



Australian Government

Department of the Environment, Water, Heritage and the Arts

Assessment of the
Northern Territory Timor Reef Fishery

May, 2008

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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 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) Timor Reef Fishery (TRF)

<p>Publicly available information relevant to the fishery</p>	<ul style="list-style-type: none"> • NT <i>Fisheries Regulations 1993</i> • NT <i>Fisheries Act 1988</i> • NT Annual Fishery Status Reports • The 2008 Submission – <i>Timor Reef Fishery Re-Assessment Report February 2008</i> • The 2002 Submission – <i>Assessing the ecological sustainability of the Northern Territory Timor Reef Fishery, 2002</i> • NT Strategic Plan – <i>Fisheries research and development update for 2007-2011</i> • Department of the Environment, Water, Heritage and the Arts (DEWHA, formerly the Department of Environment and Heritage) <i>Assessment of the Northern Territory Timor Reef Fishery, 2003.</i>
<p>Area</p>	<p>The TRF operates well offshore out in the Timor Sea, in a remote region extending north-west of Darwin to the Western Australia/NT border and to the outer limit of the Australian Fishing Zone (AFZ). The fishery has an area of approximately 8 400 nm².</p>
<p>Fishery status</p>	<p>An absolute figure of sustainable harvest is unknown due to lack of knowledge on key parameters (Indonesian catch and effort, the level of interchange of fish and recruits, and important productivity parameters for goldband snapper). Goldband snapper biomass has been estimated to be with 9 000 tonnes (t). Harvest level of goldband snapper should not exceed 10-15% of estimated biomass. Current catch is below this figure. The status of the fishery is reviewed annually and results of the review are reported in fishery status reports.</p>
<p>Target species</p>	<p>Goldband snapper (<i>Pristipomoides multidens</i> and other <i>Pristipomoides</i> species)</p> <p>Red snapper (<i>Lutjanus malabaricus</i> and <i>Lutjanus erythropterus</i>)</p> <p>Red emperor (<i>Lutjanus sebae</i>)</p> <p>Cod (Family <i>Serranidae</i>)</p> <p>Information on the biology of these species can be found in the 2002 Submission located on the DEWHA website.</p>
<p>Byproduct species</p>	<p>By-product species make up 3% of overall catch.</p> <p>Majority of byproduct consists of small snappers (<i>Lutjanus vitta</i>, <i>Lutjanus russeli</i>) and emperors such as red spot emperor (<i>Lethrinus lentjan</i>) and Robinson’s sea bream (<i>Gymnocranius grandoculus</i>)</p> <p>A 10% trigger value has been set to initiate a review of management arrangements for the protection of byproduct species.</p>
<p>Gear</p>	<p>Commercial operators are authorised to use baited traps and vertical lines, including hand lines and drop lines.</p> <p>A limit of 45 fish traps for each licence was agreed to in 2002 and implemented as a licence condition in 2004.</p>
<p>Season</p>	<p>Open year round.</p>
<p>Commercial harvest</p>	<p>Total catch 726 t. Goldband snapper represent 57% of catch, saddletail</p>

2006	<p>snapper 30%, red emperor 3%, red Snapper 5%, cod 2% and mixed reef by product 3%.</p> <p>Annual catch rates have increased significantly since the last assessment, up from 450 t in 2003, to 703 t (2004), 669 t (2005) and 726 t (2006).</p>
Value of commercial harvest 2006	\$4.08 million.
Take by other sectors	<p>The NT Demersal Fishery, which is adjacent to the TRF, targets the same species as the TRF. In 2006 the total catch for NT Demersal Fishery was 223 t. Goldband snapper represents 49% of catch, saddletail snapper 39%, red emperor 2%, red snapper 8%, and cod 1%. This is an increase from previous years (catch in 2005 was 79 t), which DPIFM attribute to many Timor Reef fishers (who also hold Demersal licences) shifting effort into the Demersal Fishery. This is partly in response to oil and gas exploration companies carrying out seismic surveys within the more productive regions of the TRF.</p> <p>Saddletail snapper and red snapper are also targeted by the NT Finfish Trawl Fishery. In 2006 ~494 t of saddletail snapper and ~182 t of red snapper were caught. Small amounts of goldband snapper (~35 t) were also caught.</p> <p>Recreational and Indigenous take is negligible due to the remote offshore location of the fishery.</p> <p>In 2006, anecdotal reports from domestic fishers suggested illegal foreign fishing catches are increasing significantly, although the level of catch is unknown.</p>
Commercial licences issued	In 2006 there were 12 licences in the fishery. Of these seven licence holders actively fished.
Management arrangements	<p>The fishery is managed by the NT Fisheries Joint Authority (NTFJA), under the NT <i>Fisheries Act 1988</i>. Day to day management of the fishery is undertaken by the NT Department of Primary Industries, Fisheries and Mines (DPIFM).</p> <p><u>Management controls include</u></p> <ul style="list-style-type: none"> • Limited entry (12 licences) • Gear restrictions • Formalised objectives, performance indicators, trigger points and management responses.
Export	Limited export. Most fish are sold domestically.
Bycatch	Due to the selective nature of the fishing method and retention of most finfish for sale, bycatch in the TRF is generally low, less than 1 per cent of the total catch. Non retained species include chinaman fish (<i>Symphorus nematophorus</i>), red sea bass (<i>Lutjanus bohar</i>), bug eye trevally (<i>Caranx sexfasciatus</i>) and starry triggerfish (<i>Abalistes stellatus</i>).

	A 10% trigger value for bycatch has been set to review management procedures.
Interaction with protected species¹	<p>There have been no recorded interactions with protected species in the TRF since the last assessment. The method of fishing and the location of the fishery generally prevent interactions with threatened species.</p> <p>Under sections 199, 214, 232 and 256 of the EPBC Act, persons who interact with a protected species must report that interaction to DEWHA within seven days of the incident occurring.</p>
Ecosystem impacts	<p>Interaction with the habitat is limited to the effects of traps and vertical line weights on the substrate, and the effect of anchors.</p> <p>Traps are not attached to each other to avoid excessive interaction with the substrate upon hauling. Anchoring is limited to overnight stand down of fishing activity.</p>

¹ For the purposes of this report '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 NT TRF.

	Recommendation	Progress	Recommended Action
1	Inform DEWHA of any future amendment to the management regime for the TRF.	There have been no changes to the management regime in the TRF. Any changes and potential changes to the fishery will be flagged in the NT annual status reports. Additionally, DPIFM will inform DEWHA of future plans to amend management arrangements in the fishery if they fall outside of annual reporting timeframes.	Ongoing, generic recommendation (see Recommendation 2 , Table 4).
2	Report on objectives and reference points for the TRF in the status reports from 2003.	Objectives and reference points have been reported in NT annual status reports since 2003. There have been no breaches of management objectives or triggering of reference points for the TRF.	DEWHA commends DPIFM for formalising guidelines and developing trigger reference points of sustainable yield for target species and expects DPIFM to continue to report against these objectives and reference points in the annual status reports. A recommendation has been made for DPIFM to incorporate catch rates from other sectors as part of a review of trigger reference points (see Recommendation 5 Table 4).
3	Conduct a compliance risk assessment for the TRF by December 2004.	A compliance risk assessment for the NT TRF was conducted by DPIFM in 2004. The objectives of the assessment was to identify and assess the severity of the compliance risks associated with commercial fishing activity and develop compliance strategies, policies and management action to minimise risks identified. Commercial fishing activities assessed in the compliance risk assessment included: <ul style="list-style-type: none"> • unlicensed commercial fishing; 	Recommendations have been made for DPIFM to continue to develop and implement management responses for identified risks resulting from the compliance risk assessment for the fishery (see Recommendation 9 , Table 4), and to continue to engage with other State and Commonwealth agencies to minimise the risk posed by illegal fishing (see Recommendation 10 , Table 4).

		<ul style="list-style-type: none"> • illegal foreign fishing; • remote port transshipping; • high grading/selective retention; • non reporting of protected species interaction; • fishing outside authorised zone; • non reporting of commercial species; • gear offences; and • illegal shark finning. <p>Since this compliance risk assessment was completed, the probability of apprehension of foreign vessels by compliance officers has significantly increased with appropriate funding and resources being committed by the Australian Government. Action to further reduce the threat is ongoing and research projects to better understand the impacts of foreign fishing on stocks are being carried out.</p> <p>Once completed, results of this research will be used to re-evaluate the threat level of foreign fishing on stocks in the TRF. It is anticipated the research will be completed and results available in 2009-10.</p>	
4	<p>Include yearly results of observer surveys (including information on target species, bycatch and protected species interactions) in the annual status report as of 2003 and implement alternative data collection validation techniques if observer trips</p>	<p>Completed and previously reported to DEWHA. The reporting capacity to provide information on target species, bycatch and protected species interactions has been enhanced in the Annual Status Reports. Additionally new results are reported in the Annual Status Reports each year from 2003. 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</p>	<p>A generic recommendation requires DPIFM to produce and present reports to DEWHA annually and to include the status of the target stock including performance of the fishery against objectives, performance indicators and measures (see Recommendation 3, Table 4). This also includes any descriptions of monitoring programs in the fishery.</p>

	are no longer feasible or insufficient to provide robust information on the fishery.	the fishery.	
5	Determine spatial distribution of effort and catch in the fishery and investigate the risk of localised depletions by 2006. In the event that significant risks are identified, DPIFM to implement appropriate mitigation measures.	<p>Research work is ongoing in this area with the full cooperation of fishers.</p> <p>To assist in addressing this recommendation, Fisheries Research and Development Corporation (FRDC)* funding has been obtained to investigate the spatial distribution of principal target species and effort in the fishery. The project is ongoing and a final report will be available in mid-2008. This project is designed to build upon observer and research work undertaken by DPIFM. If significant risks are identified, DPIFM will develop and implement appropriate mitigation measures within 12 months of the report becoming publicly available.</p> <p>The fishery's compulsory fine scale reporting structure and the active cooperation of all fishers operating in the fishery should enable the identification of potential risks associated with localised depletion once aligned with relevant research projects.</p> <p>*FRDC Project title: <i>Utilisation of Geographic Information Systems (GIS) spatial statistical methods to assist in the development of ecosystem based fishery management strategies using the Northern Territory Demersal and Timor Reef fisheries as a case study.</i></p>	A recommendation has been made for DPIFM to develop and implement appropriate mitigation measures to ensure any significant risks of localised depletion are managed, with particular reference to outcomes of relevant research projects (see Recommendation 6 , Table 4).
6	Formalise guidelines, including clear timeframes for	Completed and reported in the NT annual status report 2006. The report is available for download on	DEWHA commends DPIFM for formalising management guidelines, and including clear timeframes

	implementation, for undertaking review of the fisheries management arrangements once reference points are triggered by December 2004.	the DPIFM website.	for triggered reference points for target and by-product species. A recommendation has been made that within 12 months of becoming aware of a triggered reference point for bycatch, protected species and ecosystem components, DPIFM will review and implement amended management arrangements, to bring these aspects in line with the management response to target species and byproduct (see Recommendation 7 , Table 4).
7	Continue to work towards more refined yield estimates of principle target species to determine sustainable harvest levels for target species, particularly red emperor.	<p>Research work is ongoing in this area with the full cooperation of fishers.</p> <p>The principal target species of goldband snapper and red snappers have not approached the trigger reference point of an annual catch of 900 tonnes for goldband or an annual combined catch of 1300 tonnes for red snappers.</p> <p>The 2006 catch composition of 3% for red emperor is well below the established trigger reference point. Similarly, the five year average catch composition for cod species and other byproduct species are also well below the 10% five year average trigger reference points.</p> <p>The FRDC project mentioned in the DPIFM response to Recommendation 5 will assist in investigating a more refined yield estimate of principal target species to determine sustainable harvest levels for target species, including red emperor. This project is designed to build upon observer and research work undertaken by DPIFM.</p>	Ongoing Recommendation (see Recommendation 4 , Table 4). Continuing research projects within the fishery will provide improved information and management tools allowing ongoing refinement of yield estimates and development of sustainable harvest levels for target species.

8	<p>Monitor the species composition of bycatch and byproduct with a view to undertaking a more rigorous risk analysis, if there is a significant increase in the catch of individual species.</p>	<p>Completed and previously reported to DEWHA and detailed information is additionally reported in the Annual Fishery Status Reports. Species compositions of bycatch and byproduct catches are 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 bycatch and byproduct species have not significantly increased and established trigger reference points have not been breached.</p>	<p>DEWHA commends DPIFM's monitoring of bycatch and byproduct composition and expects DPIFM to continue this process in order to inform the bycatch risk assessment (see Recommendation 8, Table 4).</p>
9	<p>Undertake a risk assessment of the Timor Reef Fishery bycatch with respect to its vulnerability to fishing by December 2004 and implement appropriate measures for high risk species within 12 months of risk assessment.</p>	<p>A bycatch risk assessment is yet to be completed. Although DPIFM have indicated a bycatch risk assessment industry workshop, necessary to ensure identification of all potential risks may be held in mid 2008. Outcomes from this workshop will be integral to the development of the risk assessment.</p> <p>Based on interim annual analysis of observer and logbook reporting data which indicate low levels of bycatch overall, established reference trigger points have not been reached and there are no indications of any particular bycatch species being vulnerable to the impacts of fishing. In addition capacity to improve the reporting of bycatch species was increased in 2007 through revision of the compulsory daily logbook to enhance bycatch species detail.</p> <p>Additionally, information on bycatch species and frequency of capture are reported on in the NT Annual Fishery Status Reports.</p>	<p>DEWHA considers that completing a bycatch risk assessment should be a priority. A recommendation has been made that management measures be introduced for high risk species within 12 months of completing the risk assessment. Additionally, any issues identified as medium risk should be addressed within three years of completing the risk assessment. (see Recommendation 8, Table 4).</p>

10	Amend logbooks to allow recording of all protected species interactions and implement an education program to ensure industry has the capacity to make accurate reports by July 2004.	A cover sheet, which draws attention to the requirement to report any interaction with protected species in Commonwealth waters, was added to logbooks in 2005/2006. Additionally, a guide for identifying protected marine species has been issued to all operators in the fishery.	DEWHA considers that this recommendation has been met. No interactions with protected species have been reported since the initial assessment, and DPIFM have formalised management objectives and identified trigger reference points in regards to interactions with protected species. DEWHA will continue to monitor the fishery's impacts on protected species through annual reporting.
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Table 3: DEWHA assessment of the NT TRF against the requirements of the 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 NT TRF</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>The NT TRF will be managed under the NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1988</i>.</p> <p>In 2003, the management regime for the NT TRF in force under the NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1988</i> was accredited under Part 13 of the EPBC Act. The management arrangements for the NT TRF have not significantly changed since this accreditation was granted. Consequently a new Part 13 declaration is not needed at this time. Given the legislation in force in the NT, DEWHA considers that all reasonable steps are being taken to prevent the killing or injuring of threatened species and the capture of any threatened species would be incidental to and not the purpose of the operation of the NT TRF.</p>

<p>(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>Currently, evidence suggests that the TRF only has minimal interactions with listed threatened species. Therefore, DEWHA considers the current operation of the TRF is not likely to adversely affect the survival or recovery in nature of any threatened species.</p>
<p>Division 2 Migratory species Section 222A Minister may accredit plans or regimes</p>	<p>DEWHA assessment of the NT TRF</p>
<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> <p>i. made by a State or self-governing Territory; and</p> <p>ii. in force under a law of the State or self-governing Territory;</p> <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 NT TRF is managed under the NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1993</i>.</p> <p>In 2003, the management regime for the NT TRF in force under the NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1988</i> was accredited under Part 13 of the EPBC Act. The management arrangements for the NT TRF have not significantly changed since this accreditation was granted. Consequently a new Part 13 declaration is not needed at this time. Given the legislation in force in the NT, DEWHA considers that all reasonable steps are being taken to prevent the killing or injuring of listed migratory species and the capture of any listed migratory species would be incidental to and not the purpose of the operation of the NT TRF.</p> <p>Currently, evidence suggests that the TRF only has minimal interactions with listed migratory species. Therefore, DEWHA considers the current operation of the TRF is not likely to adversely affect the conservation status of a listed migratory species or a population of that species.</p>

Division 3 Whales and other cetaceans Section 245 Minister may accredit plans or regimes	DEWHA assessment of the NT TRF
<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> <ol 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 cetaceans 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 species of cetacean or a population of that species.</p>	<p>The NT TRF is managed under the NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1988</i>.</p> <p>In 2003, the management regime for the NT TRF in force under the NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1988</i> was accredited under Part 13 of the EPBC Act. The management arrangements for the NT TRF have not significantly changed since this accreditation was granted. Consequently a new Part 13 declaration is not needed at this time. Given the legislation in force in the NT, DEWHA considers that all reasonable steps are being taken to prevent the killing or injuring of cetacean species and the capture of any cetacean species would be incidental to and not the purpose of the operation of the NT TRF.</p> <p>Currently, evidence suggests that the TRF only has minimal interactions with cetacean species. Therefore, DEWHA considers the current operation of the TRF is not likely to adversely affect the conservation status of a cetacean species or a population of that species.</p>

Division 4 Listed marine species Section 265 Minister may accredit plans or regimes	DEWHA assessment of the NT TRF
<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 marine 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>The NT TRF is managed under the NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1988</i>.</p> <p>In 2003, the management regime for the NT TRF in force under the NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1988</i> was accredited under Part 13 of the EPBC Act. The management arrangements for the NT TRF have not significantly changed since this accreditation was granted. Consequently a new Part 13 declaration is not needed at this time. Given the legislation in force in the NT, DEWHA considers that all reasonable steps are being taken to prevent the killing or injuring of listed marine species and the capture of any listed marine species would be incidental to and not the purpose of the operation of the NT TRF.</p> <p>Currently, evidence suggests that the TRF only has minimal interactions with listed marine species. Therefore, DEWHA considers the current operation of the TRF is not likely to adversely affect the conservation status of a listed marine species or a population of that species.</p>

Section 303AA Conditions relating to accreditation of plans, regimes and policies	DEWHA assessment of NT TRF
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	The NT TRF was accredited under sections 208A, 222A, 245 and 265 in 2003. As there have been no significant changes to the management arrangements since accreditation was granted no new Part 13 declarations is needed at this time.
(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 NT TRF to satisfy section 208A 222A, 245 and 265 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 NT TRF
(1) Minister may, by instrument published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens-LENS) by: <ul style="list-style-type: none"> (a) including items in the list; (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 or 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> <p>(a) must consult such other Minister or Ministers as the Minister considers appropriate; and</p> <p>(b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and</p> <p>(c) may consult such other persons and organisations as the Minister considers appropriate.</p>	<p>The public comment period on the NT TRF submission sought comment on the submission for the fishery and provided sufficient opportunity for consultation with other persons and organisations.</p> <p>A letter to the Hon Chris Natt MLA, Minister for Primary Industry and Fisheries advises him on 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 NT TRF made under sections 303DC will be gazetted and made available on the DEWHA website.</p>

Part 16

<p>Section 391 Minister must consider precautionary principle in making decisions</p>	<p>DEWHA assessment of the NT TRF</p>
<p>(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.</p>	<p>The precautionary principle must be considered when making a decision to include specimens on the LENS.</p>
<p>(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.</p>	

Objects of Part 13A

- (a) to ensure that Australia complies with its obligations under the Convention on International Trade in Endangered Species (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 DPIFM for the NT TRF

The material submitted by DPIFM indicates that the NT TRF operates in accordance with the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition* (the Guidelines). DEWHA considers that the fishery is well managed and unlikely to have an unacceptable or unsustainable impact on the environment in the short to medium term. Overall, DEWHA recognises that limited entry, gear restrictions and formalised objectives, performance indicators, trigger points and management responses are conservative and suggest that the fishery is being managed in an ecologically sustainable way.

In making its assessment, DEWHA considers that the range of management measures are sufficient to ensure that the fishery is conducted in a manner that does not lead to over-fishing and that stocks are not currently overfished. Taking into account the combination of management arrangements, data gathering, and the nature of the fishery, 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 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 in force under the NT *Fisheries Act 1988* and NT *Fisheries Regulations 1993* for the fishery were accredited under Part 13 of the EPBC Act in May 2003. Since there have been no substantive changes to the management arrangements since the initial assessment of the fishery, DEWHA considers that the existing Part 13 accreditation remains valid.

Recommendations are provided below with a brief explanation of the related issue/intent. Unless a specific time frame is provided in the recommendation each recommendation must be addressed within the life of the declaration (five years).

Table 4: NT TRF Assessment– Summary of Issues and Recommendations, May 2008

	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, DEWHA needs to be advised of any intended changes that are to be made to the management regime 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.</p> <p>DEWHA notes that future assessment needs for the NT TRF are made available through the annual NT Fishery Status Reports, which outlines potential intended changes to the fishery’s management arrangements. DEWHA supports the continued reporting of future assessment needs for the fishery, but reinforces the need for the DPIFM to advise DEWHA of any intended change to the NT TRF management arrangements, including legislated amendments that may affect sustainability of the target species or negatively impact on byproduct, bycatch, protected species or the ecosystem. DEWHA is aware of an industry request to review the levels of permitted gear with a view to develop a formal plan of management. In the event that a formal plan is adopted, DPIFM will need to seek re-accreditation under Part 13 and Part 13A of the EPBC Act for the new management plan as the current accreditation would be deemed invalid.</p>	<p>Recommendation 1: Operation of the NT TRF will be carried out in accordance with the NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1988</i>.</p> <p>Recommendation 2: DPIFM to advise the DEWHA of any intended change to the NT TRF management arrangements that could affect the assessment of the fishery against the criteria on which EPBC Act 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 NT TRF and progress in implementing the recommendations in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration. Annual reports should follow Appendix B of the Australian Government <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i> (the Guidelines) and 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</p>	<p>Recommendation 3: DPIFM to produce and present reports to DEWHA annually as per Appendix B of the Guidelines</p>

	<p>of the fishery on the ecosystem in which it operates and progress in implementing DEWHA recommendations. Electronic copies of the Guidelines are available for the DEWHA website at http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html</p>	
3	<p><u>Harvest Rates / Abundance estimates</u> As part of the 2003 assessment of the fishery, DEWHA made a recommendation to reflect DPIFM's commitment to work towards more refined yield estimates of principle target species, particularly red emperor.</p> <p>The 2006 catch composition for target species did not reach trigger reference points, however current management triggers are based on original biomass estimates gathered primarily from Taiwanese, Thai and Chinese trawlers and trawl research surveys prior to 2003. In the absence of biomass estimates and associated sustainable harvest levels for target species and with plans to develop a formal plan of management for the fishery, it is an opportune time to conduct a formal review of current trigger reference points to ensure the ecologically sustainable management of the fishery.</p> <p>DPIFM have indicated that a current research project due to report mid 2008 will assist in investigating more refined yield estimates. DEWHA commends DPIFM for pursuing this research and recommends that they make refined yield estimates of target species a priority following release of the report.</p> <p>The NT Demersal Fishery, which lies adjacent to the NT TRF, targets the same species and uses similar gear to the NT TRF. The Finfish Trawl Fishery also targets many of the same species, particularly saddletail and red snappers, with a small amount of gold band snapper as byproduct.</p> <p>The potential for significant increased take of target species adjacent to the NT TRF Fishery highlights the need to incorporate take by other fisheries when reviewing the</p>	<p>Recommendation 4: DPIFM to continue to work towards more statistically refined sustainable yield estimates for target species, particularly red emperor.</p> <p>Recommendation 5: Within 12 months, DPIFM to review trigger reference points to take into account current catch from other sectors, particularly the NT Demersal and Finfish Trawl Fisheries.</p>

	trigger reference points for target species. DEWHA notes that the trigger reference points for the NT Finfish Trawl Fishery include take by the NT Demersal Fishery and recommends that a similar approach be used in the NT TRF for target species.	
4	<p><u>Localised Depletion</u></p> <p>A recommendation was made as part of the 2003 assessment to determine spatial distribution of effort and catch in the fishery and investigate the risk of localised depletions. DEWHA understands that a FRDC funded project ‘ <i>Utilisation of GIS spatial statistical methods to assist in the development of ecosystem based fishery management strategies using the Northern Territory Demersal and Timor Reef fisheries as a case study</i>’ is underway, and that DPIFM will develop mitigation measures to risks identified. DEWHA commends this and reinforces the importance of implementing appropriate measures for risks identified to ensure the risk of localised depletion is minimised.</p>	Recommendation 6: Within 18 months, DPIFM to develop and implement appropriate mitigation measures to ensure any significant risks of localised depletion are managed, with particular reference to outcomes of relevant research projects.
5	<p><u>Management response to performance triggers</u></p> <p>Management objectives, performance indicators, trigger points and management responses have been developed and reported in the 2006 Annual Status Report</p> <p>DEWHA notes that only three of the performance indicators contain a timeframe for implementation of management action following a breach, and recommends that this 12 month timeframe be standard across all performance indicators, including by-catch, protected species and eco-system components.</p> <p>Additionally, DEWHA encourages DPIFM to update details of management actions for triggered performance indicators as listed in the NT annual fishery status reports to reflect the 12 month timeframe for management responses to triggered reference points.</p>	Recommendation 7: Within 12 months of becoming aware of a triggered reference point for bycatch, protected species or ecosystem components, DPIFM to review and implement amended management arrangements.
6	<p><u>Bycatch</u></p> <p>In the 2003 assessment of the NT TRF, a recommendation was made by DEWHA for</p>	Recommendation 8: Within 18 months, DPIFM to undertake a bycatch risk assessment

	<p>DPIFM to undertake a risk assessment of the bycatch within the fishery, with respect to its vulnerability to fishing and implement appropriate measures for high risk species.</p> <p>DPIFM has informed DEWHA that a bycatch risk assessment industry workshop may not be held until mid 2008. Outcomes from this workshop will be integral to the development of the bycatch risk assessment.</p> <p>DEWHA considers that the bycatch risk assessment should include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Composition and abundance of bycatch species in the fishery; • Identification of relevant biological parameters of bycatch species that influence susceptibility to fishing and population recovery rates; • Post-release mortality of bycatch species; and • Identification of high and medium risk bycatch species. <p>DEWHA notes the improved reporting of bycatch in the fishery due to revised logbooks and the low overall levels of bycatch in the fishery, however DEWHA recommends that completion of the bycatch risk assessment (including protected species) to be a priority to ensure that any risk to bycatch species is managed.</p>	<p>for the TRF (including protected species). Appropriate measures for high risk species should be implemented within 12 months of completing the risk assessment. Medium risk issues should be addressed within three years of completing the risk assessment.</p>
7	<p><u>Compliance</u></p> <p>In the 2003 assessment of the NT TRF, a recommendation was made by DEWHA for DPIFM to conduct a compliance risk assessment for the fishery. A risk assessment of compliance issues in the fishery was conducted by DPIFM in 2004, with risk rankings of ‘moderate’ or above requiring review and possible management action.</p> <p>DEWHA commends DPIFM on completing the compliance risk assessment for the NT TRF and considers that implementation of appropriate management responses to address moderate risk issues should be given priority.</p>	<p>Recommendation 9: Within three years, DPIFM to develop and implement appropriate management responses for risks ranked as ‘moderate’ in the NT TRF Compliance Risk Assessment.</p> <p>Recommendation 10: DPIFM to continue to engage with other State and Commonwealth agencies to minimise the risk posed by illegal fishing and once available incorporate estimates</p>

<p>Justification for appropriate management responses should also be clearly documented. The compliance risk assessment analysed several aspects within the fishery, with seven out of nine issues being ranked as 'moderate' and one as 'extreme' (illegal foreign fishing). In relation to illegal foreign fishing, DPIFM should continue to actively engage with other State and Commonwealth agencies to minimise the risk posed by illegal fishing and once available, incorporate estimates of the level of take from illegal fishing into stock assessments and management arrangements for the fishery.</p>	<p>of the level of take from illegal fishing into stock assessments and management arrangements for the fishery.</p>
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Acronyms

AFZ	Australian Fishing Zone
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DEWHA	Australian Government Department of the Environment, Water, Heritage and the Arts
DPIFM	Northern Territory Department of Primary Industry, Fisheries and Mines
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
FRDC	Fisheries Research and Development Corporation
Guidelines	Australian Government <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i> (the Guidelines)
LENS	List of Exempt Native Specimens
NT	Northern Territory
NTFJA	Northern Territory Fisheries Joint Authority
TRF	Timor Reef Fishery