



Australian Government

Department of the Environment, Water, Heritage and the Arts

Assessment of the
Northern Territory Finfish Trawl Fishery

May 2009

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Disclaimer

This document is an assessment carried out by the Department of the Environment, Water, Heritage and the Arts of a commercial fishery against the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition*. It forms part of the advice provided to the Delegate of the Minister for the Environment, Heritage and the Arts on the fishery in relation to decisions under Parts 13 and 13A of the *Environment Protection and Biodiversity Conservation Act 1999*. The views expressed do not necessarily reflect those of the Minister for the Environment, Heritage and the Arts or the Australian Government.

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Table 1: Summary of the Northern Territory (NT) Finfish Trawl Fishery (FTF)

Publicly available information relevant to the fishery	<ul style="list-style-type: none"> • NT <i>Fisheries Act 1988</i> • NT <i>Fisheries Regulations 1993</i> • NT Fishery Status Reports- 2004, 2005, 2006, and 2007 • <i>Northern Territory Finfish Trawl Fishery Export Exemption Submission, Re-assessment Report February 2009</i> • <i>Northern Territory Strategic Plan, fisheries research and development update for 2007-2011</i>
Area	The area of the FTF encompasses the waters east of Darwin to the outer limit of the Australian Fishing Zone (AFZ), excluding the area of the Timor Reef Fishery (TRF) and some waters of the Gulf of Carpentaria.
Fishery status	The 2007 Annual Status Report for the FTF notes that catch per unit effort (CPUE) has remained relatively constant and harvest levels in the Australian sector of the Arafura Sea are below current trigger reference points.
Target Species	<ul style="list-style-type: none"> • saddletail snapper (<i>Lutjanus malabaricus</i>); and • red snappers (<i>L. erythropterus</i>). <p>Information on the biology of these species can be found in the submission, Ecological Assessment of the Northern Territory Finfish Trawl Fishery, May 2003 located on the DEWHA website.</p>
Byproduct Species	<ul style="list-style-type: none"> • goldband snapper (<i>Pristipomoides multidens</i> and <i>P. typus</i>); • red spot (<i>L. lentjan</i>); and • painted sweetlip (<i>D. labiosum</i>).
Gear	<p>Fishing operations are conducted using a semi-demersal net separated by two otter boards. Mesh must exceed 110mm and footline must not exceed 4kg per linear meter (Wendy trawl net).</p> <p>A system comprising grids and rails on the fish hopper to enable sharks and rays to be returned to the water via a chute in a timely manner is currently in place. Square Mesh Codends (SMCs) and Bycatch Reduction Devices (BRDs) which have a similar design to Turtle Excluder Devices are currently being used on a voluntary basis.</p>
Season	There is currently no defined season.
Commercial harvest 2007	847 tonnes.
Value of commercial harvest	The small number of operators in the fishery currently prevents the public release of this data.
Take by other sectors	Catch of target species by recreational and indigenous fishers is considered to be negligible.
Commercial licences issued	There is one commercial licence issued to the FTF.
Management arrangements	Input controlled through: limited entry, catch and area restriction, gear limitation.

	Outputs monitored through reference trigger points for the catch of target, byproduct and bycatch species.
Export	Around 90% of the landed catch is sold in Australia as fresh fish, with the remaining 10% exported, mainly to Asia.
Bycatch	<p>Bycatch in the fishery is currently at 18% of total catch. Although a proportion of bycatch by weight consists of shark and rays, the Department of Regional Development, Primary Industries and Fisheries (DRDPIF) advises that the catch of chondrichthyans by number of specimens is extremely low.</p> <p>The FTF is currently trialling BRDs including SMCs, as well as a type of BRD with a similar design to a Turtle Excluder Device to help reduce the amount of bycatch and protected species interactions in the fishery.</p>
Interaction with Protected Species¹	Over the last five years there has been only one reported interaction with a protected species being a flatback turtle which was released alive.
Ecosystem Impacts	The semi-pelagic demersal trawl gears used are reported to create minimal disturbance to the seabed.

¹ 'Protected species' means all species listed under Part 13 of the EPBC Act, including whales and other cetaceans and threatened, marine and migratory species.

Table 2: Progress in implementation of recommendations made in initial assessment of the FTF.

Recommendation	Progress	Recommended Action
<p>1. NT Fisheries to inform the Department of the Environment and Heritage of any changes to the management regime that may impact on the ecological sustainability of the Finfish Trawl Fishery.</p>	<p><i>Met and ongoing.</i> DRDPIFR currently reports any changes to management arrangements to the Department of Environment, Water, Heritage and the Arts (DEWHA) through the Annual Status Reports. Any changes made which fall outside the annual reporting timeframes are reported directly to DEWHA on an individual basis.</p> <p>There has been only a minor change to the management regime in the FTF. A no-take of shark or shark products was a voluntary restriction initiated by the operator; this has since been included into the formal regulations for this fishery. Any future changes to the fishery are also described in the Annual Status Reports from 2004. DRDPIFR will inform DEWHA of future plans to amend management arrangements in the fishery if they fall outside of annual reporting timeframes.</p>	<p>This recommendation has been met and will continue to apply under the new exemption for this fishery for the next five years.</p> <p>Refer to Recommendation 2, Table 4.</p>
<p>2. NT Fisheries to undertake a risk assessment of the species</p>	<p><i>Met and ongoing.</i> DRDPIFR has recently held a combined offshore</p>	<p>This recommendation has been met with the completion of the risk assessment in January 2009.</p>

	<p>snapper fisheries risk assessment workshop to analyse target, bycatch and byproduct species. Outcomes from this workshop have not identified any species to be in a vulnerable risk category. The final workshop report has been sent to DEWHA.</p> <p>Additionally, DRDPIFR advises that based on annual analysis of observer and logbook data which indicate that catch composition for individual species remains stable, established reference trigger points have not been reached and there are no indications of any particular species being vulnerable to the impacts of fishing. Capacity to improve the reporting of individual species was increased in 2007-2008 through revision of the compulsory daily logbook to enhance reporting of species detail.</p>	<p>DEWHA is concerned that the last stock assessment was undertaken in 1996 and recommends that an updated stock assessment is undertaken to ensure fishing remains at sustainable levels and risks remain low.</p> <p>Refer to Recommendation 4, Table 4.</p>
<p>3. NT Fisheries to maintain data validation mechanisms for target, byproduct, bycatch and protected species interactions and implement alternative data collection validation techniques if observer trips are no longer feasible or are</p>	<p><i>Met.</i> Data validation mechanisms are monitored annually. In particular, capacity to conduct cross-validation analysis between catch returns, market returns and relevant trader-processor returns is available and analyses are conducted as required. DRDPIFR</p>	<p>DEWHA considers this recommendation to be met and will review this issue during the next assessment of the fishery. Should effort increase significantly, resulting in observer coverage no longer being sufficient to provide robust supportive information, DEWHA expects that DRDPIFR will review the current processes to ensure sufficient data validation processes are in place.</p>

	considers that alternative data collection validation is not necessary at this time as there are ongoing observer trips which provide robust supportive information commensurate to the size of the fishery.	
4. NT Fisheries to continue to seek alternative cost effective fishery independent sampling techniques and report outcomes in the annual status report.	<i>Ongoing.</i> Given the small size and nature of the fishery, onboard monitoring of the fishery is considered to remain a feasible measure to provide robust information on the fishery. There has been no cost effective fishery independent sampling techniques identified which would be appropriate to the needs of this small fishery.	DEWHA considers this recommendation to be ongoing, as there have been no cost effective fishery independent sampling techniques identified which would be appropriate to the needs of this small fishery. A recommendation has been made for DRDPIFR to review and update stock assessments for goldband snapper, saddletail snapper, red emperor and red snapper by 31 May 2013 and to review trigger reference points for target and key byproduct species, ensuring catch from other sectors is included. Refer to Recommendation 4, Table 4.
5. NT Fisheries to continue to cooperate with other relevant jurisdictions to pursue complementary management and research of shared stocks for all target and by-product species that may be affected by cross-jurisdictional issues.	<i>Met and ongoing.</i> The NT participates in cross-jurisdictional workshops with it's neighbours at least annually. A cross-jurisdictional Northern Australian Fisheries Management workshop was held in Darwin in 2008. No significant issues or future plans were raised that would affect the FTF.	DEWHA commends DRDPIFR for participating in annual cross-jurisdictional workshops. A recommendation has been made seeking continuation of this engagement. Refer to Recommendation 5, Table 4.
6. NT Fisheries to monitor the species composition of byproduct and bycatch species with a view to undertake a more rigorous risk analysis if	<i>Met and ongoing.</i> DRDPIFR recently held a combined offshore snapper fisheries risk assessment workshop to analyse byproduct and bycatch species. Outcomes	DEWHA considers this recommendation to be met and ongoing. DEWHA notes DRDPIFR's efforts in conducting the combined offshore snapper fisheries risk assessment workshop, and the voluntary use of BRDs in the fishery. Further investigation in regulating and standardising the BRDs as well as reviewing the

	<p>from this workshop have not identified any species deemed to be in a vulnerable risk category. The final workshop report has been sent to DEWHA.</p> <p>Species compositions of byproduct and bycatch are also monitored through observer programs and logbooks. The data are regularly analysed to determine if there is a significant increase in the catch of individual species. Individual catches of byproduct and bycatch species do not appear to have significantly increased and established trigger reference points have not been breached.</p> <p>The operator has made alterations to the design of the trawl net by changing the ‘wing’ sections from diagonal to square hung mesh, thus allowing a greater number of smaller fishes to escape prior to landing. The operator continues to trial ‘T90’ square mesh cod ends and a BRD installed just prior to the cod end opening (similar in design to a turtle excluder device). Reports from these trials indicate an improvement in product quality with a noticeable (observed)</p>	<p>level of observer coverage is recommended.</p> <p>Refer to Recommendation 6, Table 4.</p>
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	reduction of larger animals landed to the bycatch-return grid situated above the vessel's fish hopper.	
7. NT Fisheries to undertake a risk assessment of the Finfish Trawl Fishery byproduct species with respect to vulnerability to fishing by December 2008 and implement appropriate management measures for high-risk species within 12 months of the risk assessment.	<p><i>Met.</i> DRDPIFR has recently held a combined offshore snapper fisheries risk assessment workshop to analyse target and byproduct species. Outcomes from this workshop have not identified any species deemed to be in a vulnerable risk category. The final workshop report has been sent to DEWHA.</p> <p>Additionally, information on bycatch species and frequency of capture are reported on annually in the Fishery Status Reports.</p>	<p>DEWHA considers this recommendation to be met. DEWHA notes DRDPIFR's efforts in conducting the combined offshore snapper fisheries risk assessment workshop.</p>
8. NT Fisheries to continue to monitor the proportion of juvenile/adult snapper landed and implement appropriate management strategies, such as temporal/spatial restrictions, as appropriate.	<p><i>Met and ongoing.</i> The size distribution of catch is monitored by observers annually and current management arrangements are deemed appropriate at this time.</p>	<p>DEWHA considers this recommendation to be met and ongoing. Monitoring is currently undertaken within the fishery, however DEWHA recommends projects identified as medium and high priorities in the <i>Northern Territory Strategic Plan - Fisheries research and development update for 2007-2011</i> are progressed.</p> <p>Refer to Recommendation 7, Table 4.</p>

Table 3: DEWHA’s assessment of the FTF against the requirements of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) related to decisions made under Parts 13 and 13A

Please Note – the table below is not a complete or exact representation of the EPBC Act. It is intended as a summary of relevant sections and components of the EPBC Act to provide advice on the fishery in relation to decisions under Parts 13 and 13A. A complete version of the EPBC Act can be found on the DEWHA website.

Part 13

<p>Division 1 Listed threatened species Section 208A Minister may accredit plans or regimes</p>	<p>DEWHA assessment of the FTF</p>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p style="padding-left: 40px;">(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <p style="padding-left: 80px;">i. made by a State or self-governing Territory; and</p> <p style="padding-left: 80px;">ii. in force under a law of the State or self-governing Territory;</p> <p>if satisfied that:</p> <p style="padding-left: 40px;">(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed threatened species (other than conservation dependent species) are not killed or injured as a result of the fishing; and</p> <p style="padding-left: 40px;">(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the survival or recovery in nature of the species.</p>	<p>The FTF will be managed under the management regime in force under the NT <i>Fisheries Act 1988</i> and NT <i>Fisheries Regulations 1993</i>.</p> <p>The management regime for the FTF was accredited in April 2004. The management arrangements for the FTF have not significantly changed since this accreditation was granted. As such, the fishery will be reaccredited under Part 13.</p> <p>Currently, evidence suggests that the FTF only has minimal interactions with listed threatened species with one reported interaction with a flatback turtle (released alive) over the past five years. Therefore, DEWHA considers the current operation of the FTF is not likely to adversely affect the survival or recovery in nature of any listed threatened species or threatened ecological community. As such, the FTF will be reaccredited under Part 13 of the EPBC Act.</p>

Division 2 Migratory species Section 222A Minister may accredit plans or regimes	DEWHA assessment of the FTF
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed migratory species or a population of that species.</p>	<p>The FTF will be managed under the management regime in force under the NT <i>Fisheries Act 1988</i> and NT <i>Fisheries Regulations 1993</i>.</p> <p>The management regime for the FTF was accredited in April 2004. The management arrangements for the FTF have not significantly changed since this accreditation was granted. As such, the fishery will be reaccredited under Part 13.</p> <p>Currently, evidence suggests that the FTF has minimal interactions with listed migratory species with one reported interaction with a flatback turtle (released alive) over the past five years. Therefore, DEWHA considers the current operation of the FTF is not likely to adversely affect the conservation status of any migratory species or population of that species. As such, the FTF will be reaccredited under Part 13 of the EPBC Act.</p>

Division 3 Whales and other cetaceans Section 245 Minister may accredit plans or regimes	DEWHA assessment of the FTF
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other</p>	<p>The FTF will be managed under the management regime in force under</p>

<ul style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <p>if satisfied that:</p> <ul style="list-style-type: none"> (f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing; and (g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a species of cetacean or a population of that species. 	<p>the NT <i>Fisheries Act 1988</i> and NT <i>Fisheries Regulations 1993</i>.</p> <p>The management regime for the FTF was accredited in April 2004. The management arrangements for the FTF have not significantly changed since this accreditation was granted. As such, the fishery will be reaccredited under Part 13.</p> <p>Currently, evidence suggests that the FTF has minimal interactions with cetaceans, with no interactions reported over the past five years. Therefore, DEWHA considers the current operation of the FTF is not likely to adversely affect the conservation status of any cetacean species or population of that species. As such, the FTF will be reaccredited under Part 13 of the EPBC Act.</p>
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Division 4 Listed marine species Section 265 Minister may accredit plans or regimes	DEWHA assessment of the FTF
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <ul style="list-style-type: none"> (c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is: <ul style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <p>if satisfied that:</p> <ul style="list-style-type: none"> (f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed marine 	<p>The FTF will be managed under the management regime in force under the NT <i>Fisheries Act 1988</i> and NT <i>Fisheries Regulations 1993</i>.</p> <p>The management regime for the FTF was accredited in April 2004. The management arrangements for the FTF have not significantly changed since this accreditation was granted. As such, the fishery will</p>

<p>species are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed marine species or a population of that species.</p>	<p>be reaccredited under Part 13.</p> <p>Currently, evidence suggests that the FTF has minimal interactions with listed marine species with one reported interaction with a flatback turtle (released alive) over the past five years. Therefore, DEWHA considers the current operation of the FTF is not likely to adversely affect the conservation status of any listed marine species or population of that species. As such, the FTF will be reaccredited under Part 13 of the EPBC Act.</p>
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Section 303AA Conditions relating to accreditation of plans, regimes and policies	DEWHA assessment of FTF
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	DEWHA recommends that the FTF be accredited under sections 208A, 222A, 245 and 265.
(2) The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only: <ul style="list-style-type: none"> (a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with. In such a case, the instrument of accreditation is to specify the period, circumstances or condition.	No condition has been imposed on the FTF under Part 13.
(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.	

Part 13A

Section 303DC Minister may amend list	DEWHA assessment of the FTF
(1) Minister may, by instrument in published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens) by: <ul style="list-style-type: none"> (a) including items in the list; 	

<ul style="list-style-type: none"> (b) deleting items from the list; or (c) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; or (d) varying of revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or (e) correcting an inaccuracy or updating the name of a species. 	
<p>(3) Before amending the list referred to in section 303DB (list of exempt native specimens), the Minister:</p> <ul style="list-style-type: none"> (a) must consult such other Minister or Ministers as the Minister considers appropriate; and (b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and (c) may consult such other persons and organisations as the Minister considers appropriate. 	<p>The public comment period on the FTF submission sought comment on the submission for the FTF and provided sufficient opportunity for consultation with other persons and organisations.</p> <p>A letter to the Hon Konstantine Vatskalis MLA, NT Minister for Primary Industry, Fisheries and Resources advises him of the intention to declare the fishery exempt from the export provisions of the EPBC Act.</p>
<p>(5) A copy of an instrument made under section 303DC is to be made available for inspection on the Internet.</p>	<p>The instrument for the FTF made under section 303DC will be gazetted and made available on the DEWHA website.</p>

Section 303FR Public consultation	DEWHA assessment of the FTF
<p>(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:</p> <ul style="list-style-type: none"> (a) setting out the proposal to make the declaration; and (b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and (c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal. 	<p>Under the EPBC Act, a decision to amend the LENS does not require a public consultation period. However, a public notice, which set out the proposal to grant export approval to the FTF and included the submission for the FTF, was released for public comment which closed on 6 April 2009 with one submission received.</p>
<p>(2) A period specified in the notice must not be shorter than 20 business days after the date on which the notice was published on the</p>	<p>A public notice, which set out the proposal to grant export approval to the FTF and included the submission for the FTF was released for</p>

Internet.	public comment on 6 March 2009 and closed on 6 April 2009, a total of 20 business days.
(3) In making a decision about whether to make a declaration under section 303FN, the Minister must consider any comments about the proposal to make the declaration that were given in response to the invitation in the notice.	The public comment received on the submission was included in the brief to the Delegate of the Minister for the Environment, Heritage and the Arts. The DEWHA assessment has considered the public comments received on the submission.

Part 16

Section 391 Minister must consider precautionary principle in making decisions	DEWHA assessment of the FTF
(1) The Minister must take account of the precautionary principle in making a decision under section 303DC and/or section 303FN, to the extent he or she can do so consistently with the other provisions of this Act.	The precautionary principle has been considered when making a decision to include specimens on the LENS.
(2) The precautionary principle is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.	

Objects of Part 13A

- (a) to ensure that Australia complies with its obligations under CITES and the Biodiversity Convention;
- (b) to protect wildlife that may be adversely affected by trade;
- (c) to promote the conservation of biodiversity in Australia and other countries;
- (d) to ensure that any commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way;
- (e) to promote the humane treatment of wildlife;
- (f) to ensure ethical conduct during any research associated with the utilisation of wildlife; and
- (h) to ensure the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife.

Final recommendations to DRDPIFR for the FTF

The material submitted by DRDPIFR indicates that the FTF operates in accordance with the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries 2nd edition*. DEWHA considers that the fishery is well managed and unlikely to have an unacceptable or unsustainable impact on the environment in the medium term. Overall, DEWHA recognises that voluntary use of several types of bycatch reduction devices (BRDs), observer programs, trigger reference points and limited entry are sufficient to suggest that the fishery is being managed in an ecologically sustainable way.

In making its assessment, DEWHA considers that the range of management measures is sufficient to ensure that the fishery is conducted in a manner that does not lead to overfishing and that stocks are not currently overfished. Taking into account the limited effort in the fishery (one active operator) and the use of semi-demersal trawl gear with minimal interaction with the sea bed, DEWHA considers that fishing operations are managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

DEWHA is satisfied that the fishery will not be detrimental to the survival or conservation status of the taxon to which it relates in the medium term. Similarly, it is not likely to threaten any relevant ecosystem in the medium term. To contain and minimise the risks in the longer term the recommendations listed below have been made. DEWHA believes that product taken in the fishery should be exempt from the export controls of Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), with that exemption to be reviewed in five years.

DEWHA considers that the operation of the fishery does not, or is not likely to, adversely affect the survival in nature of a listed threatened species or population of that species, or the conservation status of a listed migratory species, cetacean or listed marine species or a population of any of those species. DEWHA also considers that under the management regime operators are required to take all reasonable steps to avoid the killing or injuring of protected species, and the level of interaction under current fishing operations is low.

For these reasons, the management arrangements were accredited under Part 13 of the EPBC Act in April 2004. Since there have been minimal changes to the management arrangements since the initial assessment of the fishery and the level of reported interactions with protected species in the fishery remains very low, DEWHA considers that the fishery should be reaccredited under Part 13.

Table 4: FTF Assessment– Summary of Issues and Recommendations May, 2009

	Issue	Recommendation
1	<p><u>General Management</u> Export decisions relate to the arrangements in force at the time of the decision. In order to ensure that these decisions remain valid and export approval continues uninterrupted, DEWHA needs to be advised of any changes that are made to the management arrangements and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision. This includes operational and legislated amendments that may affect sustainability of the target species or negatively impact on byproduct, bycatch, protected species or the ecosystem.</p>	<p>Recommendation 1: Operation of the fishery will be carried out in accordance with the management regime in force under the Northern Territory <i>Fisheries Act 1988</i> and the Northern Territory <i>Fisheries Regulations 1993</i>.</p> <p>Recommendation 2: DRDPIFR to inform DEWHA of any intended amendments to the management arrangements that may affect the assessment of the FTF against the criteria on which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are based.</p>
2	<p><u>Annual Reporting</u> It is important that reports be produced and presented to DEWHA annually in order for the performance of the fishery and progress in implementing the conditions and recommendations in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration.</p> <p>Annual reports should include: a description of the fishery; management arrangements in place; research and monitoring outcomes; recent catch data for all sectors of the fishery; status of target stock; interactions with protected species; impacts of the fishery on the ecosystem in which it operates; and information outlining progress in implementing conditions and recommendations resulting from the previous accreditation of the fishery (for a complete description of annual reporting requirements, see Appendix B of the Guidelines available from the DEWHA website at http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html).</p>	<p>Recommendation 3: DRDPIFR to produce and present reports to DEWHA annually as per Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries 2nd Edition</i>.</p>

<p>3</p>	<p><u>Stock assessment, performance triggers and reference points</u></p> <p>The NT Demersal Fishery (DF) and NT Timor Reef Fishery (TRF), which lie adjacent to the FTF, target many of the same species as the FTF, particularly saddletail snapper (<i>Lutjanus malabaricus</i>), red snapper (<i>L. erythropterus</i>) and goldband snappers (<i>Pristipomoids multidentis</i>, <i>P. typus</i> and <i>P. filamentosus</i>).</p> <p>As there is the potential for a second licence to be issued in the FTF and the combined catch from the FTF and DF is currently below trigger limits, there is potential for an increased take of target and byproduct species. This highlights the need for current stock assessments, and for incorporating take by other fisheries when reviewing the trigger reference points for target species and key byproduct species in the FTF.</p> <p>DEWHA notes that stock assessments for goldband (<i>P. multidentis</i> and <i>P. typus</i> only), red and saddletail snappers were undertaken in 1994 with the latest stock assessment workshop carried out in 2003. Although stock assessments have been undertaken it is important to ensure they are up-to-date and relevant. Environmental impacts such as cyclones or poor recruitment years could potentially have an unexpected impact on species numbers and may influence sustainable yield estimates.</p> <p>The methodology used for the collection of data for the original stock assessment in 1994 was trawl surveys. Trawl surveys have their limitations in regards to these species as they have a limited ability to sample all representative habitats.</p> <p>DEWHA considers that more information is required to inform the setting of trigger reference points for target species caught in the FTF as well as the DF and TRF, namely the saddletail snapper, red snapper and the red emperor.</p> <p>DRDPIFR has recently commissioned a GIS project to provide further information on spatial distribution of catch and effort of goldband snappers in the TRF, the information acquired by this project will also inform the management of the FTF, in which goldband</p>	<p>Recommendation 4: DRDPIFR to:</p> <ul style="list-style-type: none"> (a) review and update stock assessments for saddletail snapper, red snapper, goldband snapper and red emperor by 31 May 2013; and (b) review trigger reference points for target and key byproduct species, ensuring catch from other sectors is included.
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snappers are taken as byproduct.

Currently, the information from the 1994 stock assessment is the most recent data available and still being used for the setting of trigger reference points and to inform the risk assessment for the fishery. DEWHA considers it important that stock assessments are updated on a regular basis, usually every five years. The stock assessment update should also trigger a review of other management tools such as the risk assessment and a review of the effectiveness of the management arrangements in place.

In its 2004 assessment of the FTF, DEWHA recommended that DRDPIFR continues to monitor the proportion of juvenile/adult snapper landed and implement appropriate management strategies such as temporal/spatial restrictions as appropriate.

Tropical snappers are particularly vulnerable to fishing pressure due to their biological characteristics of early growth to maximum size, long life, relatively large size at sexual maturity and low natural mortality. Goldband snapper stocks have endured overexploitation in other regions in Australia and DRDPIFR must ensure that this does not occur in the NT. The potential for illegal, unregulated and unreported fishing in the area and the fact that species caught in this fishery are also caught in other commercial fisheries in the region are of concern.

In its Ecological Risk Assessment of the NT Offshore Snapper Fisheries, DRDPIFR states that, where possible, observers measure the length of most landed species. DRDPIFR also presents research findings on size at maturity for several species caught in the fishery. DEWHA notes that there are currently no management measures in place to make use of this information.

Although catch is currently below the maximum sustainable yield identified in the stock assessments for saddletail snapper and red snappers, DEWHA considers it necessary to update the stock assessments to ensure that catch of red snapper and saddletail snapper

	<p>throughout the FTF, DF and TRF remains at sustainable levels.</p> <p>DEWHA notes that the trigger reference points for red snapper includes catch in the DF and recommends that take from the TRF should also be included. When reviewing the management arrangements for the FTF, catches in the DF and TRF as well as any other commercial fishery which operates in the region or further pressures the same stocks should be taken into account. The inclusion of other major target species such as saddletail snapper should also be considered when reviewing trigger reference points.</p> <p>DEWHA also considers DRDPIFR should incorporate all the information available, such as size distribution, size at maturity and spatial distribution of catch and effort when making management decisions or developing management strategies.</p>	
4	<p><u>Collaborative management</u></p> <p>DEWHA recognises the efforts of DRDPIFR in collaborating with other relevant jurisdictions mainly through the Northern Australian Fisheries Management Forum along with other annual meetings, and encourages continued cooperation to enable complementary management and research of target, byproduct and bycatch species.</p> <p>Red snapper, saddletail snapper and goldband snappers are caught in commercial fisheries in other jurisdictions such as the Queensland Gulf of Carpentaria fisheries, adjacent to the FTF, and the Western Australia Northern Demersal Scalefish Managed Fishery.</p> <p>DEWHA considers that although the interrelationship of stocks across jurisdictions is uncertain, management of these species would benefit from a cooperative approach with other agencies responsible for nearby finfish fisheries.</p>	<p>Recommendation 5: DRDPIFR to continue to cooperate with other relevant jurisdictions to pursue complementary management and research of target, byproduct and bycatch species, which may be affected by cross-jurisdictional issues.</p>
5	<p><u>Bycatch and protected species interactions</u></p> <p>DEWHA recognises that DRDPIFR and the commercial fishing industry in the FTF are currently trialling BRDs including square mesh codends, as well as a type of BRD with</p>	<p>Recommendation 6: DRDPIFR to: (a) investigate regulating and standardising,</p>

	<p>a similar design to a Turtle Excluder Device. These devices are being trialled for their efficiency in reducing bycatch and protected species interactions and to increase the quality of product retained. Steel grids are used on board the vessel to cover the hopper and allow for larger bycatch species to be returned as quickly as possible, to help reduce post-release mortality.</p> <p>DEWHA commends the voluntary use of BRDs in the FTF, which has been a positive step in the management of the fishery. However DEWHA considers that in the medium term, regulating the use of these devices, along with ongoing improvements in bycatch monitoring and management of protected species interactions should be pursued, particularly if there is an increase in the number of active operators in the fishery (currently one permit is active). Further investigation should also be undertaken to determine post-release mortality of bycatch species, including protected species.</p> <p>DRDPIFR has implemented an observer program in the FTF. Observer coverage in this fishery is for one trip per year (averaging 10 – 14 days) a year, of an average of 250 fishing days. DEWHA recommends DRDPIFR reviews the observer program to ensure the level of observer coverage is adequate to monitor interactions with protected species and other bycatch.</p> <p>DEWHA also notes that while a proportion of bycatch by weight in the FTF consists of sharks and rays, DRDPIFR advises that the proportion of chondrichthyans by number of specimens is extremely low.</p>	<p>(b) review the level of observer coverage in the fishery to ensure it is adequate to monitor bycatch and interactions with protected species.</p>
6	<p><u>Research</u> DEWHA commends DRDPIFR on the development of the <i>Northern Territory Strategic Plan - Fisheries research and development update for 2007-2011</i> that identifies research needs for 2007-2011. The plan is reviewed and prioritised annually by DRDPIFR and identifies multiple research needs for the FTF with some considered as a high priority by DEWHA in ensuring ecologically sustainable management of the fishery.</p>	<p>Recommendation 7: DRDPIFR to progress projects identified as medium and high priorities in the <i>Northern Territory Strategic Plan - Fisheries research and development update for 2007-2011</i>.</p>

The strategic plan states that the outputs of targeted research are integral to the development and monitoring of the efficacy of management arrangements for DRDPIFR, including the FTF. The strategic research plan adopts a hierarchical approach that assigns priority based on the importance of individual projects for the fishery.

DEWHA notes that there are several research priorities identified in the plan that relate specifically to the FTF, for example, fishery independent surveys and updated red snapper stock assessments. Other priorities detailed in the research plan that will assist the management of the FTF include location of juvenile snapper sites for the FTF as well as the DF and TRF.

DEWHA recommends that DRDPIFR implements the research priorities identified in the *Northern Territory Strategic Plan - Fisheries research and development update for 2007-2011* in particular those that relate to the FTF. DEWHA encourages DRDPIFR to support those projects that are identified as the highest priorities in the research plan.

Acronyms

AFZ	Australian Fishing Zone
BRDs	Bycatch Reduction Devices
CPUE	Cost Per Unit Effort
DEWHA	Department of the Environment, Water, Heritage and the Arts
DF	Demersal Fishery
DRDPIFR	Department of Regional Development, Primary Industries and Fisheries
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ERA	Ecological Risk Assessment
FTF	Finfish Trawl Fishery
NT	Northern Territory
SMCs	Square Mesh Codends
TRF	Timor Reef Fishery