

**TORRES STRAIT TROPICAL ROCK LOBSTER
WORKING GROUP MEETING**

24 - 26 May, 2006

PEARLS BUILDING, THURSDAY ISLAND

RECOMMENDATIONS FROM THE TRLWG

Number	Agenda Item	Recommendation
NONE		

ACTION ITEMS

Number	Action Item	Action Agency
1.	Provide members of the TRLWG with a copy of the paper explaining the PZJA decision on how resource allocation percentages are to be applied in the Torres Strait Tropical Rock Lobster fishery under the Treaty, plus the proposal of the movement towards the 70:30 allocation. This paper should also outline funding arrangements to give effect to 50:50 resource allocation in the Torres Strait Tropical Rock Lobster fishery.	Jim Prescott (AFMA)
2.	At the request of TSRA Community Fisher Group Representatives (CFG) on the TRLWG, DAFF requested to provide advice on what will happen if the tender process does not remove the target number of licences from the fishery. Incorporate this in the draft paper explaining the PZJA decision on how resource allocation percentages are to be applied in the Torres Strait Tropical Rock Lobster fishery under the Treaty, including the proposal of the movement towards the 70:30 allocation.	DAFF
3.	Carry over agenda item improved data collection system to the next scheduled meeting of the TRLWG.	AFMA
4.	Add background and application of the criminal code in the Torres Strait Fisheries Act context to their legislative amendments consultation.	DAFF
5.	Provide members of the TRLWG with an information handout sourced from AFMA observer data on lobster bycatch in the Torres Strait Prawn fishery	Jim Prescott (AFMA)
6.	The TRL Resource Assessment Group to consider the strategies and performance measures for Fishery Objective No.1 at the next scheduled meeting (August 2006).	TRL RAG
7.	Investigate claims of fishery endorsements missing from renewed Traditional Inhabitant Boat (TIB) licences, as reported by Charles David (Yam Island).	Shane Gaddes (QDPI&F)

8.	Approach TVH operators in order to provide an estimate of the catch taken by traditional inhabitant/former PNG national divers for the period between 2002-2005	Brett Arlidge (QRLA)
9.	Investigate the two remaining non-traditional inhabitant Processor/Carrier Boat licences (TPCs) in the fishery whether they could be considered in the Australian Government tender process in the Torres Strait TRL fishery.	AFMA
10.	Draft a paper outlining the various options for linking boat licences and the catch shares, eg an annual catch entitlement (ACE).	AFMA and QDPI&F
11.	Consult with members of the TRLWG to organise a convenient time and date for the next meeting of the working group.	AFMA

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PEARLS BUILDING, THURSDAY ISLAND

MEETING START TIMES: DAY 1 – 1.00PM; DAYS 2 & 3 – 8.30AM

AGENDA

OPENING

APOLOGIES

ADOPTION OF AGENDA

1. Ratification of record of previous TRLWG meeting (28 February - 2 March 2005)
2. Actions and/or business arising from the previous TRLWG meeting
3. Outcomes from PZJA 19 (issues of relevance to the TRL fishery)
4. Fishery Objectives – Strategies and performance measures for accepted objectives (QDPI&F)
5. Management Plan – Continuation of last discussion (AFMA)
6. Quota Management System for 2007 – Continuation of last discussion (AFMA)
7. Report on RAG Meeting No.11 and future strategy
8. Data
 - 8.1 *AFMA strategy to improve data management*
 - 8.2 *Data plan*
9. Dates for future meetings (AFMA)
10. Other business
 - 10.1 *Membership and permanent observers*
 - 10.2 *Towing Traditional Inhabitant Boat (TIB) licensed dinghies behind Torres Strait Fishing Boat (TVH) licensed boats*

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DRAFT RECORD OF MEETING

THESE ARE **DRAFT** MINUTES WHICH HAVE BEEN DISTRIBUTED TO MEMBERS OF THE TROPICAL ROCK LOBSTER WORKING GROUP (TRLWG) FOR COMMENT. IF **NO** COMMENTS ARE RECEIVED BY **5 JULY, 2006** THESE MINUTES WILL BE TAKEN AS A TRUE AND ACCURATE RECORD OF THE MEETING AND WILL BE RATIFIED AT THE NEXT MEETING OF THE WORKING GROUP.

DAY 1

Attendance

John Marrington	(Chairperson)
Jim Prescott	(AFMA)
Sascha Taylor	(AFMA – Executive Officer)
Shane Gaddes	(QDPI&F)
Ray Moore	(TRL Industry Representative)
Brett Arlidge	(TRL Industry Representative)
Toshio Nakata	(TSRA Fisheries Co-ordinator)
Charles David	(TSRA – Yam Community Fisher Representative)
Lota Warri	(TSRA – Yorke Community Fisher Representative)
Yen Loban	(TSRA – Muralag WMN Community Fisher Representative) (Day 1 only)
Graham Hirakawa	(TSRA – Port Kennedy Community Fisher Representative)
Richard Bowie	(TSRA – Badu Community Fisher Representative)
Terrance Whap	(TSRA – Mabuiag Community Fisher Representative)
Yimin Ye	(CSIRO Research Scientist)

Observers

Vanessa Moore	(AFMA)
Don Mosby	(TSRA Fisheries Portfolio)
Phillip Hughes	(TRL Industry)
Thomas Fujii	(TRL Fisherman – Day 1 only)
Paul Ahmat	(TRL Fisherman – Day 1 only)

DAY 2

Attendance

As per Day 1
Don Whap (Afternoon)

Observers

Vanessa Moore	(AFMA)
Don Mosby	(TSRA Fisheries Portfolio)
Phillip Hughes	(TRL Industry)
Chris Robb (Afternoon)	(TRL Fisherman)

DAY 3

Attendance

As per day 2

Observers

As per day 2

DAY 1 – Wednesday, 24 May 2006

OPENING COMMENTS

The meeting of the Tropical Rock Lobster Working Group (TRLWG) was opened at 13:15pm on Day 1 by the Chair, Mr John Marrington. This was followed by the introduction of Mr Shane Gaddes (QDPI&F), who has taken over responsibilities (i.e. Torres Strait Senior Fisheries Management Officer) from the previous agency member, Mr Wez Norris who has since departed QDPI&F.

APOLOGIES

There were no apologies.

ADOPTION OF AGENDA

Toshio Nakata requested discussion on the issue of towing Traditional Inhabitant Boat (TIB) licensed dinghies behind Torres Strait Fishing Boat (TVH) licensed boats in the Torres Strait Tropical rock lobster fishery. This item was placed under other business (i.e. Agenda Item No. 10.2). The agenda was subsequently adopted.

Agenda Item 1: Ratification of record of previous TRLWG meeting (28 February – 2 March 2006)

John Marrington informed members that the draft minutes from the previous TRLWG meeting were distributed to members on 22 May 2006. Comments were received from two attendees and subsequently incorporated into the minutes. The draft minutes were ratified by the TRLWG as a true and accurate record of that previous meeting.

Agenda Item 2: Actions and/or business arising from the previous TRLWG meeting

Jim Prescott went through the Action Items from the previous TRLWG meeting. Most of the items had been addressed or were to be further progressed in later agenda items.

No.	Action Item	Action Agency	Outcome
1.	TSRA to explore the possibilities of incorporating views/ concerns of <i>Prescribed Body Corporates</i> (PBCs) in the development of the TRL Management Plan	TSRA	Not yet progressed
2.	AFMA with the assistance of Charles David to draft an additional paragraph to encapsulate the full lama (Yam Island) area closure proposal for further consideration at the next scheduled TSFMAC in late-	AFMA	AFMA has not received further advice from Charles David

	March 2006.		
3.	Agencies to draft a paper explaining the PZJA decision on how resource allocation percentages are to be applied in the Torres Strait Tropical Rock Lobster fishery under the Treaty, plus the proposal of the movement towards the 70:30 allocation.	AFMA/ TSRA/ QDPI&F	Completed [ACTION ITEM] Jim Prescott to provide members of the TRLWG with a copy of the paper explaining the PZJA decision on how resource allocation percentages are to be applied in the Torres Strait Tropical Rock Lobster fishery under the Treaty, plus the proposal of the movement towards the 70:30 allocation. This paper also outlines funding arrangements to give effect to 50:50 resource allocation in the Torres Strait Tropical Rock Lobster fishery.
4.	AFMA in collaboration with QDPI&F and TSRA to provide an explanation of funding arrangements to give effect to 50:50 resource allocation in the Torres Strait Tropical Rock Lobster fishery	AFMA/ TSRA/ QDPI&F	Completed (same document as above) [ACTION ITEM] Request advice from DAFF on what will happen if the tender process does not remove the target number of licences from the fishery.
5.	AFMA/ QDPI&F to prepare an options paper for the TRLWG on achieving an improved fisheries data collection system in the Torres Strait Tropical Rock Lobster fishery, in light of the introduction of a <i>Quota Management System</i> in 2007.	AFMA/ QDPI&F	AFMA is developing a data plan for the TRL fishery and this document will serve the purpose of informing the working group and ensuring AFMA has an appropriate strategy for both research and monitoring needs. This was scheduled to be discussed under Agenda Item 8. [ACTION ITEM] Carry over agenda item improved data collection system to the next meeting of the TRLWG
6.	AFMA/ DAFF to provide background information to Torres Strait communities regarding the amendment to Section 4a. <i>Application of the Criminal Code of the Torres Strait Fisheries Act 1984.</i>	AFMA/ DAFF	Probably can be best covered when communities are consulted about draft amendment bill. This will be undertaken by DAFF in the next few months. [ACTION ITEM] DAFF to be requested to add background and application of the criminal code in the <i>Torres Strait Fisheries Act</i> as part of their legislative amendments consultation.

7.	QDPI&F to write to Queensland east-coast operators on the procedures and protocols on landing product in Torres Strait during closure periods.	QDPI&F	Not yet progressed
8.	QDPI&F to provide the TRLWG with a summary from the current Torres Strait Prawn Fishery Assessment, specifically the impacts of the fishery on bycatch species (i.e. TRL).	QDPI&F	AFMA observer data good source of information on lobster bycatch. Information handout will be provided when observer report available. [ACTION ITEM] Jim Prescott to provide members of the TRLWG with a information handout sourced from AFMA observer data on lobster bycatch in the Torres Strait Prawn fishery.
9.	QRLA to approach Job Network providers (i.e. ITEC Employment) to seek appropriately trained and licensed Islanders who are willing and able to work on TVH boats.	QRLA	Work in progress Brett Arlidge advised the TRLWG he has discussed this matter with ITEC Employment
10.	Longer term arrangements for MFLs to be discussed by the CFG and reported back to the next TRLWG meeting.	TSRA	Toshio Nakata informed the TRLWG that this action item was discussed at the Community Fisher Group and TSFMAC in March 2006.
11.	The TRLWG chair to write to the QB&FP about compliance reports for future working group meetings.	AFMA	Completed
12.	QB&FP to follow-up progress in the implementation of registration stickers.	QB&FP	Work in progress – was to be considered at PZJA 19
13.	Members to be provided a copy of the PZJA Fisheries Management Paper No.1.	AFMA	Completed
14.	Community Fisher Group to consult on registration of live-holding cages and report back to the next meeting of the TRLWG.	TSRA	To be discussed under Agenda Item No.6
15.	The TRLWG Chair to write to QDPI&F to explore tail-clipping in the recreational sector.	AFMA	Completed

In respect to Action Items No.s 3 and 4, the TRLWG CFG representatives wanted a number of issues and their comments on them to be noted in the minutes. These follow:

Islander members of the TRLWG recorded that they were dissatisfied with the 50:50 decision and noted that the vast majority of the islander community were similarly dissatisfied.

Richard Bowie and Ray Moore noted that the islander share of the catch has grown significantly over the years and Richard further noted that the trend would continue into the future as more young people take up fishing and the sector becomes more and more technical in the way they go about their fishing.

Islander members and Don Mosby agreed that they would work on options to bring about the 70:30 target set by the PZJA or an even more favourable ratio. This would be done in an appropriate forum outside the Working Group process. Some industry members maintained that they would support a further voluntary buyback, however Brett Arlidge pointed out that other Industry members may not support this point of view. Don noted that the 70:30 decision was the preferred starting point – not the 50:50.

At the TSFMAC, DAFF pointed out that the 10 mile decision would be enacted through a process where it would be a disallowable instrument. This was seen as step backwards by CFG members and has caused them to have significant concerns about their commitment to the 50:50 decision voiced at the MAC in relation to lobster, i.e. that they would support the 50:50 decision.

Islander members wanted it recorded in the minutes that they want to see the 70:30 arrangements put in place before the quota system is implemented.

Agenda Item 3: Outcomes from PZJA 19 (issues of relevance to the TRL fishery)

Jim Prescott read the decisions from PZJA 19 held on Thursday Island, 27-28 April 2006, relating to the Torres Strait Tropical Rock Lobster fishery. Members were disappointed that the signed decisions were not available to them.

Agenda Item 4: Fishery Objectives – Strategies and performance measures for accepted objectives

Shane Gaddes showed a PowerPoint presentation (see Attachment 1) outlining the framework of performance management system relating to the fishery objectives approved by the PZJA in April 2006. The purpose of this presentation was to give all TRLWG members a better understanding of the terminology used (i.e. operational objective, performance indicators, performance management and management response). The presentation also covered the recent Commonwealth Ministerial directions to end overfishing and recover overfished stocks and demonstrated the concept of “harvest strategies” with some examples.

DAY 2 – Thursday, 25 May 2006 (opened at 08:45am)

Shane Gaddes continued discussions on the fishery objectives. The TRLWG agreed that strategies and performance measures for the more technical Fishery objective No.1 needs to be progress at the next scheduled TRL RAG, when final outcomes of the CSIRO stock assessment will be available.

Action Item: The TRL Resource Assessment Group (RAG) to consider the strategies and performance measures for Fishery Objective No.1 at the next scheduled meeting (August 2006).

The TRLWG then went on to consider and progress the measures by which objectives 2-7 are to be attained plus the performance criteria to assess the measures taken for Fishery objectives (see Attachment 2). It was suggested by Shane Gaddes that potential indicators and potential reference points be discussed at a future meeting of the TRLWG.

Agenda Item 5: Management Plan – Continuation of last discussion

Jim Prescott presented this agenda paper to the TRLWG. The objective of this item was for TRLWG members to discuss and consider specific elements of the draft management plan for the TRL fishery. The TRLWG discussed each part of the plan at length. These discussions are captured in the attached draft management plan document (Attachment 3).

During this discussion Chris Robb raised the issue of allocation, in particular TVH operators with a history of keeping tails may have an advantage over those who have done live. The point was acknowledged by the TRLWG however they were reminded that it's up to individuals to raise issues such as this one with the AAP when they meet.

Management plan discussion continued until the meeting closed at 17:30pm.

DAY 3 – Friday, 26 May 2006 (opened at 08:45am)

Jim Prescott continued discussions on the draft management plan for the Torres Strait TRL fishery. A number of issues were raised during these discussions some of which became the action items listed below.

Action Item: Shane Gaddes (QDPI&F) to investigate claims of fishery endorsements missing from renewed Traditional Inhabitant Boat (TIB) licences, as reported by Charles David (Yam Island).

Action Item: Brett Arlidge (QRLA) to approach TVH operators in order to provide an estimate of the catch taken by traditional inhabitant/former PNG national divers for the period 2002-2005.

Action Item: AFMA to investigate the two remaining non-traditional inhabitant Processor/Carrier Boat licences (TPCs) in the fishery whether they could be considered in the Australian Government tender process in the Torres Strait TRL fishery.

Action Item: AFMA and QDPI&F to draft a paper outlining the various options for linking boat licences and the catch shares, eg an annual catch entitlement (ACE).

Agenda Item 7: Report on RAG Meeting No.1 and future strategy

Yimin Ye (CSIRO) presented a PowerPoint presentation outlining the sample design for the mid- and pre-season surveys, and how these survey data could be used to identify a TAC for the fishery. He then demonstrated the simple approach proposed by the RAG using an estimate of the population from the survey and an estimate of F_{MSY} and the mean weight of lobsters during a season to derive a TAC. In particular Yimin drew the working group's attention to the danger of using F_{MSY} as an input to the model when the current stock status is unknown. He demonstrated that fishing at F_{MSY} can lead to "under-exploitation" or "over-exploitation" of the stock depending on the stock status.

Apart from the points outlined in the agenda paper the TRLWG also had concerns over the stock-recruitment relationships including Queensland east-coast source / sink considerations plus, recruitment of 1+ lobsters into Torres Strait waters (i.e. fishery) post the CSIRO preseason survey in November/ December. Most members acknowledged the uncertainties in the assessments and the limitations of not having an equivalent survey in the Qld waters. Shane Gaddes said that Queensland would work on getting some assessment work done in its area of jurisdiction if possible. The group acknowledged the need for the RAG, at its next scheduled meeting, to further investigate these issues and fully understand their implications before making a recommendation on a TAC for the fishery.

Agenda Item 9: Dates for future meetings

It was suggested by members of the TRLWG that another meeting be held in the scheduled spring tide closure in the TRL fishery between 8–14 July 2006. Charles David stated he would personally prefer the next meeting to be held outside of scheduled spring tide closure.

Carry-over Agenda Items: Next Meeting of the TRLWG

The following agenda items were not discussed at this meeting of the TRLWG. This was the result of significant discussions on the fishery objectives and the draft TRL Fishery Management Plan. These will be carried over to the next scheduled meeting of the TRLWG.

6. Quota Management System for 2007 – Continuation of last discussion (AFMA)

8. Data

8.1 AFMA strategy to improve data management

8.2 Data plan

10. Other business

10.1 Membership and permanent observers

10.2 Towing Traditional Inhabitant Boat (TIB) licensed dinghies behind Torres Strait Fishing Boat (TVH) licensed boats

Performance Measurement Systems in Queensland Fisheries

Fisheries Business
Group



What are they?

- **Working definition**
 - A Performance Measurement System (PMS) is an assessment framework that allows the sustainability of a system of exploitation to be measured, monitored and tracked through time
- **A package made up of:**
 - an operational objective
 - an indicator and
 - a performance measure
- **and a key requirement of:**
 - managing for the Ecologically Sustainable Development (ESD) of fishery resources in Queensland and Australia in general

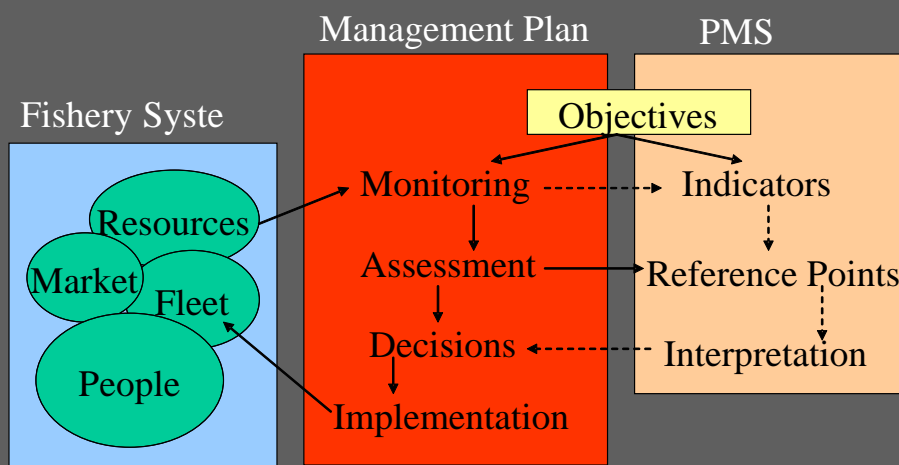
Fisheries Business
Group



What to remember?

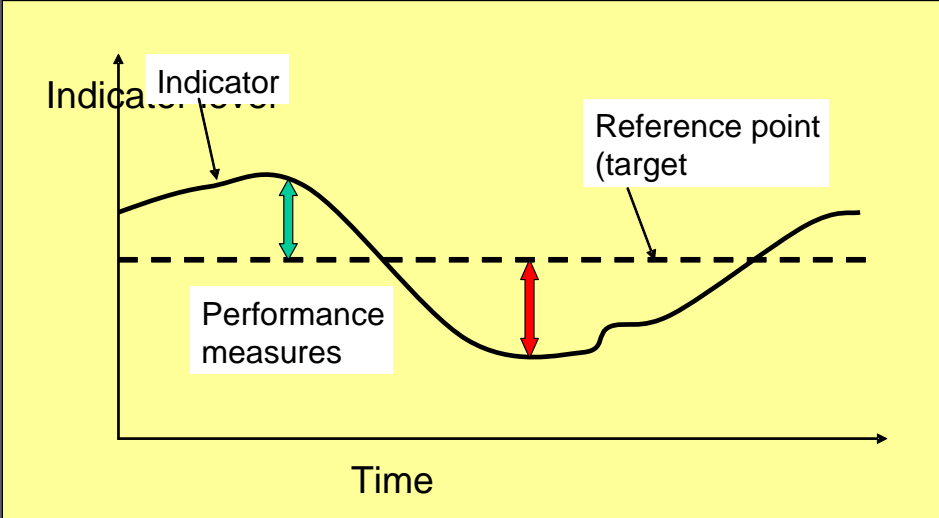
- Concepts and terms in a PMS:
 - **Operational objective:** A fishery objective to measure performance against (ecological, economic or social)
 - **Performance indicator:** A quantity that can be used to track changes with respect to an operational objective
 - **Performance measure:** A function that converts the value of an indicator to a measure of management performance with respect to the operational objective (limit, target, or trend)
 - **Management response:** The management response that should occur if the criterion of a performance measure is not met.

What should it look like?



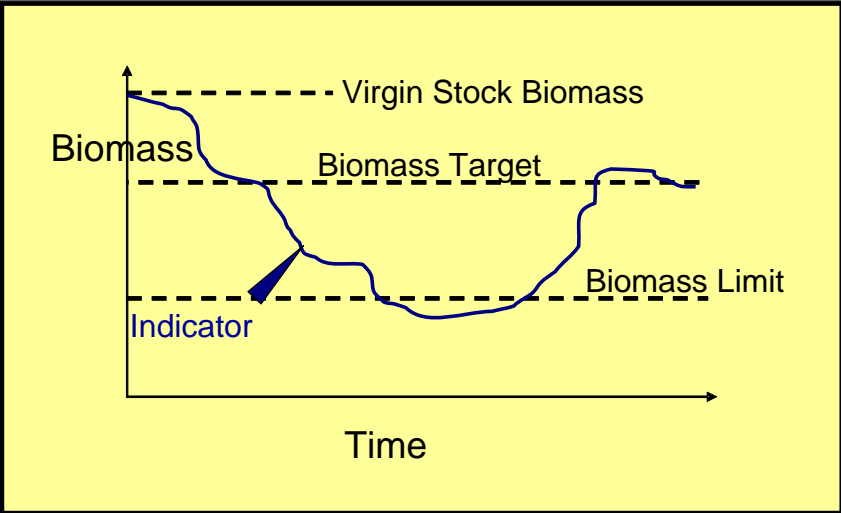
Source: FAO 1999. Technical Guidelines for Responsible Fisheries No.

What should it look like?



Source : Sainsbury et al. 1998. Indicators to measure performance of Australian fisheries against ESD objectives

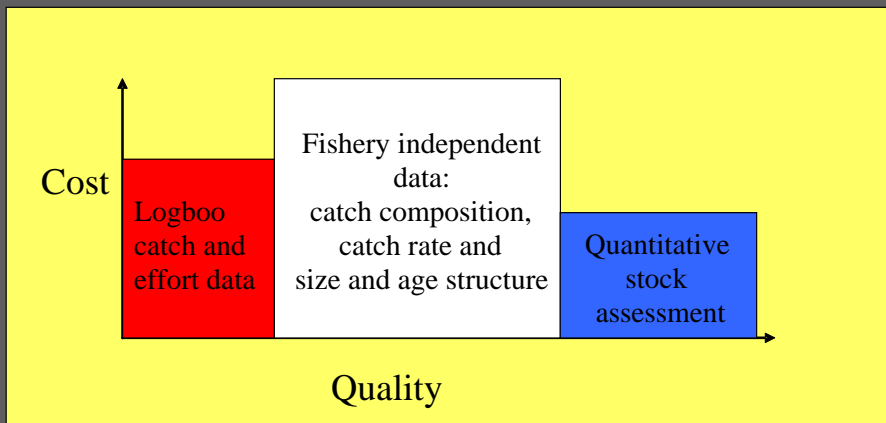
What should it look like?



Source: Garcia, SM. 1996. FAO Technical Papers No. 350/2, 1 -76.

What information do we need?

To develop a PMS, a hierarchy of information type and quality should be considered



Australian Governments direction to AFMA

AFMA must take immediate action in all Commonwealth fisheries to:

- a) cease overfishing and recover overfished stocks to levels that will ensure long term sustainability and productivity
- b) avoid further species from becoming overfished in the short and long term; and
- c) manage the broader environmental impacts of fishing, including on threatened species or those otherwise protected under the *Environment Protection and Biodiversity Conservation Act 1999* .

Australian Governments direction to AFMA (cont)

- **'20/40' harvest strategy**

- Limit fishing mortality = F_{MSY}
- Exploitation and catch are to be reduced when biomass drops to below 40% pre-fished levels
- Targeted fishing to cease when below 20% pre-fished levels
- The HS must achieve the objective of avoiding overfishing/overfished with 80% probability
- Where lack of knowledge precludes the above the precautionary principle must apply
- For some species (e.g. low trophic levels or very short-lived) more conservative strategies are expected (e.g. '30/50', lower exploitation rates and/or higher probabilities)

*Must be 80% confident that these measures are being met

END

ATTACHMENT 2. Management objectives considered by PZJA 19 (*decisions yet to be confirmed*) and suggested measures and performance criteria/indicators by which management performance will be assessed.

Management Objective	Measures by which objectives are to be attained	Performance criteria to assess measures taken	Potential Indicators (Quantitative)	Potential Reference Points
<p>1. To maintain the fishing mortality below the point where Maximum Sustainable Yield is achieved (accounting for all sources of fishing mortality).</p>	<p>Directing licence/SFR holders, as necessary, not to engage in fishing to ensure the sustainability of the resources of the fishery;</p> <p>Setting the total allowable catch each year in the fishery, as necessary;</p> <p>Implementing a program of research, data collection and monitoring relevant to the assessment and management of the fishery;</p> <p>Establishing an effective program of catch monitoring and surveillance of the fishery to ensure compliance with the Management Plan;</p>	<p>That a total allowable catch is set for tropical rock lobster for each fishing year and that the amount of lobster taken in a fishing year does not exceed the total allowable catch for the year; and</p> <p>Develop and periodically review a strategy to implement any recommendations of the compliance risk assessment of the fishery.</p>	<p>Annual lobster population survey (1+/2+)</p> <p>CPUE</p> <p>Fishing mortality (Limit RP)¹</p> <p>Biomass (Target RP)¹</p> <p>Compliance rates</p> <p>Compliance risk assessment</p>	<p>- % of reference year/period¹</p> <p>- deviation from moving average²</p> <p>- slope of last X years regressed³</p> <p>- % of reference period¹</p> <p>- deviation from moving average²</p> <p>- slope of last 5 years regressed³</p> <p>% FMSY²</p> <p>% BMSY², %SMSY²</p> <p>Compliance rates >X%</p> <p>Unacceptable risk</p>

¹ In line with Commonwealth Harvest Strategy - Reductions implemented when breeding stocks are assessed to have been reduced below 40% of pre-fished levels, and targeted fishing to cease when breeding stocks are assessed to have been reduced below 20% of pre-fished levels (known as a '20/40' harvest strategy). Alternative harvest strategies may be developed in specific cases where they meet the sustainability objectives and do not result in overfishing or overfished stocks;

² Acronyms:

BMSY – Biomass associated with maximum sustainable yield
 FMSY – Fishing mortality associated with maximum sustainable yield
 SMSY – Spawning stock associated with maximum sustainable yield
 TACC – Total allowable commercial catch

<p>2. 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.</p>	<p>Using the results of research to ensure fishing is conducted in an ecologically sustainable way while preserving fishing opportunities for Torres Strait traditional inhabitants of Australia and Papua New Guinea;</p> <p>An appropriate share of the TAC is set aside for traditional fishing</p> <p>Appropriate areas are set aside for traditional fishers to ensure access to the portion of the stock set aside for traditional fishing.</p> <p>Developing a series of biological, economic and other data that can be used to assess the fishery.</p>	<p>Measure of traditional fishing success (quantity taken and rate that this quantity is harvestable)</p> <p>Measure of satisfaction that traditional fishing opportunities meet cultural needs</p>	<p>X% TAC set aside for Traditional fishing</p> <p>Appropriate areas allocated for traditional fishing "Home reefs"</p> <p>Identify reference points for traditional fishing</p>	<p>X% of TAC not allocated to TVH and TIB remains for traditional fishing</p> <p>X% of traditional "home reef" fishing grounds closed to commercial fishing (TIB & TVH?)</p>
<p>3. To provide for the optimal utilisation, co-operative management with Queensland and Papua New Guinea and for catch sharing to occur with Papua New Guinea.</p>	<p>Using the results of research from each jurisdiction to ensure fishing is conducted in an ecologically sustainable way while preserving fishing opportunities for Torres Strait traditional inhabitants of Australia and Papua New Guinea;</p> <p>Facilitating the development of sound, cost-effective fisheries management for the fishery by holding joint meetings with Queensland and PNG where information and ideas are exchanged.</p>	<p>Readily available data and management information.</p> <p>Results from research in all jurisdictions feeds into management.</p> <p>Degree to which the fishery is cooperatively managed.</p>		<p>Jurisdictions satisfied with catch sharing arrangements</p>

<p>4. To monitor interactions between the prawn and lobster fisheries.</p>	<p>Implementing a program of research, data collection and monitoring relevant to the assessment and management of the fishery.</p>	<p>Area of overlap of the two fisheries is monitored</p> <p>Bycatch of lobster in the prawn fishery and lobsters' life state when returned to the sea is monitored</p>	<p>Measure spatial separation of the two fisheries (VMS)</p> <p>Monitor TRL bycatch rate through observers</p>	<p>No net increase in overlap between two fisheries</p> <ul style="list-style-type: none"> - % of reference year/period¹ - deviation from moving average² - slope of last 5 years regressed³
<p>5. To maintain appropriate controls on fishing gear allowed in the fishery so as to minimise impacts on the environment.</p>	<p>Education and awareness program used to promote best practice.</p> <p>Restrictions on the gear or method that is allowed to be used.</p> <p>Implementing a program of research, data collection and monitoring relevant to the assessment and management of the fishery;</p> <p>Using the results of research to ensure fishing is conducted in an ecologically sustainable way while preserving fishing opportunities for Torres Strait traditional inhabitants of Australia and Papua New Guinea.</p>	<p>Responsible fishing practices are maintained.</p>	<p>Monitor impacts of fishing on reef habitats before/after fishing</p>	<p>There is no discernable damage to reef habitat</p>

<p>6. To promote economic development in the Torres Strait area with an emphasis on providing the framework for commercial opportunities for Traditional Inhabitants and 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.</p>	<p>Granting transferable fishing entitlements for the fishery;</p> <p>Develop strategy for traditional inhabitants to acquire larger share of TAC including review and decision rules.</p> <p>Monitor and evaluate the opportunities for lobster grow-out/aquaculture.</p> <p>Using the results of research to ensure fishing is conducted in an ecologically sustainable way while preserving fishing opportunities for Torres Strait traditional inhabitants of Australia and Papua New Guinea.</p>	<p>Ensure at least 50% of total allowable catch is available to community fishers through resource allocation.</p> <p>Islander catch ratio moves towards 70:30.</p>	<p>Monitor proportion of TACC held by each sector</p> <p>Monitor TACC usage in all sectors</p> <p>Monitor employment in TRL sector</p>	<p>No decrease in proportion of Traditional inhabitant share utilised</p> <p>Economic and employment growth in the sector</p>
<p>7. Optimise the value of the fishery.</p>	<p>Developing a series of biological, economic and other data that can be used to assess the fishery.</p> <p>Reduce or eliminate illegal fishing</p> <p>Maintain flexibility in management arrangements so market demand can be met</p>	<p>Research undertaken at a scale necessary for the confidence to set TACC at higher levels</p> <p>No impediments prevent all quota being taken</p> <p>Revenue from fishery maximised</p>	<p>Monitor proportion of the TACC sold live</p>	<p>X% TACC sold as live product</p>

DRAFT Torres Strait Tropical Rock Lobster Management Plan 2007

See attached document