Trial Quality Assurance Review

On behalf of the Commission for the Conservation of Southern Bluefin Tuna

Undertaken by Global Trust Certification Ltd.

Member Report: Australia

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Executive Summary

This Quality Assurance Review (QAR) report provides an evidence-based review of Australia's southern bluefin tuna (SBT) fishery and associated fisheries management against section 1.1 of CCSBT's Compliance Policy 1, "Minimum performance requirements to meet CCSBT Obligations". The QAR was conducted between April and August 2013, with a key consultation meeting held with key personnel within the Department of Agriculture, Fisheries and Forestry (DAFF) and Australian Fisheries Management Authority (AFMA) via phone conference on the 19th June GMT (Table 1).

Australian vessels primarily capture SBT live for transfer to farms off the coast of South Australia, although there is also a comparatively small direct landings sector which operates as a component of the Eastern Tuna and Billfish Fishery (ETBF), and historically within the Western Tuna and Billfish Fishery (WTBF). The operational management of both sectors is the responsibility of AFMA, which devises and implements all technical measures and documentation requirements applied to the SBT fishery. The key management instrument is the application of a Total Annual Catch (TAC) quota. The TAC is set in line with the CCSBT Allocated Catch (AC), and allocated to individuals and organisations through fully tradable Statutory Fishing Rights, which also act as a permit to enter the fishery. SFRs also stipulate a range of operating conditions, including mandatory Vessel Monitoring Systems (VMS), mandatory reporting requirements, and mandatory observer accommodation when requested. At harvest the large majority of Australian SBT is exported to Japan, although small quantities are also consumed elsewhere in Asia and in the USA.

The management systems and processes applied by Australia to the SBT fishery have successfully ensured that reported Attributable SBT Catch (ASBTC) has been below Australia's CCSBT AC. Catches are recorded daily by all fishery participants in gear-specific logbooks, and returned to AFMA within a short period of the end of the fishing trip. Similar documentation is completed throughout the farm capture, towing and transfer process, ensuring estimates of mortality at all stages of the process are ultimately subtracted from the TAC. Australia has also mandated the completion of CCSBT Catch Documentation Scheme (CDS) documents, which in addition to their primary role ensuring the tracking of SBT from capture to sale act as verification of the contents of the Australian national paperwork.

Accuracy of SBT catch and mortality estimates is ensured partially through comparison of the various documentation for consistency, but also through an observer scheme, at-sea and portside inspections, and the mandatory presence of an AFMA Authorised Agent (AAR) whenever fish are transferred from a tow vessel into a farm. These measures are also used to monitor compliance, to some extent, alongside annual audits of all fish receivers and farms and mandatory VMS. Australia also conducts an internal compliance risk assessment to identify potential risks of non-compliance and direct monitoring efforts accordingly.

Australia's SBT fisheries management systems have been shown to be effective in terms of the CCSBT minimum performance requirements, with well-established fisheries legislation, a strong fisheries management regulatory system and established fisheries reporting and sanctions. The QAR has also identified some weaknesses and risks associated with the Australian management system. The most significant of these – such as the potential for under-reporting of SBT mortality, misreporting in catch disposal records, and the risk of vessels being unable to purchase quota after capture of SBT – have been previously identified by AFMA. A further key risk, though not specifically affecting Australia's ability to ensure commercial catch remains within the AC, is the unquantified

but potentially substantial recreational fishery. Recreational removals do not form part of Australia's agreed ASBTC, but represent a source of uncertainty for any estimates of total SBT mortality. To this end the primary recommendation of the QAR review team is the development of a mechanism to more accurately estimate recreational removals and report these to the CCSBT – a process which has already been initiated by AFMA.

Table 1. Summary of Quality Assurance Review Implementation Information: Australia

QAR contract period	*April – August 2013*
Reviewers	*Sam Peacock – Country Lead Reviewer* *Dave Garforth- Project Lead Reviewer* *Oliver Wilson- Support Reviewer*
Allocation Period covered	*2010 – 2013/14*
Date of consultation meeting(s) Length of consultation	*19th June 2013* *3 hour conference call*
List of Member Agencies consulted with.	*Department of Agriculture, Fisheries and Forestry; Australian Fisheries Management Authority.*
Report Draft for Member Review	*July 19th 2013*
Receipt of Member review template/comments	*August 26th 2013*
Final Report	*August 30th 2013*

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ABBREVIATIONS

AC	Allocated Catch (Individual Member quota)
AFMA	Australian Fisheries Management Authority
ASBTC	Attributable Southern Bluefin Tuna Catch
CCSBT	Commission for the Conservation of Southern Bluefin Tuna
DAFF	Department of Agriculture, Fisheries and Forestry
EEZ	Exclusive Economic Zone
ETBF	Eastern Tuna and Billfish Fishery
MPR	Minimum Performance Requirement
QAR	Quality Assurance Review
SBT	Southern Bluefin Tuna
SFR	Statutory Fishing Right
TAC	Total Allowable Catch
VMS	Vessel Monitoring System
WTBF	Western Tuna and Billfish FIshery

1 Introduction

This is an evidence based Quality Assurance Review (QAR) that forms the basis for the assessment of the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) Members against specific obligations from CCSBT's Compliance Policy 1, "Minimum performance requirements to meet CCSBT Obligations". Members were requested to demonstrate, by providing supporting documentation, that they meet the obligation from CCSBT's Compliance Policy, with particular emphasis on the presence of documented procedures. The scope of the assessment was limited to the obligations and associated Minimum Performance Requirements in section 1.1 of this policy, which are aimed at ensuring Members and Co-operating Non-Members have implemented adequate measures to ensure they do not exceed their Allocation of the global Southern Bluefin Tuna (SBT) catch. The obligations in this policy are derived from CCSBT Resolutions and Decisions, in particular:

- The "Resolution on the Allocation of the Global Total Allowable Catch"; and
- The "Resolution on Limited Carry-forward of Unfished Annual Total Allowable Catch of Southern Bluefin Tuna within Three Year Quota Blocks".

The main body of this report provides an overview of the management of fisheries of the Member participating in the QAR.

A step-by-step description of the processes and practices implemented by the Member is presented and the level of performance found against each Minimum Performance Requirement (MPR) based on the evidence collected and assessed through the QAR. A detailed Process Map is provided to support the analysis which illustrates the operating systems and processes implemented by the Member. Any areas where it was felt by the Reviewers, that the evidence reviewed did not fully substantiate full performance to the MPR are highlighted and Recommendations for improvement are provided.

1.1 Methodology

- The QAR is an independent desk top review with remote consultation stages with Member authorities to gain further evidence, seek clarification and verification of performance against the Minimum Performance Requirements of Section 1.1 of the CCSBT Compliance Policy.
- A lead reviewer is assigned to each Member Review from a team of reviewers.
- The review method was undertaken in 3 steps.

i. Management System Review – the overall framework for management of SBT to ensure compliance with allocations
ii. Process and implementation review – the implementation of the fishery management system (description, features, specific measures, actions, rules/regulations that allow for implementation, catch recording, catch reporting and compliance). Evidence of

implementation such as specimen records, reporting and recording documents will be requested to allow verification of the system's effectiveness to be assessed.

iii. Management System Effectiveness - the outcome of the analysis documented using a SWOT analysis with regard to the extent that the management system implementation effectively demonstrates compliance to each of the MPR.

iv. Recommendations for Improvement- areas identified through the review that may result in improved Member compliance (or improved reporting effectiveness for purposes of subsequent QAR activities). This is presented using the Opportunities component of the SWOT analysis.

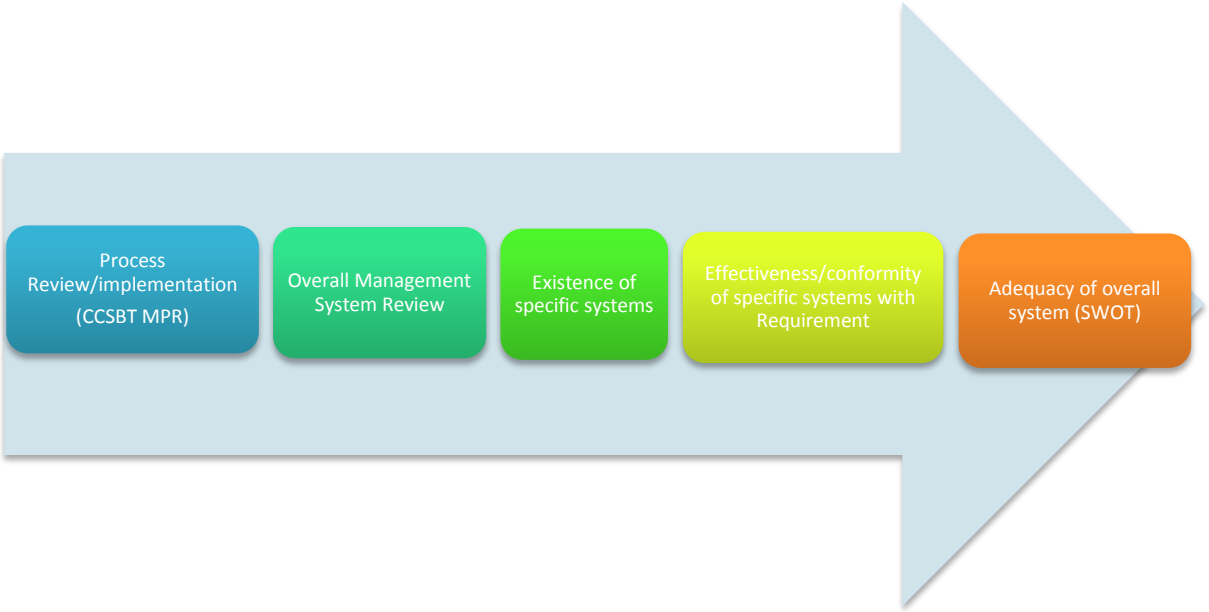


Figure 1. Methodology for the CCSBT Quality Assurance Review

A detailed process flow map of each Member is developed to provide a 'visual' description of allocation and catch accounting systems. The process flow maps are documented initially from the desk based review and then finalized during the final reporting stage.

The report is presented in 7 Sections as follows:

- Section 1: This section, providing a short description of the process.
- Section 2: A background section that describes the fishery and the overall management system. This is supported with an organizational chart and table of identified agency roles specific to each MPR (where applicable).
- Section 3: Detailed description of the evidence that demonstrates conformity to the specific MPR requirement with a summary of outcome and key points.
- Section 4: A detailed flow chart to support the evaluation and provide specific details of the SBT Allocation, CDS and MCS in place.
- Section 5: Effectiveness of the Management Systems (SWOT analysis)
- Section 6: Opportunities/Recommendations for improvement
- Section 7: Appendices

N.B. A further report on the overall outcome and feasibility of the approach, method and conclusions has also been undertaken as part of the QAR work.

2 Southern Bluefin Fishery

2.1 Introduction

Southern Bluefin Tuna (SBT) are highly migratory fish found throughout the Southern Pacific Ocean and therefore throughout Australian waters. The Australian SBT fishery removes around 4,000t of fish annually; however, around 96-99% of these removals are transferred live to farm enclosures off the South Australian coast where they are grown out for up to 6 months before harvest. The real gross value of the SBT fishery was $38 million in the 2009/10 financial year, with an export value of $102.2 million post-ranching[1]. The remainder of the fishery removals are as bycatch in the Eastern Tuna and Billfish Fishery (ETBF) or as targeted catch in its own right, primarily by longline. It is also possible for SBT to be caught in the Western Tuna and Billfish Fishery (WTBF), although no landings have been reported in recent years.

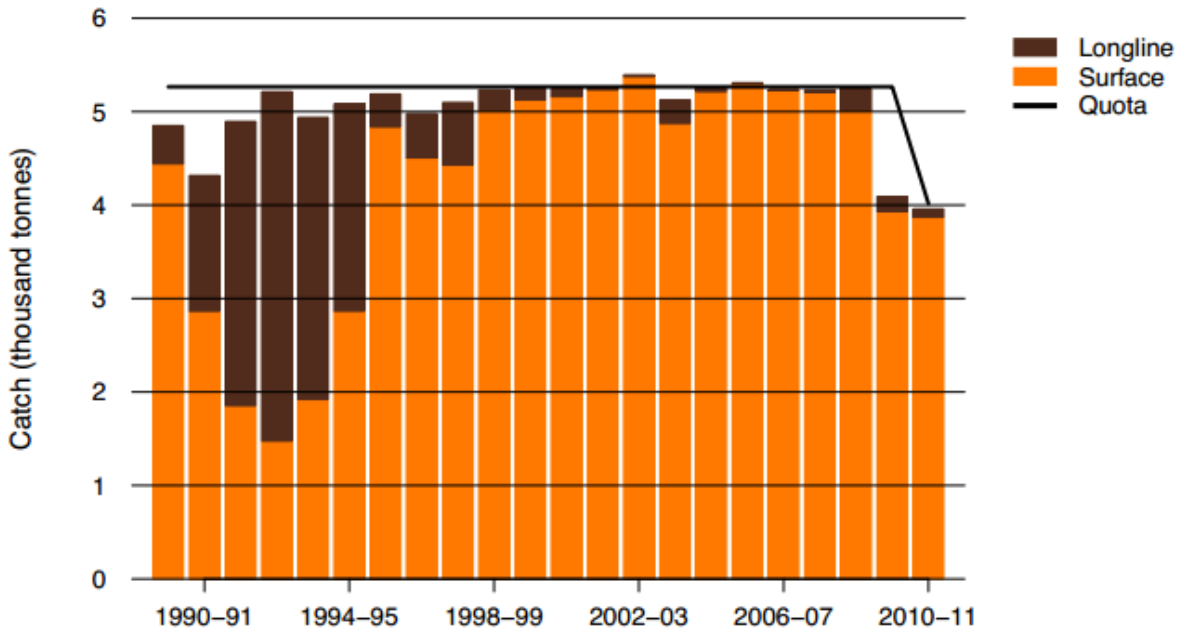


Figure 2 - Australian SBT catch by financial year, 1989/90 to 2010/11[2]

2.2 Management Authorities

The operational management of Australian Commonwealth fisheries is the responsibility of the Australian Fisheries Management Authority (AFMA). AFMA is responsible for the majority of day-to-day fisheries management functions, as set out in the *Fisheries Administration Act 1991*[3]. These responsibilities include devising and implementing management regimes which meet national and international sustainability requirements and agreements, establishing and allocating fishing rights, collecting information on fishing activity and the performance of the Authority, and to coordinate

[1] http://www.afma.gov.au/managing-our-fisheries/fisheries-a-to-z-index/southern-bluefin-tuna/at-a-glance/ (accessed 17/07/13)

[2] ABARES fishery status reports 2011, pp.330-338, SBT. Available from: http://adl.brs.gov.au/data/warehouse/9aam/fsrXXd9abm_/fsr11d9abm_0022011/24_FishStatus2011SthnBluefinTuna_1.00.pdf (accessed 17/07/13)

[3] Act No. 161 of 1991, Fisheries Administration Act 1991. Available from: http://www.comlaw.gov.au/Series/C2004A04236 (accessed 17/07/13)

communications and consultations with the public, other Australian and international governmental bodies, and other relevant organisations. With respect to Australian SBT specifically, AFMA is responsible for most of the practical management of the fishery including setting annual quotas, monitoring individual quota use and trades, in-season research, vessel and farm audits, and paperwork collection and collation[4].

The Southern Bluefin Tuna Management Advisory Committee (SBTMAC) is the principal forum in which issues relating to the management of the domestic Southern Bluefin Tuna Fishery are discussed. Meetings of the MAC's research and compliance sub-committees are held in conjunction with SBTMAC meetings. Advice to the AFMA Commission and other stakeholders is provided through the Chair's Summaries of each MAC meeting.[5]

The governmental portfolio department of AFMA is the Department of Agriculture, Fisheries and Forestry (DAFF), Sustainable Resource Management Division. DAFF works closely with AFMA, developing and reviewing fishery management policy, legislative reform, and international negotiations[6].

2.3 Management System

Two main instruments form the legislative basis for the management of the Australian SBT fishery: the *Fisheries Management Act 1991*[7] and the *Southern Bluefin Tuna Fishery Management Plan 1995*[8]. These are supported by a framework of regulations, Statutory Fishing Right conditions, fishing permits and directions[9].

The main overarching technical measure in the fishery is an annual quota, set by AFMA to follow the CCSBT Allocated Catch for Australia and distributed equally between a set number of Statutory Fishing Rights (SFRs). Prior to the start of the fishing season, AFMA publishes an Australian TAC and the derived quota-per-SFR. All SBT catch must be covered by quota within 14 days, although there is an additional requirement that quota be held in advance of entering certain pre-defined SBT areas (see 'longlining sector', below). SFRs also act as a permit to fish for SBT, and have associated obligations such as mandatory catch reporting and location reporting via Vessel Monitoring System (VMS). SFRs can be temporarily leased or permanently traded between individuals and companies, a process which is monitored by AFMA. AFMA are also responsible for maintaining a database tracking the remaining quota held by each fisher, issuing letters informing fishers that they have exceeded their quota, and carrying out any follow-up compliance actions. Each SFR holding is associated with a nominated fishing vessel, which must be an Australian flag vessel.

A further relevant piece of legislation is the Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act). The EPBC Act is the Australian Government's central piece of environmental

[4] http://www.afma.gov.au/about-us/functions-and-powers/ (accessed 17/07/13)
[5] http://www.afma.gov.au/managing-our-fisheries/consultation/management-advisory-committees/sbtmac/ (accessed 17/07/13)
[6] http://www.daff.gov.au/about/contactus/srm#fisheries (accessed 17/07/13)
[7] Act No. 162 of 1991, Fisheries Management Act 1991. Available from: http://www.comlaw.gov.au/Series/C2004A04237 (accessed 17/07/13)
[8] Southern Bluefin Tuna Fishery Management Plan 1995. Available from: http://www.comlaw.gov.au/comlaw/management.nsf/lookupindexpagesbyid/IP200509824?OpenDocument (accessed 17/07/13)
[9] http://www.afma.gov.au/managing-our-fisheries/fisheries-a-to-z-index/southern-bluefin-tuna/fisheries-management/ (accessed 17/07/13)

legislation, and provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places[10]. In 2008 the Minister for the Environment, Heritage and the Arts (Now Minister of Sustainability, Environment, Water, Population and Communities[11]) commissioned an independent review of the EPBC Act. The final report of this review was delivered in 2009. In 2011 the Minister released the official Government response to the report as part of a broad package of reforms to Australian national environmental law[12].

2.4 History of Fishery

Catches of SBT were reported as early as the 1920s off the east coast of Australia, but significant commercial fishing for SBT did not commence until the early 1950s with the establishment of a pole-and-live-bait fishery off New South Wales, South Australia and, later, Western Australia. Purse seine gear overtook pole as the main fishing method and catches peaked at 21,500t in 1982, and the catch was primarily canned. Following quota reductions in 1983–84, the Western Australian pole fishery closed down and the south-eastern fishery began to target larger juveniles to supply the Japanese sashimi market. Surface catches were further reduced between 1989 and 1995 when about half of the Australian national quota was taken by Australia–Japan joint venture longliners. The joint venture ceased in late 1995. From 1992 to 1998, domestic longliners operating off Tasmania and New South Wales also took approximately 5–10 per cent of the total Australian catch.

In 1990/91, about 20t of SBT tuna were transferred to fattening cages in Port Lincoln, South Australia, to enhance their value. Use of the Australian SBT TAC in 'farming' operations increased from 3 per cent of the TAC in 1991–92 to 98 per cent in 1999–2000 and has remained at similarly high levels since (see Figure 2, above).

After the declaration of the Australian Fishing Zone (AFZ) in 1979, Japanese longliners fished in Australia's waters under a range of bilateral conditions, real time monitoring program and joint-venture arrangements. In 1997, Japanese longliners were excluded from all AFZ fishing operations following a failure to reach agreement on a global TAC within the CCSBT[13].

2.5 Location

The Australian SBT fishery officially extends throughout the Australian EEZ, and into nearby high seas (Figure 3). However, in practice SBT is almost exclusively caught in the Commonwealth-managed waters off the South Australian coast, with the remainder caught in the south-east (see Figure 4). The standard Australian SBT season runs from 1 December to 30 November the subsequent year. The majority of fishing by purse seine for grow out ranching occurs from December – March. Longlining for SBT occurs primarily in winter months off Southern NSW.

[10] http://www.environment.gov.au/epbc/ (Accessed 17/7/13)
[11] http://www.environment.gov.au/ (Accessed 17/7/13)
[12] http://www.environment.gov.au/epbc/review/index.html (Accessed 17/7/13)
[13] P.I. Hobsbawn, H. Patterson, I. Stobutzki, CCSBT-CC/1209/SBT - Australia's 2011Review of the Southern Bluefin Tuna Fishery

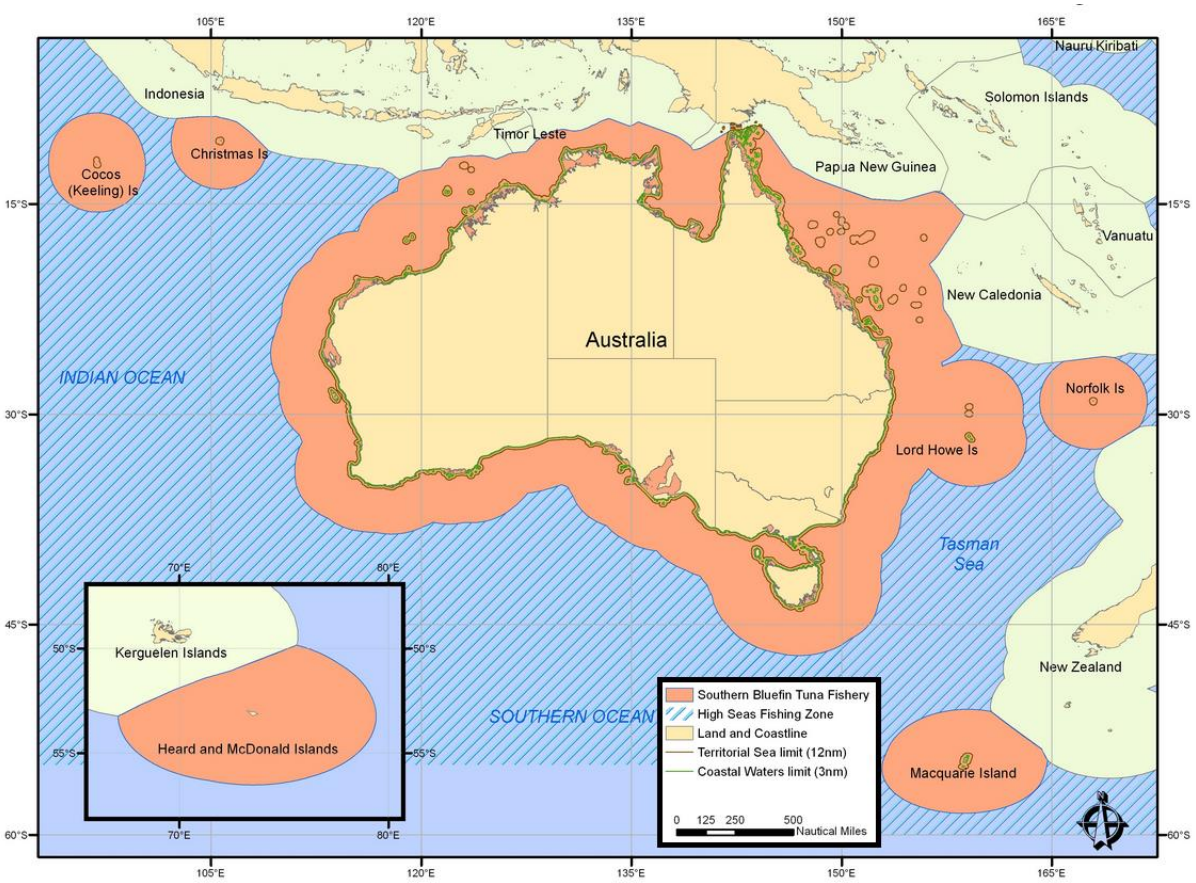


Figure 3 – Area of the Australia SBT fishery, as described by the 1995 SBT FMP. [14]

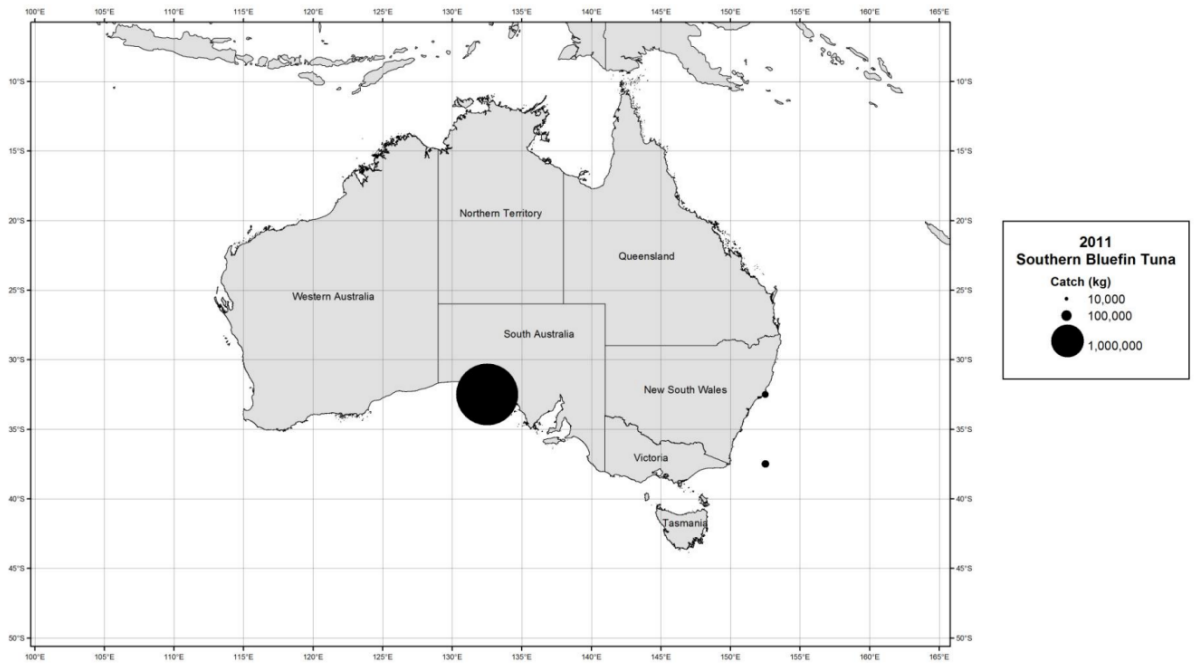


Figure 4 – Australian SBT catch in the 2011 calendar year, by 5 degree squares[13].

[14] http://www.afma.gov.au/wp-content/uploads/2010/06/Map-SBT-Fishery.jpg (accessed 17/07/13)

2.6 Farming Sector

The large majority of SBT caught by Australian vessels (around 96%) is captured using purse seine, and subsequently transferred via tow vessels to farms off Port Lincoln in South Australia where they are grown out for up to 6 months. Value is directly added by ranching in the form of additional kilograms of fish, but also exponentially as larger fish are worth more per kilo. Fishery removals for farming purposes are covered by the same SFR pool as the direct landings sector, and a similar set of daily logbook and VMS requirements. However, additional obligations are in place to ensure the accurate reporting of towing and farming activities, including mandatory observation of the stage where towed fish are transferred to the ranching cage.

2.7 Direct Landings Sector

The remainder of Australian SBT removals are taken either as bycatch in the Eastern or Western Tuna and Billfish Fisheries (ETBF, WTBF), or, less frequently, as a targeted species in its own right. The main management instrument after SFRs is the implementation of weekly-updated area-based fishing restrictions. In-year scientific monitoring allows managers to track major concentrations of SBT along the east coast, and designate nearby waters as 'core' and 'buffer' zones. The core zone is defined as an area within which there is an 80% probability of catching SBT, the buffer zone 15%. In non-designated waters the probability is estimated at around 5%. Vessels wishing to fish in a core or buffer zone must possess SBT quota, even if SBT is not the target species. There are also additional requirements for scientific observer coverage of vessels within the zones, starting at 20% coverage in the core zone and 10% in the buffer zone, and increasing as remaining quota falls to a maximum of 100% coverage on vessels with less than 500kg remaining.

2.8 Recreational fishery

Recreational angling for SBT has been popular among game fishing club members in Tasmania and South Australian waters for many years, but there has been increased activity among the general recreational fishing sector in the last five years, particularly in western Victoria waters near Portland and Port Fairy. Recreational fisheries in Australia occur primarily in the State waters within 3nm of the coast, and as such fall under the jurisdiction of State government authorities. Although no estimate of the total recreational removals of SBT is available, a regional study conducted in Victoria in 2011 suggests they may be substantial[2].

2.9 Economic Aspects

In 2010/11, the Gross Value Product (GVP) – the value of the catch at the point of transfer to pens for farming – for Australian SBT was estimated as $30.5 million. This is significantly lower (in real terms) than in earlier years (see Figure 5). The value of the SBTF catch peaked at $97.8 million in 2002/03, but then declined substantially in 2003/04 to $46.8 million, mainly driven by a reduction in average unit prices, from $18.00 per kilogram in 2002/03 to $9.20 per kilogram in 2003/04. GVP then remained stable at around $50 million, before reducing to $25 million in 2009/10 and increasing slightly in 2010/11.

SBT are farmed to achieve a higher return for harvested fish. Growing fish out to a larger size leads to a higher unit price, since larger tuna fetch higher market prices per kilogram. The value of farmed SBT production in 2010/11 (after ranching) was $115.3 million. Nearly all farmed SBT are exported. Therefore, trends in the fishery's GVP can be linked to export trends. The real value (in 2010/11 dollars) of Australian SBT exports decreased by $220.9 million (66%) between 2002/03 and 2009/10.

Most of this decrease is attributed to the reduced price received for fish, resulting from an increase in the exchange rate and increased supplies of other bluefin tuna species to international markets from European tuna farms. In 2010/11, reductions in supply were a key driver of an increase in prices on the global tuna market. The supply-side factors generally relate to reduced fishing activity, which resulted in a reduced supply of Atlantic bluefin tuna from Mediterranean. The real unit price for exported fish increased by 36% between 2009/10 and 2010/11, from $14.5 to $19.7 per kilogram (2010/11 dollars). Although this reverses the declining trend in average export unit prices since 2002/03, average export unit prices in 2010/11 were still less than half the price in 2002/03[2].

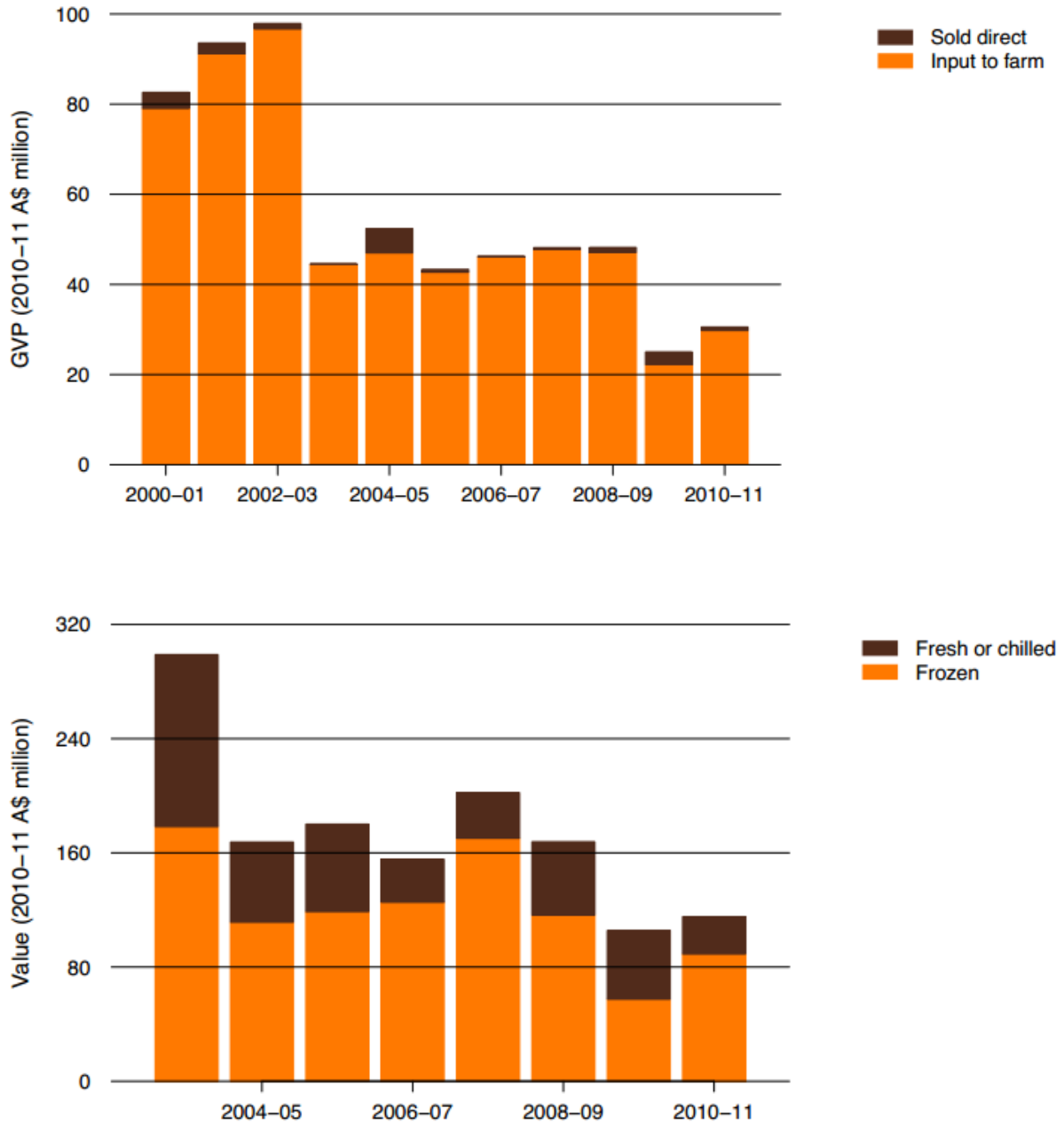


Figure 5 - Top graph: Real GVP of SBT production, by financial year, 2000/01 to 2010/11. Lower graph: Real value of SBT exports by financial year and processing methods, 2002/03 to 2010/11[2]

2.9.1.1 Key Markets

In the 2011 calendar year, Australia exported a total of 7,233.9t of SBT. Of this, 7,175t were received by Japan (around 99%). Smaller exports were made to other destinations in Asia (54.1t), the USA (2.4t) and other locations (2.4t). Australia also imported a small amount of SBT from New Zealand (285kg)[13].

Table 2 Management Authority responsibilities for Minimum Performance requirements

Management Authority	Responsibilities	CCSBT MPR
Department of Agriculture, Fisheries and Forestry (DAFF)	• Provides a legal and administrative basis for fisheries management • Develops and implements policies and programs to ensure Australia's fisheries are competitive, profitable and sustainable	1.1(i) 1, 4, legal basis for all other MPRs
Australian Fisheries Management Authority (AFMA)	• Determination of Australian TAC • Allocation of TAC and management and monitoring of SFRs and SFR trades • Design, application and management of logbooks and other fishery documentation • MCS and application of sanctions • In-year research and application of core and buffer zones	1.1(i) 1-5, 1.1(ii)

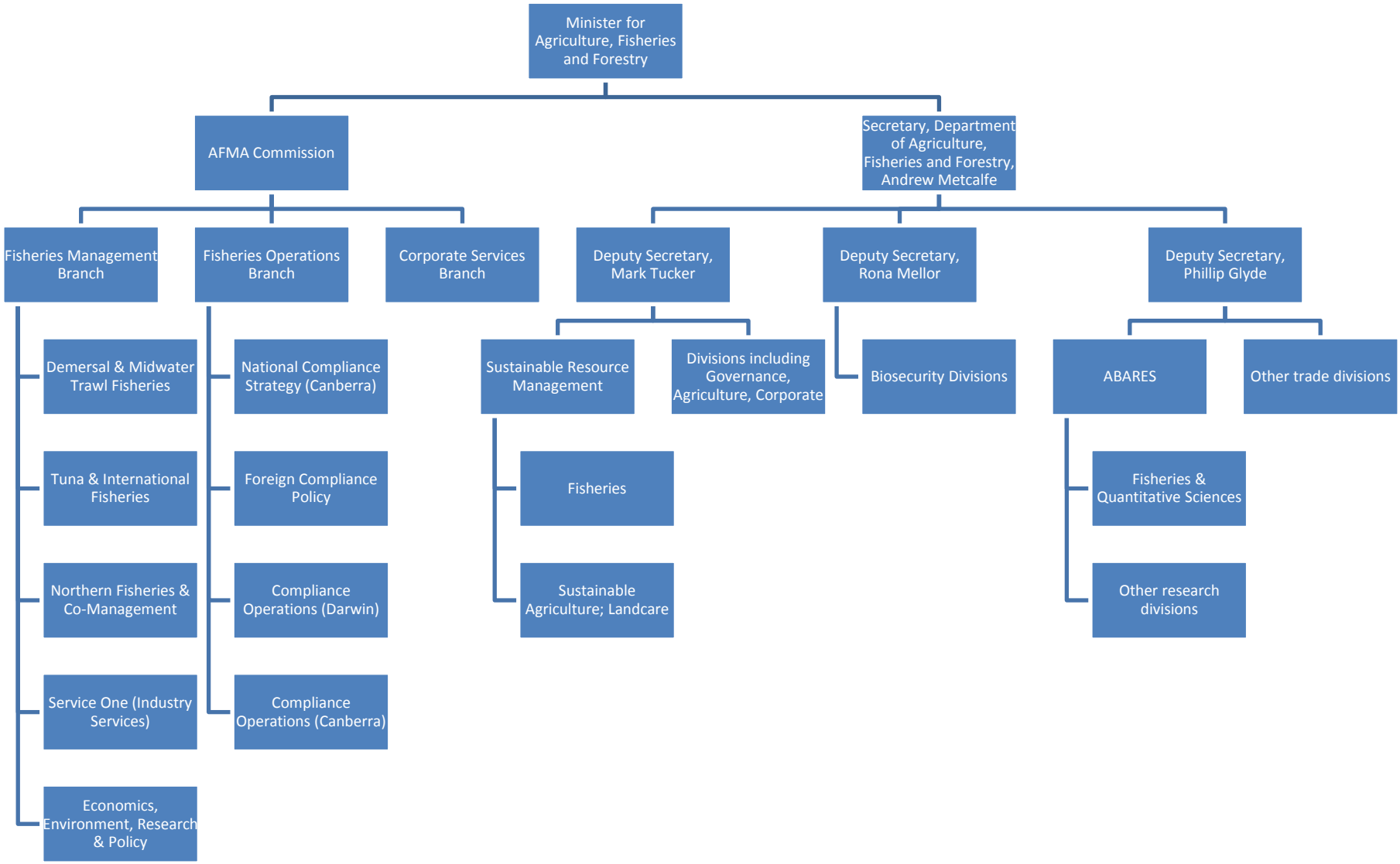


Figure 6 - Australian commonwealth fisheries management organogram. Note: some division branches not directly related to fisheries have been truncated for clarity.

3 Member Management System Implementation

This section is based on a review of information on management system processes, historical Member Compliance Action Plans against the 2012 quota allocation; data that demonstrates performance of compliance to date against the 2013 quota and including reference to 2014 allocation and direct consultation with Member through conference call and e-mail exchange.

3.1 Obligation 1.1(i)

The aim of this obligation is to ensure that Members do not exceed their allocated catch. MPR1 represents the over-arching requirement, with MPRs 2-4 describing subsidiary requirements.

3.1.1 MPR 1 – "Rules in place to ensure that the total 'Attributable SBT Catch' of each Member does not exceed the Member's Allocated Catch for the relevant period."

Summary – Effort in the Australian SBT fishery is limited by the application of a national Total Annual Catch (TAC). In recent years the TAC has been set in line with the Australian CCSBT AC. During the time period under scrutiny, the total Attributable SBT Catch (ASBTC) reported by Australia exceeded the national TAC by 19t (0.2%) in the 2009-11 season, and by 15t (0.3%) in 2011/12.

Key points

- Australian fishing season runs for 12 months from 1st December – 30th November, although between December 2009 and November 2011 a 24-month season was implemented
- SBT management plan requires the TAC be set in line with the Australian CCSBT AC
- Australia has not yet used the carry-forward procedure

The key management measure implemented to limit fishery removals in the Australian SBT fishery is a national quota. Every year, before the start of the SBT season, the AFMA Commission makes a decision on the national TAC for SBT[15]. The Australian SBT Fishery Management Plan (1995) requires the national TAC to be set at or below the Australian CCSBT AC[16]. All national quotas between 2010 – 2013 have been set at or under the CCBT allocation to Australia. For Australia, the ASBTC is defined as "All commercial catch, except catch that is released in a live and vigorous state"[17]. To date, the total reported ASBTC for Australia has been below the original AC. Figure 7 shows the national TACs and ACs since the 2009/10 season.

[15] Conference call, 19/6/13

[16] CCSBT-CC/1209/Compliance Action Plan – Australia – Australia's Compliance Action Plan for the Commission for the Conservation of Southern Bluefin Tuna

[17] Minimum Performance Requirements to meet CCSBT Obligations – Compliance Policy Guideline 1

CCSBT Year	Australia SBT Season	Allocated Catch	National TAC	ASBTC
2010 & 2011	Dec 2009 – Nov 2011	8,030t, of which not more than 5,265t to be caught in 2010/11	8,030t, no more than 5,265t to be caught in 2010/11[21]	2009/10 = 4,091t[13] 2010/11 = 3,958t[13] (Total = 8,049t)
2012	2011/12	4,528t[18]	4,528t[19]	4,543t[20]
2013	2012/13	4,698t[18]	4,698t[19]	N/A

Figure 7 - Australian Allocated Catch, TAC and ASBTC for each SBT fishing season since 2010

CCSBT ACs are allocated to Members on an annual calendar year basis. However, the standard Australian SBT fishing season runs from 1 December to 30 November in the following year. The Australian TAC is set in line with the CCSBT AC of the second calendar year in the season – i.e. the TAC for the 2012/13 season was set in line with the 2013 AC.

Between 1 December 2009 and 30 November 2011 a 24 month season was implemented, but from 1 December 2011 the SBT fishing season reverted back to a 12 month season. The reason for the two-year quota period was to counteract the drop in CCSBT AC, which came at a time when planning for the 09/10 Australian SBT fishing season was well advanced. In addition to the season adjustment, AFMA introduced a Temporary Order which enabled it to release the quota in two instalments during the extended season, and thus ensure the catch in the first year of the season did not exceed 5,265t.[21]

[18] http://www.ccsbt.org/site/total_allowable_catch.php (accessed 29/6/13)

[19] http://www.afma.gov.au/managing-our-fisheries/fisheries-a-to-z-index/southern-bluefin-tuna/notices-and-announcements/sbt-tacs/ (accessed 29/6/13)

[20] Johnathon Davy, *Pers. Comm.* 26/08/13

[21] AFMA Annual Status Report – Southern Bluefin Tuna Fishery – 2010. Available from: http://www.environment.gov.au/coasts/fisheries/commonwealth/southern-bluefin-tuna/pubs/sbt-fisheries-reassessment.pdf (accessed 17/07/13)

3.1.2 MPR 2a(i): [Operating systems and processes established to implement annual catching arrangements, including] Specification of allocations by company, quota holder or vessel

Summary - Each year the Australian national TAC is divided equally between approximately 5.3 million Statutory Fishing Rights (SFRs). In the 2012/13 season each SFR has represented approximately 0.88kg of quota, and so an individual holding 1,000 SFRs would be entitled to catch 880kg of SBT. SFRs can be leased or permanently traded at any time during the fishing season, or up to 14 days after the season ends. SFRs also act as a permit to fish, and are associated with a nominated fishing vessel. A database of SFR owners, holders, and nominated vessels is maintained by AFMA.

Key points

- AFMA publish TAC and resultant quota per SFR before the start of the season
- AFMA monitor quota trades, which can occur at any time during or up to 14 days after the end of the season.
- AFMA monitor the amount of quote remaining for each SFR holder, and the vessel to which that quota is assigned

Quota is allocated to companies and individuals using Individual Transferable Quotas (ITQs) in the form of SFRs. SFRs are granted under Section 31 of the *Fisheries Management Act 1991* and act as both an indicator of quota share and a permit to participate in the fishery[22]. As of the 8th April 2013, the total number of SFRs was 5,324,422, owned by 93 individuals and companies. Due to the facility for owners to lease SFRs, there were only 37 individuals and companies holding quota on that date. The top ten holders by number of SFRs (representing around 97% of the total number of SFRs) are shown in Figure 8.

Statutory Fishing Right holder name	No. of SFRs held as of 08/04/13	Quota share 2012/13
Australian Fishing Enterprises Pty. Ltd.	2,982,415	2631.5t
Ajka Pty. Ltd.	716,709	632.4t
Tony's Tuna International Pty Ltd	688,953	607.9t
Stehr Group Pty Ltd	369,178	325.7t
Tuna Farmers Pty Ltd	283,416	250.1t
Eyre Tuna Pty Ltd	157,340	138.8t
Sa Tuna Pty Ltd	38,128	33.6t
Charissa Pty Ltd	17,391	15.3t

Figure 8 - Top ten holders of SFR by number of rights held, as of 8th April 2013. These holders represent 97% of the total number of SFRs[23].

[22] http://www.afma.gov.au/services-for-industry/licensing-and-quota-management/statutory-fishing-rights-and-permits/ (accessed 29/6/13)

[23] https://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&cad=rja&ved=0CEAQFjAC&url=http%3A%2F%2Fwww.afma.gov.au%2Fwp-content%2Fuploads%2F2013%2F04%2FSouthern-Bluefin-Tuna-Fishery-9-April-2013.xls&ei=8PrOUaCyEamI7AbGsICACQ&usg=AFQjCNEApRuBrr6NqGub7Bg0qv8LYEO9qg&sig2=S-it7tCJJ002TmkrYongzQ&bvm=bv.48572450,d.ZGU (Accessed 17/7/13)

Each year the national TAC is divided equally between SFRs, entitling SFR holders to a portion of the TAC equivalent to the proportion of SFRs held. The total Australian TAC for the 2012/13 season was set at 4,698t, equating to 0.8823492kg/SFR[19].

The number of SFRs remains constant from year-to-year, and so the quota weight represented by each individual SFR varies depending on the total quota. Although SFRs can be traded or leased (see below), SFR holders who do not trade their rights retain the same number every year[15]. AFMA provides quota holders[24] and leasers[25] with certificates stating the relevant number of SFRs. There are no non-Australian owners of SFRs, although some companies which own SFRs may have international owners. In general SFRs are owned by the individuals or organisations prosecuting the fishery[15].

SFRs must be nominated to a specific Australian vessel, although such nominations are not permanent and holders may apply to AFMA to transfer the nomination. SFRs have an associated list of conditions including mandatory pre-departure reporting (to AFMA), mandatory Integrated Computer Vessel Monitoring System (ICVMS) implementation with Automatic Location Communicator (ALC), and mandatory logbook requirements as described in detail in the logbook section below[26].

SFRs can be traded at any time in the season, and up to 14 days after the end of the season to cover previous catches. Vessels also have 14 days after catching fish for which they do not already have quota to purchase sufficient SFRs. In the majority of similar Australian fisheries, the period is 28 days, and the reduced period in the SBT fishery is intended to reflect the importance of obtaining quota for the species. SFR trades can be permanent or temporary (i.e. leased, returning to the original owner for the subsequent fishing season). The monetary value of any trades is determined solely by the trading parties and is not directly influenced by AFMA. There is no distinction between quota used for farming and quota used for longlining. There are no restrictions on the maximum number of SFRs which can be held by an individual or organisation[15], and there are no restrictions on who can buy SFRs[27].

AFMA must be informed of any trades electronically or by post using a *Permanent Transfer Application for Fishing Concessions*[28] (TC form) or a *Seasonal Lease Application for Fishing Concessions*[29] (LC form). In addition to the TC or LC form, applicants must complete *Attachment SBT*[30], which is specific to the trading of SBT SFR. Finally, if the new SFR holder intends to utilise the quota a different vessel to the previous holder, a *Boat Nomination*[31] form must be completed. The holding of SBT SFR acts as a permit to fish, and so any nominated vessel with quota remaining can fish for SBT. AFMA tracks the remaining SFRs nominated to each vessel, and therefore the vessel's remaining quota. The paper or electronic forms must be signed by both the current and new owners of the SFR. When leasing, the leaser will notify AFMA and the receiver will confirm the amount. Paper copies are countersigned when submitted[15].

[24] Certificate of Quota Statutory Fishing Rights – Appendix 3.5

[25] Lease Confirmation form – Appendix 3.6

[26] http://web-test.afma.gov.au/wp-content/uploads/2010/07/sbt_conditions.pdf (accessed 29/6/13)

[27] Matthew Daniel, *Pers. Comm.* 16/7/13

[28] Form TC – Appendix 3.1

[29] Form LC – Appendix 3.2

[30] Attachment SBT – Appendix 3.3

[31] BN – Appendix 3.4

3.1.3 MPR 2a (ii): [Operating systems and processes established to implement annual catching arrangements, including] **Arrangements for daily recording of all catches**

Summary - All Australian vessels fishing for SBT, or which might catch SBT as bycatch, are required by law to complete a gear-specific daily logbook detailing catch, including date, time, location and an estimate of weight caught.

Key points

- All commercial catch recorded by crew in mandatory gear-specific logbooks
- Catch data recorded on a daily, shot-by-shot basis
- Australian CCSBT definition of Attributable SBT Catch encompasses commercial retained catch only

Daily catch data are recorded in logbooks which are mandatory under Section 42 of the Fisheries Management Act 1991[16]. Data are collected on a shot-by-shot basis. The specific paperwork completed varies depending on gear type and purpose (i.e. farming or longlining). The forms which must be completed daily by SBT catcher vessels are as follows:

- TPB03 – Australian Purse Seine and Pole Daily Fishing Log – For Farmed Southern Bluefin Tuna Only[32]. Data required includes vessel information; reasons for not fishing on days when this occurs; date; search details, including whether a spotter plane was used; fishing start time and location; number of poles used; weight and type of bait; estimated catch weight per shot, SBT and other species; estimated % of school caught; carrier boat name; weight transferred; transfer date; SBT03 form reference details; ERS interactions.
- AL06 – Australia Pelagic Longline Daily Fishing Log[33]. Data required includes vessel information; non-fishing dates and reasons; shot-by-shot records of: target species, set times and locations, haul times and locations, vessel shooting speed, line length + number of hooks, seabird mitigation measures used, gear details, catch details including number of fish kept and discarded, estimated weight for each species; observer presence; ERS interactions; vessel and concession-holder details.
- PS01A – Purse Seine Daily Fishing Log[34]. AFMA reports that there has been no non-farm purse seining for a number of years[35]. Data required by this logbook includes vessel information; non-fishing dates and reasons; list of assisting vessels; shot-by-shot record of date, search hours, spotter plane use, start time and location, estimated catch weight by species, estimated % of school caught, estimated weight of non-retained catch, bait details; ERS interactions; vessel and concession-holder details.
- TPB01 – Pole Daily Log for Purposes Other Than Farming[36]. AFMA reports that there has been no pole fishing for SBT for a number of years[35]. Data required by this logbook includes vessel and trip information; non-fishing dates and reasons; daily record of fishing location

[32] TPB03 – Appendix 3.7
[33] AL06 – Appendix 3.8
[34] PS01A – Appendix 3.9
[35] Matthew Daniel, *Pers. Comm.* 17/7/13
[36] TPB01 – Appendix 3.10

and times, species caught (including bait species) and school catch percentage; landing details; verified catch weight (total and per species); and ERS interactions.

All logbooks must be completed on a shot-by-shot and daily basis by the vessel. Every day the fishing concession is in force must be accounted for, regardless of whether fishing took place on that day. Logbooks must remain within 50m of the boat nominated in the front of the book.

In Australia, the Attributable Southern Bluefin Tuna Catch (ASBTC) is defined as "All commercial catch, except catch that is released in a live and vigorous state"[17]. Australian vessels have the option to release SBT "alive and vigorous at the place they were taken immediately after capture, and before any transfer of the fish to a tow cage or another place"[37]. Such fish will not be deducted from the vessel's quota provided the weight, location and reason for release are recorded in the logbook.

AFMA has also implemented the CCSBT Catch Documentation Scheme (CDS). The CDS was first introduced in January 2010 to provide for tracking and validation of legitimate SBT product from catch to the point of first sale[38]. Although CDS documentation does contain much of the same information as the Australian national logbooks and other paperwork, the implementation of the CDS scheme is not specifically a requirement of the CCSBT Minimum Performance Requirements covered by this quality assurance review (instead falling under section 3.1 – Catch Documentation System (Resolution))[17]. However, CDS paperwork is considered in a number of sections of this review in relation to its role aiding the estimation of total fishing mortality, and ensuring the accuracy of fishery removals estimates.

[37] http://www.afma.gov.au/wp-content/uploads/2010/06/SBT-Pre-Season-Brief-2011-2012-1.pdf (accessed 29/6/13)

[38] http://www.ccsbt.org/site/monitoring_control_surceillance.php (accessed 29/6/13)

3.1.4 MPR 2a (iii): [Operating systems and processes established to implement annual catching arrangements, including] **Weekly reporting of catches by large scale tuna longliners and monthly reporting of catches by coastal fishing vessels.**

Summary – Australian SBT vessels are required to submit daily logbooks and catch disposal records to defined timescales

Key points

- Logbooks TPB03 and TPB01 must be submitted to AFMA in Canberra by the 14th day of the following month.
- An estimate of each purse seine haul is faxed to AFMA within 24 hours of being transferred to a tow vessel.
- Logbook AL06 must be submitted within 3 calendar days of the end of the fishing trip. Logbook PS01A must be submitted within 3 calendar days of the consignment being unloaded.

The majority of the Australian SBT fleet are purse seiners. These vessels must return daily catch logbooks to AFMA before the 14th day of the following month. An estimate of each haul is faxed to AFMA within 24 hours of being transferred to a tow vessel. A more accurate estimate of total SBT weight must be returned to AFMA within 24 hours of the fish being transferred to the farm[16].

The remainder of Australian SBT is directly landed. Catch data from pelagic longliners must be submitted to AFMA within 3 days of the end of the fishing trip. Catch data from non-farm purse seiners must be submitted to AFMA within 3 days of the fish being unloaded. Catch data from vessels using poles must be submitted to AFMA by the 14th day of the following month[16].

The completion of catch disposal records and logbooks and their submission to AFMA are conditions placed on the holders of SFRs[26].

3.1.5 MPR 2b: [Operating systems and processes established to], in accordance with the CCSBT timeline, monitor all fishing-related mortality of SBT

Summary - Australia has reporting procedures and paperwork in place to ensure the reporting of commercial catch and discards. Commercial catch weights are recorded accurately at landing or estimated upon transfer to farms, and mortalities are estimated by crew members and observers.

Key points

- Commercial retained catch is estimated in mandatory daily logbooks. In the case of SBT landed directly, an accurate weight is obtained at landing. In the case of farmed fish, a more accurate estimate is made when the catch is transferred to the farm cages.
- Commercial discard mortality is estimated and reported to AFMA in the daily fishing logbooks.
- Commercial towing mortality is estimated and reported to AFMA in the daily farm transit log.
- Non-commercial (i.e. recreational) fisheries are managed and monitored by the individual Australian states. No estimate is currently available of total nationwide non-commercial retained catch or non-commercial discards, although a project is underway to develop a methodology for the calculation of such.

MPR 2b states that Australia should immediately monitor fishing-related SBT mortality from the following sources: Commercial retained catch; Commercial discard mortality; Commercial towing mortality; Non-commercial retained catch; Other discard mortality; Other sources of mortality. Commercial retained catch and commercial discards are recorded in the daily logbooks described in detail in section 3.1.3. In addition to these logbooks, vessels fishing for SBT or landing it as bycatch must complete a number of other forms. In the case of the farming sector, there is also additional paperwork to be completed by tow vessels and the farms themselves. This documentation provides further record of commercial retained catch, and some other sources of mortality.

3.1.5.1 Farm sector

Tuna caught for farming purposes undergoes a series of transfers between various holding devices before its eventual harvest. Wild caught SBT is first transferred from the purse seine to a pontoon, which is towed over a period of up to three weeks to the farm, where it is transferred to ranching cages for growing out. A number of mandatory forms are used to capture data at each stage of the process.

TPB03, described in detail in the section above, records information about the daily catch and the tow vessel to which catch is transferred. SBT02[39], *Farm Catch Disposal Record*, also filled out by the catcher vessel, records more detailed information about the transfer, including time, mortalities and estimated weight of fish transferred. This form must be faxed to AFMA within 24 hours of the start of the tow, and is used to make a preliminary quota reduction from the SFR holder before a more accurate final estimate is available from the farm transfer paperwork (see SBT04B, below).

[39] SBT02 – Appendix 3.11

SBT03B[40], *Farm Transit Log*, is completed by the tow vessel, and includes, amongst other things, a record of the catcher vessel, mortalities during the tow, and the eventual receiver of the fish. A fourth form, SBT04B[41], *Farm Catch Disposal Record*, is filled out at the time of the transfer to the farm, and includes an estimate of the total weight of mortalities up to that point, plus the total weight of fish transferred to the farm. SBT04B contains the final total weight to be deducted from the SFR holder's quota, and as such is signed by the tow vessel, the fish receiver, the person sampling the fish to estimate the transfer weight, and an AFMA agent.

In summary, the estimate of total number of commercial mortalities is arrived at as follows:

(Total mortalities during pursing and transfer to tow cage, from form SBT02) + (Total cumulative mortalities during tow, from form SBT03B) + (Total mortalities between tow cage arriving at farm and transfer to farm enclosure) = Total mortality

This mortality estimate is added to the estimated weight of the live fish transferred to the farm, and the total is subtracted from the SFR holder's quota share.

The total weight of live fish transferred from tow cage to farm is estimated using a combination of 100-fish sample (to determine average weight per fish) and a visual count of the number of fish transferred. Details of this process are included in section 3.1.6, below. The total weight of live fish transferred is added to the estimated total weight of mortalities, and this value is subtracted from the quota.

During the 2011–12 fishing season, no discarding of SBT was observed or reported in logbooks collected in the purse seine fishery. However, two observed sets were aborted because fish were too small. All fish were released alive[13].

Fishing vessels, tow vessels and farms are also required to complete CCSBT CDS documentation.

- CCSBT CDS Farm Stocking Form (FSAU). Completed by the quota holder (or representative) at the end of the fishing season and validated by an AFMA official. Contains a summary of all the fish supplied by a specific catcher vessel, including the tow vessel and date of each tow, an estimate of total tow mortalities, and the date, average weight of fish and number of fish transferred at each farm stocking;
- CCSBT CDS Farm Transfer Form (FTAU02). Completed by farms whenever SBT is transferred from one farm to another. Contains information on the transferring and receiving farms and the tow vessel conducting the transfer;
- CCSBT CDS Catch Tagging Form (CTAU02). Completed by the farm after final harvest. Contains information on each individual fish, including size and weight and the associated tag number (which is also physically attached to the fish);
- CCSBT CDS Catch Monitoring Form (CMAU02). Completed by the farm after final harvest and validated by a licenced fish receiver. Contains a summary of the total weight and number of fish harvested, and the destination of the fish (i.e. export or domestic sale);
- CCSBT CDS Re-Export/Export After Landing of Domestic Product (REAU02). Used to further track the fish in the case of export or re-export after domestic landings.

[40] SBT03B – Appendix 3.12
[41] SBT04B – Appendix 3.13

3.1.5.2 Direct landings sector

In the direct landings sector, in addition to the daily logbooks described in the section above (AL06, PS01A and TPB01), a *Commonwealth Pelagic Fisheries Disposal Record* (form PT02B[42]) must also be completed, by the vessel or designated representative and the fish receiver. PT02B records an accurate total landings weight which is used to deduct quota from the SFR holder.

In the ETBF in 2011 451 SBT were observed to be caught, of which 255 were retained, 196 were discarded, and 194 released alive. Retained SBT ranged from 104cm to 204cm in length. ETBF logbooks for 2011 showed a total of 1438 fish (84.2t) were retained in the ETBF and 203 (12.4%) were released. No SBT were observed or were reported to be caught in the WTBF in 2011[13].

Fishing vessels and fish receivers are required to complete CCSBT CDS documentation.

- CCSBT CDS Catch Tagging Form (CTAU02). As described above, except completed by the vessel at landing rather than farm harvest;
- CCSBT CDS Catch Monitoring Form (CMAU02). As described above;
- CCSBT CDS Re-Export/Export After Landing of Domestic Product (REAU02). As described above.

3.1.5.3 Recreational fishery

Australian recreational fisheries occur in state waters, and as such are not managed by the commonwealth via AFMA. AFMA collects and collates information on the estimated scale of the SBT landings from State authorities, but has no management powers. No estimate of the total recreational removals of SBT is available. A regional study in western Victorian waters between March and July 2011 estimated a total of 19,700 SBT were retained, weighing about 240t[2].

Australia is undertaking a project valued at $500,000 to assess the national recreational and charter catch of southern bluefin tuna. This will develop a methodology to survey recreational SBT catch in all relevant states[20]. The project will combine information from all states where SBT are caught by recreational fishers, from targeted SBT fishing surveys, indicators of activity levels and other recreational monitoring projects. Australia has committed to the CCSBT to provide regular updates as they are available[13].

[42] PT02B – Appendix 3.14

3.1.6 MPR 2c: Ensure accuracy of the "Attributable SBT Catch", including (for fishing Members) a physical inspection regime of SBT caught by the Member's fishing vessel, and (for farming Members) monitoring the accuracy of the stereo video monitoring and adjusting/ re-calibrating where necessary.

Summary - For Australia, ASBTC is defined as "All commercial catch, except catch which is released in a live and vigorous state". Efforts are made to ensure the accuracy of commercial catch estimates.

Key points

- At-sea observer coverage is around 20% for farm purse seining, 5% for towing, and 6-10% in the direct landings sector
- Vessel inspections conducted at sea and in port
- AFMA representative must be present whenever SBT is transferred from a tow vessel to a farm

3.1.6.1 Observer Program

AFMA operates an observer program throughout the SBT fishery, including observation of vessels in the farming and direct landings sector, and observation of tow vessels. The observer program is primarily aimed at accurate catch and mortality reporting and is not a compliance mechanism to any significant extent[15]. Operators must, if requested by AFMA, allow a fishery observer nominated by AFMA and fishery observer's safety and monitoring equipment to be carried on board vessels nominated to fish in the fishery. The right to fish may be suspended if the holder fails to carry an observer[37].The observer coverage target in the purse seine fishery is 10% per season, as is the target coverage of tow operations. Coverage in the 'direct landings' sector is more complex.

Throughout the SBT season, AFMA monitors the locations of schools along the east coast. Based on this research, areas with a high probability of SBT bycatch are designated 'core' and 'buffer' zones. The location and timing of the Core and Buffer Zones is determined by analysing the available information from a variety of sources including outputs from an SBT habitat preference model produced by the Commonwealth Scientific and Industrial Research Organisation (CSIRO), sea surface temperatures, landings data, scientific observer and vessel monitoring system (VMS) data and industry advice[16]. The core zones are set over an area believed to contain 80% of the east-coast SBT, and the buffer zone an additional 15%. The locations of these zones are updated on a weekly basis[15]. Vessels participating in the ETBF, or wishing to target SBT specifically, are required to hold SBT quota before entering a core or buffer zone. The level of observer coverage varies depending on the location of the vessel and the amount of SBT quota remaining. The minimum observer coverage is 10% for vessels in the buffer zone and 20% for vessels in the core zone. Coverage targets increase with decreasing quota. Any vessel fishing in the core zone with less than 500kg of SBT quota remaining is subject to 100% observer coverage.

In the WTBF, AFMA ensures that longline boats operating in waters east of longitude 129°E are subject to at least 10% scientific observer coverage. In other waters of the WTBF, AFMA aims to

maintain scientific observer coverage of at least 5%[16]. As noted previously, the amount of SBT bycatch in the WTBF is minimal.

Scientific observer coverage for recent fishing seasons is as follows[16]:

Farm sector

- Purse seine operations – 21 shots observed = 19.8% of total sets for the 2010/11 fishing season;
- Tow operations – 4.8 % of tows for the 2010/11 season.

Longline sector

- 7.7% of total hooks during the months and in the areas of the SBT migration in the ETBF and 2.5 per cent of operations in the WTBF in 2010;
- 6.3% (or 9.6% during the months of the SBT migration) of total hooks deployed in the ETBF and 1.7% of total hooks deployed in the WTBF in 2011.

Scientific observers are briefed and debriefed following each trip. Issues identified in these briefings and in observer reports are analysed on a case by case basis.

3.1.6.2 Farm transfer monitoring

Every transfer of fish from a tow vessel to a farm must be observed and verified by an AFMA Authorised Agent (AAR), currently Protec Marine Pty Ltd. The AFMA pre-season briefing guide[37] details the methodology to be used to estimate the total weight of fish transferred. The final estimate is the value added to the total mortality described in section 3.1.5.1 and subsequently subtracted from the SFR holder's quota share. A summary of the procedure is as follows; full details are in the pre-season briefing document in Appendix 3 (form xvi):

1. A baited line is used to catch a minimum of 100 fish from the tow cage (until recently the sample size was 40). This process is directed by the AAR. Sampled fish must weigh at least 10kg. The AAR may use multiple weighing scales and will calibrate them beforehand. A weight sample completed without the AAR attendance is not a verified sample.
2. Two Protec Marine Pty Ltd representatives must be present when fish are transferred from the tow cage to the fish farm and oversee the operation of the video. The transfer is videoed in such a way as to ensure all fish transferred are visible.
3. The estimated number of fish transferred is multiplied by the average weight of the 100-fish sample to produce an estimated total weight of fish transferred.

The 14th meeting of the CCSBT Scientific Committee considered the issue of potential bias in the sampling regime used to monitor farms[43]. An independent review conducted in 2006 did not come to any firm conclusions on the subject, however AFMA recognises that the main risk to management arrangements of the SBT purse seine fishery identified through previous assessment reports and through the CCSBT lies with the accuracy of estimated weight of SBT transferred to grow out farms

[43] Commission for the Conservation of Southern Bluefin Tuna - Report of the Fourteenth Meeting of the Scientific Committee – 5 - 11 September 2009 Busan, Korea. Available here: http://www.ccsbt.org/userfiles/file/docs_english/meetings/meeting_reports/ccsbt_16/Report_of_SC14%20-%20Public.pdf accessed 17/07/13)

as well as the methods of determining this weight[21]. These risks are being addressed through development of stereo video technology.

Although the documentation describing the stereo-video counting procedure is still under development, AFMA intends to implement the technology from the start of the 2013/14 season (i.e. December 1st 2013). All stereoscopic imaging equipment will be to a standard specification[15]. A 2011 trial of the stereo-video counting process concluded that it "measures more fish than the current methodology, and improves the precision of the average weight estimate". The main criticisms of the system when compared to the current counting methodology were that it provided estimates of total weight only after the cage has been stocked (potentially leading to over- or under-stocking), and it is more expensive[44].

[44] CCSBT-CC/1110/11 - Technical assessment of the 2011 commercial trial of stereo-video in the Australian southern bluefin tuna farm sector

3.1.7 MPR 3: All fishing-related SBT mortality is reported annually to the Extended Scientific Committee, for incorporation into stock assessment analysis, and to the Commission.

Summary – All fishing-related mortality is reported to the CCSBT on a quarterly basis.

Key points

- Logbook contents and CDS documentation submitted to CCSBT quarterly.

Copies of all CCSBT CDS documents issued and received by AFMA are provided to the CCSBT on a quarterly basis, which forms an integral part of AFMA's auditing procedures wherein AFMA analyses, identifies discrepancies and reconciles all CCSBT CDS documents submitted by Australia[13]. Australian national documentation (i.e. daily logbooks, catch disposal records) are also compiled and submitted to CCSBT on a quarterly basis[15].

There have been no incidences identified where the Australian authorities did not provide this information to the CCSBT Secretariat within the required timeframe.

3.1.8 MPR 4: Operating systems and processes applied to monitor compliance with annual catching arrangements, and impose sanctions or remedies where necessary.

Summary – Operating systems and processes are in place to monitor compliance with catching restrictions. Legal instruments allow sanctions to be imposed upon transgressions.

Key points

- Compliance is monitored using a mandatory annual two-stage audit of farms and fish receivers, mandatory VMS, and at-sea and portside inspections
- Sanctions are applied under section 95 of the Fisheries Management Act, and include fines, suspensions of fishing rights, and forfeiture of vessels and other equipment
- AFMA conducts a compliance risk assessment program to identify potential areas under which compliance may be at risk

3.1.8.1 Farm and fish receiver audits

AFMA conduct an annual two-stage audit process to ensure the accuracy of SBT documents and the compliance of those engaged in the fishery. The Level 1 audit is desk-based and covers all farms and receivers. During the Level 1 farm audit, all the documentation returned to AFMA in relation to the farm is examined, and compared to final estimates of fish in and out for the entire season. The Level 1 audit of fish receivers is a similar process. Examples of the templates for Level 1 farm[45] and wild-catch[46] audits are included in Appendix 3.

Based on the outcomes of the Level 1 audit, and any events during the SBT season, 2 or 3 farms are selected for the Level 2 audit. This involves a site visit. The stated objective of the site visit is, "*Verifying the caught/harvested/sold SBT numbers have been successfully documented and that all relevant export/sold documentation is completed fully and accurately. All company documentation of fish numbers for exports/sales balances with other documentation of exports/sold fish. To identify any compliance issues. To ensure AFMA is satisfied that no more fish have been harvested for sale than originally counted into farms to help meet AFMA's objective of sustainable fishing.*"[47] A Level 2 audit includes a full sire audit conducted in person by fisheries officers who review all company records including spread sheets, feed boat logs, dive logs, sales and export documentation.

In addition, AFMA fisheries officers may also conduct targeted compliance operations to inspect fishing boats at sea, in port, and also conduct random audits of fishing companies, fish receivers and export establishments[13].

[45] Template for farm audit Level 1 2011/12 season – Appendix 3.15
[46] Template for wild catch audit Level 1 2011/12 season – Appendix 3.16
[47] Guidelines for conducting Level 2 audit – Appendix 3.17

3.1.8.2 Vessel Monitoring Systems

It is a mandatory requirement that any vessel nominated to an SBT SFR is fitted with an Integrated Computer Vessel Monitoring System (ICVMS) of a category specified in the register of AFMA approved units[48]. The VMS unit must remain switched on at all times including when the boat is in port or fishing in state waters. The concession holder must ensure the VMS is reporting correctly before going out to sea for the first time and that no interference occurs with the correct operation of the VMS unit. On becoming aware of a problem with the VMS functioning, the concession holder must advise AFMA as soon as practicable[37].

3.1.8.3 At-sea and portside inspections

Australian fisheries officers conduct inspections of landings at key SBT ports, as well as at-sea boardings and inspections of boats taking SBT in the longline and purse seine fisheries. In 2010/11, Australian fisheries officers conducted 55 inspections of SBT/ETBF boats. In 2011/12, 25 inspections were undertaken[16].

Figure 9 summarises the inspection regimes in the 2011/12 and 2012/13 seasons.

3.1.8.4 Sanctions

The principal offence for non-compliance is found under Section 95 of the Fisheries Management Act 1991[7], for breaching a condition of a concession. Penalties include fines (under Section 95(5) of the Act), suspension or cancellation of concessions (under Section 98(3) of the Act), an order directing a person not to be on a boat for a specified time (under Section 98(1) of the Act) and forfeiture of the boat, equipment, catch and/or proceeds of catch (under Section 106 of the Act)[16].

3.1.8.5 Recent infringements and sanctions

In 2012 an investigation for offences identified as part of a 2010 at sea inspection by AFMA and Primary Industries Resources, South Australia led to seven fishermen being convicted in the Port Lincoln Magistrate Court for crimes associated with the illegal fishing of Southern Bluefin Tuna, the shooting of protected seabirds and littering at sea. The fishermen were fined a total of $22,000. This outcome was also associated to fine previously handed down by the Port Lincoln Magistrates Court on 12 December 2012; which was issued to an SBT operator to the amount of $1,867.00 for a breach of permit conditions[20].

In 2013 the master of an SBT tow cage boat was issued a Commonwealth Fisheries Infringement Notice (CFIN) for failing to complete a logbook[20].

[48] Register of AFMA-approved ICVMS units – http://www.afma.gov.au/industry/vms/approved.htm

Inspection type	2011-2012	Outcome
At Sea	One patrol (eight days at sea) 11 boats inspected	No offences detected
In Port*	20 different ports 129 inspections 136 days in the field	Variety of offences detected
Fish Receiver*	71 premises inspected	Warnings issued for non-display of permits
At Sea	One patrol (eight days at sea) 15 boats inspected	The master of one SBT tow cage boat was issued a CFIN for failing to complete a logbook.
In Port*	24 different ports 232 inspections 96 days in the field	Various offences detected
Fish Receiver*	45 premises inspected	

Figure 9 – Inspection summary for 2011/12 and 2012/13[20]. *Note that this number is for all fisheries and not just SBT.

3.1.8.6 Compliance risk assessment

AFMA conducts a biennial risk assessment of compliance issues in Commonwealth fisheries. The most recent assessment, conducted in 2011/12, identified 15 risks across Commonwealth fisheries that were assessed as moderate/high and high. From the executive summary of the 2012/13 National Compliance and Enforcement Program report[49], the most significant risks were:

- failure to have a Vessel Monitoring System (VMS) operating at all times (risk rating: low/moderate)
- fishing/navigating in closed areas against regulation (risk rating: moderate)
- failing to reconcile quota within the required timeframe (risk rating: low/moderate).
- failure to report interaction/retention of protected or prohibited species (risk rating: moderate/high)
- quota evasion and avoidance including (risk rating: high):
    - unreported take of quota species and/or misreporting in Catch Disposal Records (CDRs) to avoid quota decrementation
    - non-completion of CDRs by concession holders fishing solely on minor line boat Statutory Fishing Rights

[49] AFMA – National Compliance and Enforcement Program 2012-13. Available here: http://www.afma.gov.au/wp-content/uploads/2010/06/National-Compliance-and-Enforcement-Program-2012-13.pdf (accessed 3/7/13)

- misreporting of mortalities within the Southern Bluefin Tuna farm sector (during capture, transfer to tow cages and towing phases).

These key identified risks inform the national compliance program, including allowing targeted inspections and patrols.

3.2 Obligation 1.1(iii)

The aim of this obligation is to ensure that Members have processes in place to effectively and accurately manage the carry-forward of quota from one year to the next, within the restrictions agreed by the CCSBT.

NOTE: MPR 1 applies only to Members which have decided to adopt the carry-forward procedure.

3.2.1 MPR 1a: An accurate, verified and robust figure for the final Attributable Catch is available before the notification to the Secretariat of the carry-forward, and a report on the adoption and use of the carry-forward procedure is included in each annual report to the Extended Commission.

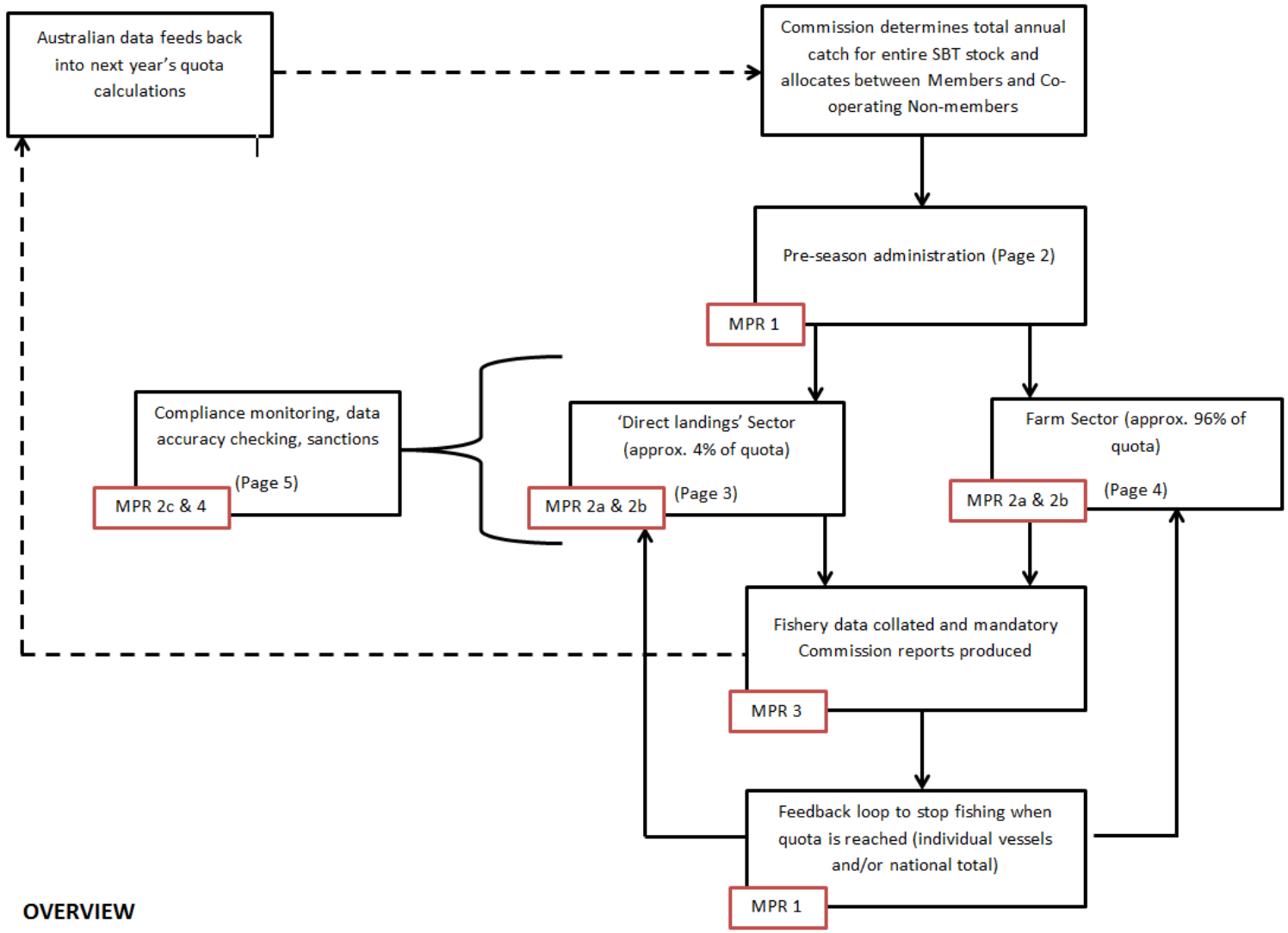
Summary – Australia has only recently adopted the carry-forward procedure and has not provided detail on the process to date.

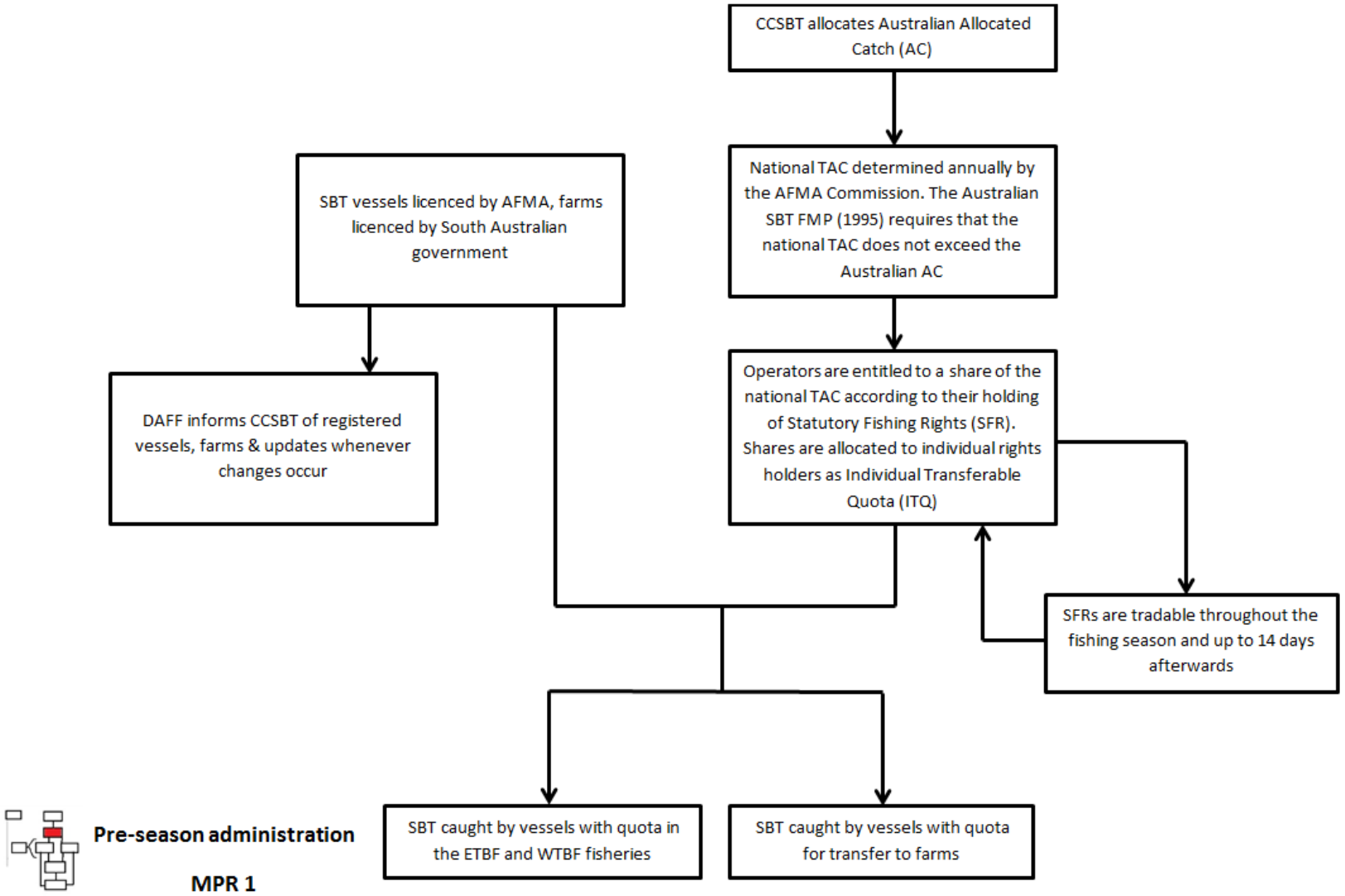
Australia has only recently adopted the carry forward procedure through amendments to the *Southern Bluefin Tuna Fishery Management Plan 1995* and will supply these figures 20 days after the end of the current fishing season that ends 30 November.

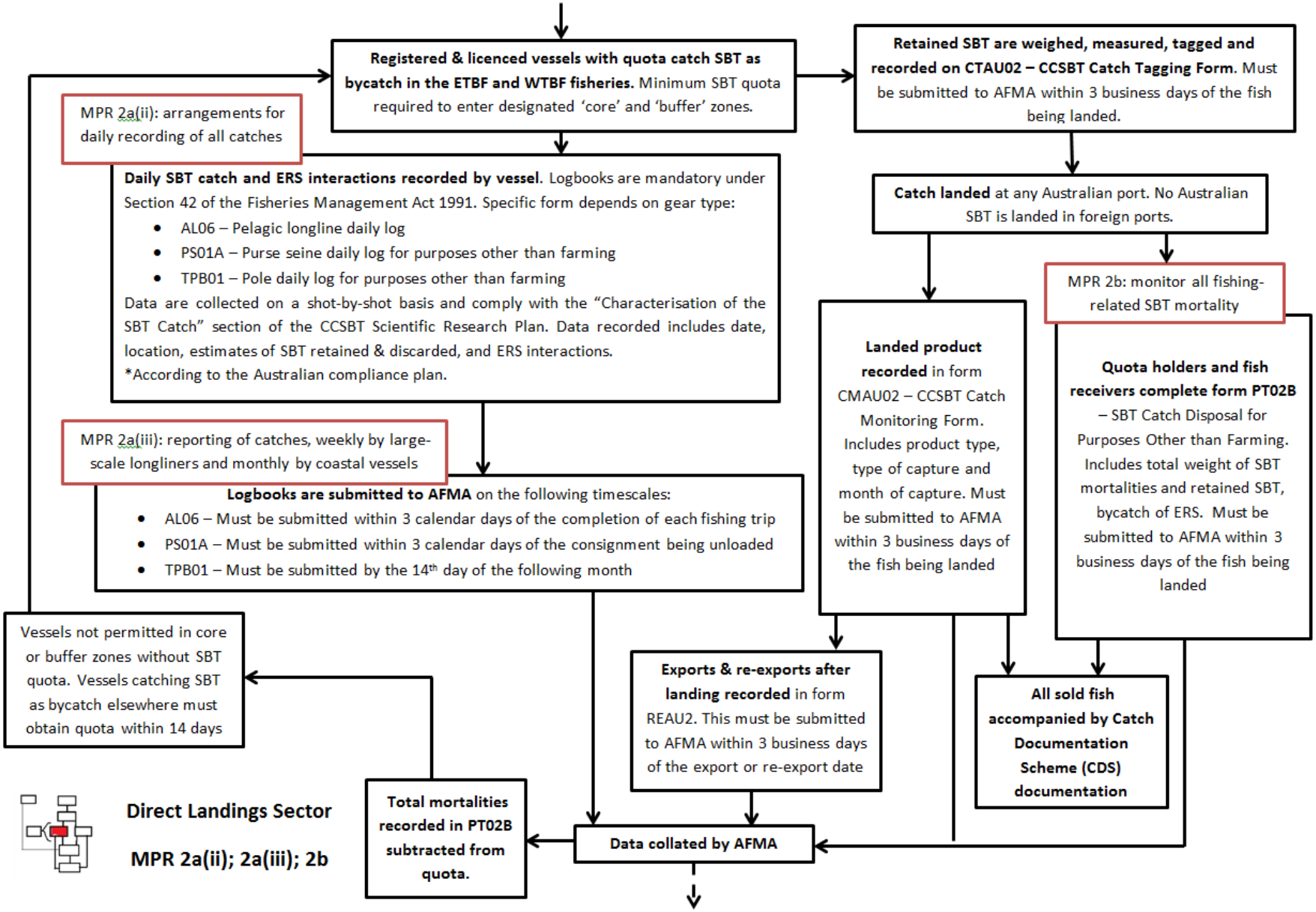
3.2.2 MPR 1b: The Executive Secretary is formally notified of the catch for the concluded quota year together with the available catch limit (Catch Allocation + carry-forward) for the new quota year within 60 days of the start of the new quota year.

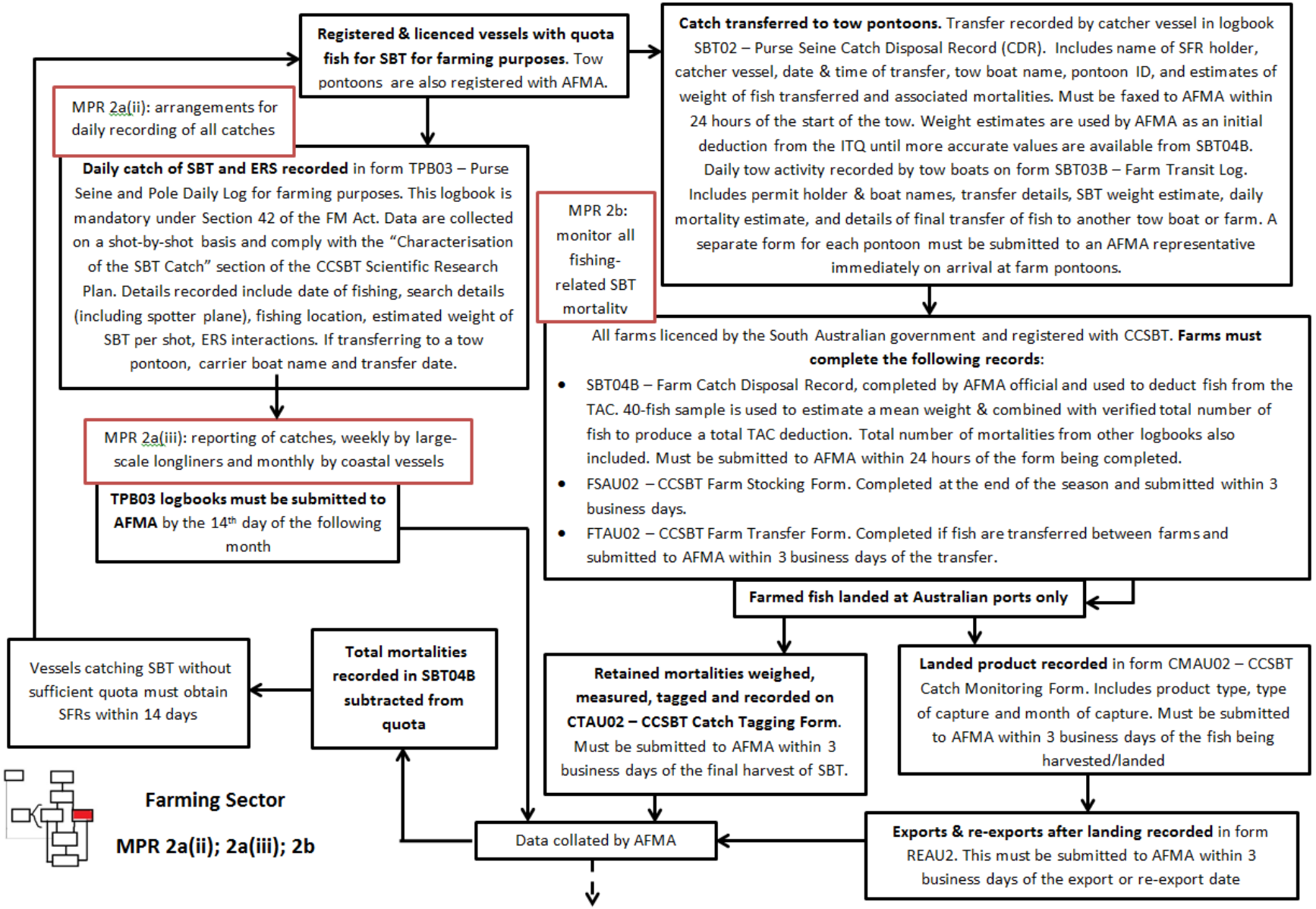
Summary - Australia has only recently adopted the carry forward procedure and will supply these figures 20 days after the end of the current fishing season 30 November

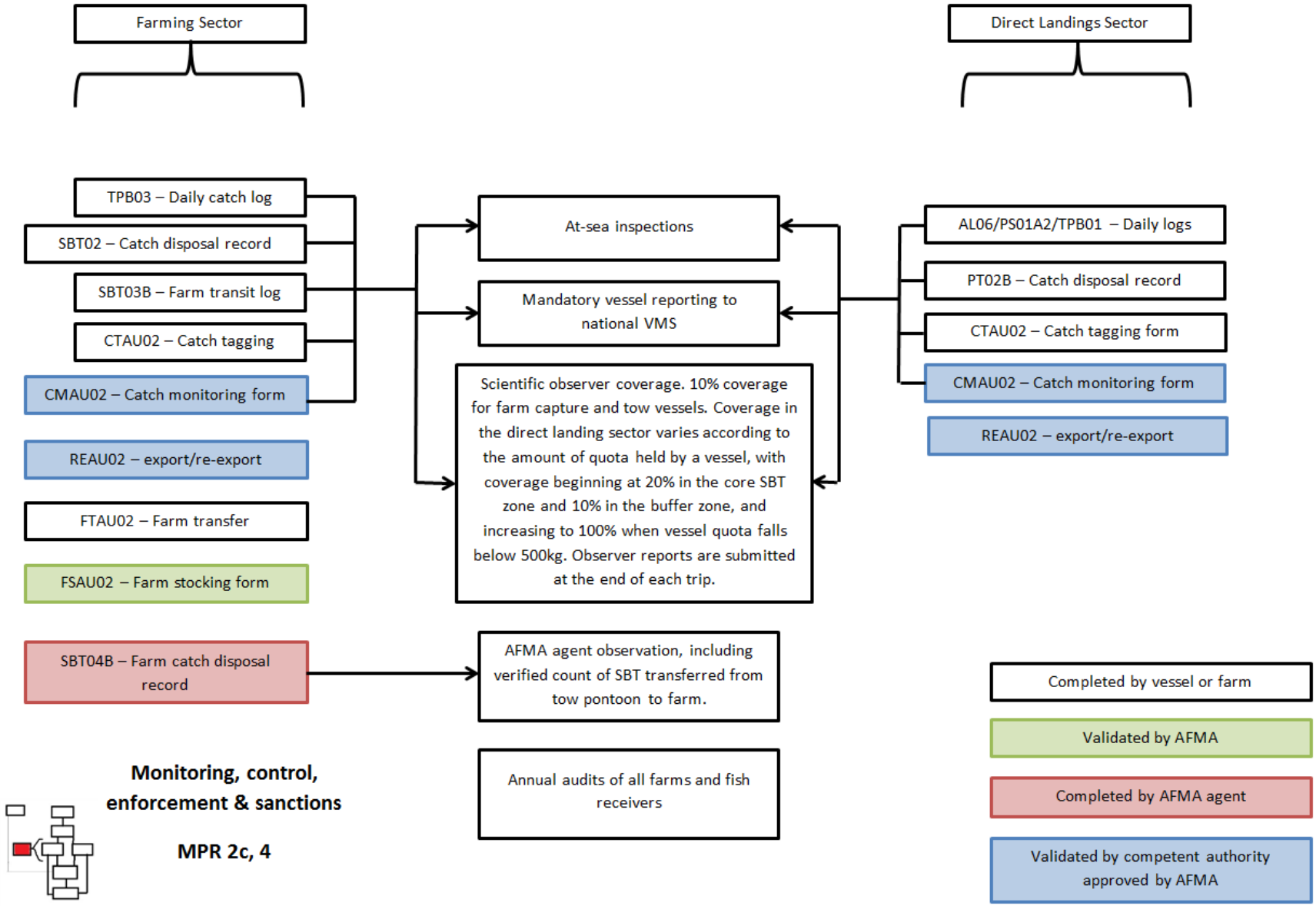
4 Member Process Flow Map




CCSBT allocates Australian Allocated Catch (AC)
National TAC determined annually by the AFMA Commission. The Australian SBT FMP (1995) requires that the national TAC does not exceed the Australian AC
SBT vessels licenced by AFMA, farms licenced by South Australian government
DAFF informs CCSBT of registered vessels, farms & updates whenever changes occur
Operators are entitled to a share of the national TAC according to their holding of Statutory Fishing Rights (SFR). Shares are allocated to individual rights holders as Individual Transferable Quota (ITQ)
SFRs are tradable throughout the fishing season and up to 14 days afterwards
SBT caught by vessels with quota in the ETBF and WTBF fisheries
SBT caught by vessels with quota for transfer to farms
Pre-season administration
MPR 1


Registered & licenced vessels with quota catch SBT as bycatch in the ETBF and WTBF fisheries. Minimum SBT quota required to enter designated 'core' and 'buffer' zones.
Retained SBT are weighed, measured, tagged and recorded on CTAU02 – CCSBT Catch Tagging Form. Must be submitted to AFMA within 3 business days of the fish being landed.
MPR 2a(ii): arrangements for daily recording of all catches
Daily SBT catch and ERS interactions recorded by vessel. Logbooks are mandatory under Section 42 of the Fisheries Management Act 1991. Specific form depends on gear type:
AL06 – Pelagic longline daily log
PS01A – Purse seine daily log for purposes other than farming
TPB01 – Pole daily log for purposes other than farming
Data are collected on a shot-by-shot basis and comply with the "Characterisation of the SBT Catch" section of the CCSBT Scientific Research Plan. Data recorded includes date, location, estimates of SBT retained & discarded, and ERS interactions.
*According to the Australian compliance plan.
Catch landed at any Australian port. No Australian SBT is landed in foreign ports.
MPR 2b: monitor all fishing-related SBT mortality
Landed product recorded in form CMAU02 – CCSBT Catch Monitoring Form. Includes product type, type of capture and month of capture. Must be submitted to AFMA within 3 business days of the fish being landed
Quota holders and fish receivers complete form PT02B – SBT Catch Disposal for Purposes Other than Farming. Includes total weight of SBT mortalities and retained SBT, bycatch of ERS. Must be submitted to AFMA within 3 business days of the fish being landed
MPR 2a(iii): reporting of catches, weekly by large-scale longliners and monthly by coastal vessels
Logbooks are submitted to AFMA on the following timescales:
AL06 – Must be submitted within 3 calendar days of the completion of each fishing trip
PS01A – Must be submitted within 3 calendar days of the consignment being unloaded
TPB01 – Must be submitted by the 14th day of the following month
Vessels not permitted in core or buffer zones without SBT quota. Vessels catching SBT as bycatch elsewhere must obtain quota within 14 days
Exports & re-exports after landing recorded in form REAU2. This must be submitted to AFMA within 3 business days of the export or re-export date
All sold fish accompanied by Catch Documentation Scheme (CDS) documentation
Direct Landings Sector
MPR 2a(ii); 2a(iii); 2b
Total mortalities recorded in PT02B subtracted from quota.
Data collated by AFMA


Registered & licenced vessels with quota fish for SBT for farming purposes. Tow pontoons are also registered with AFMA.
Catch transferred to tow pontoons. Transfer recorded by catcher vessel in logbook SBT02 – Purse Seine Catch Disposal Record (CDR). Includes name of SFR holder, catcher vessel, date & time of transfer, tow boat name, pontoon ID, and estimates of weight of fish transferred and associated mortalities. Must be faxed to AFMA within 24 hours of the start of the tow. Weight estimates are used by AFMA as an initial deduction from the ITQ until more accurate values are available from SBT04B. Daily tow activity recorded by tow boats on form SBT03B – Farm Transit Log. Includes permit holder & boat names, transfer details, SBT weight estimate, daily mortality estimate, and details of final transfer of fish to another tow boat or farm. A separate form for each pontoon must be submitted to an AFMA representative immediately on arrival at farm pontoons.
MPR 2a(ii): arrangements for daily recording of all catches
Daily catch of SBT and ERS recorded in form TPB03 – Purse Seine and Pole Daily Log for farming purposes. This logbook is mandatory under Section 42 of the FM Act. Data are collected on a shot-by-shot basis and comply with the "Characterisation of the SBT Catch" section of the CCSBT Scientific Research Plan. Details recorded include date of fishing, search details (including spotter plane), fishing location, estimated weight of SBT per shot, ERS interactions. If transferring to a tow pontoon, carrier boat name and transfer date.
MPR 2b: monitor all fishing-related SBT mortality
All farms licenced by the South Australian government and registered with CCSBT. **Farms must complete the following records:**
• SBT04B – Farm Catch Disposal Record, completed by AFMA official and used to deduct fish from the TAC. 40-fish sample is used to estimate a mean weight & combined with verified total number of fish to produce a total TAC deduction. Total number of mortalities from other logbooks also included. Must be submitted to AFMA within 24 hours of the form being completed.
• FSAU02 – CCSBT Farm Stocking Form. Completed at the end of the season and submitted within 3 business days.
• FTAU02 – CCSBT Farm Transfer Form. Completed if fish are transferred between farms and submitted to AFMA within 3 business days of the transfer.
MPR 2a(iii): reporting of catches, weekly by large-scale longliners and monthly by coastal vessels
TPB03 logbooks must be submitted to AFMA by the 14th day of the following month
Farmed fish landed at Australian ports only
Retained mortalities weighed, measured, tagged and recorded on CTAU02 – CCSBT Catch Tagging Form. Must be submitted to AFMA within 3 business days of the final harvest of SBT.
Landed product recorded in form CMAU02 – CCSBT Catch Monitoring Form. Includes product type, type of capture and month of capture. Must be submitted to AFMA within 3 business days of the fish being harvested/landed
Total mortalities recorded in SBT04B subtracted from quota
Vessels catching SBT without sufficient quota must obtain SFRs within 14 days
Data collated by AFMA
Exports & re-exports after landing recorded in form REAU2. This must be submitted to AFMA within 3 business days of the export or re-export date
Farming Sector
MPR 2a(ii); 2a(iii); 2b


Farming Sector
Direct Landings Sector
TPB03 – Daily catch log
SBT02 – Catch disposal record
SBT03B – Farm transit log
CTAU02 – Catch tagging
CMAU02 – Catch monitoring form
REAU02 – export/re-export
FTAU02 – Farm transfer
FSAU02 – Farm stocking form
SBT04B – Farm catch disposal record
At-sea inspections
Mandatory vessel reporting to national VMS
Scientific observer coverage. 10% coverage for farm capture and tow vessels. Coverage in the direct landing sector varies according to the amount of quota held by a vessel, with coverage beginning at 20% in the core SBT zone and 10% in the buffer zone, and increasing to 100% when vessel quota falls below 500kg. Observer reports are submitted at the end of each trip.
AFMA agent observation, including verified count of SBT transferred from tow pontoon to farm.
Annual audits of all farms and fish receivers
AL06/PS01A2/TPB01 – Daily logs
PT02B – Catch disposal record
CTAU02 – Catch tagging form
CMAU02 – Catch monitoring form
REAU02 – export/re-export
Monitoring, control, enforcement & sanctions
MPR 2c, 4
Completed by vessel or farm
Validated by AFMA
Completed by AFMA agent
Validated by competent authority approved by AFMA

5 Management System Effectiveness

Australia's SBT fishery management systems have been demonstrated to be effective in terms of the CCSBT minimum performance requirements outlined in Section 3. Utilising information provided by the Member state during consultation as well as information provided by a review of the available documentation, a strengths, weaknesses, opportunities and threats (SWOT) analysis has been conducted. Table 3 shows the strengths, weaknesses and threats (risks) identified by this process, whilst the recommendations (opportunities) of the SWOT are displayed in Section 6.

Table 3a lists Australia's strengths as identified by the QAR. The key strengths identified by the QAR are;

- **Robust legal foundations for the management of the fishery.** This forms the basis of any effective management regime. Australian fisheries management is primarily based on the Fisheries Management Act 1991 and the Fisheries Administration Act 1991.
- **Strong fisheries management regulatory system.** AFMA have a well-established fisheries management system that operates in accordance with Australia's fisheries legislation. The allocation of quota through SFRs has a clearly defined processes, as does the trading system set up to allow quota transfer.
- **Thorough, gear-specific documentation system.** AFMA enforce a range of mandatory documents, including daily recording of catch, records of mortality at all stages of the fishing process in both the direct landings and farming sectors, records of farm stocking, transfer and harvest, and the full suite of CCSBT CDS documentation and tagging.
- **Comparatively high observer coverage on the farm purse seining vessels and 100% coverage of farm stocking.** High observer coverage in the farming sector reduces the risk of non-compliance and increases the accuracy of catch and mortality estimates. In particular, the mandatory presence of an AFMA Authorised Agent whenever catch is transferred from a tow vessel into a farm ensures an official presence at the most critical stage in the quota monitoring process.
- **Internal compliance risk-assessment and auditing processes.** These processes aid the detection of non-compliance and documentary inaccuracies. Most of the risks identified by this report have been previously identified by internal AFMA processes.

Table 3b shows that although Australia's SBT fishery and associated management systems generally complied with CCSBT's MPRs, the QAR has identified some weaknesses which represent potential areas for improvement. The key weaknesses listed in Table 4b are;

- **Inability to accurately estimate weight of fish transferred to farms.** This weakness is inherent to the farming process, but means that all removal figures in the farming sector are estimates. Efforts are already being made to reduce this weakness with the introduction of stereo-video equipment – see risks, below.
- **Low observer coverage in some sectors.** Observer coverage varies considerably. When vessels have no observer, catch and discards are estimated by crew, increasing the potential for inaccuracies.

- **Non-commercial retained catch (i.e. recreational catch) is not adequately quantified.** This is discussed in more detail under 'risks', below.

The weaknesses identified by the QAR have been used to determine potential risks associated with the Australian SBT fishery. Several of these risks have been previously identified by AFMA's internal risk assessment mechanisms. The key risks identified by the QAR are;

- **Potential for under-reporting or misreporting mortalities.** This risk was identified in the AFMA National Compliance and Enforcement Program report 2012-13 and categorised as a 'high' risk. Fish which cannot be released 'live and vigorous' must be deducted from a vessel's quota, representing pressure on crews to under-report SBT mortalities and/or exaggerate the proportion of unwanted catch which is released alive. There may also be pressure in the farm sector to retain a specific size of fish to maximise ranching returns for a limited catch weight, although this review uncovered no direct evidence that this occurs.
- **Potential for inaccuracy and/or bias in estimates of SBT weight transferred to farms.** The estimate of total weight transferred is used in conjunction with total mortality estimates to subtract quota from the quota-holder and total TAC. For this reason it is a critical stage of the monitoring process. An independent review of the process currently used to estimate numbers was inconclusive. The introduction of stereo-video monitoring next season will probably improve the accuracy of estimates and reduce the severity of this risk; however at the current time, the lack of certainty over just how inaccurate the standard counting approach may be means this is a key risk.
- **Potential for vessels to catch fish for which they have no quota.** This risk was also identified in the AFMA compliance report, and categorised as 'low' risk. The 14-day grace period is designed to allow vessels to avoid unintentional overcatch by purchasing quota after the fish has been caught. In the direct landings sector the probability of overcatch is low due to the quota requirements for vessels entering the core and buffer zones. However, overcatch is entirely possible in the farming sector. The 14-day grace period may encourage vessels to capture more fish than they have quota for with the intention of obtaining SFRs after the fact. In addition to the risk of vessels failing to obtain quota within the 14 days, the lack of any 'reserve' quota raises the possibility that there could be insufficient quota on the market to meet the requirement.
- **Recreational fishery removals may be substantial in relation to the commercial catch, but are currently not quantified.** Although recreational removals do not form part of the Australian ASBTC, this risk applies directly to MPR 2b in that Australia us currently unable to fulfil the requirement to "monitor all fishing-related mortality of SBT" in relation to "non-commercial retained catch". A secondary impact of this risk affects the CCSBT more broadly, in that an estimation of total SBT mortality which does not include Australian recreational removals will be an under-estimate. This risk is already being tackled by the development and intended implementation of a joint scheme between the federal and state governments to attempt to more accurately quantify the scale of the national recreational catch.

Table 3 Strengths, weaknesses, opportunities and threats (SWOT) analysis conducted for Australia's systems determining compliancy to CCSBT Minimum Performance requirements (MPR's).

STRENGHTS

a) Strengths associated with Australia's SBT fishery and associated management in relation to CCSBT's MPRs

Obligation	MPR	Strengths
1.1 (i)	1	• SBT Fishery Management Plan requires the national TAC to be set in line with CCSBT AC. • Australian national TAC has been set in line with CCSBT AC in recent years. • Australian reported ASBTC has not significantly exceeded the CCSBT AC in recent years. • Adaptive quota-setting process illustrated by adoption of two-year season to counteract drop in AC.
	2a (i)	• Quota distributed by legally established Statutory Fishing Rights, which also act as a permit to fish. • SFRs assigned to specific vessels to allow quota tracking. • Quota requirements for entry into "Core" and "Buffer" SBT zones reduce the probability of intentional fishing without quota in the direct landings sector.
	2a (ii)	• Gear-specific logbooks ensure collection of all relevant information. • Catch weight estimates are compared to weights at landing or farm transfer to ensure accuracy.
	2a (iii)	• AFMA mandates an appropriate time scale in which catch estimates and logbooks must be returned.
	2b	• Commercial fishing, tow and discard mortalities are recorded in the relevant daily logbook. • All mortalities in the direct landings sector must be landed.
	2c (i)	• SBT vessels are inspected at sea and in port. • Observer coverage of farm purse seining was 19.8% in 2010/11. • Core and buffer SBT zones allow targeted observer coverage in the direct landings sector. • Quota requirements for entering core and buffer zones reduce probability of vessels without quota catching SBT.
	2c(ii)	• All farm transfers must be monitored by an AFMA Authorised Agent.
	3	• Mortality data are submitted to the CCSBT quarterly, which is more frequent than the annual submission required by the MPR.
	4	• Functioning VMS is a mandatory requirement. • Audit process examines all fish receivers and farms annually. • Internal risk-assessment process identifies key compliance risks and allows targeted inspections & patrols.
1.1 (iii)	1a	[This section will be completed when the relevant information is provided by AFMA]
	1b	• None identified, as Australia has not used the carry-forward procedure in the current fishing year.

b) Weaknesses associated with Australia's SBT fishery and associated management in relation to CCSBT's MPRs

WEAKNESSES

Obligation	MPR	Weaknesses
1.1 (i)	1	• The Australian fishing season does not match the accounting period used by CCSBT; however this does not appear to cause any difficulties. • The total ASBTC exceeded the CCSBT AC in the 2009-11 season by 19t.
	2a (i)	• Free trade of SFRs means there is potential for additional capacity to enter the fishery. However, for economic reasons this is considered unlikely.
	2a (ii)	• 90% of direct landing trips and 80% of farming trips have no observer, meaning discard and live release estimates are primarily made by crew.
	2a (iii)	• None specific to this MPR – AFMA mandates an appropriate time scale in which catch estimates and logbooks must be returned.
	2b	• Non-commercial retained catch is not effectively quantified.
	2c (i)	• Observer coverage in the direct landings fishery is around 7% (target coverage varies). • Observer coverage of tow operations is around 5% (target coverage 10%).
	2c(ii)	• Total weight of fish removed for farming purposes can only be estimated. Opinions on the accuracy of transfer weight estimates vary.
	3	• None specific to this MPR; mortality is reported more frequently than necessary.
	4	• None specific to this MPR, though see 'risks' below.
1.1 (iii)	1a	[This section will be completed when the relevant information is provided by AFMA]
	1b	• None identified, as Australia has not used the carry-forward procedure in the current fishing year.

c) Risks (threats to compliance) associated with Australia's SBT fishery and associated management in relation to CCSBT's MPRs

RISKS (THREATS)

Obligation	MPR	Risks (Threats)
1.1 (i)	1	• None specific to this MPR. Reported ASBTC has been below Australian CCSBT AC in recent years.
	2a (i)	• Ability for vessels to buy quota up to 14 days after capture may increase the probability of intentionally fishing beyond currently held quota in the farming sector. Risk of failing to reconcile quota within 14 days has been rated by AFMA as 'low/moderate'.
	2a (ii)	• Potential for under-reporting of mortalities by vessels without observer coverage. This risk has been rated by AFMA as 'high'. • Potential for misreporting or non-completion of Catch Disposal Records. This risk has been rated by AFMA as 'high'.
	2a (iii)	• None specific to this MPR – AFMA mandates an appropriate time scale in which catch estimates and logbooks must be returned.
	2b	• Recreational fishery removals may be substantial in proportion to the Australian CCSBT AC.
	2c (i)	• None specific to this MPR.
	2c(ii)	• Potential for inaccuracy and/or bias in estimates of weight of SBT transferred to farms. This risk has been recognised by AFMA.
	3	• None specific to this MPR; mortality is reported more frequently than necessary.
	4	• AFMA has identified failure to have an operating VMS system at all times as a low/moderate risk.
1.1 (iii)	1a	[This section will be completed when the relevant information is provided by AFMA]
	1b	• None identified, as Australia has not used the carry-forward procedure in the current fishing year.

6 Recommendations for Improvement

Based on the SWOT analysis and review of the effectiveness of management systems against the CCSBT minimum performance requirements in Section 3, the review team has provided recommendations for improvement of Australia's fishery management systems (Table 4). The key recommendations proposed by the QAR are;

- Publicise total un-fished SBT quota when it falls below a threshold level and/or hold quota in reserve for the end of the season
- Continue with development of a nationwide recreational catch monitoring program.
- Increase observer coverage, particularly in the direct landings sector and on tow vessels.
- Continue the roll-out of stereo-video technology and monitor its effectiveness.

Table 4 – Recommendations (opportunities) identified by the strengths, weaknesses, opportunities and threats (SWOT) analysis conducted for Australia's systems determining compliancy to CCSBT MPRs

OPPORTUNITIES (RECOMMENDATIONS)

Obligation	MPR	Recommendations
1.1 (i)	1	• None specific to this MPR.
	2a (i)	• Publicise total un-fished SBT quota when it falls below a threshold level and/or hold quota in reserve for the end of the season.
	2a (ii)	• Increase observer coverage, particularly in the direct landings sector and on tow vessels. • Introduce training schemes for capture and tow vessel crew to ensure measurements are taken using the same methodology as observers.
	2a (iii)	• None specific to this MPR.
	2b	• Continue with the development of the nationwide recreational fishery monitoring program. • Report estimates of recreational fishery removals to CCSBT as soon as they become available.
	2c (i)	• Increase observer coverage, particularly in the direct landings sector and on tow vessels
	2c(ii)	• Continue the roll-out of stereo-video technology. Ensure the accuracy of the systems are frequently checked, and continue researching potential improvements to the stocking-monitoring process.
	3	• None specific to this MPR.
	4	• None specific to this MPR.
1.1 (iii)	1a	[This section will be completed when the relevant information is provided by AFMA]
	1b	• None identified, as Australia has not used the carry-forward procedure in the current fishing year.

7 Post Final Report Member Comments

8 Appendices

8.1 Appendix 1: Consultation Process

Organisation	Person	Action	Date
SAI Global	Dave Garforth	Initial Contact	15/04/2013
AFMA/DAFF	Johnathon Davey, Matt Daniel	Consultation arrangements	24/05/2013 – 19/06/2013
SAI Global	Dave Garforth and Sam Peacock		
AFMA	Matt Daniel	Providing documentation prior to consultation	07/06/2013 – 18/06/2013
AFMA/DAFF	Matt Daniel (AFMA), Ann Shepherd (AFMA), Sandra Sharmer (AFMA), Jonathan Davey (DAFF), Kelly Buchanan (DAFF)	Consultation conference call	19/06/13, 12am BST
SAI Global	Dave Garforth, Sam Peacock, Oliver Wilson		
AFMA	Matt Daniel	Providing additional documentation	19/06/2013 – 17/07/2013
SAI Global	Sam Peacock	Additional information request	20/06/13
SAI Global	Sam Peacock	Additional information request	03/07/13

8.2 Appendix 2: Overview of Obligations and Associated CCSBT Minimum Performance Requirements

Obligation 1.1(i):

For 2012, 2013 and 2014, each Member shall be bound to the Allocated Catch for the respective year as specified below:

	Allocated Catch (t)		
	2012	2013	2014*
Japan	2519	2689	3366*
Australia	4528	4698	5147
New Zealand	800	830	909
Korea	911	945	1036
Taiwan	911	945	1036
Indonesia	685	707	750

* The allocations shown for 2014 and the proportional allocation shown for Japan are dependent on the TAC for 2014 (these figures assume a TAC of 12,449t) and a compliance review at CCSBT 20 (2013) as described in the Resolution on the Allocation of the Global Total Allowable Catch.

Minimum Performance Requirements for Obligation 1.1(i):

1. Rules in place to ensure that the total "Attributable SBT Catch" (see the note below concerning the Attributable SBT Catch) of each Member does not exceed the Member's Allocated Catch for the relevant period.

Note on "Attributable SBT Catch"

Until the CCSBT agrees on a single definition, each Member and Cooperating Non-Member must clearly and unambiguously state the definition of its Attributable SBT Catch and these definitions are repeated below. As a minimum, the attributable catch must include all commercial catch landings:

- ***Australia: All commercial catch, except catch that is released in a live and vigorous state.***
- *Indonesia: The amount of commercial catch/landing of tagged SBT within its national allocation.*
- *Fishing Entity of Taiwan: Retained commercial catch.*
- ***Japan: The amount of SBT put into fish hold of the vessel.***
- ***Korea: Commercial landing of SBT.***
- ***New Zealand: Within its national allocation New Zealand allows for recreational and customary catch, other sources of fishing mortality and sets a total allowable commercial catch limit.***
- *European Union: Catches landed by commercial vessels*
- *Philippines: The entire catch of SBT including any discards (alive or dead) counted is against its allocation.*

• South Africa: Any SBT catch that is landed, independently verified by the Department, and counted against the individual right holding company in the tuna and swordfish longline sectors. This does not include SBT that has been released alive, discarded, depredated or confiscated.

2. Operating systems and processes established to:

a) Implement annual catching arrangements, including:
   i. specification of allocations by company, quota holder or vessel,
   ii. arrangements for daily recording of all catches,
   iii. weekly reporting of catches by large scale tuna longliners and monthly reporting of catches by coastal fishing vessels.

b) In accordance with the timeline in the table in the Compliance Policy Guideline document, monitor all **fishing-related mortality of SBT.**

Starting Year for Monitoring of SBT Mortality

MEMBER	Sources of SBT Mortality					
	Commercial Retained Catch (t)	Commercial Discard Mortality (numbers and/or estimated weight)	Commercial Towing Mortality (t)	Non-Commercial Retained Catch (t)	Other Discard Mortality (numbers and/or estimated weight)	Other Sources of Mortality (numbers and/or estimated weight)
Australia	now	now	now	now	now	now
Indonesia	now	now	N/A	now	now	now
Japan	now 2	now	N/A	N/A	now	now
Republic of Korea	now	now	N/A	N/A	now	now
New Zealand	now	now	N/A	now	now	now
Taiwan	now	now	N/A	N/A	now	now
European Union	now	now	N/A	N/A	now	now
Philippines	now	now	N/A	N/A	now	now
South Africa	now	now	N/A	now	now	now

Any of the sources of the mortality listed in the table above may or may not contribute to 'Attributable Catch'

c) Ensure accuracy of the "Attributable SBT Catch", including:
   i. For fishing Members, a physical inspection regime of SBT caught by the Member's fishing vessel
   ii. For farming Members, monitoring the accuracy of the stereo video monitoring and adjusting/ re-calibrating where necessary.

3. All fishing-related SBT mortality is reported annually to the Extended Scientific Committee, for incorporation into stock assessment analysis, and to the Commission.

4. Operating systems and processes applied to:

    a. monitor compliance with annual catching arrangements; and
    b. impose sanctions or remedies where necessary.

Obligation 1.1(ii) applies only to Co-operating Non-Members

Obligation 1.1(iii):

Unless the Extended Commission reduces the TAC or a Member's allocation of the TAC, Members may carry forward up to 20% of their unfished quota to the next quota year within the same three year quota block, but quota that is carried forward may not in turn generate further under-fishing to be carried forward to the following year. Members that decide to adopt the carry-forward procedure for their fishery shall:

a. Report on their use of the procedure in their annual reports to the Extended Commission, regardless of whether the procedure was in fact used by the Member during that quota year;

b. If at the beginning of a new quota year, the Member decides to carry forward unfished quota from a previous year, it shall within 60 days of the new quota year, notify the Secretariat of this carry-forward and provide a revised annual available catch limit (i.e. Catch Allocation + carry-forward) for the new quota year

Minimum Performance Requirements for Obligation 1.1(iii):

1. For Members that decide to adopt the carry-forward procedure (regardless of whether carry-forward was used in the particular year):

a) Operating systems and processes must be in place to ensure that
    i. an accurate, verified and robust figure for the final Attributable Catch is available before the notification to the Secretariat of the carry-forward,
    ii. a report on the adoption and use of the carry-forward procedure, together with documentation on quantification and verification of the total catch is included in each annual report to the Extended Commission;
b) The Executive Secretary is formally notified of the catch for the concluded quota year together with the available catch limit (Catch Allocation + carry-forward) for the new quota year within 60 days of the start of the new quota year.

8.3 Appendix 3 – Copies of fishery logbooks & other paperwork

Appendix	Form	Source
3.1	Permanent Transfer Application for Fishing Concessions (TC)	AFMA – *pers comm* Matt Daniel
3.2	Seasonal Lease Application for Fishing Concessions (LC)	AFMA – *pers comm* Matt Daniel
3.3	Attachment SBT (SBT SFR trading attachment)	AFMA – *pers comm* Matt Daniel
3.4	Boat Nomination (BN)	AFMA – *pers comm* Matt Daniel
3.5	Certificate of Quota Statutory Fishing Rights	AFMA – *pers comm* Matt Daniel
3.6	Lease Confirmation form	AFMA – *pers comm* Matt Daniel
3.7	TPB03	AFMA – *pers comm* Matt Daniel
3.8	AL06	AFMA – *pers comm* Matt Daniel
3.9	PS01A	AFMA – *pers comm* Matt Daniel
3.10	TPB01	AFMA – *pers comm* Matt Daniel
3.11	SBT02	AFMA – *pers comm* Matt Daniel
3.12	SBT03B	AFMA – *pers comm* Matt Daniel
3.13	SBT04B	AFMA – *pers comm* Matt Daniel
3.14	PT02B	AFMA – *pers comm* Matt Daniel
3.15	Template for farm Level 1 audit 2011/12 season	AFMA – *pers comm* Matt Daniel
3.16	Template for wild catch Level 1 audit 2011/12 season	AFMA – *pers comm* Matt Daniel
3.17	Guidelines for conducting Level 2 audit	AFMA – *pers comm* Matt Daniel