



Australian Government

Australian Fisheries Management Authority

**ComFRAB Research Opportunities – 2006
Projects starting 1 July 2007**

The Commonwealth Fisheries Research Advisory Body (ComFRAB) assesses applications for funding of research for Commonwealth fisheries. AFMA's Management Advisory Committees make separate calls for research applications to address fishery-specific research issues. These can be found on AFMA's website (www.afma.gov.au/services/research).

In the 2006 research funding round the ComFRAB is also making a call for research, focusing on areas of research that have potential application across a number of AFMA fisheries. Researchers are invited to develop pre-proposals under the following broad gap-areas.

1. Monitoring
2. Spatial management, harvest strategies and bio-economic modelling
3. TAC/ITQ management and boat SFRs
4. Administrative efficiency

The project outlines provided in this paper follow these gap-areas.

Applicants should use the project scopes as a guide when developing their pre-proposals to meet ComFRAB's identified need for the project. To assist in the quality control and to promote relevance of pre-proposals, applicants are invited to discuss their applications with AFMA's Research Manager, Dave Alden, on 02 6272 5180 or Dave.Alden@afma.gov.au prior to submitting a pre-proposal.

Applicants should go to the following website: www.frdc.com.au/research and complete the pre-research proposal form contained in that website.

Pre-research proposal forms must be submitted by 19 June 2006 by email to the ComFRAB Secretary (Research.Secretary@afma.gov.au).

There exists a range of funding avenues for these projects, some of which require no financial contribution from the fishing industry. These include: AFMA; Fisheries Research and Development Corporation (FRDC); and Department of Agriculture Fisheries and Forestry's Fisheries Research and Resources Fund (FRRF).

Where appropriate, the ComFRAB will seek advice on submitted applications from relevant Management Advisory Committees.

Applicants will be advised whether they should develop their application into a **full proposal** for submitting to the ComFRAB Secretary by **1 September 2006**.

The ComFRAB will ensure that applications considered worthy of funding are recommended to the relevant agenc(ies).

ComFRAB 2006 call for research proposals: project scopes

	Research area	Project description
1	Monitoring	
1.1		Tools for ensuring consistency and adequacy in data validation – developing a quality assurance program for fisheries data
		<p>Develop rules and standards for the levels of confidence AFMA requires for management and a cost-effective data validation. Rules and standards should have the effect of resulting in recognised levels of confidence for data validation</p> <p><u>Objectives</u></p> <ul style="list-style-type: none"> • Develop rules and standards that state the acceptable level of confidence in the validation of data arising from monitoring programs <ul style="list-style-type: none"> The rules and standards that are developed will have to meet AFMA's operational and management requirements: cost-effectiveness; validity (ensuring the data measures what it is meant to, and that those areas are relevant to the management and sustainability of the fishery); and flexibility (must be applicable to a wide range of different fishery types). They will need to be clearly stated and understood by lay as well as scientific personnel, and have application to all/most Commonwealth-managed fisheries.
1.2		Tools for monitoring recreational fishing
		<p>Develop cost effective methods of obtaining, collating and interpreting data from the full range of recreational fishing activities which may have an impact on the management of Commonwealth fisheries. These methods should be applicable on an on-going basis.</p> <p><u>Objectives</u></p> <ul style="list-style-type: none"> • Undertake a review of the global literature on the subject of monitoring recreational fishing. • Identify and analyse of sources of recreational fishing data relevant to Commonwealth-managed fisheries <ul style="list-style-type: none"> In undertaking the above analysis, the research will need to consider and identify the types of data required and the species of concern, and where recreational species are of concern to the management of both Commonwealth and State-managed commercial fisheries. Analysis also should include identification of gaps where data are absent or inaccessible, and an analysis of the validity of existing data sources • Explore and develop options for alternative data sources where no source exists, or where existing sources are inadequate <ul style="list-style-type: none"> This component must include consideration of the cost-effectiveness, use of the data in management decisions and potential models for cost-recovery of data collection and management. • Develop methods for consolidating and interpreting recreational and commercial catch data • Analyse alternatives for monitoring recreational catch and develop an on-going monitoring program for recreational catch of the species of Commonwealth interest by the recreational sector (primarily large tunas, billfish and shelf/slope SESSF species). <ul style="list-style-type: none"> This component is a major part of the project, and should address the question of how to utilise the data in assessments, and methods of creating institutional systems that ensure the data is collected on a regular basis.

1.3	A whole of government approach to fisheries data – working smarter in collecting data	
		<p>Convene a multi-disciplinary workshop to develop mechanisms and/or protocols for collecting and analysing fisheries-related data that can be used beyond strictly fisheries management, eg: in the management of endangered, threatened and protected species (TEPS), marine protected areas (MPAs).</p> <p>Fisheries data potentially has wider use, and there is a demand for these data from non-fisheries agencies. AFMA is examining options for legislative change to facilitate data provision, and the outcome of the workshop may inform those legislative amendments.</p> <p><u>Objectives</u></p> <ul style="list-style-type: none"> • Through a workshop; <ul style="list-style-type: none"> ○ identify information that is not strictly related to fisheries management but is or could be obtained in the course of fishing and/or fisheries research, relevant to the functions of other agencies charged with management of the AEEZ ○ Critically evaluate of the usefulness of such data to other agencies charged with the management of aspects of the AEEZ ○ Identify methods of obtaining these data (identified as being useful in 2 above) which have minimal impact on and/or support from industry <p>In addition to the above, the workshop needs to identify who are and are not stakeholders, for what purposes data may be released, and how flow-on utilisation of these data may be managed. The analysis should include an assessment of risk management strategies where data are, or the method of collection of data is, liable to be seen as controversial. In identifying methods of obtaining data, the researcher should ensure that data obtained through these mechanisms is of a nature that can be released to other agencies. Other agencies may include those with a regulatory role</p> <ul style="list-style-type: none"> • Develop a program (or programs) for implementing the collection of and dissemination to relevant agencies of these data
2	Spatial management, harvest strategies and bio-economic modelling	
2.1	Managing resource allocation	
		<p>Develop mechanisms to manage resource allocation amongst stakeholders with competing priorities. This should be seen in the context of allocation between domestic commercial and non-commercial users of the resource.</p> <p><u>Objectives</u></p> <ul style="list-style-type: none"> • Identify and analyse of factors affecting resource allocation in Commonwealth-managed fisheries. <ul style="list-style-type: none"> ○ Among others, this process should include identification of impediments to resource allocation. Analysis also should include identification of methods to assess socio-economic implications of various resource allocation mechanisms; identification of dispute recognition and resolution mechanisms that may be applicable in a resource allocation situation; and identification of potential mechanisms for fisheries resource allocation. • Develop, from the results of above, a suite of methods to manage resource allocation, including autonomous adjustment methods of allocation • Develop risk management strategies for the introduction of relevant resource allocation methods <ul style="list-style-type: none"> ○ Proponents should be aware of, and prepared to liaise with, the agencies engaged in the development and implementation of the Commonwealth's resource sharing policy process. In addressing this component, the proponent also should liaise with

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		FRDC's resource allocation working group (created following the <i>Sharing the Fish Conference</i>). In addressing this component, the researcher should bear in mind the implications spatial management may have for allocation, and how allocation strategies can be introduced into spatial management processes.
2.2	Tools to assist alignment of Commonwealth fisheries management with the Ministerial Direction of 16 December 2005 – making harvest strategies happen	<p>The Ministerial Direction of 16 December 2005 requires the development and implementation of a harvest strategy framework by 1 January 2007. This project will identify the issues associated with the requirement that all AFMA fisheries be subject to harvest strategies, building upon the experience of those fisheries already under harvest strategy management (eg SESSF & NPF) and the harvest strategies to be introduced from 1 January 2007. This should address across-fishery evaluation of fishery-level harvest and management strategies, and be extended to include bycatch and discard reduction strategies.</p> <p><u>Objectives</u></p> <ul style="list-style-type: none"> • Examining fisheries currently subject of harvest strategies, critically evaluate the core requirements for a harvest strategy framework <ul style="list-style-type: none"> This should include a formal evaluation of harvest strategies using management strategy evaluation (MSE) (including economic considerations). That evaluation should address the question of whether the settings are robust. In addressing this objective, the researcher will need to ensure that bycatch and discard reduction strategies are an integral part of the harvest strategy framework. Scenarios/games could be developed to identify issues and possible solutions associated with the development of harvest strategies. • Examine current fishery management arrangements against the results of the above <ul style="list-style-type: none"> In addressing this objective, the research will need to identify tensions between harvest strategy framework and current fishery management arrangements, and to identify methods of addressing tensions between harvest strategy and current management arrangement. • Develop a suite of mechanisms for translating current fisheries management arrangements into the harvest strategy framework <ul style="list-style-type: none"> In developing the suite of mechanisms, bio-economic modelling should be incorporated where data are available <p>In addressing this project, proponents should be aware that things have been moving very quickly in this area as RAGS begin to work towards the 1 January 2007 deadline. Some of this work may be being undertaken, albeit on a fishery-specific level, by the relevant Resource Assessment Groups.</p>
2.3	Spatial management – how to integrate fisheries management tools with the spatial management requirement	<p>Develop a method for placing fisheries management tools (eg SFRs, TACs, ITQs) in the context of spatial management, addressing the question of how these tools can be made compatible with spatial management without or with little detrimental effect on the fishery economics.</p> <p><u>Objectives</u></p> <ul style="list-style-type: none"> • Identify and analyse the nexus between spatial management and other fisheries management tools currently utilised in Commonwealth fisheries

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		<ul style="list-style-type: none"> • Develop a suite of approaches to designing and evaluating spatial management systems. • Identify potential mechanisms for bringing currently utilised fisheries management tools into alignment with spatial management <ul style="list-style-type: none"> In addressing the above objectives, the researcher should identify where tools are incompatible with spatial management, either in whole or as currently applied. Where tools are incompatible in the whole, possible alternatives should be identified and/or examined. For each alignment mechanism, potential social and economic impacts arising from the introduction of spatial management should be identified. Voluntary as well as mandatory spatial management methods should be examined • Develop a cross-fishery risk management framework for the introduction of spatial management
<p>2.4 The MPA conundrum – how to address the nexus with fisheries management and fishing operations?</p>		
		<p>Develop a decision tool that can quantify economic, social and environmental factors arising from the impact of marine protected areas (MPAs) on fisheries management and fishing operations.</p> <p><u>Objectives</u></p> <ul style="list-style-type: none"> • Develop performance indicators and assessment tools to measure fishery benefits arising from current and proposed MPAs • Assess fishery and ecosystem benefits arising from current and proposed MPAs using the performance indicators and tools developed above <ul style="list-style-type: none"> In addressing this component, the researcher must distinguish, to the extent possible, between potential benefits identified from simulation evaluations and actual benefits measured in response to MPA implementation and the ability to unambiguously attribute them to MPAs. • Analyse options for fisheries management response to MPAs, dealing with both the review of existing MPAs and the development of new MPAs <ul style="list-style-type: none"> The assessment outlined in the three objectives above should consider, among other tools, independent surveys for data collection intended to assist monitoring of MPAs and closures. It also should review and analyse options on how fishery information can be used to inform and influence the development of MPAs. Options analysis should address secondary effects such as fleet displacement, and fisheries compliance issues associated with MPAs (eg where the MPA is zoned by depth)
<p>2.5 Getting the bio-economics right – a bio-economic modelling framework</p>		
		<p>Develop a bio-economic modelling framework which will have application to a range of Commonwealth-managed fisheries</p> <p><u>Objectives</u></p> <ul style="list-style-type: none"> • Analyse existing Commonwealth fisheries to identify common issues, themes and approaches arising from or utilised in those fisheries in which bio-economic modelling has been done. <ul style="list-style-type: none"> In doing this, the researcher should draw upon the relatively simple bio-economic models developed for NPF, ETBF. Common factors in bio-economic modelling which may be applicable across fisheries should be identified, as should the fisheries (other than the above) for which it may be appropriate to build bio-economic models. <p>This project will require the creation of a multi-disciplinary project team with a right mix of researchers (economics, fisheries science, assessment science, fisheries market/development/business).</p>

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3	TAC/ITQ management and boat SFRs
3.1	Cost-effective and sustainable fisheries management arrangements under the Ministerial Direction of 16 December 2005 – evaluation of the relative merits of output controls and input controls in Commonwealth fisheries
	<p>Identify the issues associated with the requirement under the Minister’s Direction of 20 December 2005 that fisheries currently managed under input controls should be managed under output controls (unless there is a strong case for the individual fishery that this would not be cost effective or would otherwise be detrimental).</p> <p><u>Objectives</u></p> <ul style="list-style-type: none"> Analyse the impact on fisheries of the transition from input to output controls, by assessing the experience of those Commonwealth fisheries that already have made the transition Using the results of the above, conduct case-by-case risk assessments addressing the introduction of output controls to fisheries currently managed under input controls <ul style="list-style-type: none"> In undertaking the analysis, the researcher should identify short and long term economic, social impacts, biological and management impacts of the transition from input to output controls. Common factors which are or may be applicable to other fisheries currently managed under input controls should be identified, and an analysis done of the impact of the change to fishery research, fishery management, licensing, compliance etc
3.2	The impact of boat SFRs on managing effort and costs
	<p>Examine fisheries with boat SFRs to evaluate their impact on autonomous adjustment</p> <p><u>Objectives</u></p> <ul style="list-style-type: none"> Analyse and compare the effectiveness and efficiency of autonomous adjustment that has taken place in fisheries with boat SFRs with fisheries which have undergone such adjustment without boat SFRs <ul style="list-style-type: none"> In undertaking this analysis, the researcher should identify impediments for autonomous adjustment arising from the existence of boat SFRs, and from that identify cross-fishery issues. Mechanisms to address these issues will need to be developed, and from that a suite of potential responses to address cross-fishery issues
4	Administrative efficiency
4.1	Assessing the efficiency and efficacy of fisheries management arrangements
	<p>Examine existing and develop future management options to ensure cost-effective fishery management</p> <p><u>Objectives</u></p> <ul style="list-style-type: none"> Analyse the arrangements that have been used in fishery management, in particular their effectiveness and efficacy. Analysis should not be limited to examining minor adjustments to current arrangements, but explore more global arrangements that may challenge current management strategies. This should include an analysis of different risk approaches to sustainability (eg matching TACs or TAEs to risk/cost profiles, multi-year TACs), alternate reporting intervals (eg three-yearly stock assessments) and methods of managing the risk where longer time intervals between management reporting requirements and/or events are proposed As a result, develop a suite of arrangements which are likely to have application in future fisheries management
4.2	Evaluation of compliance design and risk assessment processes used in Commonwealth fisheries
	Evaluate compliance design and risk assessment in Commonwealth-managed fisheries

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		<p><u>Objectives</u></p> <ul style="list-style-type: none">• Analyse the design and risk assessment processes currently used in the management of Commonwealth fisheries Analysis should not be limited to the current risk assessments and compliance program designs, but also should include an assessment of legislative requirements. The latter component should be with a view to identifying where these tend to result in a higher level of compliance than is necessary, and should provide an assessment of whether it would be more cost-effective to change the legislation.
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NOTE: Proponents must specify in their proposals the projected costs and expected funding source, as well as alternatives.