

TORRES STRAIT PRAWN MANAGEMENT ADVISORY COMMITTEE	Meeting No. 10 30 June – 1 July 2010
OTHER BUSINESS Research priorities for the Torres Strait Prawn fishery	Agenda Item No. 6.2

RECOMMENDATION

The TSPMAC **NOTES:**

- 6.2.1 the research priorities for the Torres Strait Prawn fishery identified by the Torres Strait Scientific Committee for its 2010 draft Annual Operational Plan; and
- 6.2.2 That the TSPMAC will be given opportunity to provide feedback if appropriate at an OOS meeting in the coming months.

BACKGROUND

At the Torres Strait Scientific Advisory Committee (TSSAC) meeting #48 the Committee agreed to develop an Operational Plan to accompany the 5-year Strategic Research Plan (SRP). The Annual Operational Plan provides potential research providers with specific research areas identified by the TSSAC as being of high priority to meet the current research needs of the Torres Strait Protected Zone Joint Authority. The 2010 Annual Operational Plan will be provided as part of the package distributed to researchers wishing to consider applying for funding through the TSSAC in the 2011/2012 research funding round.

To establish research priorities for the 2009 Operational Plan, the TSSAC reviewed research priorities provided from relevant working groups and committees. The TSSAC reviewed the research priorities in the Operational Plan at TSSAC meeting #52.

DISCUSSION

At TSSAC #52, the committee agreed to request relevant committees and working groups to review the research priorities for individual fisheries and provide feedback to the TSSAC in order to guide the TSSAC on subsequent revisions to the Annual Operational Plan.

The TSSAC requests the Torres Strait PrawnMAC review the Prawn fishery research priorities for the 2010 Annual Operational Plan as outlined in attachment 6.2A and provide comment to the TSSAC on these priorities. The TSPMAC is asked to take this paper away and consider it for at the OOS TSPMAC meeting in the coming months. The complete 2009 Annual Operational Plan for all Torres Strait Fisheries is at attachment 6.2B for your information. This plan will be updated with the new priorities follow comments.

FINANCIAL IMPLICATIONS

Nil



Queensland
Government



Attachment 6.2 Draft Research priorities for the Torres Strait prawn fishery

	RESEARCH AREA	RESEARCH NEED	NEED ¹
A) Prawn	i) Fishery assessment ²	a) Stock assessment, fishing power, development of optimal harvest strategies ³ , economic efficiency.	Strategic
	ii) By-catch reduction and interactions with TEP species ⁴	a) More efficient by-catch reduction devices.	Strategic
	iii) Developing economic efficiency	a) Catch composition catch composition of trawl harvest and bycatch and impact on Torres Strait Islander subsistence. b) Ecosystem effects of trawling (desktop study) ⁵ .	Strategic Tactical

¹ Strategic need indicates that there is a need for this research, however, this research area is not essential in the next year. Tactical need refers to research that is required in a shorter time frame than strategic research.

² Effort in the prawn fishery is currently extremely low with less than 4000 days allocated which is 1/3 of maximum effort

³ Optimal harvesting will increase profitability of the fishery which is a major aim for management in this fishery. This also has implications for PNG.

⁴ May be a need for further by-catch reduction research to allow Strategic Assessments to be undertaken within the next 5 years.

⁵ Research has been undertaken previously by CSIRO regarding seabed composition and the relationship with trawl effort. A desktop study on previous research in this area could determine whether there are any research gaps which still need to be addressed.



Australian Government

Australian Fisheries Management Authority

Torres Strait Scientific Advisory Committee

2009 OPERATIONAL PLAN FOR TORRES STRAIT FISHERIES

July 2009

BACKGROUND

This operational plan was developed by the Torres Strait Scientific Advisory Committee (TSSAC) to complement the Strategic Research Plan for Torres Strait Fisheries (June 2009) and describe:

1. The operational aspects of assessment and evaluating research proposals considered by the TSSAC including:
 - a. How the TSSAC prioritise research projects;
 - b. What criteria are set for assessing research proposals.
2. Current research areas identified by the Torres Strait Scientific Advisory Committee, through consultation with stakeholders, as priority areas for research.

The information in this document provides guidance to scientists developing research proposals, and the TSSAC in evaluating proposals. Documentation of these operational processes will also ensure the evaluation process undertaken by the TSSAC is conducted in a transparent and strategic way.

The TSSAC will update this document annually to ensure it remains relevant.

PART 1

1.1 RESEARCH PRIORITISATION AND EVALUATION

The Torres Strait Scientific Advisory Committee agreed on the following guidelines in assessing if research areas are considered high priority for funding. Priority research areas will:

- address an essential management need such as the threat to sustainability;
- address a fundamental management need such as surveys for stock assessment;
- strengthen and facilitate Torres Strait Islander engagement/development;
- be a strategic project that demonstrates value for money;
- have strong stakeholder support; or
- address areas of uncertainty such as for stock assessments.

Resource Assessment Groups (RAGs), Management Advisory Groups (MACs) and other PZJA consultative groups play a fundamental role in identifying priority research areas. The TSSAC will take into consideration the views of RAGs and other committees to assess research priorities across competing interests.

The Torres Strait Scientific Advisor Committee agreed at TSSAC meeting No. 48 to assess research proposals against evaluation criteria grouped into two main areas of attractiveness and feasibility (see attachment A).

Part 2

2.1 RESEARCH PRIORITIES

TSSAC seeks input from PZJA consultative bodies to identify research areas and needs and updated on an annual basis as required. In the absence of a dedicated turtle and dugong consultative body, TSFMAC is to be responsible for identifying research priorities in the turtle and dugong fisheries.

	RESEARCH AREA	RESEARCH NEED	THEME ¹
A) Prawns	i) Stock assessment	a) Complete current stock assessment	2, 3
	ii) By-catch reduction and reduced interactions with TEP species	a) More efficient by-catch reduction devices	2
	iii) Efficiency of management arrangements	a) Optimisation of observer programme (efficient levels of coverage).	2, 6
B) Rock lobster	i) Stock assessments to inform TAC setting	a) Complete current stock assessments and estimate TAC	2, 3
	ii) Efficiency of management arrangements	a) More effective stock assessments and TAC setting; b) Development of Management Strategy Evaluation models	2, 3, 6
	iii) Knowledge of biology, ecology and distribution /migration	a) Understanding of impact of bi-furcation point of ocean currents on post-settlement larval distribution	2
	iv) Efficient monitoring of catch and effort in all sectors of the fishery	a) Alternative monitoring techniques of stock status, for example GPS tracking. b) Estimate of non-commercial take of rock lobsters	2, 6
	v) Impact of changed management arrangements	Understanding of: a) the impact of ITQ's or competitive quota on the fishery b) the impact of changed market preferences on the fishery	6

¹ These themes relate to those detailed in the Strategic Research Plan

B) Rock lobster	vi) Connectivity between stocks in Torres Strait and neighbouring jurisdictions including	a) Understanding of migration of lobster across different jurisdictions b) Impacts of fishing in neighbouring jurisdictions on Australian fishery	2, 5
C) Finfish (reef line and Spanish mackerel)	i) Efficiency of management arrangements ii) Stock assessment iii) Fisheries monitoring iv) Biology, ecology, distribution of target species	a) Development of an efficient, long term monitoring program for all sectors in the fishery a) Development of an efficient stock status/abundance assessment a) Development of operational management objectives, performance measures and decision rules to inform future management strategy evaluation b) Alternative monitoring techniques of stock status for example GPS tracking. a) Understanding of growth maturity, fecundity and spawning characteristics of Spanish mackerel and coral trout b) Confirmation of single stock assumption for Spanish mackerel	6 2, 6 2, 6 2, 6
D) Hand Collectable Fisheries	Stock abundance/assessments for TAC setting	a) Complete stock assessments and estimate TAC for target species	2, 3, 6
	Efficiency of management arrangements	a) Provide information for community based harvest strategies and/or management plans b) Address uncertainties regarding trochus and beche de mer stock status and/or recovery.	2
	Knowledge of biology, ecology and distribution of target species	a) Assessment of trochus habitat using Indigenous knowledge or remote sensing to inform stock assessment.	2, 3, 4, 6

3) Traditional fisheries	<ul style="list-style-type: none"> i) .Level of traditional catch ii) Identification of sustainable fishing practices iii) Community based activities that will aid and inform management iv) Interactions between habitat and traditional fisheries 	<ul style="list-style-type: none"> a) Identification of effective methods of estimating traditional take a) Identification and introduction of fishing practices to protect and improve traditional fishing a) Identification of appropriate monitoring techniques and stock assessment techniques. a) Bench mark surveys for turtle and dugong including in protected areas b) Habitat assessment for turtle and dugong using Indigenous knowledge or remote sensing 	<ul style="list-style-type: none"> 1, 2 1, 2 1, 2 1, 2
4) Torres Strait Islander development	<ul style="list-style-type: none"> i) Capacity building for Torres Strait Islanders in Torres Strait fisheries ii) Improved profitability for Torres Strait Islanders from fisheries 	<ul style="list-style-type: none"> a) Identification of parallels in leasing of fisheries resources with other fisheries internationally and learning opportunities for Torres Strait peoples b) Feasibility studies on fishery infrastructure and training in Torres Strait a) Marketing opportunities within existing fisheries b) Identification of alternate sustainable fishing opportunities c) Live coral trout business feasibility study d) Impacts of market preference on socio-economic aspects of Torres Strait fisheries 	<ul style="list-style-type: none"> 4 3, 4
5) Engagement with Papua New Guinea	<ul style="list-style-type: none"> i) Collaborative research and data collection 	<ul style="list-style-type: none"> a) Review of areas where opportunities exist for possible collaborative research and data collection between Papua New Guinea and Australia for lobster, turtle and dugong and all traditional fisheries management. 	<ul style="list-style-type: none"> 5
6) Other issues	<ul style="list-style-type: none"> i) Impacts of climate change on Torres Strait fisheries 	<ul style="list-style-type: none"> a) Identification of potential changes to key fish species and habitats in the Torres Strait due to climate change. 	<ul style="list-style-type: none"> 2, 3

2.2 INDIVIDUAL FISHERY OBJECTIVES²

FISHERY	OBJECTIVE
Prawns	<ul style="list-style-type: none"> i) Ensure the optimum utilisation of the fishery resources within the TSPF is consistent with the principles of ecologically sustainable development and the exercise of the precautionary principle ii) Promote economic efficiency in the utilisation of the fisheries resources within the TSPF iii) Ensure cooperative, efficient and cost effective management of the Fishery iv) Manage the fishery's interaction with the marine environment including the incidental capture of non-target species and impacts on demersal habitats
Rock lobster	<ul style="list-style-type: none"> i) Maintain the spawning stock at levels that meet or exceed the level required to produce the maximum sustainable yield ii) In accordance with the Torres Strait Treaty, to protect the traditional way of life and livelihood of traditional inhabitants, in particular in relation to their traditional fishing for Tropical Rock Lobster iii) Provide for the optimal utilisation, co-operative management with Queensland and Papua New Guinea and for catch sharing to occur with Papua New Guinea iv) Monitor interactions between the prawn and lobster fisheries v) Maintain appropriate controls on fishing gear allowed in the fishery so as to minimise impacts on the environment vi) Promote economic development in the Torres Strait area with an emphasis on providing the framework for commercial opportunities for traditional inhabitants. To ensure that commercial opportunities available to all stakeholders are socially and culturally appropriate for the Torres Strait and the wider Queensland and Australian community vii) Optimise the value of the fishery, ensure cooperative, efficient and cost effective management of the Fishery
Finfish (reef line and Spanish mackerel)	<ul style="list-style-type: none"> i) To manage the resource to achieve its optimal utilisation ii) To maximise the opportunities for Traditional Inhabitants of both Australia and PNG to participate in the commercial fishery iii) To promote the fishery as a line fishery

² Fisheries Objectives were correct at the time of writing. Sources: Prawns – Draft Torres Strait Prawn Fishery Management Plan; Rock Lobster – PZJA 19: Finfish - Strategic and Export Reassessment Report, Torres Strait Finfish Fishery, AFMA 2008; Trochus - Strategic and Export Reassessment Report, Torres Strait Trochus Fishery, AFMA June 2008; Beche-de-mer - Strategic and Export Reassessment Report, Torres Strait Beche-de-mer Fishery, AFMA April 2008; Dugong and Turtle – PZJA website, February 2009 (these in turn being stated in subsidiary conservation and management arrangements agreed between Australia and Papua New Guinea); Pearl Shell, Crab and Barramundi –PZJA website, February 2009.

Individual Fishery Objectives (cont...)

FISHERY	OBJECTIVE
Finfish (reef line and Spanish mackerel)	iv) To continue monitoring of the fishery and enter into a catch sharing agreement with PNG.
Trochus	i) Manage the resource so as to achieve optimum utilisation ii) Maximise opportunities for traditional inhabitants of Australia iii) Encourage traditional inhabitants to participate in the fishery
Beche-de-mer	i) Ensure the sustainable use of all sea cucumber in Torres Strait ii) Ensure that utilisation of the sea cucumber resources is for the direct benefit of the Australian traditional inhabitants of the Torres Strait iii) Ensure increased involvement in the management and control of all aspects of the fishery by the Australian traditional inhabitants of the Torres Strait iv) Promote a cooperative approach to management with Papua New Guinea v) In consultation with industry and traditional fishers, to ensure the recovery of the sandfish stock on Warrior Reef by adopting a precautionary approach when setting catch levels in the early years of rebuilding the fishery
Dugong and turtle	i) Conserve the stock vi) Manage the fishery as a traditional fishery
Pearl shell, crab and barramundi	i) Manage the resource so as to achieve optimum utilisation ii) Maximise opportunities for Traditional Inhabitants of Australia and PNG to participate in the commercial fishery

Attachment A.

**Torres Strait Scientific Advisory Committee
Research Proposal Evaluation**

Research Title	Organisation:
Research Themes:	Date:
Principal Investigator:	

Attractiveness	Strongly DISAGREE					→	Strongly AGREE				
	1	2	3	4	5	6	7	8	9	10	
1. Is there a priority need for the research?											
2. Is/are the end-user/s identified?											
3. Do the outcomes have relevance and are measurable where appropriate?											
4. Are the outputs and outcomes relevant to end-user?											
5. Cost Benefit Analysis. Is the anticipated benefit appropriate to the Investment?											
6. Is there collaboration between stakeholders (i.e. between community and/or industry, researcher and management)?											
7. Are there links to previous research?											
8. Does the project add value to previous research											
9. Does the project lead to capacity development for Communities?											
10. Is there collaborative funding (cash and/or in-kind contributions)?											
11. Does proposal actively engage Torres Strait Islanders in the research?											
12. Are there employment opportunities for Torres Strait Islanders?											
13. Are extension and communication well developed and appropriate; in particular to Torres Strait Islanders?											
14. Is there a path to uptake and impact relevant to fisheries management?											

Feasibility	1	2	3	4	5	6	7	8	9	10
1. Are the methods well described and consistent with the objectives?										
2. Are the methods scientifically sound?										
3. Will the project be carried out in a culturally appropriate way?										
4. Does the applicant have the capacity to produce the outputs?										
5. Is the budget appropriate to meet the outputs and outcomes?										
6. Is there appropriate data management?										