



## **Phase 1 & 2 combined - Quality Assurance Review**

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



**Undertaken by Global Trust Certification Ltd.**

**Member Report: (Phase 1 up-date and Phase 2 combined)**

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Commission for the Conservation of Southern  
Bluefin Tuna (CCSBT)  
81A Denison Street  
Deakin  
ACT  
Australia  
Tel: 612 6282 8396  
Fax 612 6282 8407

Global Trust Certification  
SAI Global Assurances  
Marine Office  
Quayside Business Park  
Dundalk  
Ireland  
Tel: 00 353 42 9320912  
Fax: 00 353 42 9386864

## Executive Summary

This Quality Assurance Review (QAR) report provides an evidence-based review of Korea's Southern Bluefin tuna (SBT) fishery and associated fisheries management against selected sections, as determined by the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) Secretariat, of CCSBT's Compliance Policy 1, "Minimum performance requirements to meet CCSBT Obligations". Korea's QAR consists of two phases (Table 1);

- Phase 1: The QAR was conducted April – August 2013, with a key consultation meeting held with key personnel within the Ministry of Oceans and Fisheries (MOF), National Fishery Products Quality Management Services (NFQS) and Korea Overseas Fisheries Association (KOFA) on 10<sup>th</sup> July 2013 GMT
- Phase 2: An on-site inspection of the Member's monitoring, control and surveillance (MCS) systems and processes documented in the Phase 1 QAR. The phase 2 site visit was conducted from 9<sup>th</sup> – 13<sup>th</sup> May 2016.

Member Phase 1 and 2 reviews can be conducted on separate occasions with a separate Phase 1 Report and a final combined Report to include Phase 2 or; Phase 1 and 2 reviews can be conducted concurrently and reported in a combined Report. In the case of the Korea (KOR) report, Phase 1 and 2 were conducted independently and combined for submission to CCSBT.

Korea is a distant water fishing country, reported as catching the fourth most in terms of tuna catches globally<sup>1</sup>. Korea is also a growing market for SBT. The legal basis for the management of Korean distant waters fisheries is the *Distant Water Fisheries Development Act* (DWFDA, 2015 Revision). This Act legally requires fishing vessels and the Korean government to comply with Regional Fisheries Management Organisations (RFMOs) such as the CCSBT, Indian Ocean Tuna Commission (IOTC) and International Commission for the Conservation of Atlantic Tunas (ICCAT) of which Korea is a member. The Korean SBT fishing fleet consists of a small number of large-scale long liners operating exclusively in international waters. The operational management of the fishery is the responsibility of the Ministry of Oceans and Fisheries (MOF), which devises and implements all technical measures and documentation requirements applied to the SBT fishery. The key management instrument is the annual application of a Total Allowable Catch (TAC), which is set in line with the CCSBT Allocated Catch (AC) for Korea. This TAC is initially allocated by the MOF to the three companies, which currently apportion the share of the fishery based on their historical effort share, and subsequently to individual vessels within those companies. The *Distant Water Fisheries Development Act* stipulates a number of additional management requirements, such as mandatory VMS, logbook keeping and catch reporting. The majority of Korean SBT catch is landed into Japan, either directly by the fishing vessel or via authorised foreign-flag carrier vessels.

The management systems and processes applied by Korean to the SBT fishery have been successful in ensuring that the reported Attributable SBT Catch (ASBTC) has not been exceeded Korea's CCSBT AC, apart from one, historical instance in 2010 when the ACT was exceeded by 8 tonnes. Catches are reported to the Fisheries Monitoring Centre (FMC) and the National Institute of Fisheries Science (NIFSS) via electronic logbook system on a daily basis. Vessels also return the completed logbooks at the end of a trip. Logbook data is used as part of the verification of CDS documentation, and is used in conjunction with CCSBT Catch Documentation Scheme (CDS) documents to ensure consistency and reduce the probability of misreporting. Accuracy of SBT catch and mortality estimates is also ensured through an observer scheme, portside inspections at landing and transshipment, and the mandatory presence of an independent observer, associated with the relevant RFMO observer

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<sup>1</sup> Fao website 2016 <http://www.fao.org/docrep/007/y5428e/y5428e03.htm>

programme, whenever fish are transshipped at sea. At Port transshipments are not part of the observation scheme but monitoring and inspection does occur at Shimizu, Japan and Busan. There has been occasional transshipment in other Ports in previous seasons (e.g. Cape Town and Port Louis,) and these are under the inspection regimes of those State Authorities.

Korea's SBT fisheries management systems are effective in terms of the CCSBT minimum performance requirements. Features of the system include; recently enacted fisheries legislation, an active fisheries management regulatory system and established fisheries reporting and sanctions. However, the QAR Phase 2 did identify some potential weaknesses associated with aspects of the Korean system and has provided recommendations where appropriate. To the most, Korea has already recognized these potential weaknesses and had already made improvement plans to mitigate against these prior to the Phase 2 QAR Review.

Given the low level of at-sea observer compliance coverage and at-sea inspections potential risks such as high grading discards (non-retained) were noted by the reviewers although no evidence of this occurring was reported. Particular recommendations could include increasing the amount of SBT fishing activity monitored (e.g. through at-sea inspection and observer coverage) although it is understood that Korea will adopt alternative remote monitoring systems (camera systems for example which are under test). At Port, introducing joint training for Food Agency Staff and MOF to reduce the potential risk of misidentification of SBT imports was also noted. Additional recommendations on an internal overall inter-agency wide review of the relatively new processes/systems is also proposed. This is made, particularly taking into account the occurrence of missing 2014 missing REEF's and the corrective measures now implemented with the connected food import agency, MFDS.

**Table 1 Summary of Quality Assurance Review Implementation Information: Korea**

QAR Phase	Dates
Phase 1 Initiation	April 15 <sup>th</sup> 2013
Phase 1 Review	April – August 2013
Phase 1 Consultation	11 <sup>th</sup> June 2013
Site visit (Phase 2)	9 <sup>th</sup> May 2016 – 13 <sup>th</sup> May 2016
Report to Member	May 30 <sup>th</sup> 2016
Report returned- with comments	July 29 <sup>th</sup> 2016
Draft Final Report for review	August 31 <sup>st</sup> 2016
Clarifications from Korea	September 5 <sup>th</sup> 2016
Final Report Combined Phase 1 and 2	September 7 <sup>th</sup> 2016

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## Phase 2 site visit outcomes

	Summary	Weaknesses	Threats (risks)	Recommendations
<b>Fishery management</b>	<p>Phase 1 findings were supported and updated by recent changes in the structure of Korea's fishery management. With a robust management framework for implementation of the SBT MPR requirements of CCSBT demonstrated. Recently introduced fisheries legislation within the DWDFR Revision 2015 provides a legal framework of authority for implementing SBT specific management rules.</p>	<p>Recorded weights are based on conversion factors. Available information indicates that the conversion factors have not been reviewed since 1997.</p>	<p>Recorded weights are based on conversion factors. Available information indicates that the conversion factors have not been reviewed since 1997. There is a risk that the current conversion factors do not correctly reflect the fishery.</p>	<p>Review of conversion factors used in the fishery (which may include the Extended Commission).</p>
<b>Compliance and observer services</b>	<p>Significant investment in the organisational capacity to manage and monitor distant water fisheries through re-structured agencies is apparent. These agencies work to ensure high compliance in the fishery. Significant investment has been made in technology and other infrastructure related to the VMS and maintenance of the e-logbook system</p>	<p>Lack of at-sea inspections. There was a reduction in observer coverage in 2015, although this is attributed to unpredictable seasonal circumstances. Coordination of Imports/and re-exports (REEF's) has been a weak area in 2014 but not apparent more recently.</p>	<p>At sea compliance in general, could be undermined by reduced observation and the ability to conduct vessel boardings. Customs or Food Agency officers receive training however, uncertain of how this is integrated with MOF. This could lead to a risk of the training not being standardised and consequently potential for mis-identification of tuna species (or other seafood products).</p>	<p>Increasing observer coverage levels or alternative real time, remote monitoring. (The reviewers acknowledge that in 2015 the reduced coverage was a result of unpredictable seasonal circumstances). Prioritise the development and implementation of the e-monitoring system (closed circuit camera systems underway). Formal inter-agency agreements on information exchange (both MOF Agencies and MOF with MFDS as already progressed by MOF). Review and consider if there are gaps in observation and monitoring of in port transshipments at foreign Ports other</p>

	Summary	Weaknesses	Threats (risks)	Recommendations
				than Shimizu. Conduct joint training for Food Agency Staff with MOF to reduce the potential risk of misidentification of SBT imports. In conjunction, review the potential for implementing DNA testing.
<b>Industry engagement and communication</b>	There is ongoing engagement between industry and government on the management of the SBT fishery including the Catch Documentation Scheme (CDS) requirements. KOFA, the industry association, takes a role in the SBT management process relating to the issuing of SBT Tags and collecting tagging data.	Appears that tags can be disposed of by KOFA member which may result in a tag reconciliation tagging weakness.	Awareness of fishery issues is likely to differ dependent on the position within the industry. Tags can be disposed of by KOFA could cause reconciliation risk.	Encourage all stakeholders and participants in the fishery to engage with government and industry representatives to ensure awareness of CCSBT requirements. Promote that all tags are returned instead of any KOFA members disposing of tags.
<b>Data Management systems</b>	Phase 1 findings were supported and updated by recent changes in the structure of Korea's data management systems. MOF and the Customs or Food Agency of the exporting country have an agreement to notify the NFQS of SBT imports. Implemented to address the batch of missing REEFs in 2014.	A batch of missing REEFs in 2014 occurred, although now identified and recovered.	Inter-agency verification appeared to include some informal processes. There is a risk using this may result in the breakdown of inter-agency cooperation.	Review of the management of SBT imports. It was noted that corrective measures have been implemented to address recent gaps in CDS import documentation. The effectiveness of these measures could be reviewed at the end of the season. Continued development of agreements notifying MOF of SBT imports and continued development of formal risk based compliance tools to replace any informal processes.

	Summary	Weaknesses	Threats (risks)	Recommendations
<b>Validation systems</b>	<p>The phase 2 site visit demonstrated that on the whole data checking and validation processes are in place and for CDS mostly, the responsibility of NFQS.</p> <p>The NFQS does not work in isolation and worked in conjunction with other agencies notably the FMC, utilising the FMS.</p> <p>The phase 2 site visit identified the FMS as a comprehensive system being used to cross-check and validate the SBT fishery.</p>	<p>A batch of missing REEFs in 2014 occurred, although now identified. MOF has developed an agreement with MFDS and Customs or Food Agency of the exporting country and to notify the NFQS of SBT imports.</p>	<p>The case of missing REEFs in 2014 highlighted the risk of SBT entering Korea and the subsequent CDS documentation not begin submitted to the Secretariat.</p>	<p>Review and formal documentation of procedures including the verification of documentation to ensure a defined distinction with validation activities would be beneficial.</p> <p>Review of the management of SBT imports. It is noted that corrective measures have been implemented to close the recent gaps in CDS import documentation via new reporting arrangements with MFDS on imports of SBT. As noted, a review of the effectiveness of these measures is recommended at the end of the season.</p> <p>Increased cross-validation with port state authorities for landings where Korean officials are unable to observe.</p>

## Table of Contents

<b>EXECUTIVE SUMMARY</b> .....	<b>2</b>
PHASE 2 SITE VISIT OUTCOMES .....	4
<b>1 QUALITY ASSURANCE REVIEW</b> .....	<b>10</b>
1.1 METHODOLOGY .....	11
<b>2 SOUTHERN BLUEFIN FISHERY</b> .....	<b>13</b>
2.1 INTRODUCTION .....	13
2.2 MANAGEMENT AUTHORITIES .....	13
2.3 MANAGEMENT SYSTEM .....	17
2.4 FISHERY SECTORS .....	18
2.5 ECONOMIC ASPECTS .....	20
<b>3 MEMBER MANAGEMENT SYSTEM IMPLEMENTATION OF CCSBT MINIMUM PERFORMANCE REQUIREMENTS</b> .....	<b>21</b>
3.1 COMPLIANCE WITH NATIONAL ALLOCATIONS 1 (CCSBT SECTION 1.1(i)) .....	21
3.2 COMPLIANCE WITH NATIONAL ALLOCATIONS 2 (CCSBT OBLIGATION 1.1(iii)) .....	36
3.3 RECORD OF AUTHORISED CARRIER VESSELS 1 (CCSBT OBLIGATION 2.3(i) + (ii)) .....	37
3.4 RECORD OF AUTHORISED CARRIER VESSELS 2 (CCSBT OBLIGATION 2.3(iii)) .....	37
3.5 CATCH DOCUMENTATION SYSTEM 1 (CCSBT OBLIGATION 3.1 (i) – (v)) .....	38
3.6 CATCH DOCUMENTATION SYSTEM 2 (CCSBT OBLIGATION 3.1 (vi)) .....	43
3.7 CATCH DOCUMENTATION SYSTEM 3 (CCSBT OBLIGATION 3.1 (vii) – (ix)) .....	44
3.8 CATCH DOCUMENTATION SYSTEM 4 (CCSBT OBLIGATION 3.1 (x) - (xii)) .....	45
3.9 CATCH DOCUMENTATION SYSTEM 5 (CCSBT OBLIGATION 3.1 (xiii) - (xviii)) .....	48
3.10 CATCH DOCUMENTATION SYSTEM 6 (CCSBT OBLIGATION 3.1 (xix) - (xxi)) .....	49
3.11 CATCH DOCUMENTATION SYSTEM 7 (CCSBT OBLIGATION 3.1 (xxii) - (xxv)) .....	52
3.12 CATCH DOCUMENTATION SYSTEM 8 (CCSBT OBLIGATION 3.1 (xxvi)) .....	56
3.13 CATCH DOCUMENTATION SYSTEM 9 (CCSBT OBLIGATION 3.1 (xxvii) + (xxviii)) .....	56
3.14 CATCH DOCUMENTATION SYSTEM 10 (CCSBT OBLIGATION 3.1 (xxix) + (xxxii)) .....	57
3.15 TRANSSHIPMENT (AT SEA) MONITORING PROGRAM 1 (CCSBT OBLIGATION 3.3 (i) – (v)) .....	60
3.16 TRANSSHIPMENT (AT SEA) MONITORING PROGRAM 2 (CCSBT OBLIGATION 3.3 (vi)) .....	62
3.17 TRANSSHIPMENT (AT SEA) MONITORING PROGRAM 3 (CCSBT OBLIGATION 3.3 (vii - x)) .....	62
3.18 TRANSSHIPMENT (AT SEA) MONITORING PROGRAM 3 (CCSBT OBLIGATION 3.3 (xi - xiv)) .....	64
3.19 ANNUAL REPORTING TO THE COMPLIANCE COMMITTEE (CCSBT OBLIGATION 6.5) .....	64
<b>4 PHASE 2 MEMBER SITE VISIT</b> .....	<b>66</b>
4.1 FISHERY MANAGEMENT REVIEW .....	69
4.2 DATA MANAGEMENT .....	69
4.3 VALIDATION SYSTEMS .....	71
<b>5 PHASE 1 MEMBER PROCESS FLOW MAPS- PHASE 1</b> .....	<b>73</b>
<b>6 MANAGEMENT SYSTEM EFFECTIVENESS</b> .....	<b>77</b>
<b>7. RECOMMENDATIONS FOR IMPROVEMENT</b> .....	<b>84</b>
<b>7 PHASE 2 GAP ANALYSIS</b> .....	<b>86</b>
<b>8 POST FINAL REPORT MEMBER COMMENTS</b> .....	<b>94</b>
8.1 ADDITIONAL MEMBER COMMENT ATTACHMENT .....	94
<b>9 APPENDICES</b> .....	<b>95</b>
9.1 APPENDIX 1: EVIDENCE / REFERENCE MATERIAL CITED AND OR WITNESSED DURING THE QAR PROCESS .....	95

**LIST OF TABLES**

Table 1 Summary of Quality Assurance Review Implementation Information: Korea .....	3
Table 2 Management Authority responsibilities for Minimum Performance requirement (MPR) .....	16
Table 3 Korean SBT catches and fishing effort from 2000 – 2014 compiled from logbook data.....	19
Table 4 Korean SBT fishery exports from 2010 – 2015 <sup>2</sup> .....	20
Table 5 Korean Allocated Catch, TAC and ASBTC for each SBT fishing season since 2011.....	22
Table 6 Company and vessel allocations for the 2015/16 season (and Catch) .....	23
Table 7 Landing dates, weights and locations for the 2014/15 fishing season .....	27
Table 8 Observer coverage for the Korean SBT fishery through the Korean observer program, 2010-2014 <sup>3</sup> .....	29
Table 9 Amount of SBT effort observed by area in the 2014/15 fishing year <sup>3</sup> .....	29
Table 10 Number of fish measured or collected for biological information by species, 2014 <sup>3</sup> .....	29
Table 11 Comparison of catch weights estimated by crew and final catch estimates at landing for April 2015 – March 2016 (catch amounts are based on round (green) weight) .....	32
Table 12 Transshipments completed by Korea in 2014 .....	63
Table 13 Schedule of Site visit Meetings .....	67
Table 14 Strengths, weaknesses, opportunities and risks (threats) (SWOT) analysis conducted for Korea’s systems determining compliancy to CCSBT Minimum Performance requirements (MPR’s) ..	78
Table 15 Recommendations (opportunities) identified by the strengths, weaknesses, opportunities and threats (SWOT) analysis conducted for Korea’s systems determining compliance with CCSBT Minimum Performance requirements (MPRs) .....	84
Table 16 GAP analysis of information obtained during phase 1 and the information sighted/provided during the phase 2 site visit .....	87

**LIST OF FIGURES**

Figure 1 Methodology process for the CCSBT quality assurance review.....	12
Figure 2 High level Fisheries Monitoring Centre Staff Organisation.....	14
Figure 3 Korean Fishing Pattern for SBT (2016 up-date) and landing Ports .....	18
Figure 4 Korean SBT fishing pattern and fishing grounds, showing Catch per unit effort (CPUE) of Korean longliners from 2010 – 2014 <sup>3</sup> .....	19
Figure 5 The annual number of active Korean tuna longline vessels fishing for SBT and their annual SBT catches in the CCSBT convention area, 1991-2014 <sup>3</sup> .....	19
Figure 6 Overview of Korea’s Vessel Monitoring System (VMS) .....	34
Figure 7 Schematic of data collection systems and responsibilities of the various agencies.....	69
Figure 8 Schematics of FMC Data Base Management .....	70
Figure 9 Schematics of FMC Data Base Integration .....	71
Figure 10 Database Information Sharing under FMC .....	71
Figure 11 Schematic of Improvements provided by MOF FMC Establishment .....	72



**ABBREVIATIONS**

AC	Allocated Catch (Individual Member quota)
ACE	Annual Catch Entitlement
ASBTC	Attributable Southern Bluefin Tuna Catch
CDS	Catch Documentation Scheme
CMF	Catch Monitoring Form
CTF	Catch Tagging Form
CCSBT	Commission for the Conservation of Southern Bluefin Tuna
DWFDA	Distant Water Fisheries Development Act 2015
DQZZ	Data quality standards and specifications
EDT	Electronic Data Transfer
EEZ	Exclusive Economic Zone
FMA	Fishery Management Area
FMC	Fisheries Management Centre
HSS	Harvest Strategy Standard
HMS	Highly Migratory Species
IUU	Illegal, unreported and unregulated
LSMS	Large Scale Multi Species
LSTLV	Large Scale Tuna Longline Vessels
MCS	Monitoring, control and surveillance
MFDS	Ministry of Food and Drug Safety
MHR	Monthly Harvest Returns
MOF	Ministry of Fisheries
MPR	Minimum Performance Requirement
MSY	Maximum Sustainable Yield
NIFSS	National Institute of Fisheries Science
NFQS	National Fishery Products Quality Management Service
QAR	Quality Assurance Review
QMS	Quota Management System
REM	Remote Electronic Monitoring
SBT	Southern Bluefin Tuna
TAC	Total Allowable Catch
TACC	Total Allowable Commercial Catch
TDF	Transshipment Declaration Form
VMS	Vessel Monitoring System
YFT	Yellowfin Tuna

## 1 Quality Assurance Review

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 (MPR) in sections 1.1, 2.3, 3.1, 3.3 and 6.5 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, and are compliant with the Catch Documentation Scheme (CDS) and regulations associated with SBT transshipments. 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 "Resolution on the Implementation of a CCSBT Catch Documentation Scheme".

Additional Minimum Performance Requirements (MPR) were included in 2014 which extend the scope of both Phase 1 and Phase 2 reviews. Specifically, these are:

- 3.1 Catch Documentation System (A-F)
- 2.3 Record of Authorized Carrier Vessels (part of Transshipment Resolution)
- 3.3 Transshipment (At sea) Monitoring Program (Resolution)
- 6.5 Annual Reporting to the Compliance Committee (Suite of Decisions/Resolutions/Recommendations).

The main body of this report provides an overview of the management of fisheries of the Member participating in the QAR and the effectiveness of their fisheries management in line with the MPRs within the scope of this report.

A step-by-step description of the processes and practices implemented by the Member is presented and the level of performance found against each 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.

In assessing the suitability of systems QARs will take into account the particular circumstances and characteristics of each Member being reviewed. QARs will also take into account any issues identified by the Compliance Committee. All QARs provide an overall review of the Members monitoring, control and surveillance (MCS) systems however some areas may need particular attention based on the Members involved, including:

i) **Market States** – emphasis will be placed on the systems and processes in place to support requirements for the importation of SBT products;

ii) **Farm States** – emphasis will be placed on the systems and processes required for accurate reporting of catch, monitoring the introduction of SBT into farms including the effectiveness of the 100 fish sampling methodology and the harvesting of farmed SBT product;

iii) **Developing States** – emphasis will be placed on the systems and processes in place required to monitor, manage and accurately report artisanal and industrial catch including to address Indonesia’s request for consideration of its allocation; and

iv) **Distant Water Fishing States** – emphasis will be placed on the systems and processes in place for the accurate reporting of catch, recording/verifying of landing and/or transshipment and monitoring of direct exports of SBT.

## 1.1 Methodology

The standard format for the QAR is to conduct the review in two distinct phases, the first being a desk-based review and the second phase a site visit. The scope of the QAR has been extended since its inception in 2013 to encompass more CCSBT MPRs and include a phase two site visit. The methodology for each phased is shown below;

**Phase 1** - an independent desktop review conducted by a review team through 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. The review method was undertaken in four 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, and 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 strengths, weaknesses, opportunities and threats (SWOT) analysis with regard to the extent that the management system implementation effectively demonstrates compliance to each of the Min. performance criteria.
- 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 process for the CCSBT quality assurance review**

**Phase 2 site visit** - designed to verify the extent that systems and processes described in documentation and records provided in Phase 1 and the Phase 1 extension are fully implemented and consistent with the procedure described by the Member. During the site visit, the reviewers will determine the extent to which the processes and activities are effective in ensuring that Members meet their obligations specific to the MPR's within the scope of the current QAR framework.

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 the following sections:

- Executive summary: summarising the report, providing a phase 2 summary and detailing the recommendations for improvement identified by the review team.
- 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 (Phase 1)
- Section 4: Phase two member site visit and associated summaries
- Section 5: A detailed flow chart to support the evaluation and provide specific details of the SBT Allocation, CDS and MCS in place.
- Section 6: Effectiveness of the Management Systems (SWOT analysis)
- Section 7: Recommendations for improvement
- Section 8: Phase 2 gap analysis
- Section 9: Member Comments
- Section 10: Appendices

## 2 Southern Bluefin fishery

### 2.1 Introduction

Korea is recognised as one of the leading distant water fishing countries, reported as catching the third most, globally<sup>2</sup>. Korean SBT fisheries originally began with a small experimental operation in the Indian Ocean in 1957<sup>3</sup>. Korean flagged large-scale tuna longliners (LSTLVs) have been targeting Southern Bluefin Tuna (SBT) since 1991<sup>3,5</sup>. Korea is a distant water fishing country with Korea's SBT fishing operations occurring in the high seas of the western Indian Ocean, fishing from April and ending in December<sup>2,4</sup> with most activity taking place from April – July. Korean longliners occasionally fish in the south eastern Atlantic, whilst from July – December the fleet moves to the eastern Indian Ocean off Western Australia<sup>5</sup>. The fishing patterns of the Korean fleet have reportedly not changed significantly in the past 20 years<sup>2,5</sup>.

### 2.2 Management Authorities

Korea has two levels of government: national authorities and local governments that are responsible for fisheries conservation and management<sup>6</sup>. Given the Korean SBT fishery occurs on the high seas the fishery is managed by the national authorities: Korea's fisheries management is the primary responsibility of the Ministry of Oceans and Fisheries (MOF), which is the headquarters of fishery policy and regulation. In addition, ancillary agencies such as National Fishery Products Quality Management Services (NFQS), National Institute of Fisheries Science (NIFSS) and the Fisheries Monitoring Center (FMC) are responsible for specific aspects of Korea's fisheries management.

Prior to the Phase 1 QAR in 2013, there was a re-structuring process of Korea's fisheries management. This resulted in the amalgamation of the Fisheries Department of the old Ministry for Food, Agriculture, Forestry and Fisheries (MIFAFF) and the maritime part of the Ministry of Land, Transportation and Maritime Affairs (MLTM) forming the new Ministry of Oceans and Fisheries (MOF). Additionally since 2014, the old Quarantine & Inspection Agency (QIA) has also changed its name to the National Fishery Products Quality Management Services (NFQS)<sup>9</sup> and the National Fisheries Research and Development Institute (NFRDI) has now become the National Institute of Fisheries Science (NIFSS).

The most important development since the phase 1 report is the development of the national authority responsible for fisheries monitoring, called the Fisheries Monitoring Center (FMC). The FMC formation presents quite a significant change to how the SBT fishery is monitored and how data is collected, analyzed, shared and stored. A summary of the main roles of each are described below.

**Ministry of Oceans and Fisheries (MOF)** - directly manages the allocation of national quota, fishing authorizations and the mandatory reporting to the CCSBT Secretariat. MOF is supported by the National Fishery products Quality Service (NFQS) and the National Institute of Fisheries Science (NIFSS) and provides administrative and regulatory support. MOF also oversees the FMC.

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<sup>2</sup> Ministry for Food, Agriculture, Forestry and Fisheries. (2012) *Annual Review of SBT Fisheries for the Annual Meeting of the Extended Commission*, CCSBT-CC/12-09/SBT Fisheries-Korea (Rev1)<sup>2</sup>Argonet. (2002) *Korea: A Distant-Water Fishing Nation*. [Online] Available from: [http://www.cls.fr/documents/argos/peche/argonet\\_info/argonet\\_7\\_en.pdf](http://www.cls.fr/documents/argos/peche/argonet_info/argonet_7_en.pdf) [Accessed 24/08/13]

<sup>3</sup> National Fisheries Research and Development Institute (2015) 2015 Annual National Report of Korean SBT Fishery

<sup>4</sup> FAO. (2013) National Aquaculture Legislation Overview. Republic of Korea. National Aquaculture Legislation Overview (NALO) Fact Sheets. Text by Spreij, M. In: *FAO Fisheries and Aquaculture Department* [Online] Available from; [http://www.fao.org/fishery/legalframework/nalo\\_korea/en](http://www.fao.org/fishery/legalframework/nalo_korea/en) [Accessed on 14/07/13].

<sup>5</sup> Ministry for Food, Agriculture, Forestry and Fisheries. (2012) *Annual Review of SBT Fisheries for the Annual Meeting of the Extended Commission*, CCSBT-CC/12-09/SBT Fisheries-Korea (Rev1)

<sup>6</sup> FAO. (2013) National Aquaculture Legislation Overview. Republic of Korea. National Aquaculture Legislation Overview (NALO) Fact Sheets. Text by Spreij, M. In: *FAO Fisheries and Aquaculture Department* [Online] Available from; [http://www.fao.org/fishery/legalframework/nalo\\_korea/en](http://www.fao.org/fishery/legalframework/nalo_korea/en) [Accessed on 14/07/13].

**National Fishery products Quality Service (NFQS)** - is the body responsible for inspecting exported and imported fishery products (among other duties such as live aquatic creature inspection to preserve aquatic ecosystems). NFQS regulates country of origin labeling control for fishery products and quality certification. NFQS is the agency responsible for maintenance of the CCSBT CDS (Catch Documentation Scheme) and related statistical data collection. NFQS is responsible for the issuance, the validation and the verification of CDS documents. It therefore plays a significant function in Korea's SBT fishery management system.

**National Institute of Fisheries Science (NIFSS)** - is responsible for logbook data collection and management including verification and analyses of catch and effort data, biological data and ERS (Ecologically Related Species) data that are needed for stock assessments. NIFSS is also responsible for the scientific data collection associated with the fishery and CCSBT-related scientific activities. NIFSS manages the national observer programme; including training, briefing and debriefing observers and the collection of data and observer reports.

**Fisheries Monitoring Centre (FMC)** – is a government agency dedicated to Monitoring, Control and Surveillance (MCS) activities on vessels operating outside Korea's national jurisdiction. The FMC was established in March 2014. FMC monitors all distant water fishing vessel activities including transshipment and landing activities and manages the Fisheries Monitoring System (FMS), an integrated database on the activity of fishing vessels. The high-level organogram of FMC is shown in Figure 2, indicating the four teams within the FMC:

- Monitoring team - responsible for monitoring duties;
- Data analysis team – responsible for information collected via the monitoring team (landing, transshipment data, Electronic Reporting System);
- International Cooperation Team – responsible for RFMO-related issues and international communication
- Management support team.

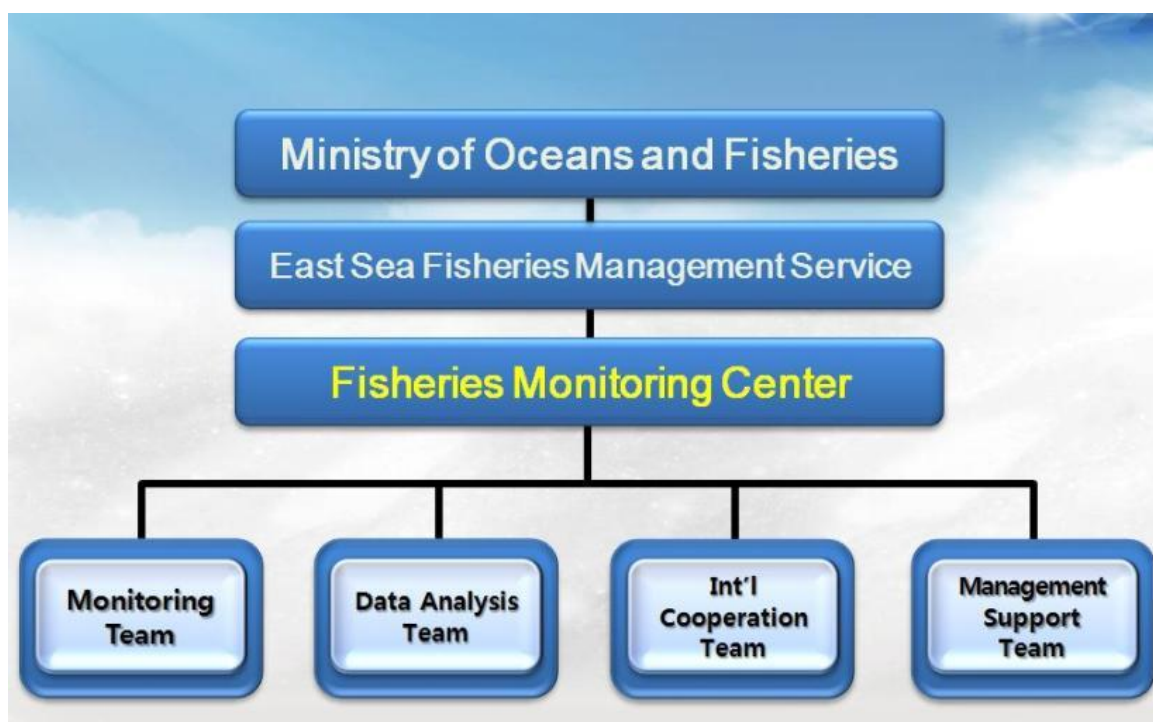


Figure 2 High level Fisheries Monitoring Centre Staff Organisation

**Ministry of Food and Drug Safety (MFDS)** - MFDS was established in 2014 and has authority for consumer safety of Agriculture, livestock and fishery products. From production to an end-consumer, seafood safety now managed and coordinated under the responsibility of MFDS in cooperation with other Ministries. The MFDS oversees import documentation collected by NFQS for fishery products.

**Korea Oversea Fisheries Association (KOFA)** - KOFA is an industry association and not a government body. KOFA takes a role in the SBT management process relating to the issuing of SBT Tags to eligible companies and collecting/collating tagging data.

Table 2 provides an up-date to the original Phase 1 report identifying the key responsibilities under the new Korean SBT management structure specific to the main CCSBT Performance Requirements (MPR).

**Table 2 Management Authority responsibilities for Minimum Performance requirement (MPR)**

Management Authority	Responsibilities	CCSBT MPR
Ministry of Oceans and Fisheries (MOF)	<ul style="list-style-type: none"> <li>Conducts statutory and regulatory functions for the management of Korea's fisheries resources</li> <li>Allocates quota to companies with history of SBT catches</li> <li>Manages the fishing license system</li> <li>Develops operational policy framework and ensure DWFDA is implemented and updated</li> <li>Managing and monitoring the NFQS and NIFSS</li> <li>Provide administrative and regulatory support</li> <li>Management of CCSBT tagging data</li> <li>Manages the integrated fisheries database FIMS</li> </ul>	1.1i (1, 2a-c, 3,4) 1.1iii (1a -b) 3.1i-v (1a-c, 1e, 3), 3.1vi (2) 3.1x-xii (1a-e), 3.1xiii-xviii (1, 2) 3.1xix-xxi (1a-f, 2) 3.1xxii-xxv (1a-c, 2a-b) 3.1xxvi (1) 3.1xxvii-xxviii (1,2) 3.1xxix-xxxi (1, 2a-f, 3) 6.5(1)
National Fishery Products Quality Management Services (NFQS)	<ul style="list-style-type: none"> <li>Issuance, validation and verification of CDS documents.</li> <li>Operational delivery of compliance services – carries out port and premises inspections</li> <li>Administers industry tagging information</li> <li>Data checking and limited data entry from CDS catch monitoring forms (e.g. CMFs &amp; CTFs)</li> </ul>	1.1i 1.1i (2b, 3) 3.1i-v (1a-c, 1e, 3)
National Institute of Fisheries Science (NIFSS)	<ul style="list-style-type: none"> <li>Provides scientific advice</li> <li>Logbook and scientific data collection and analysis</li> <li>Training of scientific observers</li> <li>Analysis of observer data</li> </ul>	1.1i (1, 2a-b, 3) 1.1iii (1a -b) 3.1i-v (1a-c, 1e, 3), 3.1vi (2) 3.1x-xii (1a-e), 3.1xiii-xviii (1, 2) 3.1xix-xxi (1a-f, 2) 3.1xxii-xxv (1a-c, 2a-b) 3.1xxvi (1), 3.1xxvii-xxviii (1,2), 3.1xxix-xxxi (1, 2a-f, 3) 6.5(1)
Fisheries Monitoring Centre (FMC)	<ul style="list-style-type: none"> <li>Intelligence relating to fisheries activities and compliance risk</li> <li>Manages fishing license compliance system</li> <li>Processing of e-log books and managing the VMS system</li> <li>Giving authorization to transshipments conducted outside Korea's jurisdiction</li> <li>Real-time monitoring and sending alerts to prevent Illegal, unreported and unregulated (IUU) fishing activities</li> </ul>	1.1i (1, 2c, 4) 3.1i-v (1a-b, 1e), 3.1vi (2) 3.1x-xii(1c) 3.1xiii-xviii (1, 2) 3.1xxix-xxxi (2a)
Ministry of Food and Drug Safety (MFDS)	<ul style="list-style-type: none"> <li>Monitors the importation of seafood products including SBT and provide NFQS with importation documentation</li> </ul>	3.1i-v
Korean Oversea Fisheries Association (KOFA)	<ul style="list-style-type: none"> <li>Management of CCSBT tag allocation</li> <li>Collates industry tagging information</li> </ul>	3.1i-v (1a-c, 1e, 3)



## 2.3 Management System

Korean fisheries management systems utilise voluntary and regulatory fishery measurements. Voluntary measures were introduced in 2010 by the Korean fisheries authorities in response to the reduction of Korea's national allocation, which resulted in a reduction of the fleet from 19 vessels to nine in 2010 and vessels in 2011. Post the voluntary measures introduced in 2010 Korea's *Distant Water Fisheries Development Act* (revised 2015) provides the legal basis for the regulation of distant water fisheries, including SBT.

In addition to the management structural changes, the Distant Water Fisheries Development Act has been updated. The purpose of the Distant Water Fisheries Development Act 2015 (DWFDA 2015)<sup>7</sup> is to advance the sustainable development of the distant water fisheries industry and contribute to the growth of national economy, through the rational preservation, management, exploitation, and utilization of maritime living resources, and the promotion of international cooperation. All Korean vessels operating on the high seas are required to comply with international conventions and management measures<sup>9</sup>. This encompasses all the vessels that are engaged in the SBT fishery as all vessels engaged in the SBT fishery operate on the high seas<sup>9</sup>. Korea's *Distant Water Fisheries Development Act 2015 (DWFDA)* provides the legal basis for the regulatory fisheries management used by the government to regulate the Korean-flagged distant water fishing fleet. SBT vessels are required to have high seas licences which have regulatory measures such as terms and conditions associated with them requiring catch and transshipment reporting.

As an up-date of the 2013 Phase 1 QAR, a summary of the 2015 revision to the Act is provided.

The Minister of Oceans and Fisheries shall formulate a comprehensive plan to develop the distant water fisheries industry (hereinafter referred to as "comprehensive plan to develop the distant water fisheries industry") every five years, as prescribed by Presidential Decree.

A comprehensive plan to develop the distant water fisheries industry shall include the following matters;

1. Matters concerning the rational preservation, management, exploration and exploitation of marine living resources;
2. Objectives of and strategies for national distant water fisheries industry and phase-by-phase implementation plans;
3. Changes in the environment of overseas marine resources waters and prospect therefore;
4. Matters concerning strengthening the competitiveness of the distant water fisheries industry and the promotion of and support for the distant water fisheries industry;
5. Matters concerning the training of professional human resources for the distant water fisheries industry and the development of relevant technologies;
6. Matters concerning international cooperation with coastal states, international fisheries organizations, etc.;
7. Matters concerning restricting illegal fishing, unreported fishing, and unregulated fishing (hereinafter referred to as "illegal, unreported, and unregulated fishing");
8. Other matters necessary for the efficient promotion of the distant water fisheries industry.

The Minister of Oceans and Fisheries shall finalize a comprehensive plan to develop the distant water fisheries industry following deliberation thereon by the Deliberation Committee for Development of the Distant Water Fisheries Industry.

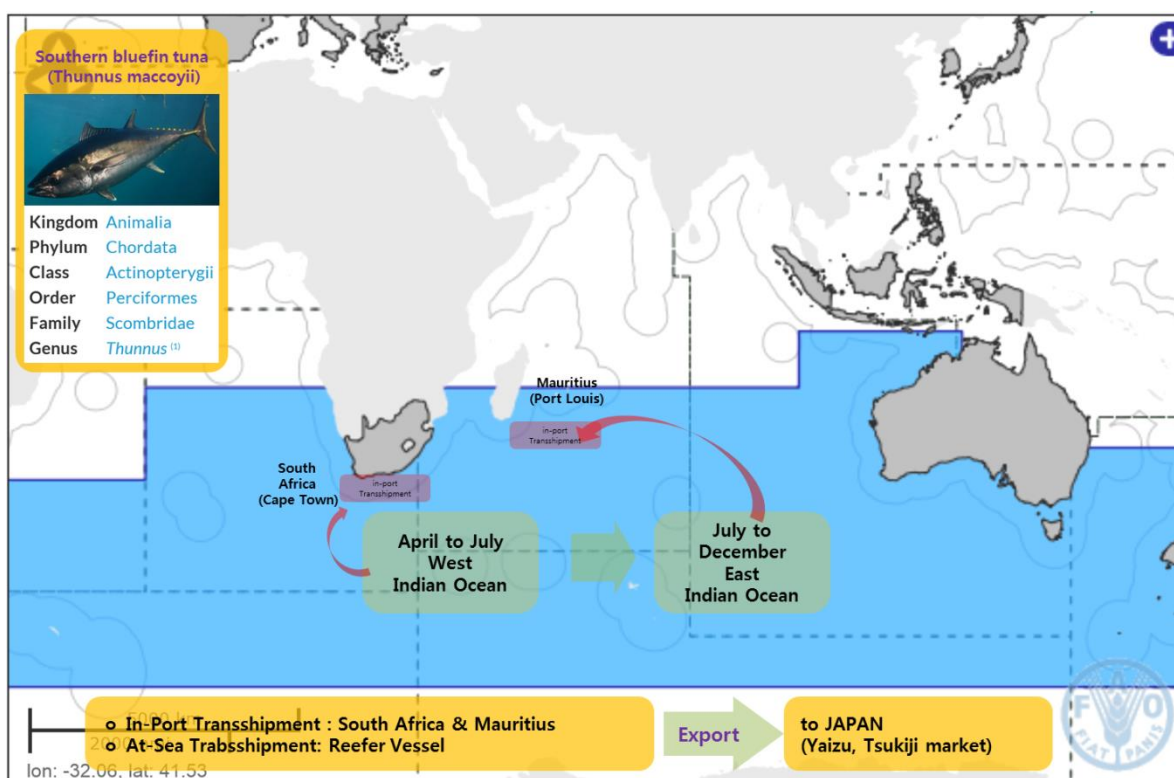
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<sup>7</sup> [http://elaw.klri.re.kr/eng\\_mobile/viewer.do?hseq=33481&type=sogan&key=55](http://elaw.klri.re.kr/eng_mobile/viewer.do?hseq=33481&type=sogan&key=55)

## 2.4 Fishery sectors

### 2.4.1 Commercial fishery

Korean SBT fisheries began in 1991 when three longliners operating in the high seas began targeting SBT. Given the high value of the species and the demand in the market, the Korean fleet increased to 19 vessels in 1998 with the number of vessels targeting SBT each year relative to the Japanese market development. The SBT fishing season runs from April 1<sup>st</sup> to March 31<sup>st</sup> of the subsequent year, although as mentioned, historically SBT catches have been between April - December. From April to July, transshipment occurs at Cape Town and July to December, at Port Louis (Figure 4). Figure 4 shows the geographical distribution with two fishing grounds apparent; one off South Africa and the other off the coast of Western Australia. The distributions of fishing ground have rarely changed throughout the history, except in 2005 when some catches were taken in the central and southern Indian Ocean. For 2014/15 fishing year, fishing vessels moved westward than previous years and operated in the Atlantic Ocean of the area between 20°W-15°E, then in the eastern Indian Ocean off the Western Australia.



**Figure 3 Korean Fishing Pattern for SBT (2016 up-date) and landing Ports**

Korean longline vessels fishing for SBT are all deep freezers with a range from 200 - 500 gross tonnage. As shown by Figure 5 the number of Korean vessels has ranged from 3 in 1991 to a peak of 19 vessels in 1998 and again in 2008 – 2009. Since 2010, there have been between 7 – 9 Korean vessels operating in the SBT fishery. Figure 3 and Table 2 also shows the catches of SBT by Korean longliners from 1991 – 2014, showing the catch was lowest (below 400 mt) from 1991-1995 and again between 2003 – 2006. The catch peaked in 1998 at 1,796 mt in 1998 and since 2008 the annual catch has ranged from 705 mt to 1,134 mt<sup>3</sup>.

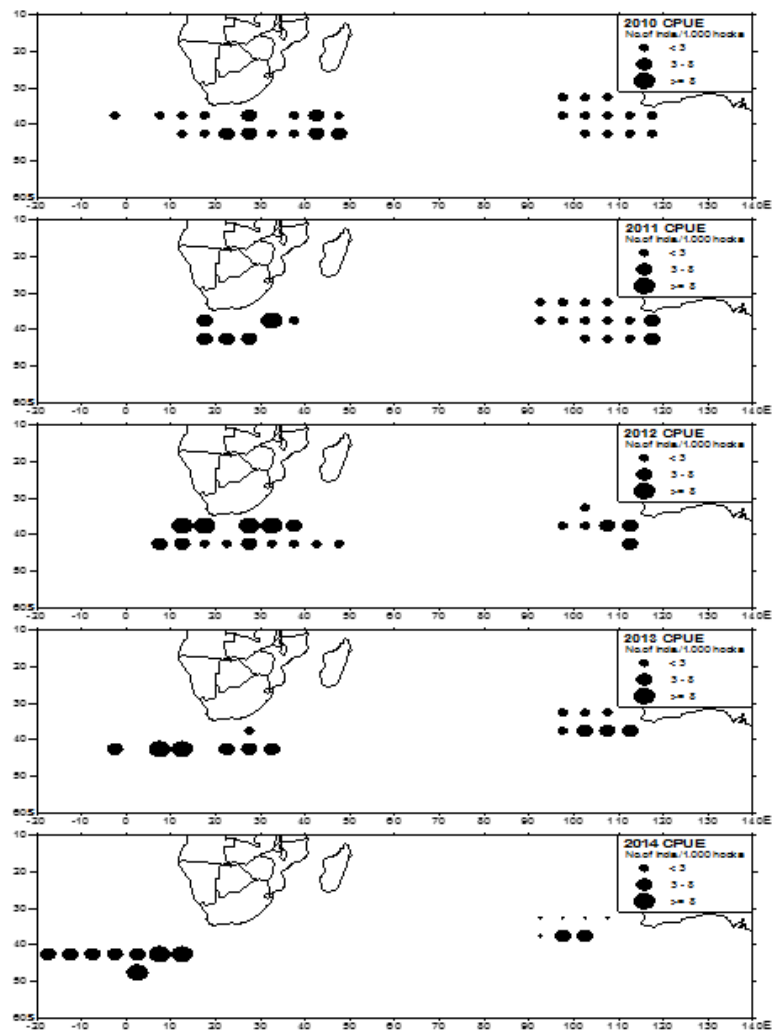


Figure 4 Korean SBT fishing pattern and fishing grounds, showing Catch per unit effort (CPUE) of Korean longliners from 2010 – 2014<sup>3</sup>

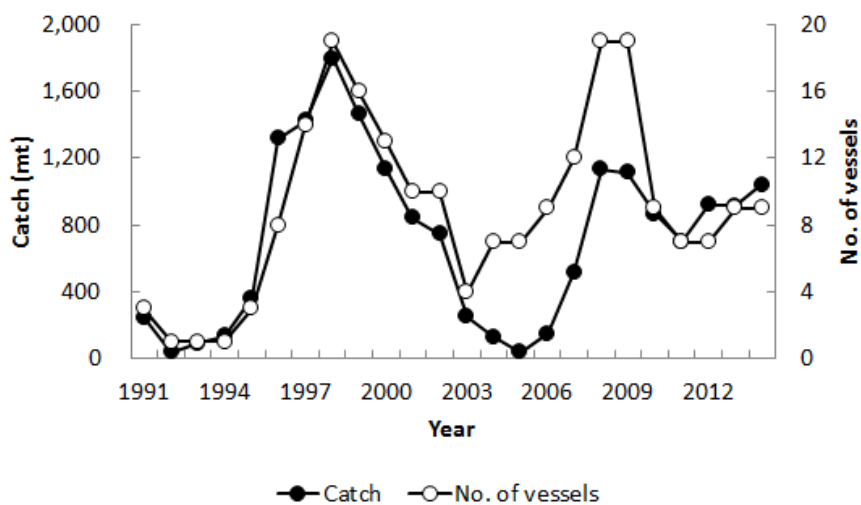


Figure 5 The annual number of active Korean tuna longline vessels fishing for SBT and their annual SBT catches in the CCSBT convention area, 1991-2014<sup>3</sup>

**Table 3 - Korean SBT catches and fishing effort from 2000 – 2014 compiled from logbook data (inds = individual)<sup>3</sup>**

Year	Total			Area 2			Area 8			Area 9			Others		
	No. of inds.	No. of hooks (×103)	CPUE	No. of inds.	No. of hooks (×103)	CPUE	No. of inds.	No. of hooks (×103)	CPUE	No. of inds.	No. of hooks (×103)	CPUE	No. of inds.	No. of hooks (×103)	CPUE
2000	21,840	9,689	2.25	85	18	4.83	10,909	5,770	1.89	10,077	3,315	3.04	768	586	1.31
2001	15,974	6,816	2.34	16	12	1.30	7,118	3,756	1.89	8,776	3,028	2.90	65	21	3.14
2002	17,136	5,467	3.13	27	17	1.61	1,768	1,322	1.34	15,201	4,054	3.75	140	74	1.88
2003	5,770	1,287	4.48				130	110	1.18	5,640	1,177	4.79			
2004	2,486	1,562	1.59							2,477	1,552	1.60	9	11	0.84
2005	1,047	430	2.43	490	165	2.97	16	11	1.49	347	119	2.91	194	135	1.44
2006	5,548	1,117	4.97							5,491	1,094	5.02	58	23	2.45
2007	16,544	5,811	2.85							16,373	5,706	2.87	171	105	1.64
2008	25,826	6,932	3.73	919	296	3.10	10,494	3,939	2.66	14,383	2,674	5.38	30	23	1.32
2009	26,584	6,769	3.93	2	4	0.65	6,394	3,083	2.07	19,990	3,641	5.49	198	42	4.71
2010	14,818	4,104	3.61	99	111	0.89	5,249	2,022	2.60	9,470	1,971	4.80			
2011	13,474	4,048	3.33	52	76	0.68	8,315	3,252	2.56	5,107	720	7.10			
2012	19,257	3,635	5.30	19	10	1.86	5,680	1,695	3.35	13,558	1,930	7.03			
2013	15,904	2,688	5.92	14	39	0.36	5,969	1,537	3.88	9,921	1,111	8.93			
2014	19,129	3,274	5.84	216	369	0.58	4,923	1,169	4.21	13,990	1,736	8.06			

## 2.5 Economic Aspects

The SBT market has developed since 2010 and whilst Korea's SBT consumption is on the rise from imports from Indonesia and Australia, the Korean SBT fishery is predominantly an export fishery with the majority of SBT caught and exported to Japan (Yaizu and Tsukiji markets), both landed directly to Japanese ports from the fishery or from exported Korean landings<sup>2</sup>. Table details Korea's SBT fishery exports showing that exports and re-exports have been variable between 2010 and 2015, with a general increasing trend. The peak year for exports was 2014, when 1,091,733 kg was exported.

**Table 4 Korean SBT fishery exports from 2010 – 2015<sup>2</sup>**

Year	Category	(aggregated total export + re-export)	Export		Re-export			
			total (kgs)	Japan	total	Japan	USA	China
2010	No. of cases	29	25	25	4	4	-	-
	Quantity	973,969.2	957,591	957,591	16,378.2	16,378.2	-	-
2011	No. of cases	12	10	10	2	2	-	-
	Quantity	583,594.4	563,044.4	563,044.4	20,550	20,550	-	-
2012	No. of cases	15	13	13	2	1	-	1
	Quantity	978,683.2	965,367	965,367	13,316.2	11,911.2	-	1,405
2013	No. of cases	15	13	13	2	1	1	-
	Quantity	776,893.6	774,490	774,490	2403.6	252.2	2151.4	-
2014	No. of cases	28	18	18	10	6	4	-
	Quantity	1,247,317.6	1,091,733.8	1,091,733.8	155,583.8	101,149.9	54,433.9	-
2015	No. of cases	25	10	10	15	9	5	1
	Quantity	1,011,203.4	747,940	747,940	263,263.4	9841.3	252,889.1	533

### 3 Member Management System Implementation of CCSBT Minimum Performance Requirements

This section is based on historical Member Compliance Action Plans, data and direct consultation with the Member SBT management agency staff during the site visit stage (QAR Phase 2). Evidence that demonstrates performance of compliance with respect to CCSBT Minimum Performance Requirements has been documented based on the 2015-16 TAC allocation and fishery information, but also includes some reference to previous 2014 allocations and more recent 2016/17 allocations in places. The previous QAR Phase 1 is up-dated in this report based on this latest information and with respect to the re-structuring of the Korean SBT management organisations.

#### 3.1 Compliance with National Allocations 1 (CCSBT section 1.1(i))

##### 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** - Landings in the Korean SBT fishery are limited by the application of a national Total Annual Catch (TAC). There is a legal requirement that this TAC be set in line with the CCSBT Allocated Catch (AC). During the time period under scrutiny in this review (2010 – 2015), the total Attributable SBT Catch (ASBTC) reported by Korea has been below both the national TAC and the CCSBT AC for that period.

**Key points**

- Korea’s fishing year is April 1<sup>st</sup> – 31<sup>st</sup> March;
- Korea used the CCSBT carry-forward procedure in the 2015/16;
- Vessel licenses contain explicit requirements specific to SBT fishery.

Since 2001, Korea has managed fishery allocations in the SBT fishery using a Quota Management System (QMS), which applies an annual national Total Allowable Catch (TAC) for SBT. It is a legal requirement of the *Distant Waters Fisheries Development Act* (revised 2015) that Korean fisheries management follow and be consistent with relevant Regional Fisheries Management Organisation (RFMOs) such as CCSBT. It is a legal requirement that the Korean national SBT TAC be set in line with the CCSBT Allocated Catch (AC). Article 13 (2) of the *Distant Waters Fisheries Development Act* (revised 2015) states that;

*‘Distant water fishery operators shall not engage in any of the following activities in international waters: ....*

*3. Fishing without allocated quota or in excess of an allocated quota.....*

*8 Fishing in violation of conservation and management measures of an RFMO in the areas under the purview of such RFMO.’*

Korea’s attributable SBT Catch (ASBTC) is defined as “Commercial landing of SBT”. Based on the information available during this assessment, the Korean ASBTC did not exceed the Korean AC during the period under examination.

CCSBT ACs are allocated to Members on an annual calendar year basis. However, Korea’s administrative fishing season for SBT begins on April 1<sup>st</sup> and ends on March 31<sup>st</sup>. The CCSBT AC for a given year is applied in the season starting in that year; for example, the 2015 AC is applied in the Korean fishery season beginning on 1<sup>st</sup> April 2015 and ending on 31<sup>st</sup> March 2016. As fishing has

generally ended by December, the total commercial landings in each fishing season are usually – though not always – the same as the landings in each calendar year.

In accordance with the “Resolution on Limited Carry-forward of Unfished Annual Total Allowable Catch of Southern Bluefin Tuna within Three Year Quota Blocks,” unused 89.4 tonnes from the 2015 quota were carried forward to 2016, which was duly notified to the Secretariat. With this carry-over, the total annual quota in 2016 rises to 1,229.4 tonnes (Table ). Officials interviewed during the on-site audit also noted that the Korea definition of ASBTC is to be reviewed at the end of 2016 (MOF pers comm).

**Table 5 Korean Allocated Catch, TAC and ASBTC for each SBT fishing season since 2011**

CCSBT Year	Korean SBT Season	Allocated Catch	National TAC	ASBTC
2010	2010/11	859t <sup>8</sup>	859t	867t <sup>9</sup>
2011	2011/12	849t	849t	737t <sup>9</sup>
2012	2012/13	911t <sup>7</sup>	911t	889t <sup>13</sup>
2013	2013/14	948t <sup>7</sup>	948t	918
2014	2014/15	1,075	1,075	1,044.3
2015	2015/16	1,140	1,140	1,050.6
2016*	2016/17	1,229.4	1,229.4	

\*includes 89.4 tonnes carried forward from 2015.

### 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** - Since 2014/15 season, only 95% of the TAC was initially allocated, with the remaining 5% becoming available later in the season to any vessel requesting a share.

Korean national TAC was originally allocated to 9 vessels in 2015 based on relative effort shares of companies in 2003. Each company share is divided equally between that company’s active vessels. Quota can be transferred (but not traded) between vessels and companies, hence additional vessels can be registered and receive quota (referring to additional vessel registered in 2015). However, transferring quota between companies is only allowed when an approval is obtained from the MOF. Transfers can happen regularly within companies but have yet to happen between separate companies although, again this is allowable with application too and MOF permission.

#### Key points

- MOF allocate the TAC to vessels based on historical track record.
- MOF determine the timing and manage the distribution of the 5% quota reserve.
- Transfer of quota between vessels in the same company is monitored by MOF.
- No transfers between companies have occurred but are allowed with permission.
- Korea has 19 licenses for SBT, however only 10 were active in 2015/16 and 11 are registered as active in the current 2016 season.

<sup>8</sup> CCSBT (2009) Report of the Sixteenth Annual Meeting of the Commission

<sup>9</sup> Ministry for Food, Agriculture, Forestry and Fisheries. (2012) Annual Review of SBT Fisheries for the Annual Meeting of the Extended Commission – Korea. CCSBT-CC/1209/SBT Fisheries-Korea (Rev1)

Prior to 2013 100% of the quota was allocated at the start of the season. Commencing in the 2014/15 season, 5% of the Korean national TAC is now set aside and held by the government. The remaining 95% is divided by the MOF between vessels belonging to three different companies engaged in the SBT fishery. Quota allocations are fixed and are based on the three companies historic track record prior to Korea becoming a member of CCSBT. The proportion of the TAC received by each company is the same every year and is based on the ratio of fishing effort, measured in number of vessels, exerted by each company in 2003<sup>6</sup>. The three companies are the Sajo Industries, the Dongwon Industries and Dongwon Fisheries. Combined these companies currently have 19 vessels authorised to fish for SBT. These large-scale tuna longliners (LSTLVs) also fish for albacore, yellowfin and bigeye tuna. In the last two seasons, only 9-11 vessels have been registered active and received quota.

As the quota share received by each company in the first instance is fixed, each company will tend only to operate as many vessels in a season as it estimates are necessary to catch its share of the TAC. The result of this is that Sajo Industries receives 38% of the initial TAC, while the Dongwon Industries and the Dongwon Fisheries each receive 31%. Each company applies for TAC for specific vessels. The company and vessel allocations for the 2015/16 season are shown in Table . All vessels engaged in the SBT fishery fish on the high seas and are subsequently required to obtain a fishing license from MOF before entering the fishery, which is valid for five years<sup>5</sup>. Theoretically, it would be possible for additional companies to enter the fishery (or for the existing companies to authorise more vessels), but in practice they would be unlikely to receive any quota share from MOF, considering the current level of Korean national quota of 1,140 tonnes. Licenses are issued by MOF for distant water vessels for a period of five years. SBT vessels are required to have high seas licenses, which can have regulatory measures attached to them specific to the fishery such as catch reporting and transshipment reporting requirements. All Korean vessels operating on the high seas are required to comply with international conventions and management measures (MOF, pers comm). And under the DWFDA regulation, all SBT fishing and carrier vessels are required to have an operational VMS system installed. The renewal process is via an application to the MOF, where the Minister will decide whether to renew the authorization. All vessels active in the 2015 fishery were confirmed as authorised vessels.

**Table 6 Company and vessel allocations for the 2015/16 season (and Catch)**

Company	Vessel	Call sign	Quota(Kg)	Catch(Kg)
Dongwon Industries Co., Ltd.	No. 216 Dongwon	6NMK	178,124.00	161,584.20
	KOVA	6KCC3	178,124.00	161,550.85
	Sub-Total		356,248.00	323,135.05
Dongwon Fisheries Co., Ltd.	No.637 Dongwon	DTBW8	118,748.00	110,519.60
	No.638 Dongwon	DTBW9	118,748.00	96,601.15
	No.639 Dongwon	6KCA	118,748.00	105,199.70
	Sub-Total		356,244.00	312,320.45
Sajo Industries Co., Ltd.	Oryong No.353	DTAN3	129,224.00	129,147.42
	Oryong No.355	DTBK6	57,190.00	53,724.09
	Oryong No.373	DTBU4	57,190.00	54,693.31
	Oryong No.801	DTBU7	138,274.00	134,827.50
	Oryong No.805	6KAI	45,616.00	42,724.57
	Sub-Total		427,494.00	415,116.88
Total			1,139,986.00	1,050,572.38



### 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 Korean SBT longliners authorized to fish for SBT are required to complete a daily logbook detailing SBT catch. This must be submitted to the National Institute of Fisheries Science (NIFS) via electronic logbook system on a daily basis. NIFS is responsible for maintenance of the database fishing and catch information (and observer data), data which is then available to FMC, NFQS and reported to Korean Statistical Office (KOSTAT) and to MOF for annual reporting to CCSBT. There is no reported SBT bycatch in other Korean fisheries, nor is there a recreational SBT fishery.

#### Key points

- Record includes retained catch and discard numbers and weight recorded by vessel master daily
- Fishery Law (Article 16 of DWFDA) explicitly requires daily log book recording
- NIFS and related agencies under MOF (FMC) and the FMS constitute a robust framework for SBT information management and reporting.

Korean SBT vessels are required by law (*Article 16 of the Distant Water Fisheries Development Act*) to complete a daily logbook which records, for each day at sea, the location; time the gear was set; sea surface temperature; number of hooks; number of basket; weight and number of retained fish; and weight and number of fish discarded live and dead. The logbook also records general trip information such as start and finish dates and locations, vessel details, and authorisation number.

Submissions while the vessel is at sea are electronic, and hard copies of the logbooks covering the entire trip are submitted after the vessel reaches port<sup>9</sup>. Electronic logbooks are submitted via an electronic logbook system to the FMC and the NIFSS. Daily submission of logbook data allows real-time management of the fishery. When a vessel has caught its quota, the MOF will declare the fishery closed to that vessel. For verification of the reported catch quantities, the Korean government compares the submitted data with other information such as transshipment amounts, landings, observer data and other documentations stipulated in the CDS Resolution<sup>10</sup>. The MOF reports that weight estimates obtained at sea are generally consistent with weights recorded at the time fish are landed<sup>6</sup>.

Caught fish are first gutted, gilled and tailed by crew, weighed, and the weight multiplied by a set conversion factor of 1.15. The conversion factor was agreed upon by the CCSBT in 1997 based on several scientific papers, and while further discussion has occurred since that time, no change has been made. Tailing fish before weighing is primarily to ensure freshness by bleeding the fish before it warms up, but also allows easier weighing as it limits movement<sup>10</sup>. The NIFSS collects data via on-board scientific observers to confirm the yield between round (green) weight and processed weight.

There is no reported bycatch of SBT in other fisheries<sup>10</sup> with bycatch of RFMO-managed species such as SBT required to be recorded in the vessel's daily logbook, and accurate recording of such is checked by on-board observers. To date neither logbooks nor observers have reported SBT bycatch in any other Korean fishery. It is also reported that there is no Korean recreational fishery for SBT.

<sup>10</sup> [http://www.ccsbt.org/site/monitoring\\_control\\_surveillance.php](http://www.ccsbt.org/site/monitoring_control_surveillance.php) (accessed 25/6/16)



### 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** – Korean SBT vessels are required to report estimated total catch on a daily & weekly basis. NIFS is responsible for the collection and management of this data. FMC also oversee all vessel activities using VMS data and can instruct vessels that fail to report activities and provide catch details. Vessel companies also make weekly reports of catches per vessel. There is no Korean coastal SBT fishery and hence no SBT coastal vessels/monthly reporting requirements necessary.

#### **Key points**

- All Korean SBT vessels are large-scale longliners.
- Vessels submit daily logbook to the NIFS, which are maintained in a database as part of FMS, and weekly catch to the owning company.

All Korean vessels targeting SBT are large-scale longliners fishing on the high seas predominantly within IOTC (Indian Ocean Tuna Commission) managed waters. Although there are also recorded catches within ICCAT (International Commission for the Conservation of Atlantic Tuna) managed waters. In addition to the logbook reporting requirements detailed in section 3.1.3, vessels must also return estimates of their weekly total catch to the MOF via the company that owns the vessel. This is a single weight estimate, calculated using the same methodology described in section 3.1.3 (i.e. fish tailed, weighed, and the weight multiplied by 1.15). This is a legal mandate set out in the *Distant Water Fisheries Development Act, Act No.13001, Jan. 06, 2015* revision.

### 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** – Korea has reporting procedures and record keeping requirements (e.g. logbook and landing declarations) in place to ensure the reporting of commercial catch and discards. Commercial catch weights are recorded accurately at landing, and discards are estimated by both vessel crew members and by observers.

#### Key points

- Korea monitors commercial catch and discards via a daily logbook reporting system and weekly reporting of catches by vessel company owners.
- Catch is estimated on a daily basis on the logbook, reported weekly by each company, and a final total submitted at landing.
- FMS database maintains the records for verification and reporting purposes.

MPR 2b states that Korea should immediately monitor fishing-related SBT mortality from the following sources: Commercial retained catch; Commercial discard mortality; other discard mortality; other sources of mortality. All fishing related mortality associated with commercial catch is estimated by Korean SBT longliners who are required to record the number and total weight of commercial retained and discarded catch in daily logbooks (see section 3.1.3). In addition to the daily logbooks, which must be submitted electronically during the trip and in hard copy at the end of the trip, anyone landing SBT must complete a Landing Declaration Form. Landing occurs domestically at Busan and at one of four other designated foreign ports. In 2014/15, 17 landings occurred at the Japanese designated port of Shimizu, with only one reported landing into Busan. In Japan, port inspections are undertaken by Japanese Port fishery officials. Korean officials from NFQS travel to the Japanese port to observe a proportion of landings at Shimizu, monitor the process and share information with Japanese officials but not for other countries. At observed landings, Korean inspector's crosscheck the total landings weight with the estimated weight caught reported by the vessel via the weekly reporting process and daily logbooks. Korea officials observed 7 out of the total 17 landings, which occurred in Shimizu, Japan in 2014-15 season.

Except Japan, most of Korean vessels calling at foreign port are for in-port transshipment. Korean vessels usually call at Cape Town and Port Louis for transshipment and not landing. All in-port inspection is the responsibility of the respective Port Control States officials.

Discard numbers, weights and sizes are measured by crew and/or an observer from the Korean observer programme is present. The NIFSS conducts training sessions and circulates pamphlets to improve the ability of crew to accurately measure size and weight/number of both discarded and retained fish. Examples of the type of pamphlets produced by the NIFSS was shown to the review team. The NIFSS compared discard rates from observer reports (coverage 12%) with those in vessel logbooks for the fishing season 2012/2013. It was concluded that the discard rates recorded in the logbooks were lower than those in the observer reports. These differences were considered due to the following: 1) The Resolution on Reporting All Source of Mortality of SBT was adopted in late October 2012, which took effect on the Korean SBT vessels as from the 2013 fishing season. 2) Some vessels have recorded discards in their logbooks in accordance with amended domestic regulations, but the data were not sufficient to be used as a reference.

No Korean-flagged vessels other than CCSBT-registered Korean SBT longliners catch SBT, and Korea does not farm SBT. Therefore, 'other discard mortality' and 'other sources of mortality' are estimated to be zero.

**Table 7 Landing dates, weights and locations for the 2014/15 fishing season**

Landing Date	Company	Vessel Name	Port of Landing (city, state)	Quantity(Kg) (G.G)	At-Sea or In-port Transshipment conducted (o, X)	Landing Inspection Authorities
2014.08.21	Dongwon Industries	No.216 Dongwon	Shimizu, JP	80,929	In-port(2014.7.15)	JP(KR, observer)
2014.08.22	Dongwon Industries	KOVA	Shimizu, JP	74,825	In-port(2014.7.15)	JP(KR, observer)
2014.12.06	Dongwon Industries	No.216 Dongwon	Shimizu, JP	31,364	X	JP(KR, observer)
2014.12.06	Dongwon Industries	No.216 Dongwon	Shimizu, JP	31,263	X	JP(KR, observer)
2014.12.08	Dongwon Industries	KOVA	Shimizu, JP	47,276	X	JP(KR, observer)
2014.12.09	Dongwon Industries	KOVA	Shimizu, JP	20,290	X	JP
2014.10.10	Dongwon Fisheries	No.619 Dongwon	Shimizu, JP	114,053	X	JP
2014.11.04	Dongwon Fisheries	No.638 Dongwon	Shimizu, JP	44,806	X	JP
2014.11.10	Dongwon Fisheries	No.638 Dongwon	Shimizu, JP	9,085	At-Sea(2014.7.7)	JP
2014.11.11	Dongwon Fisheries	No.639 Dongwon	Shimizu, JP	119,854	In-port(2014.7.25)	JP
2014.4.21.	Sajo Industries	Oryong No.373	Shimizu, JP	72,284.80	X	JP
2014.4.22	Sajo Industries	Oryong No.355	Shimizu, JP	60,965.80	X	JP
2014.06.25	Sajo Industries	Oryong No.353	Shimizu, JP	8,467.30	At-Sea(2014.6.7)	JP
2014.10.08	Sajo Industries	Oryong No.373	Shimizu, JP	103,938.90	In-port(2014.8.2)	JP
2014.10.08	Sajo Industries	Oryong No.355	Shimizu, JP	112,288.40	In-port(2014.7.30)	JP
2014.11.11	Sajo Industries	Oryong No.353	Shimizu, JP	2,232.00	At-Sea(2014.7.4)	JP
2014.11.29	Sajo Industries	Oryong No.353	Shimizu, JP	45,987.50	X	JP
2015.02.06	Sajo Industries	Oryong No.801	Busan, KR	60,623.00	At-Sea(2014.11.1)	KR
				<b>1,040,533</b>		

**3.1.6 MPR 2c: 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, and (ii) for farming Members, monitoring the accuracy of the stereo video monitoring and adjusting/ re-calibrating where necessary.**

**Summary** – Korean efforts to ensure the accuracy of commercial catch using a physical inspection regime of SBT includes; physical observation of catches at sea, transshipment of retained catch (IOTC and ICCAT observer programmes) and port inspections in Korea and Japan of the landed catch and verification with logbook, weekly records and CDS forms.

**Key points**

- Observer coverage in the 2013/14 season was 24%. Coverage in the 2014/15 season was below the 10% target for observer coverage by effort (7%).
- For unobserved trip data; NIFS cross checks information from vessel catch reports, CDS with FMC VMS data.
- IOTC monitor transshipments at sea.
- Where in port transshipment occurs, Korean vessels usually call at Cape Town and Port Louis [for transshipment not landing] and all in-port inspection are carried out by respective Port Control States officials.
- A total of 18 landings were reported by Korean from the 2014/15 fishery, which were monitored, including physical inspection at port (Table 7).
- Five in port transshipments, Four at sea transshipments and nine direct landings were reported by Korea in 2014/15.
- Landings at Busan are infrequent and always inspected by NFQS.

**3.1.6.1 Observer Program**

**3.1.6.1.1 Korea’s national observer program**

NIFS is responsible for developing, implementing and managing the Korean fisheries observer programs. Training for the observer programs covers basic sea safety, data collection and biological sampling requirements for target, non-target species and ecologically related species (ERS)<sup>3</sup>. The training also covers the SBT tagging project. On completion of the training course, observers are required to pass both a technical exam and a species identification exam. Only those who pass the tests (70% overall from the two tests) and complete 100% attendance of the training course become qualified scientific observers. At present, Korea has 24 persons being able to be deployed onboard as an active scientific observer<sup>3</sup>.

In 2014/15, 7% of effort was observed (10% observed by catch) (see Table and Table ) the 10% target set for observer coverage by effort was not achieved in 2014/15 due to changes of SBT fishing pattern. Usually Korean SBT fishing vessels operate in the Western Indian Ocean from April to July/August, and then move and operate in the Eastern Indian Ocean from July/August to December. However, in the 2014/15 fishing season, most of fishing vessels finished their fishing season in the Eastern Indian Ocean and the Atlantic Ocean earlier than expected so that the observer coverage turned out to be lower.

The information recorded by observers includes catch numbers, weight, length, sex, maturity, stomach contents; species composition of bycatch and ERS (ecologically related species); discard number, weight, and live/dead; mitigation measures; ERS interactions; tag release and recapture information; and any other ERS details. Table shows the number of samples collected by species by

the Korean observer programme, with 1377 SBT observed and measured for length and weight during 2014<sup>3</sup>. During 2014, 32 SBT were released by Korean observers and four tagged SBT were recaptured<sup>3</sup>. Following an observer trip observers submit their report to the NIFSS within one month of the observer activities being completed.

**Table 8 Observer coverage for the Korean SBT fishery through the Korean observer program, 2010-2014<sup>3</sup>**

Year	Trips observed	Effort observed (X1,000)	Total effort estimated (X1,000)	Catch observed of SBT (mt)	Coverage (%)
2010	2	389	4,104	95	9
2011	-	-	4,048	-	-
2012	3	421	3,635	162	12
2013	3	654	2,688	170	24
2014	2	219	3,274	92	7

**Table 9 Amount of SBT effort observed by area in the 2014/15 fishing year<sup>3</sup>**

Year	Stratum	Catch (mt)			Effort (no. of hooks)		
		Total estimate	Total observed	Coverage	Total estimate	Total observed	Coverage
2014	2	13	0.4	3	369,312	3,410	1
	8	328	92	28	1,168,529	215,112	18
	9	572	-	0	1,735,878	-	0

**Table 10 Number of fish measured or collected for biological information by species, 2014<sup>3</sup>**

Species	No. sampled	No. measured	No. weighted	No. sexed	Maturity stage
Southern Bluefin tuna	1,377	1,377	1,375	1,143	134
Albacore tuna	52	52	52		
Sharks	1,148	1,148	1,148	767	33
Seabirds	2	2	2		
Others	798	798	795	139	42
Sum	3,377	3,377	3,372	2,049	209

### 3.1.6.1.2 RFMO transshipment observer programmes

Transshipment of Korean SBT occurs both at sea and in port. In-port transshipment occurred on six occasions in 2011/12 (totalling 406t) and on four occasions in 2012/13 (totalling 291t). In-port transshipments currently only occur at foreign ports, and as such are observed only by foreign port officials. There is no scheme for ensuring consistency between national transshipment inspection regimes, outside of that imposed by the IOTC. At-sea transshipment is less common, with three reported occasions in 2011/12 (totalling 57 t) and no reported at-sea transshipments reported in 2012/13. At-sea transshipment must be observed by an IOTC regional observer.

In port, transshipments by Korean vessels are subject to IOTC Resolution 12/05 on establishing a programme for transshipment by large scale fishing vessels, which states that all vessels must provide 48 hours' notice to port state authorities detailing information of the transshipment. Port state authorities and the landing state of the transshipment i.e. flag state of the carrier vessel receiving the SBT, are required to cooperate with the longliner's flag state to 'ensure that landings are consistent with the reported catches amount of each vessel'<sup>11</sup>.

<sup>11</sup> IOTC. (2012) *Collection of Active Conservation and Management Measures for the Indian Ocean Tuna Commission*. [Online] Available from: <http://iotc.org/files/CMM/IOTC%20-%20Collection%20of%20ACTIVE%20CMMs%2020%20June%202012.pdf> [Accessed 15/07/2013]

Both at-sea and in-port transshipments require the completion of a Transshipment Declaration Form (TDF) by the vessel captain, which must be submitted to the MOF within 15 days of the transshipment. The Declaration form includes details of the carrier and fishing vessels, date and location of transshipment, total weight transhipped, and the individual weights of whole, gutted, headed and filleted fish of each transshipped species<sup>12</sup>. In the case of at-sea transshipments, the information collected by IOTC observers is compared to the data on the TDF at the end of the year.

### ***3.1.6.2 At-sea and portside inspections***

The Korean authorities currently do not conduct at-sea inspections of SBT fishing vessels. The Korean authorities, based on previous experience in WCPFC area, consider the operational costs to be prohibitive based on the value of the inspection results. An inspection vessel is available but Korea does not have plans to implement at-sea inspection at this time.

Verification of catch documents is conducted by NFQS inspectors when landing into ports or in the case of transshipments, by IOTC observers. Busan is designated the home port for SBT landings into Korea, with Shimizu (Japan), Cape-town and Durban (South Africa), Port Louis (Mauritius) and Bali (Indonesia) designated as the foreign landing ports for SBT. Vessels landing into Busan and any foreign port are required to submit landing declarations to the NFQS and the FMC at least 24 hours before entering the port. NFQS are authorized to conduct Port inspections at domestic ports and do so as necessary, although a minimum coverage was not specified. There is evidence of inspections by Japanese officials at Shimizu and witnessed on several occasions by NFQS personnel. However, inspections by domestic officials at Durban, Port Louis and Bali are not witnessed by Korean officials and these landings are dependent upon those National management systems.

An accurate measure of landed weight is required at landing and compared to the weight as measured on board for the trip.

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<sup>12</sup> Transshipment Declaration Form - Appendix 3.3

Table compares the on-board estimates to the final landed catch weight by company for the 2015/16 fishing season. On average, the on-board catch estimates were 1.7% higher than the final landed weight.

### ***3.1.6.3 Risk based fisheries monitoring, control and surveillance (MCS)***

FMC and NFQS have compliance strategies, which identify and prioritize key compliance risk areas associated with distant water fisheries, including SBT, both within and outside Korea's fisheries waters. The FMC and NFQS's compliance strategies aim to coordinate compliance and fisheries management to effectively target high risk areas and develop long term strategies to address lower priority risks. Where compliance officers detect issues during inspections, these are raised with the appropriate enforcement body and managers. Decisions are then made about whether to proceed to evidence collection if a fisheries offence appears to have occurred. All infringements relating to CCSBT are referred to MOF for review and further investigation is undertaken if deemed necessary.

**Table 11 Comparison of catch weights estimated by crew and final catch estimates at landing for April 2015 – March 2016 (catch amounts are based on round (green) weight)**

Month	Weight measured onboard		Weight of landed catch	
	Company	Catch(kg)	Company	Catch(kg)
4	Dongwon Industries	10,455.80	Dongwon Industries	10,455.80
	Dongwon Fisheries	136,585.50	Dongwon Fisheries	133,171.15
	Sajo Industries	46,818.80	Sajo Industries	46,818.80
	sub-total	193,860.10	sub-total	190,445.75
5	Dongwon Industries	111,244.10	Dongwon Industries	106,461.25
	Dongwon Fisheries	148,523.65	Dongwon Fisheries	145,067.90
	Sajo Industries	101,900.35	Sajo Industries	101,900.35
	sub-total	361,668.10	sub-total	353,429.50
6	Dongwon Industries	74,484.35	Dongwon Industries	74,484.35
	Dongwon Fisheries	35,209.55	Dongwon Fisheries	34,081.40
	Sajo Industries	85,309.30	Sajo Industries	85,823.465
	sub-total	195,003.20	sub-total	194,389.215
7	Dongwon Industries	5,582.10	Dongwon Industries	5,582.10
	Dongwon Fisheries	0.00	Dongwon Fisheries	0.00
	Sajo Industries	37,442.85	Sajo Industries	34,270.35
	sub-total	43,024.95	sub-total	39,852.45
8	Dongwon Industries	66,841.45	Dongwon Industries	63,207.45
	Dongwon Fisheries	0.00	Dongwon Fisheries	0.00
	Sajo Industries	53,330.10	Sajo Industries	53,330.10
	sub-total	120,171.55	sub-total	116,537.55
9	Dongwon Industries	62,944.10	Dongwon Industries	62,944.10
	Dongwon Fisheries	0.00	Dongwon Fisheries	0.00
	Sajo Industries	92,497.95	Sajo Industries	92,973.820
	sub-total	155,442.05	sub-total	155,917.92
Accumulated catch	Dongwon Industries	331,551.90	Dongwon Industries	323,135.05
	Dongwon Fisheries	320,318.70	Dongwon Fisheries	312,320.45
	Sajo Industries	417,299.35	Sajo Industries	415,116.88
	<b>Total</b>	<b>1,069,169.95</b>	<b>Total</b>	<b>1,050,572.38</b>

**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** - Korea complies with the requirement to submit annual reports to CCSBT's Extended Scientific Committee detailing both documented and assumed fishing-related SBT mortality.

The MOF reports to CCSBTs Extended Scientific Committee at the frequency required by CCSBT resolutions, although CCSBT compliance report CCSBT-CC/1510/04 Rev 2 notes that Korea submitted length data but not the raised length data as required from 2015<sup>16</sup>. SBT catches are provided by the Korean government to the CCSBT Secretariat monthly, CDS copies quarterly, plus tagging forms and export/import information, yearly quota allocation per vessels, final catches, catch and effort and ERS data are also provided according to the required timeframes.



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

**Summary** – MCS has recently been strengthened and advanced with the modification of the *Distant Water Fisheries Development Act* (DWFDA) resulting in the establishment of the Fisheries Monitoring Centre (FMC). The FMC has been fully operational since March 2014<sup>1</sup>. Compliance in the Korean SBT fishery is monitored primarily via FMC but includes the inter-related activities of all agencies under MOF. Monitoring includes; portside inspections at landing and import/export, verification activities with CDS against vessel weekly reports and mandatory VMS. There are a range of potential sanctions identified, although there have been no incidences of non-compliance in recent years in the SBT fishery.

#### Key points

- The majority of Korean SBT is exported to Japan, either via transshipment or direct landings by fishing vessels.
- In the 2014/15 season, 30% of landings into Japan by weight were monitored by Korean fishery officials. The remainder were monitored by Japanese officials.
- VMS is mandatory on SBT vessels, and from March 2014, real-time monitoring of all the distant water fishing vessels is conducted by the FMC.
- The DWFDA provides for sanctions (catch, gear retention, fines and imprisonment for violations of the requirements).

Monitoring fisheries compliance within the SBT fishery is the responsibility of MOF in cooperation with the FMC. Korean fisheries MCS is conducted in accordance with Regional Fishery Management Organisations (RFMO) and national law requirements. SBT fisheries are monitored by the Fisheries Monitoring Centre (FMC) with Korea's central MCS system. The NIFS manage the observer programme, which provides data, which is accessible by the enforcement and compliance organisations.

#### 3.1.8.1 Vessel Monitoring Systems (VMS)

A recent modification to the *Distant Water Fisheries Development Act* created the Fishery Monitoring Centre (FMC) in 2014. The FMC monitors the real-time locations of fishing vessels on a full-time basis and send alerts to prevent IUU fishing. The modification to the Act will also require all Korean flagged vessels to have VMS on board. The FMC ensures normal operation of VMS on board and maintains vessel tracks records. A functional, active VMS is mandatory for all Korean SBT fishing vessels. Figure 6 provides an overview of VMS monitoring and related vessel reporting monitoring functions of the FMC. FMC confirms vessel information (license, etc.) with respect to its position to control access to restricted areas, identify if transshipment and landings are not reported and in case of a suspected VMS malfunction. For each situation, FMC will direct the vessel to confirm their position, activity and if further targeted monitoring is required, where a violation is suspected. The MOF reports that there have been no incidences of non-compliance with the VMS requirements (FMC 2016, pers. comm.).

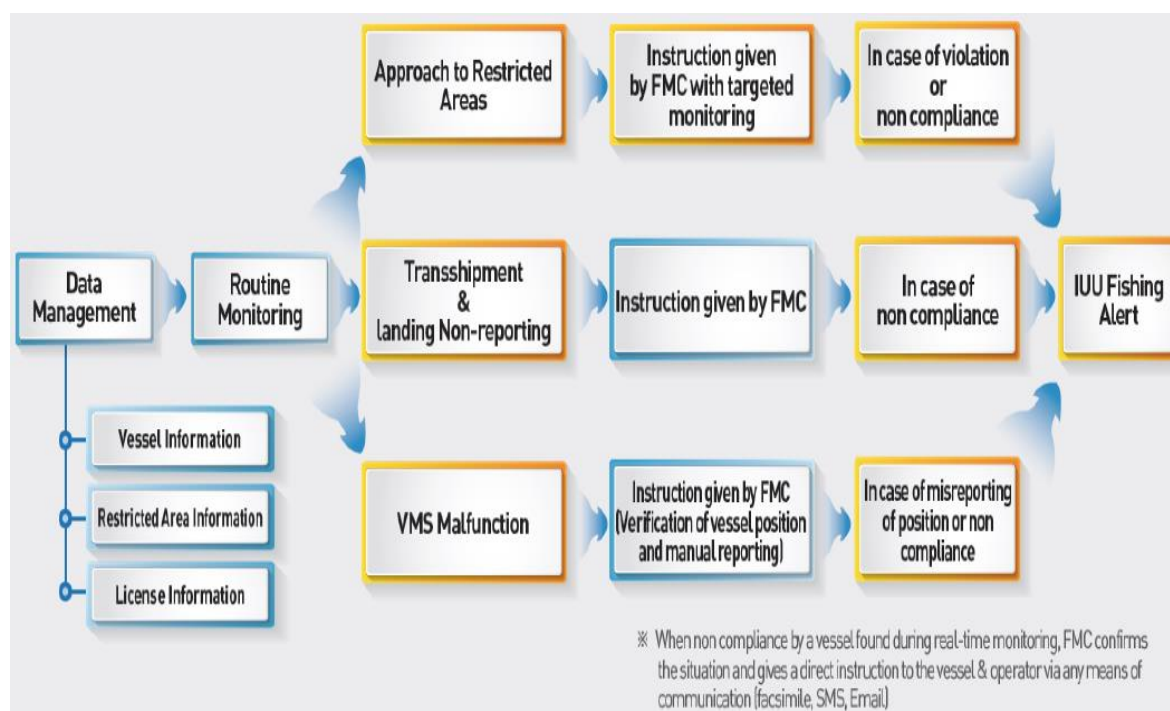


Figure 6 Overview of Korea's Vessel Monitoring System (VMS)<sup>13</sup>

### 3.1.8.2 At-sea and portside inspections

The Korean authorities currently do not conduct at-sea inspections of SBT fishing vessels, and MOF reports they have no plans to create provision to change this. However, it is their intention to invest in a remote electronic monitoring (REM) system to allow at sea monitoring using closed circuit cameras to occur (MOF 2016, pers comm). A progress up-date was provided in early September on completion of the QAR Phase 2 report and added here. *'This year Korea launched video monitoring system and conducted a trial operation since 2<sup>nd</sup> half of this year in order to enhance deterrence against distant water fishing vessels. Cameras, gear sensor, and fire detection sensor were installed on board. And video footage and other data would be transmitted to the FMC in real-time. The transmitted data and footage will be analyzed to detect IUU fishing and to ensure the safety of vessel crew. WIFI network will be also set up to improve the working conditions on board. Currently, the four vessels are subject to the trial and cameras have been installed in two long liners [and one purse seiner]. One more long liner is to be covered during Sept, 2016.'*

For landings into the home port of Busan, fisheries authorities attend to conduct physical inspections of the landing. Landings into foreign ports are monitored by port state authorities as per port state measures set out by the IOTC, of which Korea is a member.

The majority of Korean SBT catch is landed in Shimizu, Japan, and primarily at the end and start of the fishing season. During these periods, Korean officials from NFQS are in attendance as observers in a number of cases. Verification and cross checking of landing documents and the CCSBT CDS is conducted, such as cross checking CCSBT tagging records. Landing weights are checked against all documentation, and cross checked with the information submitted to the Korean authorities in the vessel's monthly logbook reporting<sup>10</sup>. The required coverage in foreign ports is set at 10 %<sup>10</sup>. The coverage by Korean officials of Korean SBT landings into Shimizu in 2014/15 was 36% by weight and 38% by the number of landings. Whilst, the obligation for maintaining compliance, is with the

<sup>13</sup> Ministry of Oceans and Fisheries (2015) FMC and Fisheries Monitoring System in the Republic of Korea, August 2015. Presentation

Japanese Authority, the level of inspection appears to be adequate with reference to the Resolution for a CCSBT Scheme for Minimum Standards for Inspection in Port due in force January 2017<sup>14</sup>.

All SBT fishing vessels shall transmit the request for transshipment 24 hours before any scheduled transshipment activity to obtain an approval for transshipment from the FMC. Prior to a transshipment being allowed to occur, the FMC must check validity of fishing license, vessel registration number and compliance with relevant rules including CCSBT resolutions. The report of transshipment results shall be submitted to the FMC within 24 hours after completing the transshipment activity.

Export requirements are in place for exported SBT regardless of whether they have been transshipped at sea, transshipped in port or landed directly into an importing country. All Korean SBT exports are required to request authorisation from the Korean authorities and have to submit the CCSBT Catch Monitoring Forms (CMFS) and Catch Transfer Forms (CTFs) to the National Fishery Products Quality Management Services (NFQS) for validation. These forms are submitted to the Korean authorities either electronically, or, in the case of landings in Japan observed by Korean authorities, by hand (MOF 2016, pers. comm.).

### 3.1.8.3 Fish Imports

Korea has imported varying amounts of SBT from Indonesia, Australia and Japan. In 2011, the total import weight was 146,052 kg, and the 2012 import to late June that year was 40,524 kg. In 2014/15, (CC 1510/SBT) Korea reported imports of 75.2t from Japan, 1.2t from Indonesia and 0.9t from Taiwan. To control and monitor SBT imports, the NFQS conducts sampling inspections in addition to the CDS tagging and tracking documentation. The Korean government has also stated an intention to strengthen these measures with further physical inspections<sup>15</sup>.

Companies, which import SBT, must apply for an imported food product quality inspection and provide relevant documentations including CDS. After the application is submitted, the official in charge conducts an inspection. Four % of the total amount of imported product is drawn as a sample for chemical analysis for heavy metal contamination. For processed products such as fillets, the inspection includes an examination for Carbon Monoxide. The remaining 96 % passes through a sensory test by the inspector and if it meets the hygienic standard, it can clear customs. The NFQS conducts a DNA analysis test for identification of species when necessary. The re-import of SBT goes through the same processes as the import<sup>15</sup>.

### 3.1.8.4 Sanctions

Korean authorities operate a zero-tolerance position relating to any IUU, with Korean vessels subject to a series of strong sanctions including penalties, seizure of illegal catches and products and reduction of future SBT quotas. The severity of sanction relates to the infringement, and infringements are dealt with in accordance with the *Distant Water Fisheries Development Act, which* was amended in January 2014 and July 2015 (MOF 2016, pers. comm.). Sanctions for violations were strengthened with amended *Article 33 of the Distant Water Fisheries Development Act, Act No.13001, Jul. 07, 2015*. These include confiscation of catch and gear, fines of at least 500 million and up to 1 billion won (or three times the value of the illegal fisheries products), and imprisonment for up to three years<sup>15</sup>.

### 3.1.8.5 Recent infringements and sanctions

According to the MOF, there have been no infringements and no sanctions applied in the SBT fishery in recent years (MOF 2016, pers. comm.).

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<sup>14</sup> Resolution for a CCSBT Scheme for Minimum Standards for Inspection in Port, Adopted 15<sup>th</sup> October 2015.

<sup>15</sup> *Distant Water Fisheries Development Act, Act No. 8626, Aug. 3, 2007*, unofficial translation provided by Ministry of Fisheries (Official Communication, 18<sup>th</sup> July 2013)

### 3.1.8.6 Compliance risk assessment

As part of the National Audit conducted by National Assembly, MOF is scrutinized and assessed in terms of its management systems and recommendations for improvement are produced. The Korean government also works closely with the industry regarding compliance extension and education activities and sharing the result of RFMO meetings.

MOF is considering the use of genetic testing to lower the risk of species misidentification of SBT exports and are reviewing the management and fisheries monitoring associated with SBT imports. MOF has communicated that NFQS is in consultation with MFDS, who manage seafood imports, to have a joint training programme to avoid potential risk and weakness of SBT inspection (MOF 2016, pers. comm.). MOF/FMC/NIFS has introduced the mandatory electronic reporting for all commercial fishers, mandatory VMS (including all SBT vessels) on all Korean vessels, and will expand the system over the next 3 years, based on objectives (e.g. prevention of IUU, health and safety) through pilots such as the camera monitoring systems trialed in the current season. MOF have put priority on these pilots for the SBT fishery, as it will significantly increase the level of fisheries monitoring in place and fishery managers' ability to verify reported catch information.

## 3.2 Compliance with National Allocations 2 (CCSBT 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.

### 3.2.1 MPR 1a: [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, and (ii) a report on the adoption and use of the carry-forward procedure is included in each annual report to the Extended Commission.

**Summary-** Korea provides accurate and verified figures of final Attributable Catch to the Secretariat annually. Korea has allowed the carry-forward to be used for the 2015/16 fishing season onwards.

#### Key points

- The newly established fishery organization supports compliance to the MPR 1a.
- Catch figures used to determine carry-forwards is derived from a range of data (daily, weekly reporting, landing inspection, transshipment observation, CDS records and allowing verification activities to take place).

The MOF has established and implemented operating systems and processes that support accuracy, verification and the provision of robust figures for final AC's from annual SBT fisheries. The 2012/13 fishing year was the first year for which Korea carried forward it's under caught catch entitlement for SBT. In the 2015 season, the quota was similarly under-caught and the carry forward was around 89.4 tonnes. CCSBT were notified of the request to carry uncaught allocation from the previous season within the specified timeframe of 60 days (MOF 2016, pers.comm.).

### 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** – Korean fisheries legislation has allowed for SBT carry-forwards since the 2012/13 fishing season. Korea uses daily, weekly and monthly catch returns to calculate total catch and any carry-forward, and notifies the Executive Secretary of these within 60 days of the new CCSBT quota year.

**Key points**

- FMS and MOF re-organisation provides an integrated data management system that is conducive to support reporting of carry-forward within the 60 day period.

Korea did not utilise the CCSBT carry-forward provision until the 2013/14 fishing year. Therefore, prior to that year, Korea was not required to provide information on the available catch limit including carry-forward. Since then, Korea has used daily and monthly catch returns as a basis for determining catch and any carry-forward that may occur. The Executive Secretary has been notified of catch allocation and carry-forward since, i.e., for CCSBT year 2015, within 60 days of the start of the new quota year.

### 3.3 Record of Authorised Carrier Vessels 1 (CCSBT Obligation 2.3(i) + (ii))

The aim of this obligation is to ensure that Members have processes in place to effectively and accurately manage a record of authorised carrier vessels to receive transshipments-at-sea in areas beyond national jurisdiction.

*NOTE: This obligation applies only to Members, which have carrier vessels conducting transshipments in the high seas*

**Summary -**

Korea submits the list of Carrier Vessels that are authorised to receive SBT transshipments from its LSTLVs at sea or in port to the CCSBT Executive Secretary. The current list of carrier vessels is documented and available.

Korea maintains a list of authorized Carrier Vessels. Only Carrier Vessels on the authorized CCSBT vessel list are able to transship SBT either at sea or in port. The list of authorized Carrier Vessels is submitted to CCSBT as required.

### 3.4 Record of Authorised Carrier Vessels 2 (CCSBT Obligation 2.3(iii))

The aim of this obligation is to ensure that Members have processes in place to ensure VMS is on board all transshipment vessels.

*NOTE: This obligation applies only to Members, which have carrier vessels conducting transshipments in the high seas.*

**Summary -**

Carrier Vessels that are authorised to receive SBT transshipments from its LSTLVs at sea or in port by Korea are fitted with a working VMS system. All vessels have VMS onboard as it is a requirement of obtaining a licence.

**Key points**

- It is a legal requirement that all carrier vessels are fitted with a working VMS system.
- VMS malfunction must be reported to FMC
- MCS include active monitoring of VMS and instructions to Carrier Vessels in the event of VMS operational issue (or suspect vessel) identified.

The operation of Korea's VMS is governed by a set of rules that stipulate various requirements such as the polling rates, alternative reporting actions to be taken if malfunctioning (e.g. manual reporting procedures, etc.) and standard reporting requirements. MOF notes that the FMC applies advanced IT tools to monitor the vessels with the VMS, including systems that are designed to identify IUU activity. Figure 6 provides an overview of VMS monitoring and related vessel reporting monitoring functions of the FMC. FMC confirms vessel information (license, etc.) with respect to its position to control access to restricted areas, identify if transshipment and landings are not reported and in case of a suspected VMS malfunction. For each situation, FMC will direct the vessel to confirm their position, activity and if further targeted monitoring is required where a violation is suspected. The MOF reports that there have been no incidences of non-compliance with the VMS requirements (FMC 2016, pers. comm.).

### 3.5 Catch Documentation System 1 (CCSBT Obligation 3.1 (i) – (v))

The aim of this obligation is to ensure that Members have processes in place to effectively and accurately manage the CCSBT Catch Documentation System (CDS).

#### 3.5.1 MPR 1a: [Operating systems and processes established and implemented to ensure that] **All owners and operators of authorised farms, fishing vessels, and carrier vessels, and all SBT processors, importers exporters and re-exporters, are aware of their CCSBT obligations.**

**Summary** – MOF ensures that all participants within the SBT fishery are aware of their CCSBT obligations.

**Key points**

- Instructions on CCSBT obligations and CDS requirements are issued in accordance with section 16 of the DWFDA.
- The DWFDA requires that SBT vessel licenses include specific requirements for reporting consistent with MPR's
- A minimum of two or more meetings per year are held by MOF and industry as well as on-going administrative contact with the fishing companies during the season.

MOF ensures that SBT license holders and processors/merchants are aware of their CCSBT obligations and instructs them on the details of the CDS. These instructions are issued in accordance with section 16 of the DWFDA 2015. On-going liaison is conducted with stakeholders in Korea's

distant water fisheries. A minimum of two or more meetings per year are held by MOF's distant water fisheries team, during which any areas related to SBT requiring discussion are addressed. Updates on CCSBT and SBT are provided through newsletters and a booklet that MOF publishes and disseminates to industry. In addition to these general newsletters, fishers and SBT processors/merchants are provided with letters at the start of each season providing information on CCSBT requirements and reminding them of their obligations. Information is also available through MOF webpages where information is provided for fishers, SBT processors and validators (MOF 2016, pers. comm.).



**3.5.2 MPR 1b:** [Operating systems and processes established and implemented to ensure that] **CDS documents accompany SBT as relevant, including (i) a Catch Monitoring Form (CMF) for all transshipments, landings of domestic product, exports, imports and re-exports; (ii) a Re-export/Export After Landing of Domestic Product (REEF) for all exports of SBT landed as domestic product then exported, and for all re-exports of imported SBT. Any REEF must also be accompanied by a copy of the associated CMF and copies of any previously issued REEFs for the SBT being exported; and (iii) a Farm Transfer Form (FTF) for all transfers of SBT between authorised farms within the Member’s jurisdiction;**

**Summary** – Korea MOF has established systems and processes to implement and monitor the CDS documents across the SBT fishery. A Fisheries Information Management System has been implemented and managed by MOF through the FMC. Other agencies have specific and inter-related duties that support implementation of the CDS.

In 2014, Korea was unable to supply one batch of Re-Export/ Export documentation (REEF) due to weaknesses in documents transfer between organizations who enforce import/export legislation relating to fisheries products. In 2016, an agreement has been agreed to ensure documents are transferred in a timely and effective way. The DWFDA will be updated in due course to make this a legal requirement.

**Key points**

- Operational delivery of compliance services – carries out port and premises inspections
- Administers industry tagging information
- Data checking and data entry from CDS catch monitoring forms (CMFs)
- Following an issue in 2014 where a number of REEFs were unaccounted for, in June 2016 an agreement has been agreed to ensure documents are transferred in a timely and effective way

The CDS was introduced to provide for tracking and validation of legitimate SBT product from catch to the point of first sale. Since it was introduced, no SBT can be accepted for domestic sale, export or import, without verified CCSBT CDS documentation. Fishing vessels and SBT processors/merchants are required to complete CCSBT CDS documentation in addition to national reporting requirements. Korea fishers must complete the CCSBT’s CDS requirements and are validated by authorised NFQS personnel who have been trained and approved by MOF and the NFQS (MOF 2016, pers. comm).

Regarding the missing REEF’s in 2014, MOF report that the re-organisation of fishery management at the government level commenced in 2013 and as part of this process, the import and export affairs of fisheries were divided between MFDS and MOF, respectively. During the establishment of new processes, a loophole in maintaining imported SBT records occurred. In June 2016, MOF and MFDS met to tackle the problem with the result of MFDS agreeing to submit all imported fish data to MOF and NFQS on a monthly base and to take measures to prevent SBT importers from trading SBT in the market before the permission of NFQS. MOF is now able to keep records of all SBT’s import on a monthly base to reduce the potential risks of losing records of imported SBT. Additionally, both MoF and MFDS have notified all SBT fishery importers that all SBT imported to Korea should be reported to NFQS at first. CCSBT’s compliance report (CCSBT-CC/1510/04 Rev 2) records that in the first quarter of 2015 there were 7 missing REEFs, although as per note 13 for the table in the compliance report it is possible that the missing REEFs are related to submission dates being later than the compliance report. MOF noted during their final review of the QAR Phase 2 that they found some



missing imported fishery documents in 2015, but beginning from the first half of 2016, all imported fishery documents are precisely reported.

**3.5.3 MPR1c:** [Operating systems and processes established and implemented to ensure that] **All entities with CDS certification obligations have certification requirements, including that the certifier for the Catch Tagging Form (CTF) should be the Vessel Master or other appropriate authority for any wild harvested SBT, and the Farm Operator or other appropriate authority for any farmed SBT.**

**Summary** – MOF provides documentation to all entities within the SBT fishery outlining their CDS requirements, including the requirement to certify and validate the CMF and CTF forms.

**Key points**

- Korea MOF requires that CTF must be certified by the Vessel Master
- NFQS undertake issuance and validation of the CDS forms. CDS verification duties are also assigned to NFQS although several other agencies FMC and NIFS and MOF data is used for this purpose, particularly where anomalies arise. The series of FMC databases present comprehensive tools to allow for investigation and verification of CDS forms.
- MOF instructs KOFA members and maintains a list of trained individuals.

In line with CCSBT, Korea requires that CDS documentation is certified by vessel master and validated by the appropriate personnel at NFQS. MOF maintains an electronic list of those certifiers associated with different entities within the fishery. Validators are required to complete training conducted by MOF (MOF 2016, pers. comm.). MOF ensure that only approved validators sign CMF forms. All validation is undertaken by NFQS at Director level. NFQS provide these staff with validator seals for approving CTF documents and maintain a list of those who have received training.

**3.5.4 MPR 1d:** [Operating systems and processes established and implemented to ensure that] **All entities involved in towing and farming SBT have procedures to (i) record the daily mortality of SBT during catching and towing, and the quantity (number and weight in kilograms) of SBT transferred to each farm; and (ii) use these records to complete the Farm Stocking Form at the end of each fishing season and before the SBT are recorded on a CMF.**

**Summary** – This MPR is not applicable to Korea, as it does not have any SBT farms.

### 3.5.5 MPR 1e: [Operating systems and processes established and implemented to ensure that] **Compliance with certification procedures is verified.**

**Summary** – Korea has a robust system to monitor compliance with the CCSBT CDS as part of generic compliance activities of its distant water fisheries.

**Key point**

- MOF ensure that all certifier receive the appropriate training;
- MOF ensure that only approved certifiers sign CMF forms.
- There is a comprehensive system for cross-checking data from the CDS within the FMS managed by the FMC.
- Discrepancies between different data sources (e.g. observer data and catch reporting are monitored with analysis conducted on a case by case basis as required)

The Member notes that the catch monitoring and balancing system provides cross-validation and analysis of forms throughout the supply chain. The cross-validation in place is supported by an at-sea observer scheme, inspections of landings, observation of all transshipments and a risk based management approach. Korea monitors compliance with the CCSBT CDS as part of generic compliance activities, which include validation of transshipment activities as well as port inspections. Validation and cross-checking of CDS documentation against other sources of information includes catch reports and observer records. Analysis is conducted to compare observer data with the CDS information reported, and the results submitted to the CCSBT scientific committee. Discrepancies between observer data and catch reporting are monitored with analysis conducted on a case by case basis as required. Observers returning from a SBT trip are debriefed and raise any compliance concerns identified during the deployment with the NIFSS. Korea has a zero tolerance approach to intimidation of observers, with severe penalties outlined in the DWFDA 2015.

### 3.5.6 MPR 2: Any use of specific exemptions to CDS documentation (allowed for under obligation 3.1 A (ii) for recreational catch) must be (a) explicitly allowed and this decision advised to the Executive Secretary; and (b) have associated documented risk-management strategies to ensure that associated mortalities are accounted for and that recreational catches do not enter the market.

**Summary** – No specific exemptions identified to the CDS documentation

The review team did not identify any specific exemptions to the CDS documentation requirements.

### 3.5.7 MPR 3: Operating systems and processes established and implemented to ensure all CDS documents are uniquely numbered and completed fully and in accordance with the document's instructions.

**Summary** – All CDS documentation is pre-printed and uniquely numbered by a supplier to MOF.

MOF briefs the industry and meets on a regular basis to ensure the requirements to complete CDS are understood. Printed updates are provided (booklet and leaflets, letters to fishery organisations). NFQS who issue and validate CDS maintain contact with fishery organisations with regard to validation duties and provide further, on-going instruction on completion of CDS forms

### 3.6 Catch Documentation System 2 (CCSBT Obligation 3.1 (vi))

The aim of this obligation is to ensure that Members have processes in place to effectively and accurately manage the CCSBT Catch Documentation System (CDS).

#### 3.6.1 MPR 1: Operating systems and processes established and implemented to ensure that at all times only carrier vessels authorised on the CCSBT Record of Carrier Vessels for the transshipment date are permitted to receive at-sea transshipments from the Member's LSTLVs.

**Summary** – MOF maintains a list of authorized Carrier Vessels under its Flag and updates CCSBT of any changes. All Korean transshipments are observed by RFMO regional observers to ensure only authorized carrier vessels are used.

##### Key points

- FMC operates full time VMS and alert system for suspect infringements, irregularities and non-reporting
- Transshipments must be notified to FMC 24 hours in advance. FMC records the activity in the FIMS. Shipping Companies provide the notification on behalf of SBT fishing or carrier Vessel to facilitate port call requirements.

MOF maintains a list of authorized Carrier Vessels under its Flag and updates CCSBT of any changes. All Korean transshipments are observed by RFMO regional observers to ensure only authorized carrier vessels are used. All at sea transshipments are observed by RFMO regional observers and in port transshipment are inspected by the relevant Port Authorities. For all transshipments the vessels are required to notify the FMC 24 hours in advance. Shipping Companies provide the notification on behalf of SBT fishing or carrier Vessel to facilitate port call requirements. FMC operates full time VMS and alert system for suspect infringements, irregularities and non-reporting.

#### 3.6.2 MPR 2: Rules established and implemented to prohibit (a) the landing, transshipment, import, export or re-export of SBT caught or transhipped by non-authorized fishing/carrier vessels, and (b) the transfer of SBT to, between or harvested from farms which were not authorised to farm SBT on the date(s) of the transfers/ harvests.

**Summary** – Lists of authorized LSTLVs and carrier vessels are maintained and updated provided to CCSBT.

##### Key points

- It is implicit that only authorized vessels can operate in the fishery
- All Korean transshipments are observed by RFMO regional observers.
- No domestic sale, export or import can be accepted without verified CCSBT CDS documentation.

All fishers operating within Korea's SBT fishery or on the high seas must hold the relevant domestic or high seas fishing license and operate from registered fishing vessels. There is a requirement for vessels to re-register every 5 years. MOF has substantially up-dated its MCS to ensure that

transshipment, import, export or re-export of SBT is only undertaken by authorized vessels. Korea DWFD Act makes it an offense for vessels to fish without authorization.

In the past Korea has been unable to supply some Re-Export/Export documentation due to weaknesses in the transfer of documents between organisations, as such a recent arrangement has been agreed to ensure documents are transferred in a timely and effective way. The DWFDA is to be updated in due course to make this a legal requirement. Following an issue in 2014 where a number of REEFS were unaccounted for, in June 2016 an arrangement has been agreed to ensure documents are transferred in a timely and effective way.

All Korean at sea transshipments are observed by RFMO regional observers and at port foreign transshipments are monitored and inspected by the Port government appointed authority.

### **3.7 Catch Documentation System 3 (CCSBT Obligation 3.1 (vii) – (ix))**

The aim of this obligation is to ensure that modifications to CDS documents are monitored and reviewed.

#### **3.7.1 MPR 1: The Executive Secretary shall, in consultation with Members, determine whether proposed modifications are minimal or significant with respect to this obligation.**

**Summary** – This MPR is not applicable to Korea, as Korea has not proposed or implemented any modifications to the CDS documents.

#### **3.7.2 MPR 2: Modified documents remain compatible with approved forms to ensure data series remain continuous and so they can be uploaded by the Secretariat.**

**Summary** – This MPR is not applicable to Korea, as Korea has not proposed or implemented any modifications to the CDS documents.

#### **3.7.3 MPR 3: Modified documents are provided to the Executive Secretary in electronic format at least 4 weeks prior to the use of such documents and with proposed modifications clearly highlighted.**

**Summary** – This MPR is not applicable to Korea, as Korea has not proposed or implemented any modifications to the CDS documents.

### 3.8 Catch Documentation System 4 (CCSBT Obligation 3.1 (x) - (xii))

The aim of this obligation is to ensure that CCSBT catch tagging requirements are met.

#### 3.8.1 MPR 1(a): [Operating systems and processes established and implemented to ensure that CCSBT Catch Tagging Program requirements are met, including] **Ensuring all SBT tags meet the minimum specifications in paragraph 3 of Appendix 2 of the CDS Resolution.**

**Summary** – SBT tags are produced by a Japanese supplier and provided by CCSBT to Korea in line with the CDS Resolution.

**Key points**

- As the tags Korea uses are ordered through the Secretariat they can be considered to meet the minimum specifications as specified in Appendix 2 of the CDS Resolution.

Uniquely pre-numbered tags are produced per annum by a Japanese tag manufacturer that CCSBT contracts to produce tags. Korea then orders tags through the CCSBT Secretariat following consultation with KOFA. Korea tags are ordered through the CCSBT Secretariat meeting the minimum specifications as specified in appendix 2 of the CDS Resolution.

#### 3.8.2 MPR 1(b): [Operating systems and processes established and implemented to ensure that CCSBT Catch Tagging Program requirements are met, including] **recording the distribution of SBT tags to (i) entities authorised to fish for, or farm, SBT; and (ii) where applicable, entities which received tags to cover exceptional circumstances.**

**Summary** – MOF and KOFA maintain a record of the distribution of SBT tags and reconcile the issued tags against CDS documentation.

**Key points**

- KOFA instructs all SBT fishery participants to either return unused tags to MOF at the end of the season or dispose of them.
- KOFA liaise with their members regarding the number of tags they require for the forthcoming SBT fishing season.
- NFQS plan to undertake further direct management of tag distribution and collection in 2017.

MOF issue tags to fishers based on previous and expected fishing in the upcoming season. Fishers who express an intention to catch SBT to KOFA are provided with tags. The distribution of SBT tags is overseen by MOF, and undertaken by KOFA who liaise with their members regarding the number of tags they require. MOF note that until now KOFA deals with the issue of order and distribution of tag but starting from 2017 the affairs of tag control and distribution will be under the NFQS to ensure transparency and objective. Tag order is usually made in July-August and the tags are produced and delivered to Korea in October-November, and then they are distributed to each company, which will then send the tags to fishing vessels for the forthcoming season. Additional tags are provided to SBT processors/merchants to cover circumstances when fish need tagging at

the SBT processors or merchants. In the event that additional tags are required fishers request these more tags from KOFA who then approach MOF. At the end of the season, fishers and SBT processors/merchants can send either unused tags back to MOF/KOFA or fishers are requested to dispose of them. At the start of the new fishing year all participants are informed of the new tags being used and provided tags accordingly.

**3.8.3 MPR 1(c):** [Operating systems and processes established and implemented to ensure that CCSBT Catch Tagging Program requirements are met, including] **requiring a valid tag to be attached to each SBT brought on board a fishing vessel and killed (including SBT caught as incidental bycatch) or landed and killed from a farm.**

**Summary** – Korea has established systems and processes to ensure tagging is conducted in accordance with CCSBT CDS documentation. Fishers are instructed of these requirements via the CDS information/briefings and booklets, including the requirement to have a valid CCSBT tag attached to each SBT caught and retained.

**Key points**

- During the 2015 calendar year there were no duplicate tags submitted in tagging data to CCSBT.

It has been a requirement since January 2010 that no SBT 'may be accepted for domestic sale, export or import without the verified CCSBT CDS documentation. This includes the requirement to have a valid CCSBT tag attached to each SBT caught and retained. MOF via KOFA maintain the records of issued tags on an excel sheet and also record particular fields from CMFs on spreadsheets that are used in the cross checking of CMF information with CTF data. CTFs are submitted to NFQS who then provide these to MOF with the data entered quarterly. MOF check the data and subsequently submit the data to the CCSBT Secretariat.

**3.8.4 MPR 1(d):** [Operating systems and processes established and implemented to ensure that CCSBT Catch Tagging Program requirements are met, including] **requiring tags to be attached to each fish as soon as practicable after the time of kill.**

**Summary** – MOF provides updates issued to participants in the fishery that provide the required information related to the requirements for tagging fish. This documentation specifies the required timeframes for tagging.

MOF update SBT fishery participants with information relating to any changes to the tagging scheme and ensure that operators know of their obligations to tag fish as soon as practicable. NFQS is responsible for obtaining information relating to tags numbers and updating fisheries companies on any changes to the scheme. There are regular meetings between industry stakeholders and the Government organisations who manage the SBT.

**3.8.5 MPR 1(e):** [Operating systems and processes established and implemented to ensure that CCSBT Catch Tagging Program requirements are met, including] **requiring details for each fish to be recorded as soon as practicable after the time of kill including month, area, method of capture, as well as weight and length measurements carried out before the SBT is frozen.**

**Summary** – MOF has pre-season guides that are issued to participants in the fishery that provide the required information related to the requirements for tagging fish. This documentation specifies the required timeframes for tagging.

CDS documentation (CMF and CTF) is provided in hardcopy to the NFQS in line with domestic reporting requirements. This information is then reviewed and submitted to the CCSBT Secretariat on a quarterly basis. The data is entered and validated before submission to the Secretariat.

### 3.9 Catch Documentation System 5 (CCSBT Obligation 3.1 (xiii) - (xviii))

The aim of this obligation is to ensure that CCSBT catch tagging requirements are met.

#### 3.9.1 MPR 1: Operating systems and processes established and implemented to (a) meet procedural and information standards set out in appendix 2 of the CDS resolution; (b) identify any unauthorised use of SBT tags; (c) identify any use of duplicate tag numbers; (d) identify any whole SBT landed, transhipped, exported, imported or re-exported without a tag; (e) ensure that tags are retained on whole SBT to at least the first point of sale for landings of domestic product; and (f) ensure a risk management strategy (including random or risk based sampling) is in place to minimise the opportunity of illegal SBT being marketed.

**Summary** – MOF described the role of each agency; NFQS, NIFS, FMC and MFDA in operating a system and processes necessary to meet CCSBT CDS Resolution.

#### Key points

- Korea has not identified an issue of duplicate tags in the fishery and report that there were no duplicate tags identified in 2015/16 fishery.
- MOF- (NFQS data entry and FMC data checking) assess risks associated with CDS documentation using cross-referencing of logbook, catch, VMS, transshipment and landing and import inspection data and focus on irregularities to identify risks of illegal SBT being marketed.
- In 2016, there are plans to implement a training programme to ensure authorities who deal with seafood importation and exports are trained to differentiate SBT from other tuna species using Korea's guidebook to distinguish SBT from other tuna species.
- No unauthorised tags or untagged SBT have been identified.

The MOF has 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. CDS documentation does contain much of the same information as the Korean national logbooks and other paperwork.

Since QAR Phase 1, it is apparent that the FMC provides an improved system of integrated databases for verification of CDS and for identification of duplicate tags purposes. NFQS undertakes tag data input function although reports from observer information at transshipment, at port inspection (domestic and foreign) and FMC data on risk identification form part of the verification and risk management basis.



**3.9.2 MPR 2 Operating systems and processes established and implemented to (a) monitor compliance by operators with control measures in section 3.9.1, above; (b) impose sanctions on operators where non-compliance is detected; and (c) report any cases of whole SBT being landed without tags to the Executive Secretary, and minimise their occurrence in future.**

**Summary** – Compliance operations primarily focused on cross-verification of exporting reporting requirements. The latest CCSBT compliance report showed Korea had 100% compliance with catch tagging forms submitted to CCSBT. In 2014/15, Korea was unable to supply some Re-Export/Export (REEF) documentation due to weaknesses in documents transfer between organisations who enforce import/export legislation relating to fisheries products. However, in 2016 an arrangement has been agreed to ensure documents are transferred in a timely and effective way. MOF advise that the DWFDA will be updated in due course to make this a legal requirement.

**Key points**

- The latest CCSBT compliance report showed Korea had 100% compliance with catch tagging forms submitted to CCSBT.

Compliance is monitored in accordance with DWFDA with all participants in the fishery provided with information describing procedures related to the requirements of the CDS and associated tagging of fish. Given the nature of the fishery MOF/FMC/NFQS fisheries compliance is primarily focused on targeting its effort towards remote monitoring using the VMS system in conjunction with data validation through cross-checking landing and transshipment reporting documentation. Compliance activities are based on risk assessments. MOF risk management strategy includes the assessment of risks associated with CDS documentation and the risks of illegal SBT being marketed. In 2016, Korea has a plan to conduct gene analysis by the NFQS, if needed, for SBT to be distinguished from other tuna species.

The latest compliance report from CCSBT (CCSBT-CC/1510/04 (Rev2)) reported that 100% of the catch, tagging forms submitted to CCSBT by Korea exactly matched the fish numbers recorded in the catch monitoring forms and 100% matched the fish weights. There were no incidences recorded where whole SBT had been landed without tags<sup>16</sup>.

**3.10 Catch Documentation System 6 (CCSBT Obligation 3.1 (xix) - (xxi))**

The aim of this obligation is to ensure that CDS documents are effectively validated.

**3.10.1 MPR 1a: [Operating systems and processes established and implemented to] Authorise validators to validate Farm Stocking, Catch Monitoring and Re-Export/Export after Landing of Domestic Product Forms.**

**Summary** – Only authorised validators lists can validate CMF and REEF's. Authorised validator lists are updated and amended as required with amendments sent to CCSBT as necessary.

**Key points**

- Authorised validator lists are maintained by MOF and provided to CCSBT
- NFQS are the only authority who undertakes validation.

In Korea, the authority to validate CDS documents is devolved to the NFQS by MOF. The use of the NFQS is the preferred method for validating documentation given the structure of the management system and the nature of the Korean fishery. Directors charged with validating NFQS work to ensure individuals do not validate either their own work or that of their peers.

Validators are provided with unique identifier references and seal stamps, which correspond to the lists supplied to CCSBT. Validated CDS documents are submitted to MOF in line with other domestic reporting requirements on a quarterly basis.

Compliance reports for 2014 and the first quarter of 2015 showed that 100% of Korea's forms were completed by authorised validators<sup>16</sup>.

**3.10.2 MPR 1b:** [Operating systems and processes established and implemented to] **Demonstrate that all persons with authority to validate CDS documents are (i) government officials or other individuals who have been duly delegated authority to validate; (ii) are aware of their responsibilities, including inspection, monitoring and reporting requirements; and (iii) are aware of the penalties applicable should the authority be misused.**

**Summary** – Validators are NFQS government officials who undergo training before becoming authorised validators.

**Key points**

- Electronic authorised validator list maintained by NFQS;
- Validators are required to complete a training programme before becoming authorized;
- Validators provided with information confirming the requirements and responsibilities of being a CCSBT authorised CDS validator.

All validators are NFQS government officials. They are required to complete a training programme before becoming authorised by NFQS and MOF respectively. The training provides details on the responsibilities of a CCSBT validator.

**3.10.3 MPR 1c:** [Operating systems and processes established and implemented to] **Appropriate individuals certify each CDS form type by each signing and dating the required fields.**

**Summary** – All CDS documentation is required to be completed and certified by vessel Masters. Korea has a system in place to ensure that CDS forms are completed by the appropriate person. CDS validators review and validate each form and are trained in the procedure.

**Key points**

- Vessel Masters certify
- Korea has demonstrated high levels of compliance for authorised validators completing CDS documentation (100% for 2014 calendar year and 100% 1<sup>st</sup> quarter of 2015).
- During the QAR site visit the team were shown CDS documents that had been signed and had seals that were attributable to a validator on the CCSBT list

Korea requires that all CDS documents be signed by appropriate individuals, as required by CCSBT. Validated CDS documents are submitted to MOF in line with other domestic reporting requirements on a quarterly basis. CCSBT's latest compliance report showed that Korea's CDS documentation was 100% compliant for the 2014 calendar year and the 1<sup>st</sup> quarter of 2015 in relation to forms being completed by authorised validators<sup>16</sup>.

**3.10.4 MPR 1d:** [Operating systems and processes established and implemented to] **the same individual does not both certify and validate information on the same CDS form**

**Summary** – NFQS have data checking processes in place to check that the same individual does not certify and validate information on the same CDS form. Certification is by Master and validation by a registered NFQS Director.

**Key points**

- In 2015, 100% of the CMF documentation submitted by Korea was correct.
- This includes ensuring the same individual did not certify and validate the same CDS

As per Section 3.10.3 in 2014 and the 1<sup>st</sup> quarter of 2015, Korea's CMF documentation was 100% compliant in relation to the requirement that the same individual does not certify and validate information on the CDS form<sup>16</sup>. NFQS visually check all CDS documentation and this process includes identifying discrepancies in the documentation such as the same individual signing the same CDS form as certifier and validator. Directors charged with validating NFQS work to ensure individuals do not validate either their own work or that of their peers. Validators are provided with unique identifier references and seal stamps that correspond to the lists supplied to CCSBT.

**3.10.5 MPR 1e:** [Operating systems and processes established and implemented to] **Inform the Executive Secretary of (i) the details for all validators and keep this information up to date; and (ii) of any individuals removed from the list of validators no later than the end of the quarter in which the removal occurred.**

**Summary** – Electronic list of all authorised validators maintained by MOF and NFQS and provided to CCSBT as required.

**Key point**

- Korea maintains a list of trained validators

MOF and NFQS ensure that only Government officers at the Director level are authorised to undertake validator training. Korea maintains a list of trained validators and provides this information to CCSBT as required.

<sup>16</sup> CCSBT (2015) Compliance with CCSBT Management Measures (CCSBT-CC/1510/04 Rev2)

**3.10.6 MPR 1f: [Operating systems and processes established and implemented to] Ensure that no individual conducts validations (i) prior to the Executive Secretary being fully informed of his/her current validation details, or (ii) after that individual's authority to validate has been removed.**

**Summary** – Electronic list of all authorised validators maintained by MOF and NFQS and provided to CCSBT as required. Korea advises CCSBT secretariat in advance of their commencement of validation duties. Korea (MOF) advises CCSBT secretariat when an individual's authorization is removed.

CCSBT's latest compliance report showed that Korea's CDS document was 100% compliant for the 2014 calendar year and the 1<sup>st</sup> quarter of 2015 in relation to forms being completed by authorised validators<sup>16</sup>. As detailed in Section 3.10.5 MOF maintains electronic lists of all authorised validators. These lists are updated as required. Each time an update is required the updated information is submitted to the CCSBT Secretariat.

**3.10.7 MPR 2 Operating systems and processes established and implemented to monitor performance (compliance and effectiveness) of validators.**

**Summary** – An electronic list of all authorised validators is maintained by MOF/NFQS and provided to CCSBT as required. Validators are trained and approved by NFQS and MOF.

All CDS documentation provided to MOF is checked to ensure the validators is authorised and has complied with their obligations. Checking of these documents is a manual process with any issues addressed with individuals by MOF. CCSBT's latest compliance report showed that Korea's CDS document was 100% compliant for the 2014 calendar year and the 1<sup>st</sup> quarter of 2015 in relation to forms being completed by authorised validators<sup>16</sup>.

**3.11 Catch Documentation System 7 (CCSBT Obligation 3.1 (xxii) - (xxv))**

The aim of this obligation is to ensure that CDS documents are effectively validated.

**3.11.1 MPR 1a: [Operating systems and processes established to ensure] CDS forms are only validated (i) where all the SBT listed on the form are tagged (except in cases where tags are no longer required due to processing having occurred); (ii) in the case of farmed SBT, for SBT harvested from farms on a date that the farm was authorised on the CCSBT record of Authorised Farms; and (iii) in the case of Wild Harvest SBT, for SBT taken by FVs on a date when that FV was authorised by the flag Member.**

**Summary** – MOF/NFQS monitors all CDS documentation and checks are conducted on the paperwork as it is received. Validators are trained in the procedure and this includes a requirement that validation is not undertaken if there are untagged product or other discrepancies in the CMF/REEF documentation.

NFQS monitor all validated documentation to ensure they have been completed correctly. On receipt of documentation, NFQS check the data and any discrepancies are followed up with individuals before submitting the information to CCSBT. Any discrepancies in the CTFs identified by

NFQS are followed up with individuals to rectify the issue if possible before submitting the information to CCSBT.

**3.11.2 MPR 1b: [Operating systems and processes established to ensure] validated documentation accompanies all SBT consignments whether transhipped, landed as domestic product, exported, imported or re-exported, and (MPR 1c) no SBT is accepted without validation documentation.**

**Summary** – All SBT consignments are required to have the associated CCSBT CDS documentation that has been correctly validated.

**Key points**

- 100% compliance with exports and domestic landings when they have occurred in 2014 and the first quarter of 2015.
- In 2014 and the first quarter of 2015 Korea have been submitted low numbers/% of import copies of CMF forms.
- In 2014, 92.9% of the expected number of REEFs were received and in the first quarter of 2015, 93.1% of expected REEFs were received.

The latest CCSBT compliance report showed that Korea had a 100% compliance rate for providing complete documentation for exports for the 2014 calendar year, with no domestic landings recorded in 2014. For the first quarter of 2015, there was 100% compliance for domestic landings with no incidences of exports recorded in the compliance report. The review team acknowledges that the compliance rates for 2015 reflect the first quarter of the year and may not reflect the final compliance rates for all of 2015.

The latest CCSBT compliance report does highlight that Korea is not providing all the expected import copies of CMFs and REEFs. In 2014 only 6.9% of the expected number of CMFs were received with 27 import CMFs missing, whilst for REEFs 92.9% of the expected number were received with 11 missing<sup>16</sup>. In the first quarter of 2015, CCSBT has received 14.3% of the number of import CMFRs expected from Korea and 93.1% of the REEFs. Korean authorities have acknowledged the requirement for submitting importer copies of CDS documents and as noted in CCSBT-CC/1510/04 Rev2 Korea only low numbers/% of import copies of CMFs were submitted and Korean is currently working to resolve this issue.

**3.11.3 MPR 1d: [Operating systems and processes established to ensure] Validation does not occur where (i) validator authorisation procedures were not correctly followed or (ii) any deficiency or discrepancy is found with the CDS form.**

**Summary** – Korea has systems and processes to check the accuracy and validity of their CDS documentation.

**Key points**

- Processes in place to ensure validation does not happen until documentation has been checked for accuracy and validity.
- Validated export CMF/REEF's are reviewed and verified by other staff at NFQS (not by validators).

Korea has systems and processes to check the accuracy and validity of their CDS documentation. Validators are trained to implement procedures to ensure that documents are not validated in

circumstances where the correct procedure was not followed or if there is a discrepancy. Validators are trained to make sure that these forms are investigated and corrective measures taken before validation. Validated export CMF/REEF's are reviewed and verified by other staff at NFQS (not by validators).

**3.11.4 MPR 2a: [Operating systems and processes established and implemented for a Member to validate SBT product against CDS documents, including] requirements to check accuracy of information by ensuring every CDS document is complete, valid and contains no obviously incorrect information by cross-checking data on the form being validated against (1) data on preceding CDS forms including the Catch Tagging Form; (2) relevant lists of authorised farms, vessels or carriers; and (3) result of any physical inspection by the authority.**

**Summary** – Korea has systems and processes are in place for CDS review to ensure forms are complete, crosschecked and verified. The FMS provides an integrated source of data that allows NFQS and other agencies to support this function.

**Key Points**

- CMF must be completed correctly as it is a legal requirement
- NFQS undertakes validation and verification checks are undertaken by different staff
- NIFS observer reports can be accessed to cross check vessel activity
- FMC data can be cross checked to confirm VMS, transshipments, foreign landings
- MOF data can be cross checked to evaluate authorisations

Korea monitors compliance with the CCSBT CDS as part of generic compliance activities of its distant water fisheries including remote monitoring, port and inspections of processing and handling facilities. The Member notes that the catch monitoring and balancing system provides cross-validation and analysis of forms throughout the supply chain. Cross-validation of CMF and CTF data is conducted by NFQS staff against the data in the FMC database prior to validating the CDS documentation<sup>17</sup>

Established operating systems and processes are in place for Korea to effectively monitor catch against quota allowances. Validation and verification of validated CDS cross checking of catches can be conducted using mandatory catch reports (electronic and hard copy) and observer records. Discrepancies between observer data and catch reporting are monitored with analysis conducted on a case by case basis as required. Information from observers is provided to the fishery managers via NIFSS where SBT issues have been identified and fishery managers will be invited to attend observer debriefs as appropriate.

NFQS officers conduct in port inspections of vessels within the fishery and SBT processors/merchants engaged in the SBT fishery. Compliance reports and data that inform the compliance risk management procedures are stored in a new centralised system (FMS). FMS records compliance activities and where appropriate the organisations involved in fisheries management will be informed of any issues arising from compliance activities through notifications by FMS.

<sup>17</sup> CCSBT (2015) Korean Annual Report to the Compliance Committee and the Extended Commission (CCSBT-CC/1510/SBT Fisheries – Korea)

**3.11.5 MPR 2b: [Operating systems and processes established and implemented for a Member to validate SBT product against CDS documents, including] notification of any inconsistencies or inaccuracies to the Member’s enforcement authorities.**

**Summary** – Korea has operating systems and processes in place to monitor compliance with catching restrictions. Legal instruments allow sanctions to be imposed upon transgressions. It is a legal requirement to record/report SBT in accordance with DWFD Act, which is consistent with CDS reporting requirements.

**Key points**

- Compliance is monitored using port inspections, SBT processors/merchants inspections, audits and reviewing domestic and CDS reporting documents.
- MOF’s newly formed structural framework is conducive to identification of inconsistencies and inaccuracies and support high level of compliance

Compliance is monitored in accordance with the DWFDA 2015. All participants in the fishery provided with information describing procedures related to the requirements of the CDS and associated tagging of fish. There is no specific compliance strategy for distant water species, with compliance planned at a general level using a risk-based approach termed a “high-risk special management” system, which focuses on high-risk areas of IUU<sup>17</sup>. Given the nature of the fishery, fisheries compliance is primarily focused on targeting its effort towards remote monitoring of the distant water fleet in conjunction with data validation through cross-checking with reporting requirements for domestic and overseas landings and transshipments.

The *DWFDA 2015* outlines a range of offences, which are detailed in *section 33* with Government policy the basis for setting penalties. The severity of penalties is based on the seriousness of the offence. Details of the CCSBT CDS and fishers’ obligations under the scheme have been outlined to permit holders and licensed fish receivers by MOF, with instructions issued under *section 16 DWFDA 2015*. Sanctions under *section 16 of the DWFDA* can lead to fines not exceeding 1 billion won.



### 3.12 Catch Documentation System 8 (CCSBT Obligation 3.1 (xxvi))

The aim of this obligation is to ensure that CDS documents are retained and submitted as required.

#### 3.12.1 MPR 1: Documents and/or scanned electronic copies stored in a secure location for a minimum of three years under conditions that avoid damage to the legibility of the documents or the data files.

**Summary** – Korea stores both hardcopy and electronic copies of SBT documentation and data in secure locations as required by CCSBT’s MPRs. FMS is the central database that holds all of the SBT fishery data.

**Key points**

- All records are kept by MOF/NFQS, with no records discarded and SBT processors/merchants are required to keep documents for a minimum of seven years.
- Electronic systems are maintained and backed up in line with MOF/NFQS data management regulations.

The storage of all SBT documents and/or scanned electronic copies is the responsibility of the FMC who maintain the FMS system. Hardcopy records are initially kept on site and then archived documents kept in off-site storage facilities. CDS documentation is maintained and archived for the statutory requirements by MOF/FMC/NFQS on site at its offices.

All electronic information is recorded on MOF, FMC and NFQS’s databases and servers within the overall FMS. The electronic system is maintained and is regularly backed up in line with MOF data management regulations.

### 3.13 Catch Documentation System 9 (CCSBT Obligation 3.1 (xxvii) + (xxviii))

The aim of this obligation is to ensure that CDS documents are retained and submitted as required.

#### 3.13.1 MPR1: Copies of all completed CDS documents issued by catching Members or received by importing or receiving Members, sent to Executive Secretary in accordance with timeframes specified in the CCSBT documentation.

**Summary** – Korea provides CCSBT CDS documents to CCSBT Secretariat within the required timeframes (quarterly). Korea compiles and submits national documentation to CCSBT on a quarterly basis. One batch of REEFS in 2014 were not submitted due to ineffective document transfer systems between agencies that monitor seafood product importation. These processes have since improved and a formal arrangement implemented and to be included in amendment to the DWFDA 2015.

**Key points**

- The only incidences identified where Korea has not provided the required information within the required timeframes relate to REEFS in 2014 and 15.

There has been one incidence identified where the Korean authorities did not provide this information to the CCSBT Secretariat within the required timeframe – a batch of REEFS in 2015. The latest CCSBT report on compliance with CCSBT Management Measures (CCSBT-CC/1510/04 (Rev2)) noted that Korea submitted all completed all other CDS documents to the Executive Secretary in



accordance with the specified timeframes during the reported 2014 calendar year and the first quarter of 2015. Korea submits reports every quarter as required by CCSBT.

**3.13.2 MPR2: Catch Tagging Form information shall be provided to the Executive Secretary using the electronic Data Provision Form developed by the Secretariat and in accordance with the Data Provision Form's instructions.**

**Summary** – MOF have operating systems and processes in place to maintain a list of authorised individuals involved in the verification of CDS documentation.

Catch tagging form information is provided electronically by MOF to the CCSBT Executive Secretary within the defined reporting timeframes.

**3.14 Catch Documentation System 10 (CCSBT Obligation 3.1 (xxix) + (xxxi))**

The aim of this obligation is to ensure the verification of CDS documents.

**3.14.1 MPR 1: [Operating systems and processes established and implemented to] (a) assign unambiguous responsibility to individuals or institutions for implementing verification procedures; and (b) ensure no verification procedure is carried out for a CDS document by an individual who has validated or certified the same CDS document.**

**Summary** – NFQS have operating systems and processes in place to ensure that verification of CDS documentation is not undertaken by an individual who has validated or certified the same CDS document.

NFQS undertake both validation and verification activities. However, under the direction of MOF, NFQS have operating systems and processes in place to separate verification duties so that they are not undertaken by individuals involved in the validation or certification of CDS documentation. Validators are clearly identified and are Directors of NFQS. Verification duties are conducted by other administrative officers at NFQS.

**3.14.2 MPR 2a: [Operating systems and processes established and implemented for verification, including] Selecting and inspecting, where appropriate, a targeted sample of vessels and export, import and market establishments based on risk. The intent of these inspections should be to provide confidence that the provisions of the CDS are being complied with.**

**Summary** – MOF/NFQS conducts a risk assessment across all deepwater fisheries to identify priority areas. This incorporates identifying the risks associated with the completion and submission of CDS documentation. Compliance is monitored in accordance with conformance to the aspects of the DWFDA 2015. MOF analyses Korea distant water compliance performance against RFMO criteria.

Compliance is monitored in accordance with conformance to the aspects of the DWFDA 2015 with all participants in the fishery provided with information describing procedures related to the requirements of the CDS and associated tagging of fish. MOF/NFQS conducts a risk assessment across all distant water fisheries to identify priority areas requiring targeted compliance and

enforcement. This incorporates identifying the risks associated with the completion and submission of CDS documentation. MOF undertake internal analysis of CCSBT compliance requirements and this feeds into the compliance agencies to help them improve compliance requirements.

**3.14.3 MPR 2b: [Operating systems and processes established and implemented for verification, including] Reviewing and analysing information from CDS documents at least once every 6 months, including (i) checking the completeness of data on CDS forms and cross-checking the consistency of the data on CDS forms received with other sources of information; (ii) cross-checking data from the Executive Secretary's CDS six-monthly report; and (iii) analysing any discrepancies.**

**Summary** – MOF/NFQS have data checking and validation processes and systems in place, which are used to provide crosschecking of data before submission to CCSBT. The latest CCSBT compliance report has reported on Korea's high levels of compliance in terms of the completeness of data on CDS forms.

MOF and NFQS have data checking and validation processes and systems in place, which are used to provide cross-checking of data before submission to CCSBT. These systems are in place to identify discrepancies and where required these are addressed directly with the individuals/companies in question. With the exception of import documentation as previously mentioned in the report, the latest CCSBT compliance report provides further demonstration of completeness of data on CDS forms.

**3.14.4 MPR 2c: [Operating systems and processes established and implemented for verification, including] investigating any irregularities suspected or detected and (MPR 2d) taking action to resolve any irregularities.**

**Summary** – All suspected or detected irregularities are addressed through an iterative process with stakeholders whereby MOF/NFQS engage with the organisations involved to ascertain the source of the irregularities.

All irregularities are addressed by NFQS as required by MOF to identify an issue and then highlight this with the fisher and/or company involved. The forms in question are then sent back to the source for corrections to be made and signed. Any infringements reported by either the FMC or NFQS are assessed by MOF and investigated further if substantiated.

**3.14.5 MPR 2e: [Operating systems and processes established and implemented for verification, including] notifying the Executive Secretary and relevant Members/OSECs, of any consignments of SBT whose CDS documentation is considered doubtful, or incomplete or un-validated.**

**Summary** – MOF/NFQS have data checking, validation and audit processes and systems in place to identify potential or identified discrepancies. Where required these are reported to the CCSBT Executive Secretary.

Data checking, validation and audit processes and systems are in place to enable MOF to identify potential or identified discrepancies and subsequently report these to the CCSBT Executive Secretary. The completion of CDS documentation is a requirement enforced by NFQS and penalties

are in place associated with misreporting, which acts a deterrent to incomplete or incorrect reporting. Any infringements reported by either the FMC or NFQS are assessed by MOF and investigated further if substantiated.

**3.14.6 MPR 2f: [Operating systems and processes established and implemented for verification, including] notifying the Executive Secretary of any investigation into serious irregularities, in order to present these in an annual summary report to the Compliance Committee. Notifications should include reporting (i) the commencement of an investigation if doing so will not impede that investigation; (ii) progress, within 6 months of starting the investigation if doing so will not impede that investigation; and (iii) the final outcome within 3 months of completing the investigation.**

**Summary** – MOF/NFQS have data checking, validation and audit processes and systems in place to identify potential or identified discrepancies. Where required these are reported to the CCSBT Executive Secretary.

Data checking, validation and audit processes and systems are in place to enable MOF to identify potential or identified discrepancies. The completion of CDS documentation is a requirement enforced by MOF/FMC/NFQS and penalties are in place associated with misreporting, which act as a deterrent to incomplete or incorrect reporting. To date, no serious irregularities have been reported in the annual summary report and no formal reports of investigations undertaken.

**3.14.7 MPR 3: Ensure that no SBT is accepted (for landing of domestic product, export, import or re-export) without validated documentation attached.**

**Summary** – The latest CCSBT compliance report has documented Korea's high levels of compliance in terms of the completeness & accuracy of data on CDS forms. There is no evidence that suggests SBT is accepted without validation documentation and the newly re-organised agencies of MOF support a high level of compliance.

MOF has processes and systems in place to ensure that no SBT is accepted without the required CCSBT validated documentation. Soon the DWFDA will be amended to ensure that the relevant importation authorities are mandated to provide CDS documentation to the NFQS. As per CCSBT's latest compliance report Korea has exhibited high levels of compliance related to ensuring the correct complete CDS documentation is provided to CCSBT.

### 3.15 Transshipment (at sea) Monitoring Program 1 (CCSBT Obligation 3.3 (i) – (v))

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.

#### 3.15.1 MPR1a: [Operating systems and processes to ensure] The authorisation document(s) from the Coastal State Fishing Entity (where applicable) and/or Fishing State Entity, including details of the intended transshipment provided by the master or owner of the LSTLV, is/are available on the LSTLV prior to the transshipment occurring.

**Summary** – IOTC observers monitor all Korean at sea transshipments of SBT from longliners to carrier vessels, with port authorities responsible for monitoring in port transshipments. All transshipments have to be reported to the FMC 24 hours prior transshipment taking place to seek authorization. At sea, transshipment cannot take place without authorization and observation.

All transshipments have to be reported to the FMC 24 hours prior transshipment taking place to seek authorization. At sea, transshipments cannot take place without authorization and observation through RFMO transshipment observer programmes (e.g. IOTC observer programme<sup>18</sup>). Accurate records of transshipment dates, vessels, observer and quantities transhipped available within the FMS. Korea reports to both IOTC and CCSBT details of transshipments (at sea and in port) with the IOTC compliance and science reports demonstrating the data provided<sup>19,20</sup>.

#### 3.15.2 MPR1b: [Operating systems and processes to ensure] Any carrier vessel receiving the transhipped SBT is meeting its obligations to provide access and accommodation to observers, and to cooperate with the observer in relation to the performance of his or her duties (see Carrier Vessel Authorisation minimum performance requirements, section 2.3).

**Summary** – IOTC observers monitor all Korean at sea transshipments of SBT from longliners to carrier vessels – Korea ensures that IOTC staff have access to do their work and satisfactory accommodation.

<sup>18</sup>IOTC (2016) IOTC Regional Observer Programme to monitor transshipments at sea. Available at: <http://www.iotc.org/compliance/iotc-regional-observer-programme>, accessed 26 August 2016.

<sup>19</sup> IOTC (2016) IOTC Compliance Report for Korea. IOTC-2016-CoC13-CR14 Rev1 [E]

<sup>20</sup> IOTC (2015) Korea National Report to the Scientific Committee of the Indian Ocean Tuna Commission, 2015. IOTC-2015-SC18-NR14 Rev\_1 Available at: [http://www.iotc.org/sites/default/files/documents/2015/11/IOTC-2015-SC18-NR14\\_Rev\\_1\\_-\\_Rep\\_of\\_Korea.pdf](http://www.iotc.org/sites/default/files/documents/2015/11/IOTC-2015-SC18-NR14_Rev_1_-_Rep_of_Korea.pdf)

**3.15.3 MPR2a-d: [Rules in place to ensure] (a) all SBT transshipments receive prior authorisation; (b) fishing vessels are authorised on the CCSBT authorised fishing vessel register on the date(s) the SBT are harvested, retained on board, transhipped and landed; (C) Carrier vessels are authorised on the CCSBT authorised carrier vessel register on the date(s) any transshipments occur; (d) a named CCSBT observer is on board the Carrier Vessel; and (e) no SBT transshipment occurs without an observer onboard except in the case of ‘force majeure’ (as notified to the Executive Secretary).**

**Summary** – All transshipments have to be reported to the FMC 24 hours prior transshipment taking place to seek authorization. All Korean carrier vessels are registered and authorized on the CCSBT authorized list. All at-sea transshipments are monitored by regional RFMO observers.

It is a legal requirement to seek authorisation prior to transshipment with reports submitted to the FMC 24 hours prior to the transshipment taking place. All carrier and longline vessels authorised to transship SBT are recorded on the FMS and submitted to the respective RFMOs such as CCSBT and IOTC. All at sea, transshipments are observed by a RFMO observer with observer reports submitted to the respective RFMOs as well as Korea.

**3.15.4 MPR2f: [Rules in place to ensure] Transshipment declarations are completed, signed and transmitted by the fishing vessel and the carrier vessel, in accordance with paragraphs 15-148 of the Transshipment Resolution, in particular that i) the LSTLV shall transmit its CCSBT Registration Number and a completed CCSBT Transshipment Declaration to its flag State / Fishing Entity, not later than 15 days after the transshipment.**

**Summary** – All Korean SBT transshipments from longliners to carrier vessels are required to be report in all transshipments within 24 hours. This is stipulated in section 14 of the DWFDA 2015.

**3.15.5 MPR3a, b: [Operating systems and processes to] Issue transshipment authorisations and verify the date and location of transshipments.**

**Summary** – NFQS and FMC officers verify all SBT transshipments from longliners to carrier vessels to ensure that they are accurate. Records of activities maintained in FMS.

**3.15.6 MPR3c-f: [Operating systems and processes to] Request placement of observers on board Carrier Vessels; notify any cases of ‘force majeure’ (where transshipment occurs without an observer on the Carrier Vessel) to the Executive secretary within 15 days of the event occurring; ensure observers can board the LSTLV (provided it is safe to do so) before transshipment takes place, and have access to personnel and areas necessary to monitor compliance with paragraph 6(a) of Annex 2 of the Transshipment Resolution; enable observers to report any concerns about inaccurate documentation or obstruction, intimidation, or influence in relation to carrying out their duties.**

**Summary** – IOTC observers monitor all Korean at sea transshipments of SBT from longliners to carrier vessels. IOTC reports any infringements to MOF. No reported incidents in relation to CDS requirements have been reported.

IOTC-2016-CoC13-CR14\_Rev1E-Korea notes that there were 10 possible infractions from IOTC transshipments which were all responded to by Korea<sup>19</sup>. The review team did not identify any reported incidences related to CCSBT CDS requirements.

**3.15.7 MPR3g, h: [Operating systems and processes to] monitor compliance with the control measures; and imposes sanctions or corrective action programmes for any non-compliance detected.**

**Summary** – Korea’s newly re-organized MOF provides a robust system in place to monitor compliance and has an effective system in place for addressing compliance issues. Within the review period associated with this report there were no compliance issues reported to MOF by NFQS or the FMC regarding the SBT fishery.

**3.16 Transshipment (at sea) Monitoring Program 2 (CCSBT Obligation 3.3 (vi))**

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.

**3.16.1 MPR1: Operating systems and processes are in place to (a) provide a list of designated foreign ports where SBT transshipments are permitted to occur to the Executive Secretary on an annual basis before the annual meeting of the Compliance Committee.**

**Summary** – Korea supplies the secretariat with a list of ports, which carrier vessels use to transship SBT.

**3.17 Transshipment (at sea) Monitoring Program 3 (CCSBT Obligation 3.3 (vii - x))**

**3.17.1 MPR1: Rules, systems and procedure to ensure (a) Port State authorities are notified at least 48 hours prior to (or immediately after) any pending in-port transshipment by the LSTLV master, and this notification includes key details about the intended transshipment; (b) LSTLVs are authorised on the CCSBT authorised fishing vessel register on the date(s) the SBT are harvested, retained on board, transhipped and/or landed; (c) Carrier Vessels are authorised on the CCSBT authorised Carrier Vessel register on the date(s) any transshipment/ transportation of SBT occurs; (d) transshipment declarations are completed, signed and transmitted by the LSTLV and the Carrier Vessel, in accordance with paragraphs 25 and 28 of the Transshipment Resolution, in particular that: i) The LSTLV transmits a completed CCSBT Transshipment Declaration and its number in the CCSBT Record of Fishing Vessels to its Flag State / Fishing Entity, not later than 15 days after the transshipment occurs, or, if the SBT are being transferred temporarily to bonded cold storage, not later than 15 days from the date on which the SBT is transferred into the bonded cold storage facility.**

**Summary** – IOTC observers monitor all Korean SBT transshipments from longliners to carrier vessels to comply with Port State measures and the CCSBT transshipment resolution and declaration.

Korean vessels (carrier and longline) are recorded on CCSBT authorized vessels list as well as applicable RFMO authorized vessel lists such as IOTC<sup>21</sup>. All at-sea transshipments are observed by an authorized RFMO observer who countersign the CCSBT CDS CMF document and observer whether a

<sup>21</sup> IOTC (2016) Record of Currently Authorized Vessels. Available at; <http://www.iotc.org/vessels/current?type=record> [accessed 26<sup>th</sup> August 2016]

CTF form is present. The latest CCSBT and IOTC compliance reports noted that some reports were submitted late, but despite this the compliance reports reported that Korea was compliant with transshipment requirements with all vessels authorized at the time of transshipment and transshipment declarations received for all at-sea and port transshipments<sup>16,19</sup>. The reported transshipments and observers are listed in Table 13 showing that transshipments associated with SBT IN 2014 were conducted both in port (No observer) and at sea (Observer present).

**Table 12 Transshipments completed by Korea in 2014**

Transshipment Date	LSTV	carrier vessel	Weight(kg)	Location		Name of Observer
			G-G	In-port Transshipment	At-Sea Transshipment	(at-sea Transshipment)
2014. 6. 7	Oryong 353	Tuna Queen	8,026		S32-59 E104-01	Barrie Rose
2014. 7. 4	Oryong 353	Victoria	2,232		S29-12 E103-32	Carla Soler Carreras
2014. 7. 30	Oryong 355	Shin Fuji	113,000	Cape Town		
2014. 8. 2	Oryong 373	Shin Fuji	106,600	Cape Town		
2014. 11. 1	Oryong 801	Genta Maru	61,369		S26-50 E39-30	Sihle Victor
2014. 7. 7	Dongwon 638	Victoria	9,085		S28-26 E95-22	Carla Soler Carreras
2014. 7. 25	Dongwon 639	Victoria	119,854.0	CAPE TOWN		
2014. 7. 15	216 Dongwon	CHITOSE	78,781.0	Port Louis		
2014. 7. 15	KOVA	CHITOSE	73,417.0	Port Louis		

**3.17.2 MPR2: Operating systems and processes in place to (a) verify the date and location of transshipments; (b) monitor compliance with the control measures, and (c) impose sanctions or corrective action programmes for any non-compliance detected.**

**Summary** – IOTC observers monitor all Korean at-sea transshipments of SBT from longliners to carrier vessels. Korea has a robust system in place to monitor compliance and has an effective system in place for addressing compliance issues. At Port transshipments fall under the jurisdiction of the Port State and the type of monitoring may vary. Korea operates a robust VMS and IUU monitoring system that can identify risk where VMS irregularities arise, vessel authorization issues or pre-transshipment reporting requirements are not met. These are then supported by Port State Authority communications and cross referncing logbook, CDS transshipment forms for detection of non-compliance.

As outlined in Section 3.17.1 the data and location of all at-sea and port transshipments are recorded with at-sea transshipments observed by RFMO observers, whilst port transshipments are monitored by the respective port authorities.



### 3.18 Transshipment (at sea) Monitoring Program 3 (CCSBT Obligation 3.3 (xi - xiv))

**3.18.1 [Operating systems and processes and rules to ensure that LSTLVs are only to be authorised to conduct transshipments if:]** a) The LSTLV already has an operational VMS installed, or the LSTLV undertakes to install an operational VMS before any authorisation/transshipments of SBT take place, and b) The VMS transmits at frequency sufficient to show transshipping operations, and c) The VMS will function effectively in the expected operating conditions.

**Summary** –All LSTLVs have VMS installed and with a specification sufficient to allow FMC monitoring activity- sufficient for them ‘to see’ the vessel and carrier. Malfunction must be reported. Suspect VMS is followed up with direct instruction to the vessel by FMC.

**3.18.2 [Operating systems and processes are in place to:]** (a) identify and resolve any discrepancies between the LSTLV’s reported catches, CDS documents, transshipment declarations and the amount of fish counted as transhipped, b. 100% supervision of all fish transhipped at sea.

**Summary** – Korea has a robust system in place to identify and resolve any discrepancies. RFMO observers monitor all Korean at-sea transshipments of SBT from longliners to carrier vessels.

- FMC monitors VMS activity and transshipment authorisation
- IOTC
- NFQS manages CDS transshipment validation and conducts verification checks
- IOTC observers present on 100% of transshipments at sea.

**3.18.3 [Operating systems and processes are in place to:]** 2. Operating systems and processes are in place to allow any CDS forms for domestically landed SBT that were transhipped at sea to be validated at the time of landing.

**Summary** – Korea has a robust system in place to monitor compliance and has an effective system in place for ensuring landing documentation can be validated at the time of landing. NFQS undertake this function and supported by FMC, NIFS, and the FMS database.

**3.18.4 Rules, systems and procedures to ensure:** a. all transhipped product is accompanied by a signed Transshipment Declaration until the first point of sale.

**Summary** – Korea has a robust system in place to monitor compliance and has an effective system in place for ensuring full traceability of Korean SBT until the first point of sale.

### 3.19 Annual Reporting to the Compliance Committee (CCSBT Obligation 6.5)

The aim of this obligation is to ensure that Members have processes in place to ensure information and reports are submitted to the CCSBT in a timely fashion.



**3.19.1 MPR1: Submit information and report electronically to Executive Secretary at least 4 weeks before the annual Compliance Committee meeting.**

**Summary** – Korean authorities provide the required compliance committee information electronically to the Executive Secretary in accordance with the reporting requirements. Typically, Korea submits a report to the Secretariat by the end of August.

There have been no incidences identified where the Korean authorities did not provide this information to the CCSBT Secretariat within the required timeframe. The latest CCSBT compliance report records Korea having provided all the member reports in 2014 as required and that these reports included all the information required by templates.

**3.19.2 MPR 2: The report for the previous calendar year must (a) include the quantities of SBT transhipped; (b) list the LSTLVs on the CCSBT Authorised Vessel List that transhipped; (c) analyse the observers reports received including assessing the content and conclusions of the reports of observers assigned to carrier vessels.**

**Summary** – Korean authorities provide the required compliance committee information electronically to the Executive Secretary in accordance with the reporting requirements of MPR 2.

## 4 Phase 2 Member site visit

The objectives of the Member site visit were to verify the extent that systems and processes described in documentation and records provided in Phase 1 and the Phase 1 extension are fully implemented and consistent with the procedure described by the Member. The objective of the site visit was to verify the effectiveness of the processes and activities in ensuring that Members meet their obligations specific to the MPR's covered by the scope of the QAR.

Consultation meetings were planned in conjunction with Mr Kim and Ms. Zee Kim based on the availability of key management personnel and availability of industry representatives to enable a site visit to observe processes under the scope of the Member's QAR. The site visits were not designed to be inclusive of all organizations and representatives of the fishery and CCSBT MPR requirements allow direct consultation with industry members only with agreement of the Management Authority. The consultation plan was designed to strategically capture sufficient information and observe member processes to allow for verification of information reviewed and presented during the Phase 1 review with the objective of determining to what extent Member's meet their obligations specific to the MPR's covered.

All consultation meetings were conducted by Mr. Giles Bartlett and Mr. Thomas Hong.

### **Overview of Meeting Plan:**

Consultation meetings were held on dates between the 9<sup>th</sup> to the May and 13<sup>th</sup> May 2016, in Busan and Seoul, Korea.

Table 13 Schedule of Site visit Meetings

Date	Attendees	Itinerary
09/05 (Busan)	Mr. Seongho Kim (MOF) Ms. Jihyun Kim (KOFCA)	Initial meeting with MOF Outlining scope, objectives and purpose of CCSBT QAR's Fishery management review Systems and processes overview Review of phase 1 information Update on SBT specific management system developments since the phase 1 audit
09/05 (Busan)	Mr. Tae-hi Lee (FMC) Ms. Suyeon Kim (FMC) Mr. Seongho Kim (MOF) Ms. Jihyun Kim (KOFCA)	Visit to the FMC Sighting of FMC systems and processes in place for SBT fleet management / compliance (VMS & e-logbook) Review of registry databases as managed by MOF/FMC and associated systems. Review of MOF/FMC involvement with VMS/e-logbook recording/ reporting Sighting of FMC validation and reporting processes. Overview of FMC compliance processes associated with SBT Outline of MOF/FMC/NFQS risk based framework systems and implementation of compliance inspections associated with CCSBT Reporting and follow up processes for identified risks.
09/05 (Busan)	Mr. Bang Gun(Sajo Industries, Tuna Unit) Mr. Seongho Kim (MOF) Ms. Jihyun Kim(KOFCA)	Site visit to SAJO industries To observe tuna processing To discuss CDS processes from an SBT processors/merchants perspective To view CDS documentation To observe SBT in storage with tags attached
10/05 (Busan)	Dr. Du Hae An, 원양자원과장님 (NIFSS) Dr. Seong il (NIFSS) Dr Sung il Mr. Seongho Kim (MOF) Ms. Jihyun Kim (KOFCA)	Visit to the NIFSS Observer programme Overview of fishing data collection and management Systems and processes overview – including training and briefing Integration of CCSBT requirements within observer programme To see integration with the other departments
10/05 (Busan)	Ms. Bomi Kim (NFQS) Mr. Ji Jeong Hoon Mr. Joo Doo Man,	Visit to the NFQS Systems and processes review of roles and responsibilities for CCSBT CDS related reporting. Review of other organisations involvement with CDS recording/ reporting e.g. customs & food agency

	Mr. Jo Jong Hak	Internal audit/review and validation mechanisms External reporting
11/05 (Seoul)	Mr. Ilkang Na (KOFA) Mr. Hojeong Jin (KOFA) Ms. Boram Jo (Dongwon Industries) Mr. Junsoo Song (Sajo Industries) Mr. Kim Kun Tek (Dongwon Fisheries) Mr. Seongho Kim (MOF) Ms. Jihyun Kim (KOFCA)	Visit to the KOFA Implementation and administration of the CCSBT tagging scheme Implementation of SBT processes onboard vessels Industry perspectives on SBT management Discussion with SBT processors/merchants representative to review the implementation of SBT processes onboard vessels Discuss with SBT processors/merchants regarding CDS process and role/responsibilities
11/05 (Seoul)	Mr. Seongho Kim (MOF) Ms. Jihyun Kim (KOFCA)	Review meeting with MOF Outline of MOF risk based framework systems and implementation of compliance inspections associated with CCSBT. Reporting and follow up processes for identified risks. Review of previous meetings Review of information and requirements Plan of action for reporting
11/05	Mr. Kim Seong Ho (MOF) Ms. Jihyun Kim (KOFCA) MOF summary review meeting	Discussion with Licensed Fish Receiver (SBT PROCESSORS/MERCHANTS ) representative to review the implementation of SBT processes onboard vessels Discuss with SBT PROCESSORS/MERCHANTS regarding CDS process, validator training and role/responsibilities Discussion around engagement and interaction of SBT PROCESSORS/MERCHANTS s with fishers and MOF/FMC/NFQS regarding CCSBT processes.

#### 4.1 Fishery management review

The Member's fisheries management system is supported by well-developed legislation (most significantly, DWFDA Revision 2015) and regulatory provisions under the control of MOF and its agencies. These relate to catch limit and allocation, reporting, observer services, and include management requirements specific to CCSBT (including implementation of MPRs). MOF and related agencies (FMC/NFQS) role as the fisheries management agency is extremely broad, although most responsibilities relating to MPRs are spread between MOF, the FMC, NFQS and the NIFSS.

Korea's fisheries management agencies communicate with industry and fishers in several ways. First, fishers are able to contact fishery managers directly by letter, phone or email throughout the year. Second, there are regular meetings held per year for distant water fishers and industry in Seoul. These meetings cover issues of particular interest and relevance for the fishery and are also a forum for fishers to engage with managers on any other matters relevant to the fishery. In addition, letters are sent annually to license holders and stakeholders documenting updates to requirements for SBT fisheries. MOF/FMC/NFQS/NIFSS also operates extensive consultation processes with all stakeholders, and including fishers and industry, relating to significant fishery management events, e.g. changes in reporting requirements, TACs, and CCSBT regulations.

During the site visit, it was apparent that Korea continues with significant re-organisation of its fishery management and developments in data monitoring and capture, roles and responsibilities and integration of these functions within the FMS. The review team identified and recorded changes in the management system organization to that reported in QAR Phase 1 in 2013. MOF was newly formed in 2013 and has devolved validation responsibilities to the NFQS and other MPR compliance functions sit with FMC, which was formed in 2014, and NIFSS. Figure 7 provides a schematic of the relationships between the different entities responsible for fisheries management within Korea. Phase 1 of this review is up-dated to include these changes to ensure the QAR is consistent with Korea's SBT management system as it is organized today. The site visit provided verification of good consistency in compliance with CCSBT MPR's.

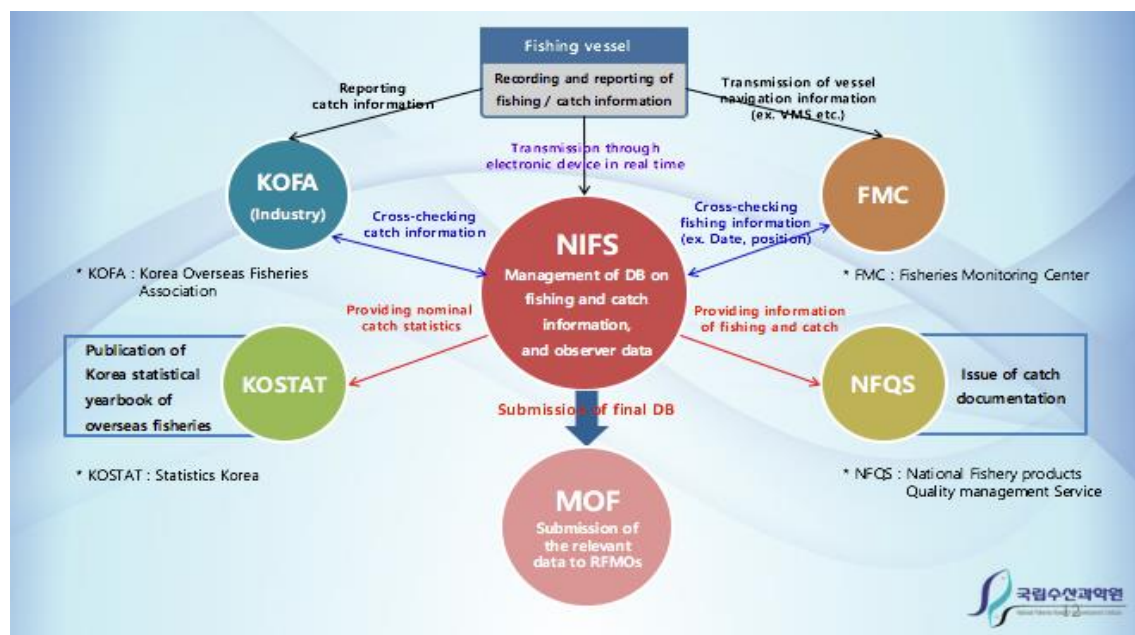


Figure 7 Schematic of data collection systems and responsibilities of the various agencies

#### 4.2 Data management

During the phase two site visit, MOF/FMC/NFQS/NIFSS presented the systems that are in place which relate to the management of SBT. Documentation identified in the phase 1 report was up-

dated with explanations/demonstrations provided as to the processes and systems used under the various new structures. Many of the individual data management processes are similar to that previously reported, although now strengthened by the DWFDA Act and by what appears to be a more integrated data management framework, described as the FMS and managed by FMC. It is likely to provide for improved verification of SBT documentation, both that required by Korea as part of all distant water fisheries and that specific to CCSBT CDS and related MPR's.

Subsequent reporting processes to CCSBT were also demonstrated and were reinforced during the review meeting at the end of the visit and on follow up conference calls during the report drafting process. Figure 8 and Figure 9 provides an overview of the FMC that was developed since the phase 1 report, showing the data that is received by the vessels and the subsequent storage and reporting to relevant authorities. Figure 9 also shows the data linkages between the centralized FMC and the government fisheries management authorities and the web service provided by the FMC that is available to KOFA. The FMC handles a broad range of SBT related information and shares information with the related MOF agencies, fishing vessels and RFMO as shown by the relationships between the FMC database and the associated government fisheries management authorities and the flow of information between the databases/authorities (see Figure 10).

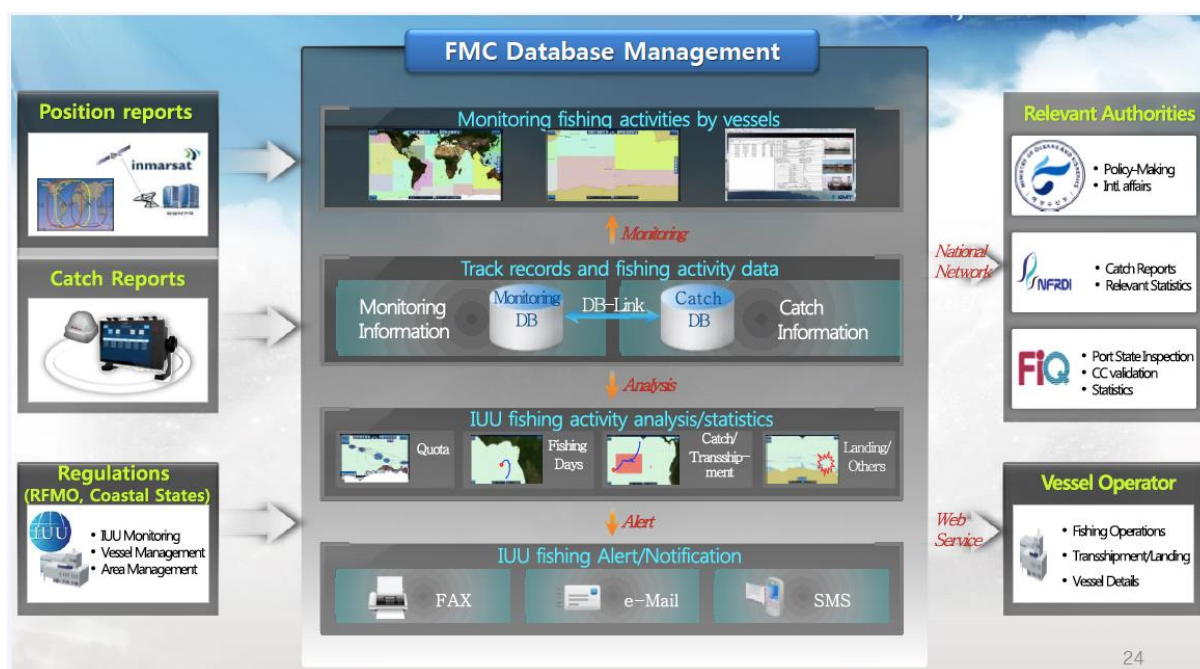


Figure 8 Schematics of FMC Data Base Management

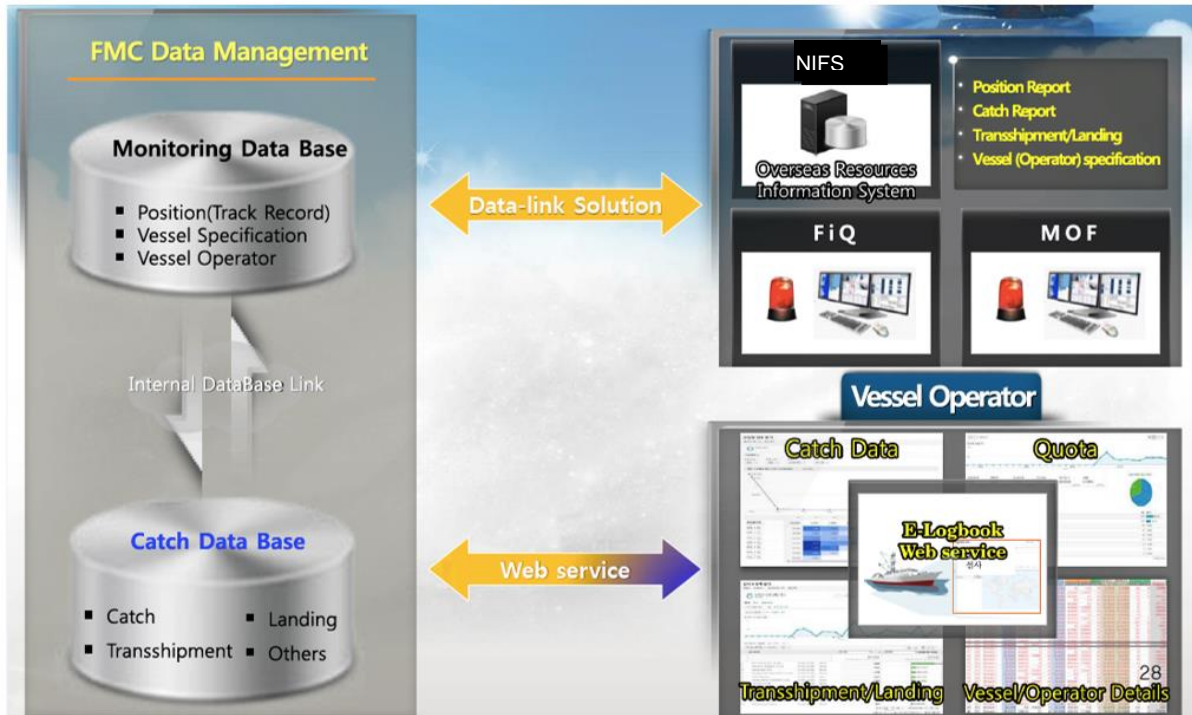


Figure 9 Schematics of FMC Data Base Integration

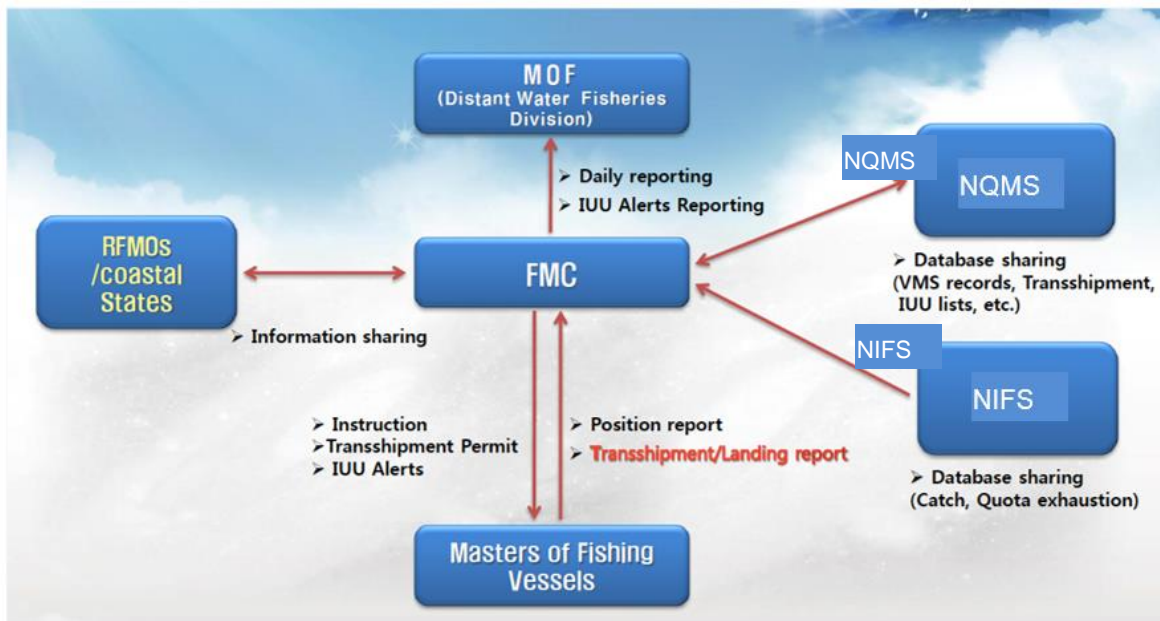


Figure 10 Database Information Sharing under FMC

### 4.3 Validation systems

The phase 2 site visit demonstrated that on the whole data checking and validation processes in place and for CDS mostly, the responsibility of NFQS. NFQS does not operate in isolation and the site visit identified that data sharing within the MOF agencies is apparent and supports NFQS validation and verification duties. MCS is conducted by the FMC, which conducts risk analysis and manages all data through FMS, as it encompasses both a vessel monitoring system database and electronic monitoring system database. The FMC database also includes information on all the vessels' license information, registration, specifications and photographs.



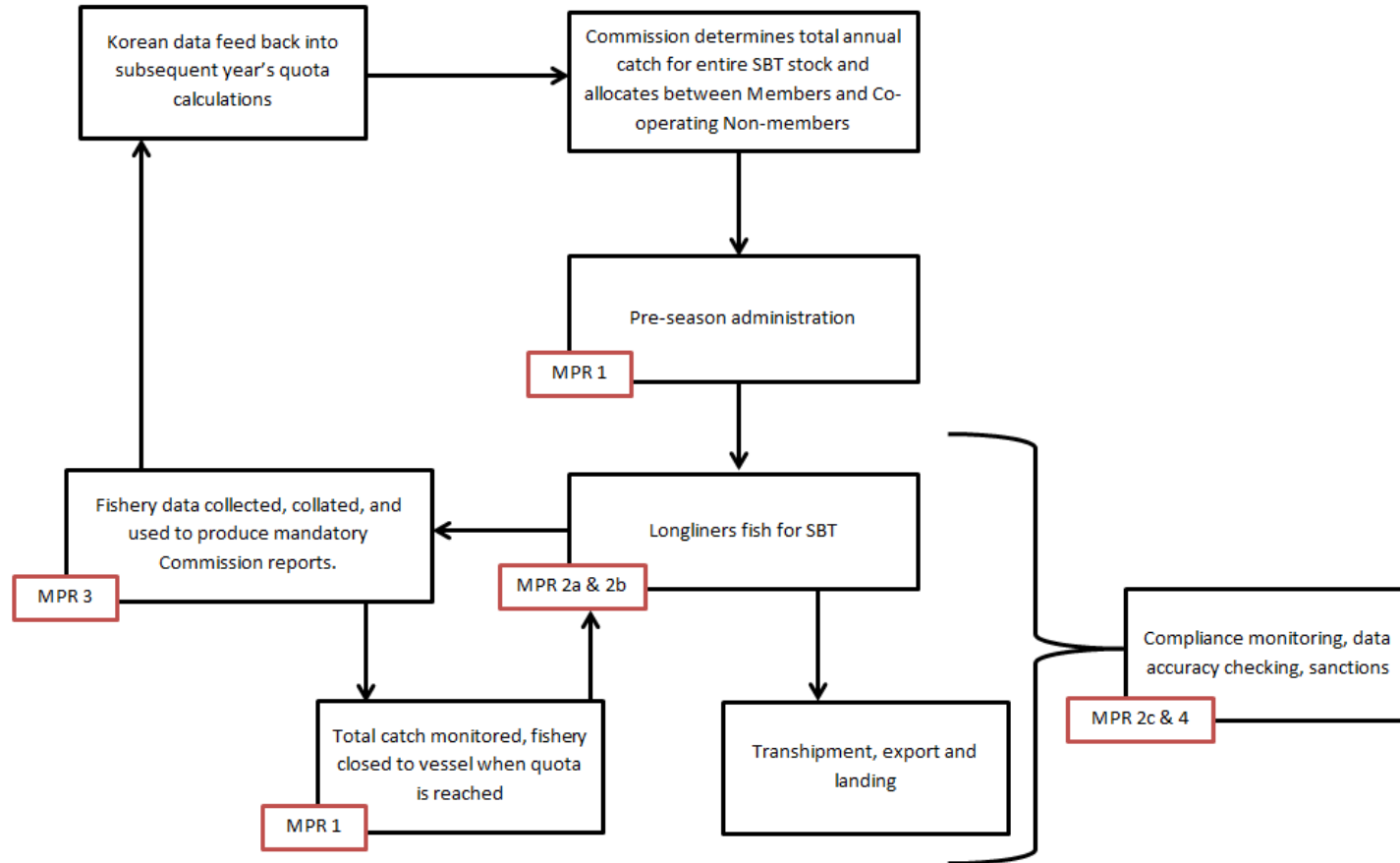
The phase 2 site visit identified a comprehensive system using VMS and support information (vessel registers etc.) and whilst at sea inspection is not undertaken, MOF were aware of possible weaknesses and undertook real-time monitoring and presented plans for further development of remote monitoring capability. MOF provided a description of the improvements in vessel monitoring, data management and cross checking, summarized in Figure 11. The greatest improvements can be seen in data capture, real time acquisition, ease of access (by a number of agencies) and hence, facilitating verification, cross checking and ultimately, compliance with TAC allocated catches and prevention of Illegal, unreported and unregulated (IUU).



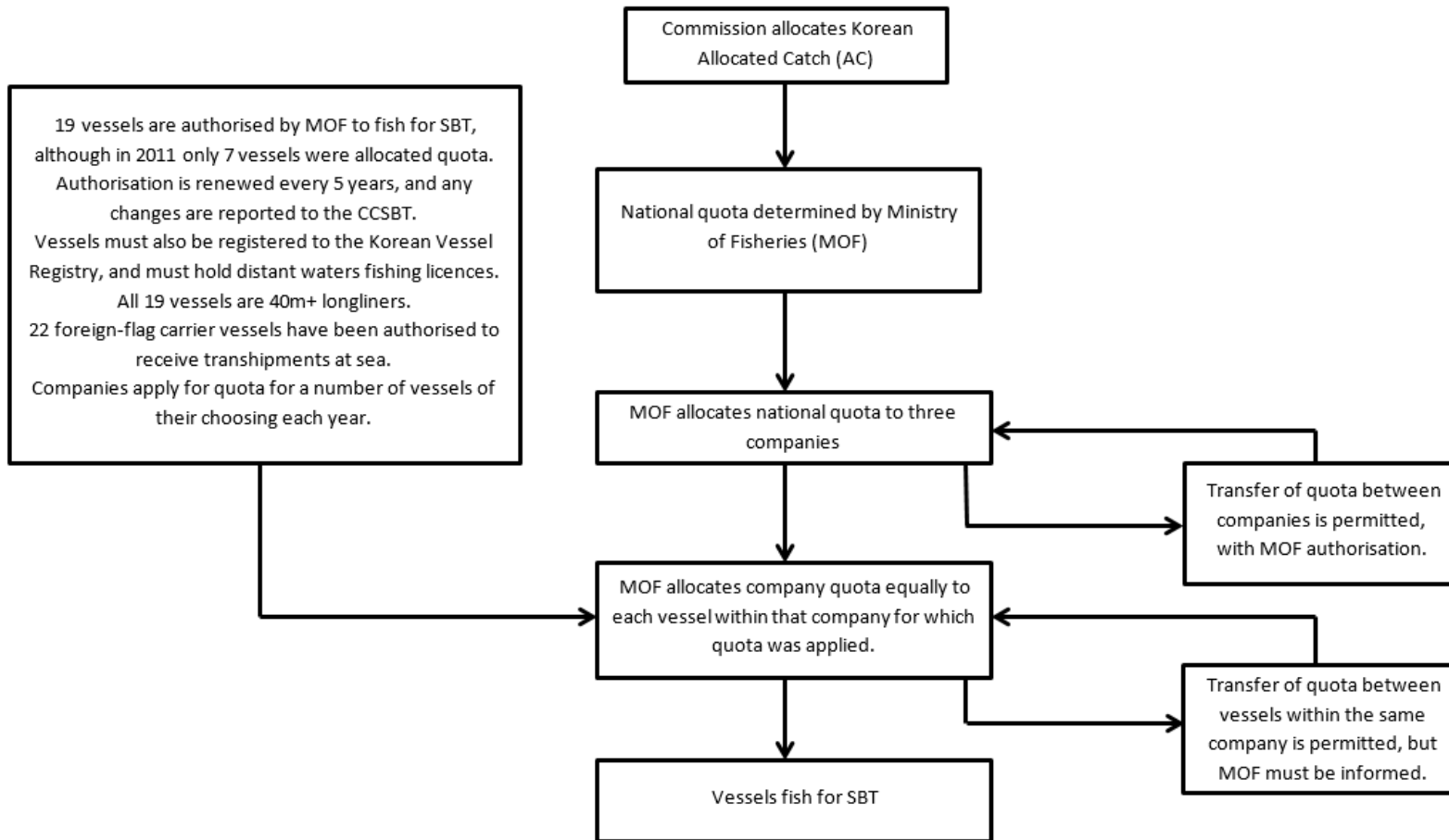
Figure 11 Schematic of Improvements provided by MOF FMC Establishment



### 5 Phase 1 Member Process Flow Maps- Phase 1

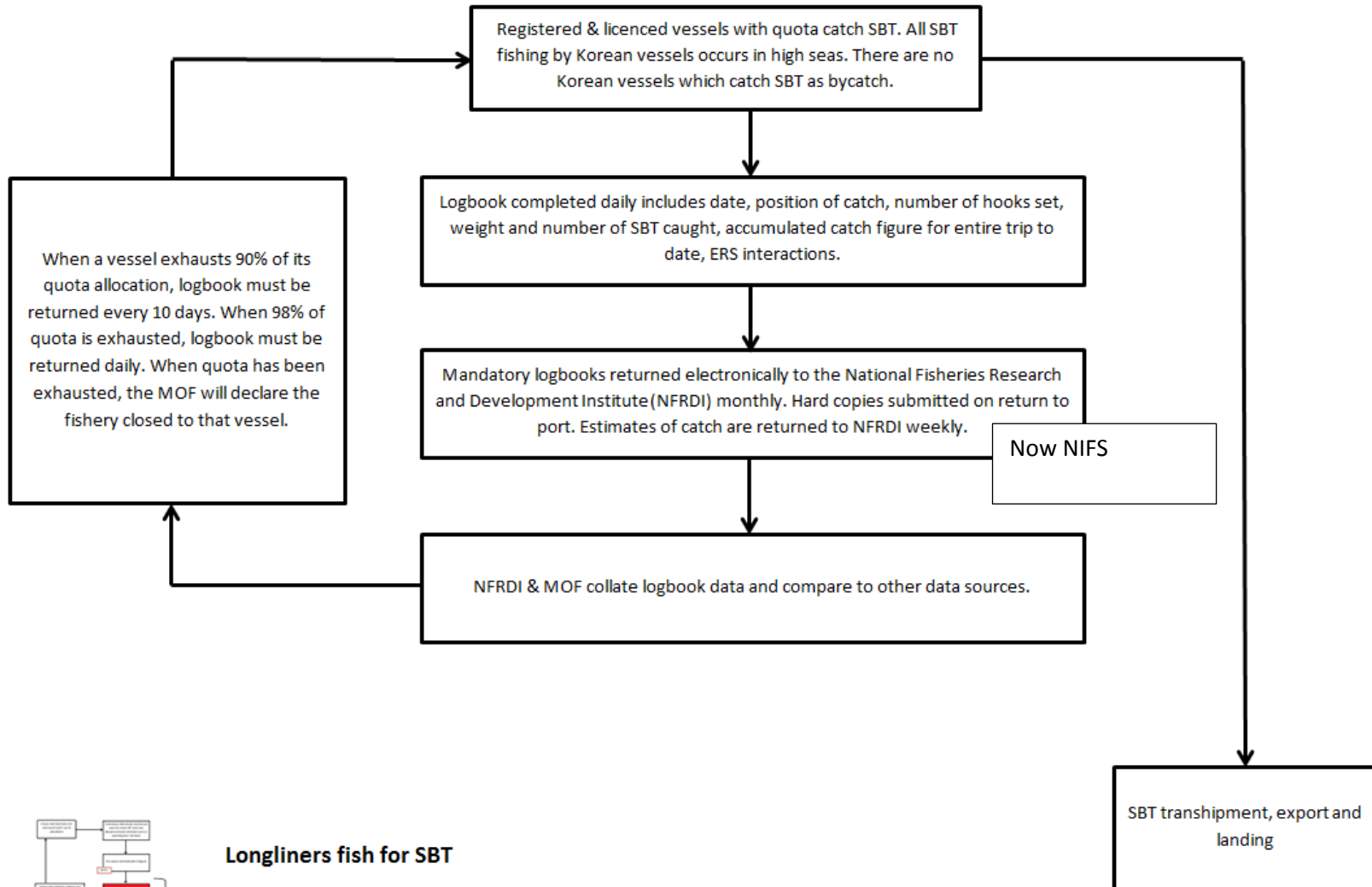


OVERVIEW

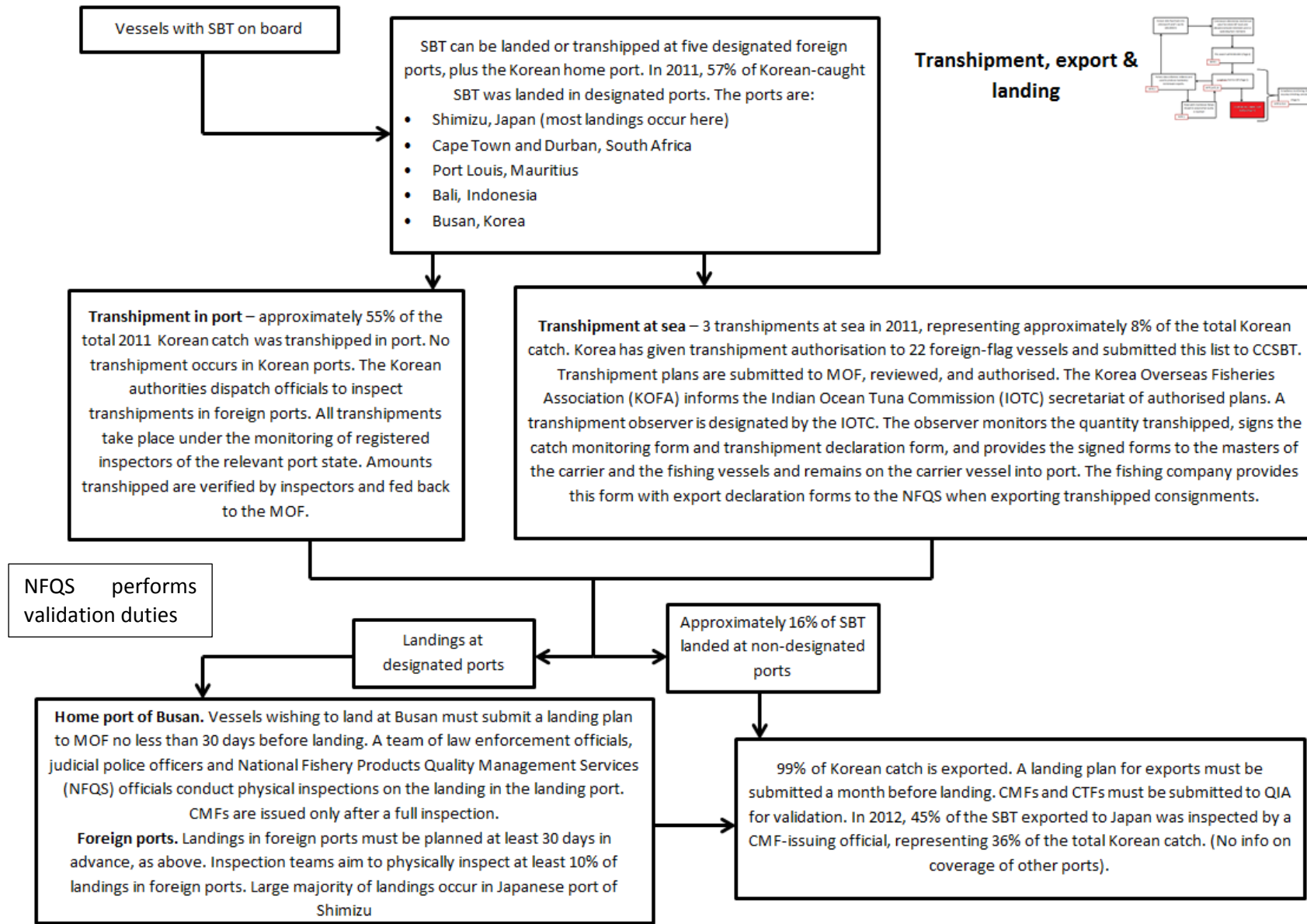


**Pre-season administration**

**MPR 1**



**Longliners fish for SBT**  
**MPR 2a & 2b**



## 6 Management System Effectiveness

Phase 2 audit has demonstrated that Korea's SBT fisheries management systems are largely effective at meeting CCSBT minimum performance requirements. Utilising information provided by the member state during the site visit consultation as well as information provided by a review of the available documentation has allowed the main strengths to be confirmed and up-dates from Phase 1 and some weaknesses/threats and opportunities to be identified. This analysis presented in the original Phase 1 QAR (SWOT) has been up-dated with this information.

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

- **Recently updated fisheries legislation;** Korea's SBT fishery is managed in accordance with the Korea's *Distant Water Fisheries Act (2015)*. This act was upgraded in 2015 and has provided increased clarity around the management of the fishery.
- **Strong fisheries management regulatory system;** Korea has made a significant investment in organisational capacity to manage and monitor distant water fisheries, operating in accordance with Korea's fisheries legislation to achieve this.
- **Established mandatory reporting and cross checking;** Mandatory reporting is in place in accordance with CCSBT MPR requirements. There has been recent significant investment made in technology and other infrastructure related to the VMS, real time monitoring, e-logbook and FMC database development and inter-agency data sharing.
- **Fishery sanctions;** An effective regulatory system and range of fines and sanctions for violations are established within Korea's SBT fishery to provide a deterrent for misreporting.

Korea's SBT management framework can be described as robust and appropriate for implementation of the SBT MPR requirements of CCSBT. However, through the course of the QAR Phase 2 activity, a number of weaknesses were also identified.

- **CDS documentation;** in 2014 there was a batch of missing REEFs although this had already been identified and it is acknowledged that corrective measures are underway, further actions are planned by MOF in connection with these improvements (refer to Recommendations).
- **At-sea inspections;** the lack of either at sea inspections or currently, an operational remote monitoring system (in light of reduced observer coverage in 2015) could be a weakness that lead to a compliance risk or undermine other reporting requirements. A reduction in at sea observation (7%) in 2014/15 may also compound this, although the latter is not strictly an enforcement component of management. MOF have communicated plans to introduce remote monitoring via a closed circuit camera system (refer to Recommendations).
- **Monitoring of SBT;** Korea's observer coverage did not meet the 10% required by CCSBT in 2014/15 fishery (due to fishery operational/geographical events). The level of coverage onboard the domestic vessels combined with the fact there were no at-sea inspections means there cannot be increased risks in levels of certainty (due to lack of direct verification) in data such as reporting of discards. E-log book requirements now include data fields for discard quantity since 2015 and whilst under trial in the 2014/15 fishery, it is interesting to note that Korea reported 4,959 non retained SBT in that period compared to 183 in 2013<sup>22</sup>.

<sup>22</sup> CCSBT-CC/1510/SBT Fisheries - Korea

- **Misidentification of imports;** Customs or Food Agency officers do not receive training in the identification of tuna species (or other seafood products) potentially, presenting a risk that SBT could be mis-identified at import. MOF have identified improvement activities and also confirm work on DNA analysis of imports.

The weaknesses identified by the QAR have been used to determine potential risks associated with the New Zealand SBT fishery in Table c. The key risks identified by the QAR are;

- **Misidentification of imports;** associated with the missing REEFs and CMFs as reported in the most recent CCSBT compliance reports.
- **High grading/discarding;** given the high value of the species within the commercial fishery there is the potential for high grading/discarding

**Table 14 Strengths, weaknesses, opportunities and risks (threats) (SWOT) analysis conducted for Korea's systems determining compliancy to CCSBT Minimum Performance requirements (MPR's)**

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

Obligation	MPR	Strengths
1.1 (i)	1	Legal requirement that TAC be set in line with CCSBT AC. Reported landings have been below CCSBT AC in the years examined by this review (2010-2015). Requirement for vessels to be authorised- active list maintained. DWDFA revision 2015- strengthens SBT management and is consistent with CCSBT MPR
	2a (i)	Government allocates quota at the company and vessel levels. Restricted ability for additional capacity to enter the fishery. Capacity is modulated each year by companies, based on economic considerations. 5% TAC held in reserve limits the chance of over-catch.
	2a (ii)	Mandatory logbooks record catch and discard data on a daily basis. Quota-dependent catch reporting frequency – daily monitoring of vessels close to quota limit. FMS up-grades information management and database capabilities of MOF
	2a (iii)	All vessels legally required to report total catch weekly, via owning company.
	2b	Commercial retained and discarded catch mandatorily recorded in daily logbooks. No other reported sources of SBT mortality. Landing declaration forms provide additional validation of total catch weight.
	2c (i)	Weekly catch reports, logbooks, and transshipment and landings paperwork are all compared to ensure consistency. CCSBT CDS documentation fully implemented. Regional observers monitor at-sea transshipments and port transshipments (Japan) monitored by port authorities. VMS also mandatory for vessels.

	2c(ii)	This MPR is not applicable to Korea.
	3	All relevant data are reported to CCSBT on the necessary timescales.
	4	All domestic landings and approximately 30% of foreign landings inspected/or observed (Japan) by Korean officials in 2014/15. The DWDFDA provides for sanctions including; catch and/or gear retention, fines and imprisonment for violations of the requirements.
1.1 (iii)	1a – 1b	Carry forward implemented in 2014 and effective.
2.3		List of authorised carrier vessels maintained. Carriers must have operational VMS.
3.1 (i-v)	1a – 1b	Pre-season documentation provided to participants of the fishery outlining their reporting obligations. Biannual meetings held that provide opportunities to discuss changes to reporting obligations.
	1c	Systems established and effective.
	1d	This MPR is not applicable as Korea does not farm SBT.
	1e	Korea is compliant with the requirements of this MPR, with registries in place to keep a record of authorised validators.
	2	No exemptions were noted by the review team.
	3	Uniquely numbered documentation is provided by MOF.
3.1 (vi)	1	All at sea transshipments are observed by regional RFMO observers and in port transshipment (Japan) are monitored by port authorities.
	2	Korea DWFD Act makes it an offense for vessels to fish without authorization.
3.1 (vii–ix)	1-3	No modifications to CDS have been proposed by Korea.
3.1 (x-xii)	1(a) – 1(e)	Operating systems and processes are in place to issue CCSBT tags and ensure stakeholders are aware of their obligations. Tags are compliant with CCSBT specification Industry receives instruction on tagging requirements
3.1 (xiii – xviii)	1 - 2	Tagging database maintained to identify the use of unauthorised tags and the presence of duplicate tag numbers. A risk based compliance approach in place using cross-checking of data from FMC and inter-agency cooperation.
3.1 (xix-xxi)	1a – 1f & 2	Electronic authorised validator lists are maintained by MOF with unique identifier numbers for each validator. Validators are NFQS Directors and complete mandatory training to become authorised CDS validators.
3.1 (xxii – xxv)	1a -1d & 2a – 2b	Operating systems and processes are in place to monitor compliance with legal instruments to allow sanctions to be imposed upon transgressions under DWFDA No issues of non-compliance reported in 2015 fishery. FMC directly responsible for SBT vessel monitoring and supported by NFQS, NIFSS, MOF providing good framework to identify compliance issues and undertake enforcement duties.
3.1 (xxvi)	1	CCSBT requirements are met and records are stored in excess of CCSBT timeframes and in line with national requirements.
3.1 (xxvii-xxviii)	1 - 2	Established processes for reporting and storage of CDS documents. Korea provides CCSBT CDS documents to CCSBT within the required timeframes (quarterly).
3.1 (xxix –	1, 2a –	Risk-based compliance monitoring in place

xxxi)	2f & 3	Validation is clearly an identified and assigned function (named Directors) and verification is undertaken by other staff at NFQS.
3.3 (i-v)	1a	At sea, transshipment cannot take place without authorization and observation. Korea ensures that IOTC staff have access to do their work and satisfactory accommodation. It is a legal requirement to seek authorisation prior to transshipment Korea supplies the CCSBT Secretariat with a list of ports, which carrier vessels use to tranship SBT.
6.5	1 & 2	Established reporting processes, with no incidences reported of Korea not providing the required information within the specified timeframes.



**b) Weaknesses/threats associated with Korea's SBT fishery and associated management in relation to CCSBT's MPRs**

Obligation	MPR	Weaknesses
1.1 (i)	1	None identified as specific to this MPR.
	2a (i)	None identified as specific to this MPR.
	2a (ii)	10% observer coverage is the standard target for CCSBT Members. This can be higher but in 2015 fell to 7.0%.
	2a (iii)	None identified as specific to this MPR.
	2b	Discard weights and sizes measures done by vessel in most instances but observer data verification confirms that there is little discrepancy between observed and unobserved.
	2c (i)	No at-sea inspections or operational remote monitoring (refer to Recommendations) although VMS systems implemented allowing FMC to direct vessels remotely.
	2c(ii)	This MPR is not applicable to Korea.
	3	None identified as specific to this MPR.
	4	No at-sea inspections, although MOF advises that analysis does not show a benefit associated with the cost of at sea inspection (refer to recommendations made by MOF).
1.1 (iii)	1a – 1b	None identified as specific to this MPR.
2.3		None identified as specific to this MPR.
3.1 (i-v)	1a – 1e	A number of 2014 REEFS were unaccounted. However, a formal agreement has been reached to ensure documents are transferred in a timely and effective way.
	2	No exemptions were noted by the review team.
	3	None identified as specific to this MPR.
3.1 (vi)	1	None identified as specific to this MPR.
	2	None identified as specific to this MPR.
3.1 (vii–ix)	1-3	None identified as specific to this MPR.
3.1 (x-xii)	1(a) – 1(e)	None recorded although tags can be disposed of by KOFA member, which may result in a tag reconciliation tagging weakness. (Refer to Recommendations).
3.1 (xiii – xviii)	1 - 2	Risk based verification activities were demonstrated but may include informal processes across inter-agencies so do depend on full cooperation. Not currently presenting a weakness but highlighted in case of need to develop further formal risk based compliance tools.
3.1 (xix-xxi)	1a – 1f & 2	None identified as specific to this MPR.
3.1 (xxii – xxv)	1a -1d & 2a – 2b	None recorded (except that noted by NFQS involvement in both the validation and verification activities (refer to Risks)).
3.1 (xxvi)	1	None identified as specific to this MPR.
3.1 (xxvii-xxviii)	1 - 2	None identified as specific to this MPR.
3.1 (xxix – xxxi)	1, 2a – 2f & 3	Validation is clearly identified as separate function of identified Directors of NFQS and verification is undertaken by other staff (refer to Risks).
3.3 (i-v)	1a	None identified as specific to this MPR.
6.5	1 & 2	None identified as specific to this MPR.

**c) Risks associated with Korea's SBT fishery and associated management in relation to CCSBT's MPRs**

Obligation	MPR	Risks (Threats)
1.1 (i)	1	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
	2a (i)	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
	2a (ii)	<ul style="list-style-type: none"> <li>Recorded weights are based on conversion factors. Available information indicates that the conversion factors have not been reviewed since 1997. There could be a risk that the current conversion factors do not correctly reflect the fishery.</li> </ul>
	2a (iii)	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
	2b	<ul style="list-style-type: none"> <li>Potential for high grading/discarding by vessels when observers are not onboard.</li> <li>The level of risk is potentially exacerbated by the lack of at-sea inspections.</li> </ul>
	2c (i)	<ul style="list-style-type: none"> <li>Inaccurate and/or incomplete catch reporting;</li> <li>Refer to 2b</li> </ul>
	2c (ii)	<ul style="list-style-type: none"> <li>This MPR is not applicable to Korea.</li> </ul>
	3	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
	4	<ul style="list-style-type: none"> <li>Potential risk of non-compliance as a result of a lack of at-sea inspections. (It is noted that Korea VMS and alert system has been up-graded and integrated which will provide mitigation to the lack of inspection).</li> </ul>
1.1 (iii)	1a	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
	1b	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
2.3		<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
3.1 (i-v)	1a – 1e	<ul style="list-style-type: none"> <li>Potential risk for duplication of tags since industry is very much involved with the distribution and collection of unused tags- although duplicate and missing tags to date has not been reported (Refer to Recommendations).</li> </ul>
	2	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
	3	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
3.1 (vi)	1	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
	2	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
3.1 (vii–ix)	1-3	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
3.1 (x-xii)	1(a) – 1(e)	<ul style="list-style-type: none"> <li>Potential for non-compliance due to lack of at-sea inspections.</li> </ul>
3.1 (xiii – xviii)	1 - 2	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
3.1 (xix-xxi)	1a – 1f & 2	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
3.1 (xxii – xxv)	1a -1d & 2a – 2b	<ul style="list-style-type: none"> <li>There may be a risk of cross over in functions between validation duties and later verification of CDS. This has not been identified but the reviewers note that the system may benefit from further formal procedures and routines that clearly identify the separate functions/risk based approaches/routines in place.</li> <li>The missing REEFs were a result of structural changes and some issues relating to other agency (MFDS) activities connected with the management system legal framework. These are reported to be</li> </ul>

		resolved and evidence of no further missing REEF's presented.
3.1 (xxvi)	1	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
3.1 (xxvii-xxviii)	1 - 2	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
3.1 (xxix – xxxi)	1, 2a – 2f & 3	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
3.3 (i-v)	1a	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
6.5	1	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>

## 7. Recommendations for Improvement

Based on the QAR Phase 1 up-date and Phase 2 on-site review a number of recommendations have been identified and documented. Many of these recommendations were actually, those provided directly by MOF so serve only to provide a reference of the commitments to improvement already communicated by MOF. Additional recommendations are made based on the observed information, reports and discussions held during the Phase 2. Recommendations do not detract from the overall outcome of the Phase 2 report, in that Korea has made significant progress in the implementation of the management system re-structuring first reported in 2013 Phase 1 report, and on the whole, operates a robust SBT management system.

In summary, recommendations and those already communicated by MOF during Phase 2 of the QAR include:

**Table 15 Recommendations (opportunities) identified by the strengths, weaknesses, opportunities and threats (SWOT) analysis conducted for Korea's systems determining compliance with CCSBT Minimum Performance requirements (MPRs)**

- MOF communicate plans to establish a remote monitoring system using closed circuit cameras in lieu of both the potential low observer coverage and the absence of at-sea inspections.
- MOF note that conversion factors were made by member's agreement. So it is difficult for Korea alone to revise it, but also note that it should be addressed by the Extended Commission.
- MOF communicate plans to conduct training for Food Agency Staff to reduce the potential risk of misidentification of SBT imports.
- MOF communicate plans to review the value/need of DNA testing options for SBT in 2016.
- MOF communicate plans to more centrally manage tag control and distribution under the NFQS to ensure transparency and objectives are met.
  
- A review of internal operational management effectiveness of the overall system and how external MOF internal agencies (FMC, NFQS, NIFS) and other agencies (MFDS) that operate separately but are connected may provide internal confidence that roles etc. are clearly established and operating effectively and ensure Industry/Importers continue to be fully aware of their reporting obligations for CDS. This may be particularly opportune since the major changes made in the last 3 years have been in place for two fishery seasons. [The review could extend to external data sources provided by Port State Authorities that oversee Korea at port transshipments and landings].
  
- From the above, such a review may identify additional areas for documentation of verification procedures to clearly identify the routines, data cross-checking, risk based approach and frequency of the activities could support efficiencies and demonstrate clear separation of functions.

Obligation	MPR	Recommendations
1.1 (i)	1	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
	2a (i)	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
	2a (ii)	<ul style="list-style-type: none"> <li>Increased observer coverage and at-sea inspections would reduce the risk of high grading/discarding although MOF indicate the cost benefits of at sea inspection is not effective and instead will;</li> <li>Prioritise the implementation of alternative, remote systems currently under trial.</li> </ul>
	2a (iii)	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
	2b	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
	2c (i)	<ul style="list-style-type: none"> <li>Prioritise the further implementation of electronic reporting systems.</li> </ul>
	2c(ii)	<ul style="list-style-type: none"> <li>This MPR is not applicable to Korea.</li> </ul>
	3	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
	4	<ul style="list-style-type: none"> <li>Refer to 2a(ii)</li> </ul>
1.1 (iii)	1a	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
	1b	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
2.3		<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
3.1 (i-v)	1a – 1e	<ul style="list-style-type: none"> <li>Manage tag control and distribution under the NFQS to ensure transparency and objectives are met</li> </ul>
	2	<ul style="list-style-type: none"> <li>None identified as specific to this MPR</li> </ul>
	3	<ul style="list-style-type: none"> <li>None identified as specific to this MPR</li> </ul>
3.1 (vi)	1	<ul style="list-style-type: none"> <li>None identified as specific to this MPR</li> </ul>
	2	<ul style="list-style-type: none"> <li>None identified as specific to this MPR</li> </ul>
3.1 (vii–ix)	1-3	<ul style="list-style-type: none"> <li>None identified as specific to this MPR</li> </ul>
3.1 (x-xii)	1(a) – 1 (e)	<ul style="list-style-type: none"> <li>Refer to 2a (ii).</li> </ul>
3.1 (xiii – xviii)	1 - 2	<ul style="list-style-type: none"> <li>None identified as specific to this MPR</li> </ul>
3.1 (xix-xxi)	1a – 1f & 2	<ul style="list-style-type: none"> <li>None identified as specific to this MPR</li> </ul>
3.1 (xxii – xxv)	1a – 1b & 2a – 2b	<ul style="list-style-type: none"> <li>Further documentation/establishment of formal verification procedures and routines to clearly demonstrate separation from validation procedures (Reviewers note that this does not suggest an issue with same agency (NFQS) undertaking both functions which may also prove to be a strength in the system. A review of internal operational management of the system and how external MOF agencies and agencies (MFDS) that operate separately but are connected may provide internal confidence that roles/responsibilities etc. are clearly established. The review could extend to external data sources provided by Port State Authorities that oversee Korea at port transshipments and landings.</li> </ul>
3.1 (xxvi)	1	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
3.1 (xxvii-xxviii)	1 - 2	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
3.1 (xxix – xxxi)	1, 2a – 2f & 3	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>
3.3 (i-v)	1a	<ul style="list-style-type: none"> <li>None identified as specific to this MPR.</li> </ul>

6.5	1	• None identified as specific to this MPR.
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## 7 Phase 2 Gap analysis

The phase 2 site visit was of particular value in identifying and providing clarification the changes in responsibilities and functions of MOF and ancillary agencies within the management of SBT since the phase 1 report. The Phase 2 visit was valuable in gaining an understanding of the workings of the systems and processes used by Korean authorities for SBT. In particular, data management processes and staff roles and responsibilities were clarified in detail. A significant high level of compliance was identified by the site visit and presented in this combined Phase 1 and 2 Review.

A Gap analysis is presented identifying main areas within CCSBT's MPRs where the information provided by Korea during phase 1 was inconsistent or has changed with the information sighted/provided during the phase 2 site visit. Most of the changes are updates due to the recent re-structuring that has occurred in the fisheries management system, which has a direct influence on SBT management. The re-structuring had commenced at Phase 1 (2013) but had not taken full effect at that point in time. Table 16 summarises the key points associated with MPRs from phase 1 and compares this with observations during phase 2 to identify these differences.

Table 16 GAP analysis of information obtained during phase 1 and the information sighted/provided during the phase 2 site visit

Obligation	MPR	Phase 1	Phase 2		
		Key points	Observations	Documents / Systems available	Summary
1.1 (i)	1	<ul style="list-style-type: none"> <li>• Korea's fishing year is April 1<sup>st</sup> to March 31<sup>st</sup>.</li> <li>• Catch in the Korean SBT fishery is set in line with the CCSBT Allocated Catch (AC).</li> </ul>	<ul style="list-style-type: none"> <li>• Korea has systems and processed in place to record and monitor SBT quota.</li> <li>• Regulatory systems are strengthened by recent changes to the DWDFa 2015</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Additional information was provided in the Phase 2 site visit providing a demonstration of the systems used.</li> </ul>
	2a (i)	<ul style="list-style-type: none"> <li>• MOF allocate and monitor the TAC between companies and vessels</li> <li>• MOF determine the timing and manage the distribution of the 5% quota reserve and determine when a vessel quota has been reached.</li> </ul>	<ul style="list-style-type: none"> <li>• The systems and processed in place to record and monitor SBT quota were demonstrated for the review team.</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Observations in Phase 2 identified the developments with the FMC and the inter-agency access and sharing of data since Phase 1.</li> </ul>
	2a (ii)	<ul style="list-style-type: none"> <li>• Catch and discard numbers and weight recorded by vessel crew daily</li> <li>• Logbooks submitted via the vessel-owning company</li> <li>• Commercial SBT long liners are the only Korean vessels removing SBT</li> </ul>	<ul style="list-style-type: none"> <li>• Review team was shown completed examples of reporting logbooks and data validation processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Observations in Phase 2 were consistent with the information obtained during Phase 1.</li> <li>• Discard and non retained definition may require clarification</li> </ul>
	2a (iii)	<ul style="list-style-type: none"> <li>• All Korean SBT vessels are large-scale long liners</li> <li>• Vessels submit an estimate of weekly catch to the owning company</li> </ul>	<ul style="list-style-type: none"> <li>• Catches are reported to the Fisheries Monitoring Centre (FMC) and the National Institute of Fisheries Science (NIFSS) via electronic logbook system on a daily basis. Vessels also return the completed logbooks at the end of a trip.</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Observations in Phase 2 updates information available from Phase 1 and is consistent with Phase 1 outcomes.</li> </ul>

Obligation	MPR	Phase 1	Phase 2		
		Key points	Observations	Documents / Systems available	Summary
	2b	<ul style="list-style-type: none"> <li>• Korea is required by the CCSBT to monitor commercial catch and discards. Catch is estimated on a daily basis, reported weekly, and a final total submitted at landing</li> <li>• Discards are estimated on a daily basis and reported monthly</li> </ul>	<ul style="list-style-type: none"> <li>• Review team was shown completed examples of reporting logbooks and data validation processes</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Observations in Phase 2 were consistent with the information obtained during Phase 1.</li> </ul>
	2c	<ul style="list-style-type: none"> <li>• No at-sea inspections have been conducted</li> <li>• Use of transshipment Declaration Form (TDF) to monitor in port and at seas transshipments</li> </ul>	<ul style="list-style-type: none"> <li>• At sea inspections are unlikely to be a part of the Korean system</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• At sea, inspection is deemed unrealistic (not cost effective). Alternative approaches such as remote camera systems are underway in 2016.</li> </ul>
	3	<ul style="list-style-type: none"> <li>• The MOF reports all relevant data to the CCSBT on the timescales required by CCSBT resolutions.</li> </ul>	<ul style="list-style-type: none"> <li>• Review team confirms consistency with Phase 1</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Issues with missing REEF's already identified and corrective measures were described. MOF report all REEF's accounted for in 2015 to date.</li> </ul>
	4	<ul style="list-style-type: none"> <li>• The majority of Korean SBT is exported to Japan, either via transshipment or direct landings by fishing vessels</li> <li>• VMS is mandatory on SBT vessels, and from 2014 there will be 24/7 monitoring of vessel locations.</li> </ul>	<ul style="list-style-type: none"> <li>• Review team confirms consistency with Phase 1</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Observations in Phase 2 were consistent with the information obtained during Phase 1.</li> <li>• Clarification on inspection/monitoring at the various Ports provided.</li> </ul>
1.1 (iii)	1a – 1b	<ul style="list-style-type: none"> <li>• Korean confirm to all requirements on the "Resolution of Limited Carry-Forward of Unfished Annual Total</li> </ul>	<ul style="list-style-type: none"> <li>• The CCSBT executive secretary was formally notified of Korea's intention to utilise the carry-</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Observations in Phase 2 were consistent with the information obtained during Phase 1.</li> </ul>



Obligation	MPR	Phase 1	Phase 2		
		Key points	Observations	Documents / Systems available	Summary
		Allowable Catch of Southern Bluefin Tuna within Three Year Quota Blocks".	forward procedure for the 2013/14 season on 6 <sup>th</sup> May 2013.		
2.3		<ul style="list-style-type: none"> <li>Not applicable to Korea</li> </ul>			
3.1 (i-v)	1a	<ul style="list-style-type: none"> <li>Participants within the SBT fishery are aware of their CCSBT obligations.</li> </ul>	<ul style="list-style-type: none"> <li>Examples of the engagement processes with participants of the SBT fishery were demonstrated to the review team.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>Additional information was provided in the Phase 2 site visit providing a demonstration of the systems used.</li> </ul>
	1b	<ul style="list-style-type: none"> <li>CDS introduced in 2010</li> <li>CDS documentation and systems in place.</li> </ul>	<ul style="list-style-type: none"> <li>The CDS documentation and associated processes were demonstrated to the review team</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>Observations and information provided during the Phase 2 site visit were consistent with the information obtained during Phase 1 and provided further clarification on the processes in place.</li> </ul>
	1c	<ul style="list-style-type: none"> <li>See MPR 3.1 (i-v) 1a</li> </ul>	<ul style="list-style-type: none"> <li>See MPR 3.1 (i-v) 1a</li> </ul>		
	1d				
	1e	<ul style="list-style-type: none"> <li>Korea monitors compliance with the CCSBT CDS as part of generic compliance activities.</li> </ul>	<ul style="list-style-type: none"> <li>Information on the compliance database tools and as part of risk based frameworks were provided.</li> <li>No observations or information provided during the site visit contradicted the information provided within Phase 1 of the QAR.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>Observations and information provided during the Phase 2 site visit were consistent with the information obtained during Phase 1 in overview and there is no evidence of violations (as determined by issuance of sanctions) reported in recent years. Remote monitoring trials noted in place of the absence of at sea</li> </ul>

Obligation	MPR	Phase 1	Phase 2		
		Key points	Observations	Documents / Systems available	Summary
					inspection.
	2	<ul style="list-style-type: none"> <li>During Phase 1 there were no specific exemptions identified to the CDS documentation.</li> </ul>	<ul style="list-style-type: none"> <li>During Phase 2 there were no specific exemptions identified to the CDS documentation.</li> </ul>	<ul style="list-style-type: none"> <li>No</li> </ul>	<ul style="list-style-type: none"> <li>During both phases no specific exemptions related to the CDS documentation requirements were identified.</li> </ul>
3.1 (vi)	1	<ul style="list-style-type: none"> <li>MOF maintains a list of authorized Carrier Vessels under its Flag and updates CCSBT of any changes.</li> </ul>			
	2	<ul style="list-style-type: none"> <li>Vessel lists of authorised vessels authorised to catch SBT are maintained. This information is maintained and updates are provided to CCSBT.</li> </ul>	<ul style="list-style-type: none"> <li>Review team was shown the authorised lists maintained.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>Observations in Phase 2 identified the developments with the FMS since Phase 1.</li> </ul>
3.1 (vii–ix)	1-3	<ul style="list-style-type: none"> <li>Korea has not proposed modifications to CDS documents</li> </ul>			
3.1 (x-xii)	1(a)	<ul style="list-style-type: none"> <li>SBT tags are produced by a Japanese supplier and provided by CCSBT to Korea in line with the CDS Resolution.</li> <li>As the tags are ordered through the Secretariat they can be considered to meet the minimum specifications as specified in Appendix 2 of the CDS Resolution.</li> </ul>	<ul style="list-style-type: none"> <li>No observations or information provided during the site visit contradicted the information provided within Phase 1 of the QAR.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>Observations and information provided during the Phase 2 site visit were consistent with the information obtained during Phase 1.</li> </ul>
	1(b)	<ul style="list-style-type: none"> <li>Korean authorities maintain a record of the distribution of SBT tags.</li> </ul>	<ul style="list-style-type: none"> <li>No observations or information provided during the site visit contradicted the information provided within Phase 1 of the QAR.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>Observations and information provided during the Phase 2 site visit were consistent with the information obtained during Phase 1. MOF also advises of more direct management of tag allocation</li> </ul>

Obligation	MPR	Phase 1	Phase 2		
		Key points	Observations	Documents / Systems available	Summary
					and collection by NFQS in 2017.
	1(c)	<ul style="list-style-type: none"> <li>Korean authorities maintain a record of the distribution of SBT tags.</li> </ul>	<ul style="list-style-type: none"> <li>No observations or information provided during the site visit contradicted the information provided within Phase 1 of the QAR.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>Observations and information provided during the Phase 2 site visit were consistent with the information obtained during Phase 1.</li> </ul>
	1(d)	<ul style="list-style-type: none"> <li>Pre-season guides are issued to participants in the fishery that provide the required information related to the requirements for tagging fish. This documentation specifies the required timeframes.</li> </ul>	<ul style="list-style-type: none"> <li>No observations or information provided during the site visit contradicted the information provided within Phase 1 of the QAR.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>Observations and information provided during the Phase 2 site visit were consistent with the information obtained during Phase 1.</li> </ul>
	1(e)				
3.1 (xiii – xviii)	1	<ul style="list-style-type: none"> <li>Operating systems and processes in place as required by the procedural and information standards required by CCSBT’s CDS resolution.</li> </ul>	<ul style="list-style-type: none"> <li>No observations or information provided during the site visit contradicted the information provided within Phase 1 of the QAR.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>Observations and information provided during the Phase 2 site visit were consistent with the information obtained during Phase 1. Plans to implement further training with seafood importers communicated to further reduce risk of non-compliance associated with tags.</li> </ul>
	2	<ul style="list-style-type: none"> <li>Operating systems and processes in place as required by the procedural and information standards required</li> </ul>	<ul style="list-style-type: none"> <li>Korea has not identified duplicate tags in most recent fishery (2015/16) as reported to</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>Observations and information provided during the Phase 2 site visit were consistent with</li> </ul>

Obligation	MPR	Phase 1	Phase 2		
		Key points	Observations	Documents / Systems available	Summary
		by CCSBT's CDS resolution	CCSBT and presented to review team.		the information obtained during Phase 1.
3.1 (xix-xxi)	1a – 1f & 2	<ul style="list-style-type: none"> <li>Authorized validator lists are maintained and provided to CCSBT. The authorised list is updated and amended as required and amendments sent to CCSBT as necessary</li> </ul>	<ul style="list-style-type: none"> <li>Review team was shown the authorised lists maintained.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>Observations in Phase 2 identified the developments with the FMS since Phase 1.</li> </ul>
3.1 (xxii – xxv)	1a – 1d & 2a – 2b	<ul style="list-style-type: none"> <li>Operating systems and processes are in place to monitor compliance with catching restrictions.</li> </ul>	<ul style="list-style-type: none"> <li>Review team were shown the systems and processes in place as described in Phase 1.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>Observations in Phase 2 were consistent with the information obtained during Phase 1.</li> </ul>
3.1 (xxvi)	1	<ul style="list-style-type: none"> <li>Hardcopy forms are stored and archived</li> <li>Electronic systems are maintained and backed up</li> </ul>	<ul style="list-style-type: none"> <li>Review team shown the systems in place at MOF/FMC and NFQS and data management regulations</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>All electronic information is recorded on MOF, FMC and NFQS's databases and servers within the overall FMS. The electronic system is maintained and is regularly backed up in line with MOF data management regulations.</li> <li>Hard copies stored off site</li> </ul>
3.1 (xxvii-xxviii)	1	<ul style="list-style-type: none"> <li>Korea provides CCSBT CDS documents to CCSBT within the required timeframes (quarterly).</li> <li>Korea compiles and submits national documentation to CCSBT on a quarterly basis.</li> </ul>	<ul style="list-style-type: none"> <li>No observations contradicted the information provided within Phase 1 of the QAR other than those identified in 2014 relating to missing REEFs</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>Observations in Phase 2 were consistent with the information obtained during Phase 1 except for the missing REEF's identified and reported in Phase 2. No incidences reported since.</li> </ul>

Obligation	MPR	Phase 1	Phase 2		
		Key points	Observations	Documents / Systems available	Summary
3.1 (xxix – xxxi)	1, 2a – 2f & 3	<ul style="list-style-type: none"> <li>Operating systems and processes in place to maintain a list of authorised validators.</li> </ul>	<ul style="list-style-type: none"> <li>Review team were shown the systems and processes in place as described in Phase 1.</li> <li>Phase 2 provided clarity around the roles of validators and the staff that undertake verification activities</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>Observations in Phase 2 were consistent and up-dates the verification systems (mainly FMC database and access by NFQS) with the information obtained during Phase 1. Refer to recommendation on formal procedures.</li> </ul>
3.3 (i-x)	1a	<ul style="list-style-type: none"> <li>All at sea transshipments have to be reported to the FMC 24 hours prior transshipment taking place to seek authorization. At sea transshipment cannot take place without authorization and observation. Phase 2 up-dates the details on operating systems provided in Phase 1.</li> </ul>			
6.5	1	<ul style="list-style-type: none"> <li>Korea provides the required compliance committee information electronically to the Executive Secretary in accordance with the reporting requirements.</li> </ul>	<ul style="list-style-type: none"> <li>No observations contradicted the information provided within Phase 1 of the QAR.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>	<ul style="list-style-type: none"> <li>Observations in Phase 2 update QAR. MOF advise that reports are provided end of August.</li> </ul>

## 8 Post Final Report Member Comments

### 8.1 Additional Member Comment Attachment

Members may wish to provide additional comments to the outcome of the review here.

At Report submission to the Member, the Review Team asked for clarification on two items. Responses were provided on September 11<sup>th</sup> and are documented below by the Review Team.

#### **Additional Note added (September 11<sup>th</sup>).**

##### **CLARIFICATION ONE:**

NFQS provided a response to a note for clarification asked by the Review Team with respect to the use of multiple CMF's with a single REEF. CCSBT CDS procedure requires that a separate REEF is created for each CMF.

##### **Response provided by NFQS :**

The distant water fishing fleet can be issued with multiple CMFs for each vessel catching SBT respectively. But the trading (exporting) company usually sells the total amount of SBT at once without dividing them for selling from each vessel.

If the SBT caught from a specific vessel is traded at high price, It would be better for NFQS to issue the REEF to the trading company for the each product traded with each vessel, not for the total product. But, actually the SBT isn't estimated at a high price. So the trading company usually doesn't deal with each vessel catching the SBT and they sell (export) their total product. The NFQS requests that the trading company submit the certificate of total catch usage, which is not required document, before issuing the REEF to the company, tries to identify the history for the catch use and manage that the company couldn't overuse the catch.

##### **CLARIFICATION TWO:**

The total number of non-retained SBT in 2014/15 fishery reported in CCSBT-CC/1510/SBT Fisheries – Korea of 4,959, was considerably higher than 2013 of 183 and 2012 of 651. The 4,959 is reported in brackets [4,959]. Can we confirm that this is a number and not tonnage and can MOF provide any further insight of why non retained SBT estimate increased compared to previous years?

##### **Response provided by MOF:**

The unit of non retained SBT in 2014 is number. The non-retained SBT in 2014 was estimated from scientific observer data, not total enumeration from logbook, which was calculated by multiplying DPUE (discard per unit effort) by total effort. The estimates from observer data could have a margin of error that depends on the period and the area of observation, and its coverage as well. In particular, the larger error was generated because of the lower observer coverage in 2014 than previous years, which was 7%.

## 9 Appendices

### 9.1 Appendix 1: Evidence / Reference material cited and or witnessed during the QAR process

Form	Source
Application to Register Transfer of quota shares	MOF– <i>pers comm</i> Zee Kim
Completed application to Register Transfer of ACE (original and translated versions 2015)	MOF– <i>pers comm</i> Zee Kim
Sample Tuna Longlining Catch, Effort Return	MOF– <i>pers comm</i> Zee Kim
Authorised Validator training by NFQS	MOF– <i>pers comm</i> Zee Kim
Evidence Collection Sheet for Third Party Authorised Validator training	MOF– <i>pers comm</i> Zee Kim
Sample Catch Landing Return	MOF– <i>pers comm</i> Zee Kim
Monthly harvest return	MOF– <i>pers comm</i> Dr. Lee
CDS Issuance Procedure (NFQS)	Witnessed on site - NFQS
Request for transshipment to FMC (or Modification to the Previous Transshipment)	MOF
Report of Transshipment	MOF
Overseas Landing Report	MOF
MOF newsletter of instructions to permit holders targeting southern bluefin tuna in 2015	MOF– <i>pers comm</i> Zee Kim
Maritime Cargo Transport Business Register	
Registered List of SBT Validators	MOF
Example Observer Report	Witnessed on site
Example of logbook target species	Witnessed on site (NIFSS)
Example of logbook bycatch species	Witnessed on site (NIFSS)
Application form for modification of REEF.	Witnessed on site (NIFSS)
Application form for validation of CDS Document (and Attachment to the Application)	Witnessed on site (NIFSS)
Distant Water Fishing Licence	Witnessed on site (NIFSS)
CDS Forms	Witnessed on site (NIFSS/NFQS)
Observer training Manual 2015	Witnessed on site
KOFA website- information dissemination	Collected internally
Food Import Control Inspection (incl. SBT)	MFDS
Report of Allocation from Korea Tuna Fisheries Association	KOFA
Extract from Distant Water Fisheries Development Act (DWFDA, 2015 Revision)	MOF on site