



Australian Government

Australian Fisheries Management Authority



AFMA's Program for Addressing Bycatch and Discarding in Commonwealth Fisheries: an Implementation Strategy

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INTRODUCTION

AFMA established a bycatch and discarding program in February 2007 to provide additional resources and direction for pursuing policy and legislative objectives in relation to bycatch and discarding. The program will be resourced until mid-2009 at which point individual fisheries will assume direct responsibility for program outputs. The bycatch and discarding program is aimed at assisting fisheries tackle bycatch and discarding issues in a focused and cost-effective way. The program's initial direction, in two streams, is:

1. to deal with high risk and threatened, endangered and protected (TEP) species; and
2. to minimise discarding of target / quota species to as close to zero as practically possible

Lower risk species and overall bycatch minimisation is an important issue for the broader ecological sustainability of fisheries and this will be addressed through longer-term programs of continual improvement. Such work will be the subject of strategic planning within each fishery.

This document is in two parts. First it provides background to the legislative and policy requirements placed on Commonwealth fisheries with respect to bycatch and discarding of target / quota species. Second, it sets out how the Australian Fisheries Management Authority (AFMA) will pursue responsibilities for addressing bycatch and discarding of target / quota species in Commonwealth fisheries through the bycatch and discarding program.

LEGISLATIVE AND POLICY CONTEXT

The current management and industry operating environment with respect to bycatch and discarding is directed by a mix of legislation (both fisheries and environment legislation) and government policy.

There has been an explicit shift in government policy over the past decade towards ecosystem-based fisheries management. This places importance on managing the broader impacts of fishing on marine ecosystems, such as bycatch and protected species, along with managing commercially harvested species.

Fisheries Legislation

The *Fisheries Management Act 1991* (FMA) has an objective of ensuring that the exploitation of fisheries resources and the carrying on of any related activities are conducted in a manner consistent with the principles of ecologically sustainable



development (which include the exercise of the precautionary principle) and in particular the need to have regard to the impact of fishing activities on non-target species and the long-term sustainability of the marine environment. The principles of ecologically sustainable development are defined in the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and are part of the objectives that must be pursued by AFMA in managing Commonwealth fisheries.

Non-target species

Section 17 6(D) of the FMA states that a plan of management for a fishery must contain measures directed at reducing to a minimum:

- (a) the incidental catch of fish not taken under and in accordance with that plan; and
- (b) the incidental catch of other species.

In accordance with the FMA and Government policy, all fishery management plans require the development and implementation of bycatch action plans (BAPs) to ensure that bycatch is reduced to a minimum.

While wording differences exist between some fishery management plans, they generally require that BAPs are developed to ensure that:

1. information is gathered about the impact of the fishery on by-catch species; and
2. bycatch (excluding protected species) is reduced to, or kept at, a minimum and below a level that might threaten bycatch species; and
3. all reasonable steps are taken to minimise interactions with species listed under Part 13 of the EPBC Act, which include seabirds, marine reptiles, marine mammals and some sharks and boney fish; and
4. the ecological impacts of fishing operations on habitats in the area of the fishery are minimised and kept below an acceptable level.

Target species

With regard to discarding of target / quota species, the legislation (through Fishery Management Plans) requires that all catch or take of quota species be covered with the relevant quantity of statutory fishing rights. Although not explicit, the implication of fishing for target species in fisheries managed through input controls is the same as that applied to fishing under quota management. In either case, the legislation is written to pursue the sustainability of fisheries and the marine environment. The legislation requires that fishing rights be used for target or quota species and sets in place a system of fishing rights for individuals. This system of rights or the fish stocks to which they apply should not be undermined by discarding.

Environment Legislation

The EPBC Act is the key legislation for conserving the biodiversity of Australian ecosystems and protecting the natural environments that support these ecosystems. Ensuring fishing activity is ecologically sustainable in Commonwealth fisheries is therefore a key aspect of the EPBC Act. The EPBC Act broadly requires that actions taken when fishing do not have a significant impact on the Commonwealth marine environment and its biodiversity, including protected species or ecological communities¹. This is achieved through the requirement for all Commonwealth fisheries to be assessed to determine whether a fishery should be accredited for the purposes of protected species provisions and wildlife trade provisions under Part 13 and 13A of the EPBC Act. Other more specific actions are controlled through recovery plans, wildlife conservation plans, and threat abatement plans made under the EPBC Act as a result of a protected species listing or type of fishing activity being listed.

Commonwealth Bycatch Policy

The Australian Government released the *Commonwealth Policy on Fisheries Bycatch* in 2000 to guide Commonwealth fisheries in the pursuit of legislative objectives relating to non-target species and the broader marine environment. The policy deals specifically with those aspects of bycatch that are not currently subject to commercial management provisions, namely;

- i) that part of the fisher's catch which is returned to the sea either because it has no commercial value or because regulations preclude it from being retained; and
- ii) that part of the catch that does not reach the deck of the fishing vessel but is affected by interaction with the fishing gear.

which is essentially the definition of bycatch for the purposes of relevant legislation.

The Commonwealth bycatch policy commits all Commonwealth fisheries to bycatch reduction, improved protection for protected species and minimising any adverse impacts of bycatch on the marine environment. The key tool used to pursue bycatch minimisation under the Commonwealth bycatch policy is the requirement for each fishery to implement a BAP.

Ministerial Direction

In December 2005, AFMA was directed (under legislation) by the then Minister for Fisheries, Forestry and Conservation to cease overfishing, recover overfished stocks, avoid further species becoming overfished, and to manage the broader environmental impacts of fishing, including on protected species.

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

With direct relevance to bycatch and discarding, the Minister's Direction called for AFMA to:

1. Minimise the incentives for discarding by ensuring it is factored into the setting of total allowable catch or effort levels;
2. Manage the broader environmental impacts of fishing, including minimising the level of interactions with threatened or otherwise protected species;
3. Enhance the monitoring of fishing activity, for example through increased use of vessel monitoring systems with daily reporting, on-board cameras and observers;
4. Establish a system of independent surveys for all major Commonwealth fisheries by 1 January 2007 to increase the transparency and integrity of catch and effort information; and
5. Identify and implement any required spatial closures in fisheries;
 - o ensuring that where ongoing exclusion of fishing is proposed there is a coordinated approach with other relevant agencies to the identification of the Marine Protected Areas.

Combined effects of legislation and policy

The combined effect of legislation and policy is that fisheries management must clearly focus on the effects of fishing in relation to the sustainability of not just target species, but all bycatch, including protected species and ecological communities² and the marine environment.

The legislative and policy requirements raise two different issues in relation to the management of bycatch and discarding. The first issue relates to species of no apparent commercial value and are not nominated in plans or policies as target, primary or key species. These are species for which legislation and policy requires there to be minimisation strategies (avoidance and minimise interactions for protected species) and for which the legislation requires the effects of fishing to be ecologically sustainable. These are referred to as bycatch species.

The second issue relates to species that are of commercial value, most of which are listed in statutory fishery management plans or fishery management policies. These species are either specifically or generally targeted but under some circumstances, discarded at sea. Such circumstances include the lack of markets at that time, not holding relevant fishing rights or commercial high-grading. For the purposes of the bycatch and discard program, these are called discard species. Discarding commercial species reduces the available stock and consequently it lowers the value of associated fishing rights. It also lowers the total value of the species and fishery and raises the costs of management. Management strategies and /or incentives in response to discarding must address both the ecological sustainability of discarded species and the economic performance of the fishery.

² There are no marine ecological communities listed under the EPBC Act at the time of writing.

The bycatch and discard program has two streams under which these two separate issues will be addressed.

BYCATCH AND DISCARDING PROGRAM

AFMA's bycatch and discard program has the objective of assisting fisheries to determine and implement a course of action that will address high risk bycatch, avoid interactions with TEP species and minimise discarding of target / quota species. Its focus will be on defining necessary actions, implementing those actions and measuring their success.

Minimising bycatch and discarding has proven to be complex and for many fisheries progress has been limited. The traditional BAPs have tended to become the product of a lengthy administrative process rather than a focussed program of actions that necessarily add up to measurable reductions in bycatch. AFMA believes that providing a more risk-based focus will allow fisheries to plan and develop cost-effective actions with a more realistic outlook to succeeding. Lower risks, by their nature, can be addressed less urgently and therefore lend themselves to a program of longer-term continual improvement. Investment in such work should not divert attention and capacity from the high risk issues.

With the finalisation of Ecological Risk Assessments in Commonwealth fisheries in 2007 and the subsequent process of determining the residual risks from fishing, fisheries are now able to prioritise their approaches to fishery risks and the research and management action needed to address these risks. Understanding and refining the extent and nature of risks provides more incentive for fisheries to invest in solutions. AFMA's program will assist fisheries in meeting this challenge.

Fisheries will develop new BAPs in the form of succinct work plans. These documents will characterise the high-risk bycatch and discarding that currently exists in the fisheries, including interactions with TEP species. The work plans will detail a cost-effective program of actions to address these risks in accordance with legislative responsibilities and the Ministerial Direction. They will cover a relatively short (two year) timeframe and include annual milestones measured through a monitoring program. These work plans are about getting on with those cost-effective actions that provide real solutions.

To effectively implement ecosystem-based fisheries management a sound information base that extends wider than the traditional focus on target species is needed. Therefore, fishery monitoring programs will need to include information on bycatch, byproduct, habitat and TEP species as well as on target species. Some of this information is becoming available in some fisheries but experience shows that information is needed over a time series to provide robust assessments of the effects of fishing. Without relevant fishery information it is difficult to detect change or quantify improvements in the management of bycatch and discarding.

It has become clear that a more integrated and targeted approach to the overall sustainability of Commonwealth fisheries is needed. That is, managing the effects of fishing on all of the components of the ecosystem should be cost-effectively integrated. To achieve this, continuing work on bycatch and discarding will be integrated with the



Ecological Risk Assessment (ERA) and Management (ERM) processes and the development and implementation of Harvest Strategies. A policy approach for specific management of by-product species will also be developed.

Stream 1

The AFMA Bycatch and Discarding Program will pursue the requirement to minimise bycatch and avoid interactions with protected species through the following:

1. Bycatch working groups or subcommittees developing, and fisheries implementing, a bycatch and discarding work plan to avoid interactions with TEP species and mitigate high ecological risk bycatch as determined through Ecological Risk Assessments (ERAs) and residual risk analysis. Work plans will be developed and commence during 2008 and will include annual milestones which are to be measured through a fishery monitoring program.
2. Ensuring there is an adequate long-term monitoring program covering all aspects of bycatch and interactions with TEP species. Fishery management frameworks must include risk and/or stock assessments and a capacity to respond to new information about bycatch in the fishery.
3. In fisheries with high bycatch volume, work plans must include a longer-term program for progressive reductions in overall bycatch.

Stream 2

The AFMA Bycatch and Discarding Program will assist fisheries to minimise discarding to as close to zero as practically possible through the following:

1. Bycatch working groups or subcommittees developing, and fisheries implementing, a bycatch and discarding work plan that includes incentives and measures for fishers to avoid or reduce discarding and address the common drivers of discarding. Work plans will be developed and commence during 2008 and will include annual milestones for discard reduction which are to be measured through a fishery monitoring program.
2. Fisheries must ensure their monitoring program provides an annual estimate of the discard rate for each target / quota species in a form that can be taken into account in the harvest strategy (refer to the Commonwealth Harvest Strategy Policy 2007).

AFMA will oversee the role of the working groups or subcommittees and ensure that the high risks, interactions with TEP species and discarding issues are being adequately addressed. If necessary, AFMA will take additional actions by proposing specific solutions in consultation with Management Advisory Committees (MACs) and other relevant groups.

BYCATCH WORKING GROUPS / SUBCOMMITTEES

AFMA, under the bycatch and discarding program will provide funds for bycatch working groups or subcommittees to meet throughout 2008 to finalise work plans. Work plans will be drafted by AFMA initially and provided to the bycatch groups for their review and further development where needed. Working groups should focus on developing cost-effective solutions to bycatch and discarding and these should be implemented during 2008. Working groups must consider how the effects of specific actions will be measured so that achievement of annual milestones can be assessed and reported.

BYCATCH AND DISCARDING WORK PLANS

Bycatch and discarding work plans must contain the following:

- ✱ A characterisation of bycatch target / quota species discarding issues in the fishery. The bycatch characterisation should also include all known interactions with TEP species and all high risk bycatch species (resulting from ERA residual risk analysis);
- ✱ An overview of the monitoring program for the fishery;
- ✱ An overview of existing actions or programs to mitigate bycatch and discarding and how these contribute to mitigating high risk bycatch and TEP species, discarding of target / quota species and overall bycatch minimisation;
- ✱ Actions, including incentives to reduce bycatch and discarding, trials (of fishing gear), specific management actions (eg, mitigation devices, spatial management), research, quantitative assessments, fishery surveys, changes in fishing practices and enhanced monitoring programs, using the precautionary principle, where applicable:
 - These may be short-term specific actions or longer-term actions that will contribute to mitigation over time,
 - Actions should align with specific species or species groups at risk,
 - Actions should include information on, where relevant, a timeframe, proposed costs and how performance will be measured;
- ✱ A summary of what can be expected from the work plan in terms of addressing high risk bycatch, impacts on TEP species and longer-term contribution to minimising bycatch and discarding in the fishery; and



☀ A review process

- Work plans should be reviewed annually to assess any specified milestones, consider the need for new research and incorporate any new information relevant to bycatch and discarding issues and mitigation in the fishery;
- Work plans must be formally reviewed every two years to assess the effectiveness of avoidance and mitigation strategies for addressing TEP interactions, high ecological risks and bycatch more generally:
 - Work plans must be refined accordingly.