

Work of the inter-sessional risk assessment working group

Introduction

The 16th Annual Meeting of the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) adopted the recommendation of the Compliance Committee that an inter-sessional working group be formed to undertake a compliance risk assessment. The purpose of the risk assessment was to identify how well existing measures are contributing to monitoring and management of the southern bluefin tuna (SBT) fishery; and whether there are areas of potential improvement. It was agreed that New Zealand would coordinate the work of the inter-sessional working group. This paper provides an update on the group's work, with a particular focus on priority areas identified.

Background

The working group was tasked with working inter-sessionally and presenting back to the compliance committee meeting in 2010, including on priorities for action and possible draft resolutions for consideration by the compliance committee (see appendix one for details).

The risk assessment process followed the following key steps:

1. Characterising the global fishery for southern bluefin tuna;
2. Comparing current management of the fishery with desired outcomes and identifying key gaps;
3. Identifying priority areas and possible solutions

Step One—Characterise the global fishery for southern bluefin tuna

Members of the inter-sessional working group identified that much existing material could be used in the characterisation of the global fishery, including national reports, CCSBT's draft strategic plan, and the report of the performance review working group. The coordinator summarised existing material relevant to characterising the fishery from a compliance perspective (drawing also on CCSBT-CC/0910/04 rev4, in which the Secretariat summarised member and cooperating non-member compliance with CCSBT measures for the period 1 July 2008 to 30 June 2009) (see **table 1A – 1D**) (note that most of the information summarised concerns the 2008 calendar or fishing year, since the table was completed before 2009 data was available). Members supplemented this summary with additional information on aspects of the legal, institutional, and judicial frameworks they have in place (based on a check list circulated by the coordinator) (for a summary see **table 2**; a working paper will also be made available showing individual country responses).

Table 1: Characterisation of global fisheries for southern bluefin tuna including A. Catching Sector; B. Transporting / landing; C. Markets; and D. Monitoring. Based on 2008 calendar year unless otherwise stated.

A. Catching sector			
Domestic Catch	Catch (t)	No. of vessels	Size of vessels in Fleet¹
Longline			
<i>Within domestic waters:</i>	1,286.4t		
Australia ²	23	15	21.1m average (15.9m – 23m range)
Indonesia	900.2	455	23.2m average (12m – 49m range)
Philippines	Unknown	Unknown	-
New Zealand	273	31	15.8m average (6m-23m range)
South Africa	45.5	25	³
Other?	Unknown	Unknown	Unknown
Surface			
	5,211t		
<i>Within domestic waters:</i>			
Australia ³	5,211	7	33.6m average (18.7m – 47m range)
Recreational			
	Unknown		
Australia	Insufficient data available to determine		
New Zealand ⁴	0.4		
South Africa	Allowance of ten per person per day but practicality of reaching grounds means that recreational take is unlikely		
High Seas Catch			
High seas – by fleet:	Catch (t)	No. of vessels	Size of vessels in Fleet⁵
<i>High seas – by fleet:</i>	5,038t		
EC	14.3	5	35.5m average (12m – 50m range)
Japan ⁶	2,919	126	49.2m average (44m – 55m range)
Korea	1,134	19	48m average (43m – 51m range)
Philippines ⁷	44.7	26	47.2m average (40.8m – 56m range)
Taiwan ⁸	926	41	51.5m average (30m – 59m range)
Other?	Unknown	Unknown	Unknown

¹ Figures based on active registration on CCSBT authorised vessel list as of Wednesday April 21st 2010 using gear type filter. Unable to differentiate between domestic and high seas based on available information.

² Figures cited are for Australian quota management year 2007-08; figures for catch by method by calendar year are not available.

³ No vessels currently listed in authorised vessel list for South Africa.

⁴ Recreational allowance of 4t annually, customary allowance of 1t and other mortality of 2t.

⁵ Figures based on active registration on CCSBT authorised vessel list as of Wednesday April 21st 2010 using gear type filter. Unable to differentiate between domestic and high seas based on available information.

⁶ 2008 fishing year (1 April 2008 – 31 March 2009) for catch and vessel information.

⁷ All Philippines catch assumed to be taken on high seas (based on statements in most recent Philippines country report (2005).

⁸ 2008 fishing year (1 April 2008 to 31 March 2009) for catch and vessel information.

B. Transporting / landing									
	Australia	EC	Indonesia	Japan	Korea	New Zealand	Philippines	South Africa	Taiwan
Transshipments⁹									
Number of transshipments	None	None	None	To Panamanian vessel: 3	None	None	To Panamanian vessel: 1	None ¹⁰	Taiwanese vessel: 2 ; Panamanian vessel: 4
Number of carrier vessels authorised & flag¹¹	0	0	0	Japan: 3 Panama: 24 Singapore: 2	0	0	Japan: 4 Panama: 28 Singapore: 2	0	Japan: 2 Panama: 27 Singapore: 2 Taiwan: 2
Main ports: Domestic	Port Lincoln	Not listed	Jakarta Cilacap Benoa	8 designated ports (not listed)	Busan	Gisborne Tauranga Napier	Not listed	Cape Town, Durban	Not listed
Main ports: Foreign	N/A	Not listed	Not listed	15 designated ports (not listed)	Shimizu (Japan) Cape Town, Durban (S. Africa) Port Louis (Mauritius) Bali (Indonesia)	N/A	Not listed	Not listed	Cape Town (S. Africa), Port Louis (Mauritius)
Exports by destination country¹²:	7798.7t	Unknown	97.3t ¹³	1.2t	841.2t	277.3t	44.8t	40.2t	643.5t
<i>Japan</i>	7714.7t				841.2t	275.8t	44.8t	40.2t	643.5t
<i>Korea</i>	1.1t		97.3t	1.2t					
<i>USA</i>	37.0t					0.3t		1.1t	
<i>Australia</i>						1.2t			
<i>EC</i>	18.4t								
<i>South Africa</i>									
<i>All others</i>	4.35t								
Domestic Consumption	Unknown (believed to be limited)	Unknown	Unknown (approx. 800t)	Unknown (approximates total catches)	Unknown (believed to be limited) ¹⁴	Limited	Unknown (believed to be limited)	Nil	150t (estimated)

⁹ As outlined in CCSBT-CC/0910/07, covering 1 April to 31 March 2009; 2009 was first year of operation for transshipment resolution.

¹⁰ At sea transshipments not permitted.

¹¹ Figures based on CCSBT-CC/0910/07.

¹² Export quantities calculated using information from annex2a report for 2008 calendar year (using the figures for overall estimated net weights – gilled and gutted).

¹³ The Indonesian country report for 2009 mentions exports to both Korea and Japan in 2008. The Japanese country report records 10t of imports from Indonesia in this period.

¹⁴ But refer table 1C below, which indicates imports of 99.6t.

C. Markets											
Importers ¹⁵	Exporters										
	Australia	EC	Indonesia	Japan	Korea	New Zealand	Philippines	South Africa	Taiwan	Unknown	Total
Australia	-	Unknown	0	0	0	1.2	0	0	0	0	1.2
France	3.9	Unknown	0	0	0	0	0	0	0	7.2	11.1
Germany	0.6	Unknown	0	0	0	0	0	0	0	0	0.6
Hong Kong	0.7	Unknown	0	0	0	0	0	0	0	0	0.7
Indonesia	23.2	Unknown	0	0	0	0	0	0	0	0	23.2
Japan	7714.7	Unknown	0	0	841.2	275.8	44.8	40.2	643.5	0	9560.2
Korea	1.1	Unknown	97.3	1.214	0	0	0	0	0	0	99.6
Macau	0.0	Unknown	0	0	0	0	0	0	0	0	0.0
Maldives	0.0	Unknown	0	0	0	0	0	0	0	0	0.0
Netherlands	4.7	Unknown	0	0	0	0	0	0	0	0	4.7
Norway	0.1	Unknown	0	0	0	0	0	0	0	0	0.1
Portugal	1.1	Unknown	0	0	0	0	0	0	0	0	1.1
Singapore	0.4	Unknown	0	0	0	0	0	0	0	0	0.4
Spain	0.9	Unknown	0	0	0	0	0	0	0	0	0.9
Switzerland	2.9	Unknown	0	0	0	0	0	0	0	0	2.9
Taiwan	0.0	Unknown	0	0	0	0	0	0	0	0	0.0
Turkey	0.0	Unknown	0	0	0	0	0	0	0	0	0.0
United Arab Emirates	0.2	Unknown	0	0	0	0	0	0	0	0	0.2
United Kingdom	7.2	Unknown	0	0	0	0	0	0	0	0	7.2
United States	37.0	Unknown	0	0	0	0.3	0	1.1	0	0	38.5
Total	7798.7	Unknown	97.3	1.214	841.2	277.3	44.8	41.3	643.5	7.2	9752.7

¹⁵ Source: annex2a report for 2008 calendar year (figures for overall estimated net weights – gilled and gutted).

D. Monitoring		
Observer coverage (2008)¹⁶	Based on catch	Based on effort
Australia	15.3% (purse seine)	7.9% (purse seine), 47.9% (ETBF)
EC	?	?
Indonesia ¹⁷	?	?
Japan	2.4%	4.3%
Korea ¹⁸	27.5% (2007)	2% (2007)
New Zealand	46% (2007-2008)	45% (2007-2008)
Philippines	?	?
South Africa ¹⁹	?	?
Taiwan	3.63% (2008)	6.65% (2008)
Vessel Monitoring Systems		
Australia	All 67 vessels on CCSBT Authorised Vessel List reported to VMS (2008-2009)	
EC	VMS requirements under ICCAT apply (these vessels are considered most likely to also take SBT)	
Indonesia	Installed on 455 longliner vessels authorised to fish Indian Ocean	
Japan	All large-scale tuna fishing vessels are equipped with VMS	
Korea	All large-scale tuna fishing vessels are equipped with VMS	
New Zealand	Mandatory in large-scale vessels (>28m), as well as foreign charter vessels; New Zealand flagged and registered vessels operating outside of New Zealand waters; vessels issued with a foreign license to fish in New Zealand waters; and other vessels as specified by the Chief Executive.	
Philippines	?	
South Africa	Mandatory for all vessels	
Taiwan	All 41 SBT authorised vessels	
Inspections		
Catch Documentation Scheme		
Other		

¹⁶ 2008 fishing year for each Member/Cooperating Non-Member.

¹⁷ Observer data not reported on basis of catch or effort. Indonesia's 2009 country report notes 73 trained observers are ready for mobilisation.

¹⁸ No observed data for 2008.

¹⁹ Observer data not reported on basis of catch or effort; target coverage is 20%, with actual coverage ranging from 10-20% (source: South Africa compliance action plan). Coverage is 100% for foreign charter vessels.

The characterisation of the fishery highlighted the global nature of SBT fisheries, involving many ports around the world, and for the high seas fishery, carrier vessels from a range of flag states. Further, while Japan remains the main market state, smaller amounts of SBT product are consumed in many countries around the world. Members' summaries of their legal and fisheries management frameworks also indicated a range of systems are in place. Observer coverage levels are variable, but generally relatively low (table 1D).

Step Two—Compare with desired outcomes and identify key gaps

The second step undertaken was to draw on the characterisation, along with key objectives and management measures for the fishery (from the Convention and agreed conservation and management measures), to identify key potential risks. Such risks could include:

- risks from non-members (e.g. fishing and/or fishery support services or port or market state actions);
- risks from inadequate MCS measures being in place; and
- risks from incomplete implementation of conservation and management measures by members.

Some members of the group considered that the latter area was the main area in which compliance risks were likely for SBT fisheries, and noted the need to ensure the inter-sessional group's work was complementary to other compliance planning work undertaken in 2010, and particular members' completion of compliance action plans.

Table 2 outlines a gap analysis of the obligations that arise from the CSBT Convention, against the potential areas of risk identified above (i.e. what action has CCSBT taken to address the obligation; Member/Cooperation Non-Member (CNM) implementation and monitoring of the measures adopted by CCSBT; and potential gaps including risks from non-cooperating non-members).

This information is further summarised in **figure 1** on page 10.

Table 2: Gap analysis of CCSBT obligations arising from the Convention and actions undertaken to fulfil obligations

CCSBT obligations from the Convention	What action has CCSBT taken to address this obligation?	Member/CNM implementation of measures, recommendations, etc adopted by CCSBT		Potential gaps identified (including also risks from non-cooperating non-members (NCNMs))
		Means used for implementation by members and CNMs	Range of tools used by members and CNMs for monitoring	
5(2) Expeditious provision of scientific information, fishing catch and effort statistics and other data relevant to the conservation of SBT and, as appropriate, ecologically related species	Annual data exchange agreements; annual reporting to SC, CC and Annual Meeting; monthly catch reporting; transshipment monitoring; CDS; recommendation on ERS; scientific observer programme	Information from various sources, including vessel logbooks and domestic reporting forms, submitted to flag state and provided (often in summarised format) to Secretariat.	Inspection of catch at sea and in foreign and domestic ports by member officials. Audits of fishing companies, processors and exporters. Vessels' logbooks crosschecked with weekly reports, VMS data, observer information and any other relevant data before submitting to Secretariat.	<ul style="list-style-type: none"> – No estimate of IUU. – Lack of information on take from NCNMs. – Discrepancies in reporting standards or methodology.
5(4) The Parties shall cooperate in the exchange of information regarding any fishing for SBT by nationals, residents and vessels of any State or entity not party to this Convention	CC and Annual Meetings facilitate discussion and exchange of any such information.	Fulfilling reporting obligations to CC and Annual meeting along with ad hoc reporting through Secretariat.	Verification of submitted documents, inspections of domestic and foreign ports.	<ul style="list-style-type: none"> – No formal mechanism for exchange of information e.g. from port inspections
8(3) For the conservation, management and optimum utilisation of southern bluefin tuna: (a) The Commission shall decide upon a total allowable catch and its allocation among the Parties unless the Commission decides upon other appropriate measures on the basis of the report and recommendations of the Scientific Committee.	The annual meeting of CCSBT decides upon a TAC and its allocation amongst members; members are responsible for ensuring their catches remain within their allocation, and report their catches monthly so this can be monitored during the year. Quota and catch against quota is reported annually	Individual vessel quota allocations; individual licence allocations; restrictions on number of vessels allowed to target SBT; domestic reporting requirements; CCSBT reporting requirements (including CDS); restrictions on authorised landing ports; prohibition on possession of illegal SBT; area-based restrictions for specific vessels	Mandatory landing inspections at foreign and domestic ports, monitoring of domestic and international markets, verification of logbooks and reporting documents, discrepancy analysis, vessel inspections.	<ul style="list-style-type: none"> – Global TAC exceeded because of IUU and/or NCNM fishing – Country allocations exceeded – Global TAC cannot be enforced (e.g. no formal penalties in place for overcatch)
8(3) (b) the Commission may, if necessary, decide upon other additional measures	Various: transshipment monitoring ; authorisation of vessels and farms; VMS; CDS.	Transshipment: Advanced notification, mandatory observer coverage and additional reporting requirements relating to transshipment. Cooperation with other RFMO observer programs. Others: see below.	Verification of submitted documents (general reporting and transshipment-specific). Analysis of observer reports. Validation of CDS documents (e.g. by officials stationed in foreign ports)	<ul style="list-style-type: none"> – Species identification problems make transshipment monitoring difficult

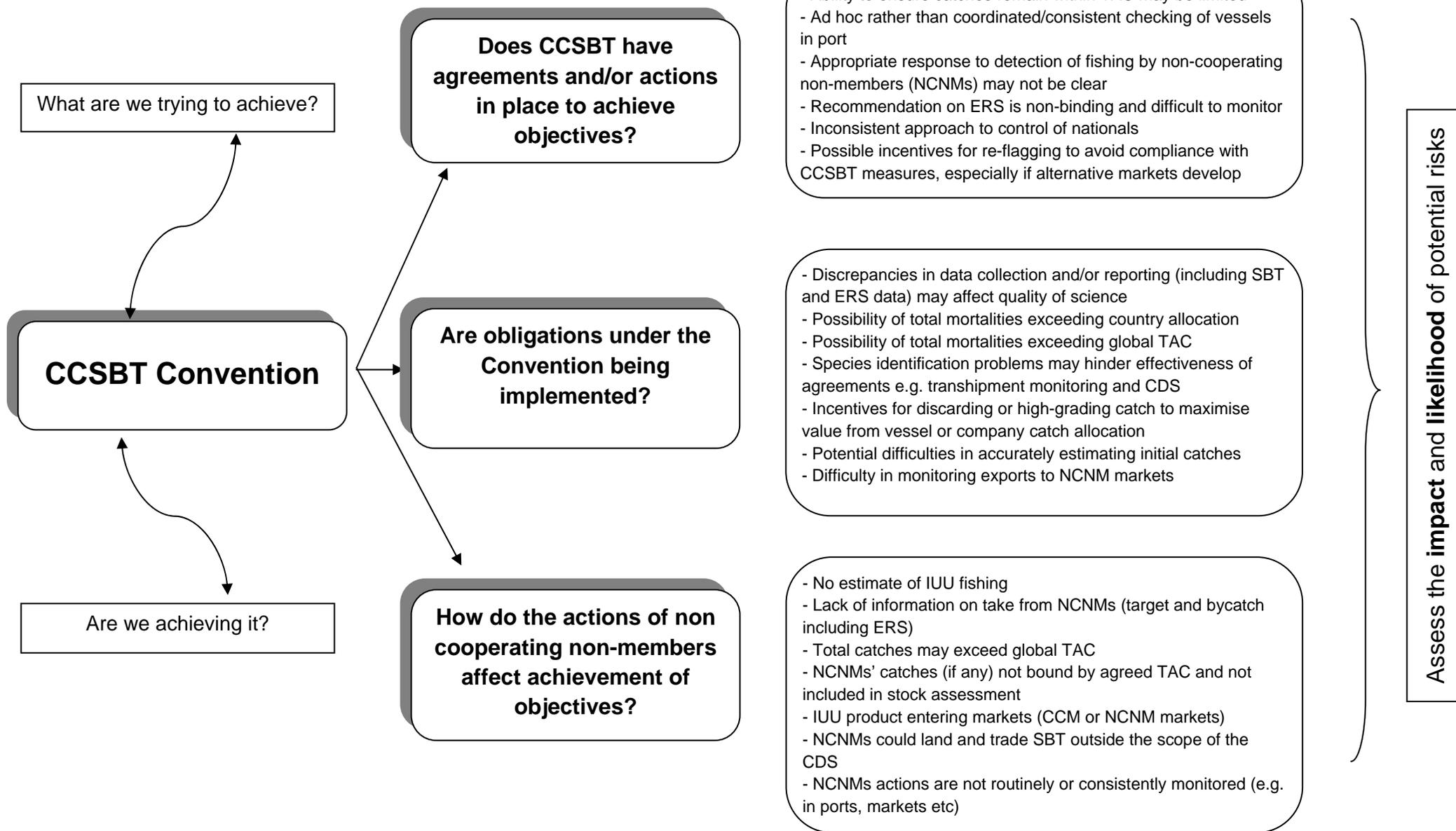
CCSBT obligations from the Convention	What action has CCSBT taken to address this obligation?	Member/CNM implementation of measures, recommendations, etc adopted by CCSBT		Potential gaps identified (including also risks from non-cooperating non-members (NCNMs))
		Means used for implementation by members and CNMs	Range of tools used by members and CNMs for monitoring	
8(5) The Commission may decide upon recommendations to the Parties in order to further the attainment of the objective of this Convention	<ul style="list-style-type: none"> - Recommendation on Seabirds (1997)²⁰ - Recommendation on ERS (2008) - Scientific Research Programme and Observer programme 	ERS: Various means (range of requirements as outlined in IOTC and WCPFC measures covering IOTC and WCPFC areas respectively, relating to sharks, sea turtles, and seabirds). Scientific and observer programmes: see 5(2).	Collection and comparison of observer data with reported bycatch information. Aerial overflights and on-water inspections of use of mitigation equipment. Inspections of mitigation devices.	<ul style="list-style-type: none"> - Recommendations on ERS non-binding. - Difficult to monitor whether or not mitigation measures are used at sea without direct observation. - Lack of action may lead to imposition of other international measures - Limited data on interactions with non-target species (e.g. non-representative observer coverage)
9 The Commission shall develop, at the earliest possible time and consistent with international law, systems to monitor all fishing activities related to southern bluefin tuna in order to enhance scientific knowledge necessary for conservation and management of southern bluefin tuna and in order to achieve effective implementation of this Convention and measures adopted pursuant to it.	<p>Various:</p> <ul style="list-style-type: none"> - Authorisation of vessels and farms - VMS - Transshipment monitoring - Catch Documentation Scheme - <i>Scientific Observer Programme</i> 	Vessel registration by individual members forwarded to Executive Secretary; regulated requirement for authorised vessels to operate VMS; documentation and tagging requirements of the CDS; regulatory obligations and need for validation of CDS documents for catch to be accepted into export markets; penalties applied for breaches; regulatory requirement for vessels to accept observers upon request; minimum coverage targets for SBT fleet.	Compliance with weekly reporting requirements evaluated upon licence renewal; daily monitoring of VMS, continuous operation requirement, and penalties for non-permitted disruptions; observer monitoring and verification of transshipment documents; domestic and foreign port and market inspections; DNA sampling; verification of CDS documentation; designation of foreign ports for landing/transshipment; enforcement and penalties e.g. for failing to comply with observer requirements. Penalties up to revocation of fishing license depending on scale of offending.	<ul style="list-style-type: none"> - IUU product entering markets. - Poor information impacting on quality of stock assessments. - Traceability issues with export to non-cooperating non-members.
15(2) Each Party shall encourage its nationals not to associate with the southern bluefin tuna fishery of any State or entity not party to this Convention, where such	<ul style="list-style-type: none"> - Action plan²¹ - Vessel authorisation 	Legislation on control of nationals		<ul style="list-style-type: none"> - Domestic interests bypassing CCSBT measures by dealing with NCNMs.

²⁰ Commission for the Conservation of Southern Bluefin Tuna Recommendations Relating to Ecologically Related Species, Especially the Incidental Mortality of Seabirds by Longline Fishing, 1997.

²¹ Adopted at the Sixth Annual Meeting- Second Part, 21-23 March 2000).

CCSBT obligations from the Convention	What action has CCSBT taken to address this obligation?	Member/CNM implementation of measures, recommendations, etc adopted by CCSBT		Potential gaps identified (including also risks from non-cooperating non-members (NCNMs))
		Means used for implementation by members and CNMs	Range of tools used by members and CNMs for monitoring	
association could affect adversely the attainment of the objective of this Convention.				
15(3) Each Party shall take appropriate measures aimed at preventing vessels registered under its laws and regulations from transferring their registration for the purpose of avoiding compliance with the provisions of this Convention or measures adopted pursuant to it.	Some CCSBT resolutions are relevant to help Parties facilitate this e.g. - CDS (requires members to only accept product from vessels authorised by members or CNMs, which could be a deterrent to re-flagging to a NCNM state).			– Domestic fleet changing registration to avoid compliance with CCSBT measures.
15(4) The Parties shall cooperate in taking appropriate action, consistent with international law and their respective domestic laws, to deter fishing activities for southern bluefin tuna by nationals, residents or vessels of any State or entity not party to this Convention where such activity could affect adversely the attainment of the objective of this Convention.	<ul style="list-style-type: none"> - CDS - record of authorised vessels/farms 	<ul style="list-style-type: none"> - Restrictions on imports of SBT through CDS e.g. import prohibitions - port state measures 	<ul style="list-style-type: none"> - Inspection of landings, notification requirements when entering domestic waters. - Customs checks on imports. 	<ul style="list-style-type: none"> – Increase in fishing by NCNMs – Inability to monitor activities of NCNM vessels. – No coordinated checking of vessels by port states – Vessels landing in NCNM ports escape flag state monitoring

Figure 1: Summary of areas of potential risk



Step Three—Identify priority areas and possible solutions

Based on the gap analysis, members of the inter-sessional working group identified priority areas and possible solutions. An assessment of the impact and likelihood of potential risks was used to broadly inform the prioritisation. Such an assessment often takes the form of a matrix, as outlined in **figure 2** below. Given the timing available to members of the group, it was not possible to systematically place all potential risks into this matrix, although members of the group did provide comments on their opinions on both likelihood and potential impact of particular risks.

Table 3 provides a summary of responses from inter-sessional working group members on the relative priorities of the various risks identified. The 2009 compliance committee report outlined that the inter-sessional group would report back to the compliance committee in 2010, including on priorities for action and possible draft resolutions for consideration by the compliance committee. However, the focus of the inter-sessional group’s work has been more on risk identification, and it is hoped that the compliance committee meeting will provide an opportunity to build on this foundation with additional consideration of possible solutions and, as appropriate, draft resolutions.

Figure 2: Risk assessment matrix

LIKELIHOOD	EXPECTED					
	HIGH					
	MODERATE					
	LOW					
	UNLIKELY					
		NEGLECTIBLE	LOW	MODERATE	HIGH	EXTREME
		POTENTIAL IMPACT				

Table 3: Summary of members' risk prioritisation for the global southern bluefin tuna fishery

Risk identified	Member			
	Taiwan	Australia	New Zealand	Japan
Possibility of total mortalities exceeding global TAC	It is CCSBT members' highest obligation to tackle global TAC related issues.		Our ability to stay within the limits of the global TAC should be seen as a key performance indicator of appropriate management. This risk is closely linked to (and dependent on) a number of the risks identified below.	The risk of exceeding country allocations and the global TAC is of high priority. All Members should implement stricter monitoring of their fishing activities, including daily catch reporting from SBT vessels. Verification of reported amount of catch is also important. The 2009 Action Plan Resolution includes many related provisions, including catch inspections, stereo video monitoring in the surface fishery, and cooperation with port states.
IUU fishing and/or actions of non-cooperating non-members (NCNMs)	The lack of evaluation of IUU activities raises uncertainty for stock assessment and hinders decision-making. We believe that the risk of exceeding the global TAC could be decreased if we could minimize the potential risks such as unrestrained catches by NCNMs, and IUU product entering markets.	Non-compliance by members and CNMs with the requirement to cooperate in taking appropriate action, consistent with international law and their respective domestic laws, to deter fishing activities for southern bluefin tuna by nationals, residents or vessels of any State or entity not party to this Convention where such activity could affect adversely the attainment of the objective of this Convention.	<p>IUU fishing adversely impacting on stock: Despite considerable uncertainty about the likelihood the potential impact justifies a high priority. IUU fishing undermines the Commission's efforts to manage the stock and ERS. Measures adopted by CCSBT, such as the CDS, should deter IUU fishing by restricting the markets where SBT can be sold. These measures, however, do not adequately address the threat posed by emerging NCNM markets.</p> <p>Actions of Non-Cooperating Non-Members (NCNMs) adversely impacting ability of CCSBT to manage SBT: the magnitude of this risk is difficult to gauge at this stage because of the difficulty of collecting information from NCNMs. There is the potential for this risk to be quite substantial.</p> <p>Operators re-flagging to circumvent adopted CCSBT measures: This risk relates both to the issue of IUU fishing and the control of nationals by members and CNMs. The likelihood attached to the risk is greatest when speaking of non-member nationals but</p>	IUU, non-cooperating non-parties and re-flagging could have significant impacts, but the likelihood is uncertain and should be mitigated by the CDS. The suggested response is to share information on IUU, non-cooperating non-parties and re-flagging among CCSBT members, as it becomes available. There could be possible risks in relation to IUU/NCNMs, especially if large new SBT markets develop in a NCNM where IUU SBT could be sold. This is not thought to be a risk at present but is a potential future risk, which could be mitigated by the CDS.

			the potential impact is considerable regardless since it can greatly increase the overall level of IUU fishing and undermine the effectiveness CCSBT measures with implications for the credibility of the Commission.	
Data collection, verification and provision i.e. poor information affecting science and management decisions	Data quality is an essential element for stock assessment. Therefore, we think it is a basic task for members to collect useful data.	Non-compliance by members and CNMs with the requirement to provide scientific information, fishing catch and effort statistics and other data relevant to the conservation of SBT and as appropriate, ecologically related species.	The impacts associated with this risk are quite substantial. Instilling confidence in the data used for science and management purposes was a core tenet for the Compliance Committee when it was established and should remain so. A number of the activities proposed in the Action Plan will serve to improve and maintain data integrity. Ensuring the efficacy of the CDS is one such means of allowing access to better information.	<p>Data quality and verification: Quality of catch data is the important element in conducting SBT stock assessment. Discrepancy in data collection could be an issue in ensuring high quality catch data (and therefore stock assessment). There could be potential for improvement of catch data from the other longline countries, including implementation of daily reporting to improve confidence in CPUE data. Actions mentioned in the Action Plan Resolution should be effective in improving data. The CDS and tagging information is also a useful source of information.</p> <p>Estimation of initial catches: This issue could be resolved through implementation of the 2009 action plan resolution that requires farming country to introduce stereo video by 2012.</p>
Monitoring of vessels in port	The spirit of CCSBT CDS is to track SBT from catching to market. Therefore, we think that checking of vessels in port is a useful tool to help CCSBT to monitor SBT catches.		The lack of consistency (in terms of frequency and thoroughness) with which domestic and foreign port inspections take place increases the likelihood of gaps in verification of SBT landings. This is especially true of non-member ports where inspections may be sporadic and inspectors unaware of, or lack training in CCSBT requirements.	With the CDS system already in place, potential impact and likelihood of not having port state measures is unclear, and requires further study and discussion. The 2009 action plan resolution requests each country to improve port state inspections, including designation of foreign ports and communication with port states, which should lead to improvements.
Non-reported catch adversely impacting stock			Recreational take and returns to sea remain sources of uncertainty, with limited information available to properly quantify the impact they are having on the stock. The medium priority ranking currently assigned to this risk is largely	Understanding total mortality is an important issue, but it is necessary to think carefully about cost/benefit of doing so. It could be a very difficult and painstaking task to investigate all possible sources of mortality. In

			based on the uncertainty surrounding the quantities involved. Noting the costs involved in quantifying some of these activities, small-scale measuring exercises could be considered to provide preliminary estimates and assess the need for further analysis or action.	addition, when there would be only very limited amount of mortality from such other sources, there could be quite limited benefit, compared to the resources necessary to conduct such a task.
Control of nationals				Members may have inconsistent provisions for control of nationals, which could create a potential risk. Japan has very strict legislation on control of nationals, including sales and possessions of illegally caught SBT that could result in up to 2-year imprisonment. Appropriate controls would need to take into consideration different domestic situations and legal systems among members.
Species misidentification weakening existing measures			The potential for species misidentification poses a threat to the integrity of measures such as the CDS and transshipment regime, noting that such misidentification could be either inadvertent or deliberate. We have identified this as an area of concern a Port State inspecting foreign flagged vessels, and potentially within the New Zealand domestic fleet.	
Members and Cooperating Non-Members breaching ERS measures			New Zealand does not have any information to indicate that vessels are not currently abiding by existing ERS measures, but the difficulty in monitoring compliance makes this at least a potential threat. Recent cuts in the global TAC may result in reductions in effort and thereby also lower the likelihood of this occurring.	Although recognising that CCSBT recommendations on ERS are non-binding, it is considered that most concerns relating to ERS could be resolved through the ERS Recommendation in 2008 (especially implementation of IOTC and WCPFC measures as appropriate).

Conclusion

Most members identified ensuring total mortalities do not exceed the global TAC as the highest priority for CCSBT, noting that a number of the other risks identified could contribute to this risk. For example, the gap analysis in table 2 identifies component risks including:

- The Global TAC is exceeded because of IUU and/or non-cooperating non-member fishing;
- Country allocations are exceeded (and hence potentially the global TAC);
- Global TAC cannot be enforced (e.g. no formal penalties in place for overcatch)

Members also noted that a number of initiatives already under way could help to ensure total mortalities do not exceed the TAC. In particular, members noted the undertakings in the Resolution on Action Plans to Ensure Compliance with Conservation and Management Measures. As such, it could be appropriate to now give further consideration to whether the measures outlined in the resolution and in members' action plans have been sufficient to mitigate risk, as well as monitoring implementation of such measures. The potential need for penalties or sanctions in relation to overcatch could also be considered further.

Another potential risk area that most members identified as high or medium priority was IUU fishing and/or actions of non-cooperating non-members (NCNMs), although noting that information was lacking to more accurately quantify the risk. Nonetheless, based on the risk matrix approach, such a risk could be considered to have high impact, even if the likelihood was uncertain or low. Many of the measures adopted by the CCSBT should deter IUU fishing, for example by restricting access to the markets where SBT can be sold in the case of the CDS. These measures may not however adequately address the threat posed by emerging markets in non-cooperating non-member states. A monitoring programme for alternative markets is one potential response to this risk, perhaps in conjunction with other regional fishery management organisations (RFMOs). Additional work to encourage non-cooperating non-members to participate in the CDS might also be of value.

A third key area of risk related to data collection, verification and provision, with the potential risk that poor information would affect science and management decisions. This issue was noted to be broader than just an issue for the compliance committee, although it was noted that instilling confidence in the data used for science and management purposes was a core tenet for the compliance committee when it was established, and remains relevant today. Again, it was noted that actions identified in the resolution on action plans could help to address this risk area (including improvements in observer coverage and the use of such coverage to verify reported catch data; catch inspections; additional port state monitoring; and implementation of stereo video monitoring in the surface fishery).

A fourth related area of risk concerns monitoring of vessels in port. The lack of consistency (in terms of frequency and thoroughness) with which domestic and foreign port inspections take place may increase the likelihood of gaps in verification of SBT landings. This is

especially true of non-member ports where inspections may be sporadic and inspectors unaware of, or lack training in CCSBT requirements. Since the spirit of CCSBT CDS is to track SBT from catching to market, checking of vessels in port is likely a useful tool to help CCSBT to monitor SBT catches.

Further discussion is required on the potential risks identified, and appropriate responses to these risks. Overall, inter-sessional working group members noted the many initiatives CCSBT has already adopted to improve its ability to meet the obligations outlined in its Convention, but recognised the need for ongoing monitoring and assessment to ensure the measures are effective.

Appendix One

Excerpt from the Report of the Fourth Meeting of the Compliance Committee

Agenda Item 5. Future work program and other measures

26. It was again noted that there was significant variation in the level of verification of catches by different Members, and some Members considered that adequate levels of flag State verification of catches was the highest compliance priority for the CCSBT.

27. The Compliance Committee noted the discussions during the meeting about the need to ensure compliance with CCSBT conservation and management measures, especially given the low state of the SBT stock. In this context, the CC agreed that it would be valuable to undertake a risk assessment to identify how well existing measures are contributing to monitoring and management of the fishery; and whether there are areas where monitoring and management of the fishery could improve. The CC recommended that an intersessional working group be formed to undertake this risk assessment, using the New Zealand paper (CCSBT-CC/0910/09) and the reports of the performance review working group and the independent reviewer as a basis for this work. The on-going FAO consultations on flag state performance were also noted as a relevant input. The working group will report back to the CC meeting in 2010, including on priorities for action and possible draft resolutions for consideration by the CC.

28. The CC recommended that the CCSBT agree on who would coordinate the work of this group.* Members and CNMs agreed to provide nominations to participate in the group by 1 December 2009. The CC recommended that the group undertake its work intersessionally, using electronic communications, and an intersessional meeting in conjunction with the Strategy and Fisheries Management Working Group if required. The CC noted that this work would be in addition to Members and CNMs undertaking measures to improve their monitoring and verification systems before the next meeting of the Compliance Committee.

* CCSBT16 agreed that New Zealand would coordinate the work of this group (CCSBT 16 report, paragraph 22).