Interviewees were also asked to complete a questionnaire which collected:

- biographical information
- responses to draft lists of knowledge, skills and qualities that members may require
- views about members' training needs.

An analysis of the biographical data illustrated in Table 1 provides the broad representative stereotypes for Australian MAC members that are outlined in Table 2. While it is possible to identify many MAC members who do not fit these stereotypes, this table provides a starting point for identifying the knowledge and skills that MAC members require to be effective.

**Table 1: Biographical information for questionnaire respondents.**



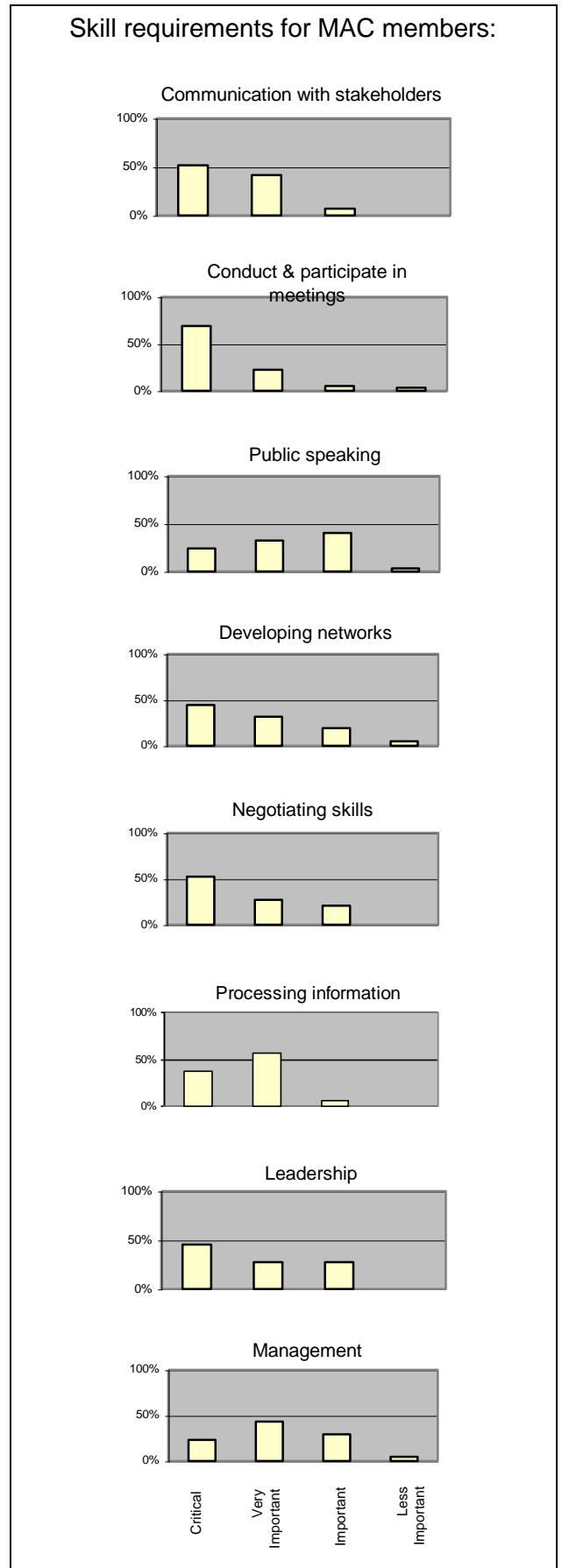
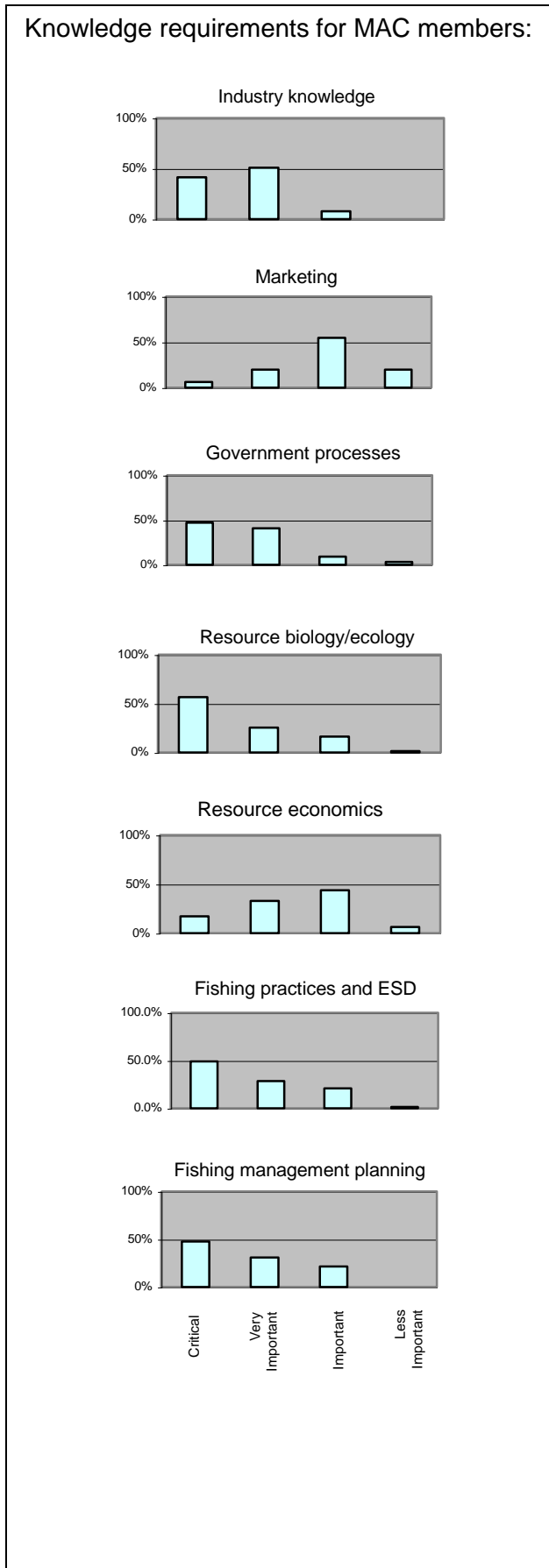
**Table 2: Representative stereotypes by sector and age for Australian MAC members**

Sector representative	Typical age	Stereotype of representative
Commercial (family)	>45	Family business, skipper drives boat, some representative skills, low formal education, strong commercial fishing knowledge.
Commercial (Corp.)	<45	Corporate business manager, skippers drive boats, have representative skills, some formal education, some commercial fishing knowledge.
Conservationist/Community	<35	Mix of people, have some representative skills, fair/sound education, little/no commercial or recreational fishing knowledge, low fishery management knowledge.
Recreational Fishers	45 (a few <35)	Mix of people, various levels of formal education and representation, low fishery management, strong recreational fishing knowledge.
Traditional Fishers	>45	a) those with representative skills, low fisheries management skills, low commercial or recreational fishing knowledge  b) those with no representative experience, low formal education, low communication and negotiating skills, low fisheries management knowledge.
Fishery Administrators	25-35	Junior staff, turnover quickly, sound formal education, low commercial industry knowledge/people skills.
Executive officers	35-50	Ex-government or industry managers, some formal education, sound industry knowledge, mixed communication and negotiating skills.
Chairs of MACs	>50	Independent people, successful career, strong committee and political knowledge, generic industry knowledge, limited fishery management knowledge.

The wide range of member roles and backgrounds outlined above in Table 2 indicates that MAC training needs are very diverse. Even if the stereotyping is only 70% true, the profiles suggest that there are both specific training needs in each sector and a generic training need to enable all sectors to work together.

The data presented in the following table (Table 3) was consolidated from approximately 70 questionnaires and summarises the knowledge and skills that were considered to be: critical, very important, important and less important/not relevant for MAC members.

**Table 3: Knowledge and skill requirements for MAC members**





Overall, the draft lists of required knowledge and skills in the questionnaire were validated by the responses. Most, if not all, items were generally considered to be either critical or very important for MAC members. A knowledge of 'marketing' and 'resource economics' and 'public speaking' skills were still rated as important by most respondents.

The consultants believe that MAC members will be in a position to contribute more constructively to fisheries management debate if they address the following gaps:

- **a knowledge of the roles and responsibilities of MAC members.**

Many respondents are not clear about their role and the relationship of the MAC to the overall decision making process, particularly within an ESD framework. Members need to appreciate the political process in order to understand what are the non-negotiable issues and outcomes from a political perspective. We detected a good deal of uncertainty and frustration over the ultimate fate of issues debated within the MAC forum.

- **a basic technical knowledge about how a fishery works and the disciplines that influence the fisheries management outcomes.**

The general consensus is that this knowledge has to be kept simple, yet be adequate to promote a level of informed debate among all the stakeholders around the table. This view is not confined to the commercial fishery members; some recreational and conservation representatives felt that their effective contribution was compromised by a lack of knowledge of fishing industry technical issues and terminology.

- **an ability to process complex information, particularly scientific reports and analysis, to identify the key points that will inform the MAC debate.**

The consultants heard widespread complaints that MAC members receive large volumes of material that is often complex and confusing. Few have the time to study the material at length and distil it into a usable form.

- **an ability to communicate a point of view effectively.**

Most respondents believe that the explanation of complex fishery management issues in plain English by all MAC members is crucial if meetings are to be more effective. These same skills are required by members to explain meeting outcomes to their own constituency.

- **an ability to negotiate collective outcomes.**

Nearly all respondents acknowledged that meetings could be greatly improved if MAC members were able to listen more actively, tolerate a diversity of views, seek clarification openly, trust the information provided and work towards a common position where possible.

- **an ability to lead**

Most respondents saw the need for members to: put aside personal interests in favour of the sustainable management of the fishery, maintain the confidentiality of sensitive information and to contribute to defining a vision for the future of the industry.

- **an ability to develop strategic management plans.**

Many respondents flagged the need for members to develop more strategic approaches to fisheries management, especially in the context of the new ESD focus and EPBC legislation.

The development of planning skills strategic is a most pressing training need. There appears to be a substantial knowledge gap in committees about developing strategic management plans and the associated objective performance indicators to promote ecologically sustainable outcomes. MACs collectively need the skills to achieve a more business-like model of planning – to clearly define objectives, identify likely risks and likely impacts, develop performance indicators, set triggers and apply adaptive responses as issues surface.

*As one MAC member put it: "...people who run their own business often make good members. Members need a mental map of managing something, then they can apply business planning and management to a fishery. ie negotiating and setting achievable objectives....strategies...performance measures".*

#### **4.4 Proposed unit titles and brief descriptors**

In order to capture the full range of competencies and attributes that reflect the roles, duties and tasks of MAC members and enable them to participate effectively in the management advisory process, the consultants propose four new units of competency for inclusion in the Seafood Industry Training Package.

The four unit titles, and a brief description of each, are as follows:

##### **Unit 1. Provide expert information to committee process**

MAC members are appointed to provide information and advice based on their expertise, knowledge and experience of a sectoral interest area within the fishery. Members should be able to contribute constructively to the debate by providing information in one or more areas such as:

- fishing operations
- resource biology/ecology and resource economics
- sustainable fishing practices
- government processes and regulatory requirements
- fishery management planning.

They should be able to explain key concepts, principles and procedures relating to their sector using plain English terms that are understood by other committee members.

## **Unit 2. Process and analyse information in the best interests of the fishery**

MAC members must be prepared to respect and value the diverse opinions and information of all of the stakeholders in fisheries management. They need to treat all information submitted on a particular matter as having a value in the debate and resolution of issues. In particular, they should not pursue their personal interests at MAC meetings where these are at odds with the fishery as a whole. Comments provided to the consultants suggest that some MAC members have difficulty in drawing this distinction.

The challenge for MAC members processing and analysing information is to:

- sift information for key points, assumptions and recommendations prior to meetings
- develop questions to clarify critical information and advice
- interpret all viewpoints
- analyse and apply information from the broad fishery perspective
- draw logical and balanced conclusions from the information before them
- develop a range of practical options
- recommend preferred and sustainable options.

## **Unit 3. Develop strategic fisheries management options**

The achievement of ecological sustainable development of fishery resources is the foremost challenge to all stakeholders in the fisheries management system. All MAC members need to understand that fisheries management is no longer just a matter of focusing on the biology of fish and the activities of fishers. A range of other stakeholders (eg tourism operators, coastal developers, mining/oil explorers, natural resource conservationists) are taking a more active role in the broader ecology and the management task is all the more complicated with the uncertainty about the impacts of all users of the ecosystems.

MAC members need to develop a more strategic approach to fisheries management that entails:

- setting performance indicators to achieve sustainability from the viewpoints of the broader range of users
- preparing management plans that are sympathetic to the interests of all stakeholders
- promoting sustainable management practices
- monitoring performance against goals
- recommending remedial actions where required.

#### **Unit 4. Negotiate collective outcomes**

MAC members must be able to put their views clearly and concisely. They must also be prepared to negotiate to achieve acceptable outcomes and compromises where necessary. This means that, although there will be disagreements from time to time, the onus is on all MAC members to seek agreement through mature discussion, consultation and negotiation having regard to what is best for the fishery.

By acting in this way, MAC members will:

- communicate their expertise and position in simple terms
- manage conflict to seek a resolution
- hold their position while respecting the boundaries of others
- appreciate and handle diversity
- put the overall interests of the fishery above personal interests.

## 5. EXPLORING FEASIBLE SKILL DEVELOPMENT OPTIONS

There is a widely held view that many MAC members are ill prepared for the role they are appointed to perform. However, there was a vast diversity of views on what additional preparation was needed and how it could be attained.

Respondents suggested a range of measures to improve the effectiveness of MAC members: eg:

- better selection processes for members and chairpersons
- better induction training for members and chairpersons
- better ongoing development of members
- more leadership development.

### 5.1 Selection processes

There was general agreement that improved selection processes for MAC members would assist in raising the level of professionalism of the MACs. As well as possessing expertise in their sector, members should possess the ability to analyse diverse information and present a considered and balanced view. However, there was no support for the election of members. Interviewees generally thought that members should be appointed for their expertise and not as captives of special interest groups.

The selection process for industry members and chairs for Commonwealth MACs is set out in the ACIL (2001) Report, Section 3.2.

*ACIL Consulting (January 2001), Management Advisory Committees: Concept and Conduct, A Report to the Australian Fisheries Management Authority, p 11.*

Selection processes for committees vary at states and territory level. For example, in SA the application form requires industry applicants to be a licence holder, or nominated by one, and to provide the following information:

- level of expertise (fishing experience, knowledge of modern fisheries management techniques, industry leadership roles etc)
- level of industry support (letters from an association or group of licence holders)
- additional details involving: convictions or breaches of legislation relating to fishing in the previous three years; reasons for applying; understanding of the role and responsibilities, meeting procedures.

In neither case are applicants interviewed. As the ACIL report notes, telephone interviews “would add greater confidence to the selection process as well as reminding candidates of the responsibility of the position”. *ACIL (2001) p11.*

In minor fisheries, respondents noted that because there is such a small critical mass of eligible industry members it is difficult to ensure succession of members. They were reluctant to recommend any more stringent selection process for fear of getting even fewer applications.

However, we believe that monitoring the performance of MAC members is just as important as focusing on their initial selection. It is hoped that the competencies outlined in this project will provide committee members with a very clear picture of the performance that is expected of them. Where individuals fail to attend regularly without leave of absence or consistently underperform, there is a case for replacing them with someone who is prepared to meet the full responsibilities of the position.

## 5.2 Training for MAC members

*Training and induction processes for MAC members, including chairmen, are too ad hoc. Very few MAC members have undertaken the MAC training courses available. Training and induction should be made more systematic, involving both AFMA and external service providers.*

(ACIL 2001 p vi)

While many people consider improved training for MAC members would enhance the performance of the MAC process, the view was not unanimous. Many fishers questioned whether training was a practical option for those MAC members who are actively involved in catching. Other respondents questioned whether short training programs could reasonably be expected to improve the negotiation, communication and analytical skills that were seen to be lacking - they believe the problem lies in the selection process for MAC members.

The consultants believe there is a strong case for improving the quality and quantity of both training and information provided to MAC members. Improvements in these areas will assist in building well operating MACs and hence partly reduce the disillusionment and fatigue that seems to beset committees on occasions. There is also the issue of equipping MAC members to be able to deal with:

- moves towards more sophisticated fisheries management models, possibly involving “individual transferable quota”, cost recovery and competitive service delivery. As stakeholders become more involved in fuller self-governance options, further skills development would be essential
- a new raft of environmental principles and actions in fisheries management, requiring specific training in strategic environmental planning and performance appraisal systems.

Clearly, training is not just required by the commercial industry members; it should extend to the recreational and traditional fisher representatives, as well as to chairpersons, executive officers, fishery administrators and scientists.

We believe that the appropriate question is not whether the diverse and multi-sectoral population of MAC members need preparation for their roles. Clearly, they are ill prepared. The question is about how the required skills and knowledge can be delivered to ensure that it is relevant to their needs and delivered in a way that is accessible to them.

### **5.2.1 Improving the induction of new MAC members**

*Don't frighten off new people by making the induction training too onerous. Hold two or three day courses at ports. No obligation training that is heavily subsidised is the only way to encourage involvement.*

(Fishery manager)

There was almost universal support for improving how new MAC members are introduced to the duties, responsibilities and processes involved in being on a MAC. It seems that some effort is made to support the work of chairpersons in some jurisdictions by the conduct of formal induction sessions. However, there is little evidence of systematic induction of other stakeholder members and there appears to be a heavy reliance on anecdotal information being passed on by present or past members. As a result, many respondents told us that it takes a new member about three to four meetings (or up to one year) to understand their role and contribute usefully to discussion.

Most jurisdictions provide a set of written papers to new MAC members that cover the legislative requirements and some other aspects of the operations of MACs. However, based on an assessment of the “manuals” provided to the project team, we would agree with ACIL’s conclusion (about the AFMA papers) that they are “*detailed and in places complex*” and “*contain a degree of bureaucratic jargon that can be difficult for lay people to understand*” (ACIL, 2000, p.8).

There seems to be wide support for improved written information about the operation of MACs and the basic technical knowledge required to allow meaningful debate of the scientific, economic and environmental issues underpinning most fisheries management advice (we call it a “Survival Kit”). Almost all respondents saw the need for a glossary of technical terminology. Several of those interviewed suggested that an appropriate authority could host a website that provided a library of relevant materials, including examples of good practice management plans from other committees to guide the MACs.

We suggest that fisheries administrators give consideration to producing an information booklet for new members that goes beyond the bureaucratic papers that are currently available. If possible, the booklet should be able to be adapted for particular fisheries and include:

- information about members' roles and responsibilities
- acronyms, terms, concepts and principles (a glossary)
- a short history of the resource, including evolution of fisheries management, legislation, key Acts and regulations
- brief details about past issues, recent events, future directions
- a section with answers to frequently asked questions
- advice about how to access other commonly used reference materials.

As one MAC chair put it:

*At induction you should get a Survival Kit – it should be visually appealing and designed for a wide reading age. As well as roles and responsibilities and basic technical terms it should focus on a series of “What if questions” such as:*

- *What do I do if I have a problem with an outcome?*
- *What do I do if I don't like the tactics of another member?*
- *How do I get information about.....?*
- *What do I do if I think the MAC is just not working?*
- *How do I get my point across?*

Even with an expanded range of written material on MAC operations and technical information, there is doubt whether many MAC members would use the material to extend their knowledge. The consultants believe there is no substitute for face-to-face workshop instruction of new members about the essential operational and technical knowledge. Indeed, jurisdictions could consider making attendance at a workshop mandatory for intending new members. This should be seen as an essential “flagfall” for preparing new members to perform effectively in the MAC process.

Many interviewees suggested that time away from the workplace is an inhibitor to participation in training and short half-day presentations are preferred. Having said this, induction should be more than a departmental information paper with an officer going to the first MAC meeting to “tell them what they need to know”. The context of the MAC system often means such briefings by government officers are less effective than hoped, due to mistrust and misunderstanding of the intentions of government. A mix of internal and external briefing is required (ACIL, 2001).



There was also a suggestion made by some respondents that intending MAC members be requested to attend one or two meetings at the MAC in an “observer” capacity, or join a MAC sub-committee, prior to being eligible for full membership. We would support this initiative as part of the new member’s “flagfall” commitment.

### **5.2.2 Reflecting on AMC’s MAC training programs**

The consultants were asked to gather the views of people contacted during the project consultations on the preferred option(s) for delivery of MAC training programs (Project Objectives 2 and 4).

The Australian Maritime College (AMC), with funding support from the FRDC, has provided formal training programs for all parties involved in the management of fisheries since 1994. Since that time, around 440 people have accessed the training which has been conducted in a number of states, as well as at the AMC facility at Beauty Point in Tasmania. This accounts for about 35% of the total population of MAC members.

Approximately 40% of MAC course participants come from non commercial fisher stakeholder groups (recreational fishers, environmentalists, community and a few from government). These participants found that the course provides a useful window on the workings of the commercial fishing sector and the development of policy in fisheries management.

A range of programs have been delivered, including:

- two-day courses (referred to as MAC I) covering the duties/responsibilities of a MAC member and fisheries management issues (280 people)
- 2<sup>1</sup>/<sub>2</sub> day courses (MAC II) extended to cover policy making, managing information and representative skills (60 people)
- an integrated learning model (MAC III) in which participants undertake a pre-course exercise, attend a 2-3 day formal program and complete subsequent teleconferencing and assessments in the “workplace” (12 people)
- 10-day professional fisheries management courses (FRDCA) designed mainly for personnel within fisheries departments (50 people)
- 3-day fisheries management workshops (FRDCB) designed to attract government, industry, recreational and community representatives in a less structured environment to network and share policy and professional experience (36 people).

Feedback has been sought by AMC from participants about the delivery arrangements and course content at the conclusion of all programs. This information has been used to modify the structure and content of subsequent programs. The feedback also suggests that participants rate the programs highly. This level of approval was confirmed during consultations conducted by this project team.

The feedback also suggests that the opportunity for networking among participants from different states who participated in the Beauty Point programs was an important outcome. However, other participants insisted “at home” courses were preferable, as they attracted greater interest and had a more sector-specific focus.

We note that when the AMC has conducted the course in a given state, they have attempted to enrol participants from other locations to raise the program’s perspective above local issues. For many fishers, the MAC course provided the first chance to discuss issues outside a meeting framework. The courses were seen as being valuable for new MAC members and for updating fishers in areas such as the environment (WA short course feedback, 2000).

While no analysis has been undertaken of those who have not participated in the MAC courses, many respondents in the current review expressed doubt whether such “extended formal programs” would meet their needs.

In summary, the AMC program was established to provide training to the numerous emerging MACs established in the mid 1990s. Several evaluations of the programs by AMC have confirmed a need for:

- a thorough induction to address the roles and responsibilities of MAC members and equip them with basic conceptual tools for resource management decisions
- ongoing professional development to improve interpersonal skills, provide sound policy advice, and to be able to progress a policy issue through the MAC process, rather than be just a source of advice for government initiatives.

### **5.2.3 Specific training needs of Aboriginal and Torres Strait Islander members**

The project recognised that part of the diversity of the MAC scene is the inclusion of Aboriginal and Torres Strait Islander people. In our consideration of MAC training needs several issues arose:

- Several Torres Strait Islanders have participated in AMC MAC courses and suggested that while the national perspective is useful for senior representatives there is a need is for locally relevant training in the Torres Strait area (Private communication Marc Wilson, AMC).
- Interviewees in Queensland raised issues concerning the attendance of Aboriginal MAC members and the MAC meeting format. Comments suggest the MAC committee process is not culturally endorsed. There are also consultation issues where one Aboriginal MAC member cannot speak on behalf of other Aboriginal people.
- Seven Fisheries Consultative Committees (FCCs) have been established in the Northern Territory to address liaison with the different traditional land owning groups. There is also Aboriginal representation on other marine park committees. Given the weakness of the formal MAC system in the NT, the FCCs fill a valuable co-management role.

- Consultation with the NT Fisheries Departmental and Northern Land Council representatives indicates that the training needs for the two groups of Aboriginal stakeholders are different.

The first group consists of chairpersons and senior representatives in the Aboriginal community who generally have a background in committee representation. They need much the same MAC induction training as other stakeholder groups nationally, though a local course venue is preferred.

The second group consists of committee members who have a more limited educational and representative background than the first group and possibly lower-level English skills as well. These regionally based committee members represent a significant and new training challenge and would require the development of a specific, locally based program.

We recommend that an evaluation of the training needs of Aboriginal and Torres Strait Islander people involved in co-management of marine resources should be undertaken nationally. Such an evaluation could also identify preferred training delivery options. In progressing the development of the Seafood Industry Training Package, it should be recognised that only a minority of experienced Aboriginal and Torres Strait Islander representatives may immediately benefit from the inclusion of MAC competencies. However, this observation could also apply to other stakeholder groups where only a few people step forward to undertake representative roles.

#### **5.2.4 Ongoing development of MAC members**

*Training shouldn't just focus on committee members. We need to lift the average understanding of all licence holders and improve communication between stakeholders within the industry as a whole. Only then, will we generate a critical mass of informed people and prospective members.*

(FMC member)

Many of those interviewed noted that MAC members would benefit from ongoing development to overcome specific gaps in their knowledge and skills. A wide range of development options was suggested: eg.

- Opportunities for MAC members, not engaged in the catching sector, to go out on boats to gain first hand experience of fishing operations.
- “Port” meetings or workshops to address management issues in a particular fishery and encourage other interested stakeholders to attend and become better informed about the major management issues confronting their fishery. We understand that some Commonwealth MACs hold sub-committee or working group meetings immediately prior to their own meetings. This means that MAC members are visible and available and prospective members can observe the meetings.

- The devotion of some time on the agenda of scheduled MAC meetings to identify and address the particular skills or knowledge needs of members. It was suggested that subject matter experts could be invited to attend, at the discretion of the MAC members. The consultants are aware of this approach working very successfully in one state-based MAC, in which experts on such matters as stock assessment, marketing and food quality were used to broaden the knowledge base of the MAC members.
- Workshops to cover the demand for more comprehensive ecologically sustainable development planning and the likely impact of recent changes to Commonwealth environmental legislation. Some respondents suggested there is an urgent need for a series of workshops to inform stakeholders of the issues and their resultant obligations to prepare strategic fisheries management plans. Some people went even further to suggest that MAC members must “sign-off” on their capabilities in these areas by attending a workshop.

### 5.2.5 Leadership development programs

The skill requirements displayed in Table 3 indicate that leadership skills were considered to be critical, very important or important by most respondents. Many of those interviewed believe that there is an urgent need to enhance the leadership qualities and skills of people who will drive the industry’s future development.

In a substantial study, “People Development in the Australian Seafood Industry” sponsored by the FRDC, Miriam O’Brien (1996, page 9) concluded that there is an urgent need for the industry to ensure that it has people with the “...*experience, capability and vision to lead the industry*”. ASIC, through Seafood Training Australia, has responded to this need by incorporating a suite of ‘strategic industry leadership’ competencies within the Seafood Industry Training Package (SITP). Similarly, the FRDC has adopted the proposal on its 2000-2005 Research and Development Plan (FRDC, 2000, p. 129).

There have been some modest attempts by the FRDC to address this need. For example, it has sponsored:

- some places on the Australian Rural Leadership Program
- a pilot leadership development program conducted by the Australian Fisheries Academy in South Australia, based on the SITP competencies.

The commercial fisher sector has also responded to the need to develop its own future leaders. In SA, strategic leadership programs have been resourced using FRDC, AFFA and FARMBIZ funding. The Rock Lobster and Prawn FMCs and Associations also raised \$50K to run the first leadership development program. This means that training can be organised and funded successfully where the committees have good networks and are backed by well-resourced associations.

### 5.2.6 Summary

In summary, MAC members and stakeholders need to be able to access personal development options that meet their training and information needs, location requirements and budget. This is a very tall order in a very thin and dispersed training market and has significant cost implications. We believe that the role of government is not to underwrite the costs of all MAC training. A more effective use of limited public training resources may be to:

- seed the development of quality support materials for new MAC members (such as a survival kit, glossary of terms and web-based information)
- promote and pilot innovative approaches to people development that are identified by stakeholders and local MACs.

## **APPENDIX A: QUESTIONNAIRE**

**A. BIOGRAPHICAL**

- 1. Name: \_\_\_\_\_
- 2. Age group:      20-30       30-40       40-50       50-60       60 +
- 3. Organisation: \_\_\_\_\_
- 4. Current role in organisation: \_\_\_\_\_  
\_\_\_\_\_
- 5. Educational background: \_\_\_\_\_  
\_\_\_\_\_
- 6. Background in fisheries: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- 7. Outline of other representational roles: (include any non-fisheries roles) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- 8. Current committee roles:
  - a) Name of committee: \_\_\_\_\_      Name of committee: \_\_\_\_\_  
\_\_\_\_\_
  - b) Your role:    Member     Executive Officer     Chair       Your role:    Member     Executive Officer     Chair
  - c) Length of service: \_\_\_\_\_      Length of service: \_\_\_\_\_
  - d) Background to appointment: \_\_\_\_\_      Background to appointment: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- 9. Relevant committee training received to date (formal course, induction address by Department etc)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**B. ROLES / RESPONSIBILITIES OF FISHERIES MANAGEMENT ADVISORY COMMITTEES**

1. What does the legislation require them to do? .....

.....  
.....

2. What does the Fisheries Department require of them? .....

.....  
.....

3. What responsibilities and roles does your industry/organisation expect?

.....  
.....

4. Are there strong divergences of views within the committee on its role and operations?

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5. How do you receive views and provide feedback to your industry/organisation/community? .....

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6. To what extent do you contribute your expert knowledge or represent the views of others? .....

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7. Describe a typical meeting format (use example of an issue dealt with). .....

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8. How has the committee's role and/or activity changed over time? .....

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**C. KNOWLEDGE AND SKILLS REQUIREMENTS**

1. In your committee role, how important is it for you to have an understanding of the following issues:

<b>Issues:</b>		<b>Critical</b>	<b>Very important</b>	<b>Important</b>	<b>Comments:</b>
a)	Workings of industry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b)	History of main events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c)	New industry developments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d)	Marketing/supply chain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e)	Organisations of government	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f)	Political processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
g)	Government policies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
h)	Resource biology/sustainability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
i)	Stock assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
j)	Resource economics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
k)	Ecology/environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
l)	Fishery practices and environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
m)	Food quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
n)	Fishery management planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
o)	Legal and trade issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
p)	Other issues (specify)				
	•	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	•	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

2. In your committee role, how important is it for you to have the following skills:

<b>Skills:</b>	<b>Critical</b>	<b>Very important</b>	<b>Important</b>	<b>Comments:</b>
a) Communication and negotiation with:				
• Your organisation members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Department officers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Politicians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Scientists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Environmental experts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Recreational fishers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Commercial fishers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Sales/marketing organisations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Other (specify)				
b) Chairing meetings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) Conducting and participating in meetings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) Public speaking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e) Media presentations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f) Developing networks to build support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
g) Displaying tact and diplomacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
h) Tolerating other views	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
i) Resolving conflict	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Incorporating MAC competencies into the Seafood Industry Training Package

Skills cont...	Critical	Very important	Important	Comments:
j) Gathering and recalling information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
k) Analysing & distributing information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
l) Writing documents/reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
m) Managing time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
n) Putting industry/community above personal interests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
o) Displaying drive and energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
p) Developing and maintaining a vision for the industry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
q) Providing leadership	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
r) Maintaining confidentiality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
s) Setting budgets/performance targets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
t) Planning/strategic management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
u) Other (specify)				
•	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
•	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
•	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
•	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
•	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
•	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**D. FUTURE TRAINING FOR COMMITTEE MEMBERS**

1. Are there problems with committees that training could address? .....

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2. What other specific training needs do members have? .....

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3. How effective is the current training provided to committee members? .....

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3. Would a "manual" that identifies sources of information for committee members be helpful? .....

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5. What types of training would be most useful to committee members?

- |                                     |                              |                             |
|-------------------------------------|------------------------------|-----------------------------|
| a) Information sessions             | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| b) Short training courses/workshops | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| c) Workshops                        | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| d) Leadership programs              | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| e) Other (specify)                  |                              |                             |

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- .....

6. Describe how your MAC duties impact on your business/workplace: .....

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7. Do you think that improved training will reduce barriers to greater participation of women and Aboriginal people as members of committees?

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8. Other comments: .....

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## APPENDIX B: CONSULTATION LIST

Project team members attended meetings of the following industry bodies to present findings and collect views:

- Victorian Fisheries Co Management Council
- Tasmanian Marine Recreational Fishery Council

Name	Position	Organisation / MAC	State/Territory
Peter Dundas-Smith	Executive Director	FRDC	ACT
Brian Johnston	Secretary, Commonwealth Fisheries Policy Review	Commonwealth Department of Agriculture, Forestry and Fisheries	ACT
Phillip Marshall	General Manager, Strategy and Planning Branch	Australian Fisheries Management Authority	ACT
Ross Ord	Executive Director	Seafood Training Australia	ACT
John Roach	Chair	NSW FIC	NSW
Nicole Middleton	NSW Extension Officer	SEANET	NSW
Christine Soul	Executive Officer	Oceanwatch	NSW
Katherine Short	Sustainable Fisheries Project Officer	World Wildlife Fund Australia	NSW
Dianna Watkins	Principal Manager	Cronulla Fisheries Centre NSW Fisheries	NSW
Jackie Gerard	Executive Assistant	Cronulla Fisheries Centre NSW Fisheries	NSW
Dennis Brown	MAC Member	Ocean Hauling (Commercial)	NSW
Geoff Binns	Manager, Ulladulla Co-op	SETMAC (Commercial)	NSW
Mel Brown	MAC Member	Abalone (Recreation)	NSW
Robert Fish	MAC Member	Southern and Western Tuna and Billfish (Commercial)	NSW
John Brierley	Indigenous Fisher and MAC Member	Ocean Hauling (Commercial)	NSW
Anthony Jubb	MAC Member	SETMAC (Commercial)	NSW

<b>Name</b>	<b>Position</b>	<b>Organisation / MAC</b>	<b>State/Territory</b>
Lauchlan Marshall	Fishing Manager	Former Member, SETMAC (Commercial)	NSW
Fritz Drenkhahn	MAC Member	SETMAC (Commercial)	NSW
John Smyth	MAC Chair	Abalone (Commercial)	NSW
Fred Nye	Secretary Mogo Aboriginal Land Council	Convenor, South Coast Aquaculture Aboriginal Corporation	NSW
John Symonds	Manager	Eden Fishermen's Cooperative	NSW
Brian Clifford	Retired Fisherman	Estuary General Restricted Fishery (Commercial)	NSW
Dennis Luobikis	MAC Member	Abalone (Commercial)	NSW
Peter Bell	MAC Member	Ocean Fish Trawl MAC (Commercial)	NSW
Ian Campbell	Former MAC Member	Estuary General Restricted Fishery (Recreational)	NSW
Phillip Byrnes	MAC Member	Ocean Hauling (Commercial)	NSW
Graham Byrnes	MAC Member	Estuary General Restricted Fishery (Commercial)	NSW
Nick Rayns	Director of Fisheries	Dept of Fisheries	NT
Mark Kelly	Manager Barra and Mud Crab Fisheries	Dept of Fisheries	NT
Phil Hall	Manager Recreational Fisheries	Dept of Fisheries	NT
Roland Griffin	Fisheries Biologist (Barra)	Dept of Fisheries	NT
Patrick O'Leary	NT Officer for MCCN – Marine and Coastal Community Network	NT Environment Centre	NT
Robert Carne	Aboriginal Liaison Officer	Dept of Fisheries	NT
Peter Pender	Senior Project officer	Northern Lands Council	NT
Iain Smith	NT Seafood industry Council	The Fisherman's Wharf	NT
Paul Polotnianka	Executive Officer	Maritime and Seafood Training (NT) (NT Fishing ITAB)	NT
Nigel Scullion	Industry	ASIC	NT

<b>Name</b>	<b>Position</b>	<b>Organisation / MAC</b>	<b>State/Territory</b>
Goldie Tieball	Industry	Barramundi Industry representative	NT
John Harrison	Executive Officer	AFANT (Amateur Fishermen's Association of NT)	NT
Jan Young	Recreational Fisher	AFANT	NT
Gavin Bedford	Recreational Fisher	AFANT	NT
David Perkins	Crab MAC member	QSIA/ Crab MAC	QLD
David Bateman	Recreational Fisher	SUNFISH/ Tropical Finfish MAC	QLD
Daryl McPhee	Commercial Fishing	Tropical Finfish MAC	QLD
Phil Cadwallader	Fisheries Section	GBRMPA/Trawl MAC	QLD
Mick Bishop	Fisheries Section	GBRMPA/ Tropical Finfish MAC/ Ex Torres Strait MAC	QLD
Darren Cameron	Fisheries Section	GBRMPA/ Reef MAC	QLD
Dorothea Huber	Fisheries Section	GBRMPA/ (Ex AFMA, East Coast Tuna MAC)	QLD
Sean Purcell	Conservation	Trawl MAC	QLD
Greg Radley	Commercial Fisher	QSIA/ Tropical Finfish MAC	QLD
Duncan Souter	Commercial Fishing	Queensland Seafood Industry Association	QLD
Ian Poiner	Research	Division of Marine Research, CSIRO / Trawl MAC	QLD
Cathy Dichmont	Research	Division of Marine Research, CSIRO Marine Laboratories	QLD
Jim Gillespie	Fisheries Management	QFS / NORMAC	QLD
Bob Grimley	Fisheries Enforcement	QFS/ Reef MAC/	QLD
Verne Vetch	Recreational Fisher	SUNFISH/ Reef MAC	QLD
David Williams	Research	AIMS/ Reef MAC	QLD
Bruce Mapstone	Research	CRC Reef/ Reef MAC	QLD



<b>Name</b>	<b>Position</b>	<b>Organisation / MAC</b>	<b>State/Territory</b>
Dave Mitchell	Chair	Crab MAC	QLD
Martin Smallridge	Executive Director	Seafood Council SA	SA
Mark Cody	Executive Director	Seafood Training SA	SA
Bob Pennington	President (FMC member)	South Australian Fishing Industry Council	SA
Neil McDonald	Industry Liaison Officer (FMC member)	South Australian Fishing Industry Council	SA
Lorraine Rosenberg	General Manager	South Australian Fishing Industry Council	SA
Brian Hemming	Manager Fisheries Compliance	Primary Industries and Resources SA	SA
Michelle Grady	Executive Director	Nature Conservation Council SA	SA
Tony Flaherty	(FMC member)	The Marine & Coastal Community Network Adelaide	SA
Scoresby Shepherd	Senior Research Fellow, FMC member	SA Research and Development Institute	SA
Samara Miller	Fisheries Management Officer	Primary Industries and Resources SA	SA
Jon Pressor	Management Committee Extension Officer	SA Marine Scalefishery,	SA
Catherine Barnett	Chair	SA Prawn FMC	SA
Peter Hale	Fisheries Management Officer	Primary Industries and Resources SA	SA
Simon Boxshall	Scientist	SA Research and Development Institute	SA
Roger Edwards	Executive Officer	SA Rock lobster FMC	SA
June Gill	President	Women's Industry Network	SA
Trevor Watts	President	SA Recreational Fishing Advisory Council	SA
Wes Ford	Actg Mgr Wildfisheries (Scallop, Crustacean MAC)	Dept. Primary Industries and Environment Tasmania	TAS
Brian Eldridge	Chair	Tasmanian Marine Recreational Fishery Council	TAS
Bob Lister	CEO	Tasmanian Fishing Industry Council	TAS
Les Scott	CEO (member SouthMAC)	Petuna Seafoods Pty Ltd	TAS

<b>Name</b>	<b>Position</b>	<b>Organisation / MAC</b>	<b>State/Territory</b>
Keith Sainsbury	Research Program Leader (SETMAC, SouthMAC, ETBMAC, numerous councils)	CSIRO Marine Division	TAS
Gail Richey	Executive Officer (MAC Chair GABMAC, member SETMAC)	South East Trawl Fishing Industry Association	TAS
Marc Wilson	Deputy Director	Australian Maritime College	TAS
Ross Hodge	Executive Director	Seafood Industry Victoria	VIC
Steve McCormack	Fisheries Manager (Scallop MAC, SETMAC)	Fisheries Victoria	VIC
Richard McLoughlin	Executive Director (Chair Squid MAC)	Fisheries Victoria	VIC
Don Mobray	Executive Officer	Victorian Fisheries Co-Management Council	VIC
Tom Davies	ASIC, Victorian FCC	Lakes Entrance Fishermens Cooperative Pty Ltd	VIC
Arno Blanc	Fisher	Scallop MAC, Lakes Entrance	VIC
Andrew Watts	Fisher	Squid MAC, Lakes Entrance	VIC
Terry Romaro	MAC Member	SBTMAC (Commercial)	WA
John Fuhrmann	MAC Chairperson	Purse Seine MAC (Independent)	WA
Neil Patrick	MAC Member	Southern Western Tuna and Billfish Fishery (Recreation)	WA
David Carter	MAC Member	NORMAC (Commercial)	WA
Martin Exel	MAC Member	SOUTHMAC (Commercial)	WA
Frank Prokop	Executive Director	Recfishwest	WA
Peter Millington	Director, Fisheries Management Services	Fisheries Western Australia	WA
Ross Gould	Supervising Fishery Manager	Fisheries Western Australia	WA
Jeremy Prince	Biosperics Pty Ltd, MAC Member	SHARKMAC (Scientific Member)	WA
John Maddams	Human Resource Development Consultant	WA Fishing Industry Council	WA

## APPENDIX C: LIST OF REFERENCES

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