

**Suggested actions to implement “Japan’s market proposal (CCSBT-SC/2008/23)”  
(Submitted by Japan)**

**1. Background**

- (1) In the Extended Commission (EC) meeting in 2019, Japan committed to submitting a paper to the ESC and CCSBT 27, which will include a proposal to compare Japanese market data with catch data from all Members to identify any anomalies or discrepancies.
- (2) Japan submitted CCSBT-ESC/2008/23 (Japan’s market proposal)\* to the ESC meeting (ESC 25) in August-September 2020.

**2. Discussion at ESC25\***

- (1) The ESC25 appreciated Japan’s proposal toward verification of all Member’s catch. It was generally agreed that the proposal captured the intent underlying the previous discussions including ESC 24 recommendations. Most actions proposed by Japan received preliminary support, with some reservations in relation to:
  - a) development of a Resolution to seek cooperation from non-Members, and;
  - b) funding arrangements for ongoing monitoring (tag management survey currently conducted by Japan)
- (2) It was agreed that taking into account discussion in this ESC, the proposal should be further discussed in the 2020 Finance and Administration Committee and EC Meetings, focusing on the priority item(s) for implementation and their budgetary implications. It was considered that draft Terms of Reference (ToR) and cost estimates would be useful input to this discussion.

**3. Suggestions to EC27**

- (1) Taking into account the discussion at ESC25, Japan would like to suggest actions in **Appendix A** with regard to each proposed item.
- (2) Japan believes that these actions will be the important first step toward better verification of catch by all Members and non-Members.

\* For ease of reference,

- ✓ CCSBT-ESC/2008/23 (Japan’s market proposal) is attached as **Appendix B**
- ✓ All the relevant discussions at the ESC are as excerpted in **Appendix C**

## Suggested actions to implement Japan's market proposal

Proposal item		Primary comments at ESC25 (Reference in parenthesis)	Suggested actions
a. Verification of all Members' catch in Japan	(1) Update of estimation formula of distribution amount of Japanese SBT catch in Japan	<ul style="list-style-type: none"> <li>➤ General and preliminary support (para 56)</li> <li>➤ Terms of Reference (ToR) and cost estimates will be useful (Q2)</li> <li>➤ Neutrality of external expert is important (Q5 bis)</li> <li>➤ Detailed SBT transaction data of Tokyo Metropolitan Government (TMG) (Q5 ter)</li> <li>➤ Value of extending current survey in Japan to other markets was noted, in terms of direct estimation of UAM (para 182 and Q4)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Japan leads an intersessional correspondence group to draft ToR for hiring an external expert, taking into account the ESC discussion</li> <li>➤ As soon as the ToR reaches to an agreement, the Secretariat starts the nomination and selection process in accordance with the agreed ToR</li> <li>➤ Allocate 56,000 AUD* from 2021 CCSBT budget to hire external expert</li> </ul> <p style="text-align: center;">* As indicated in Q3 of Attachment 5 of the ESC report</p>
	(2) New development of estimation formulas for distribution amount of other Member's catch in Japan		
	(3) Calculation of distribution amount estimate based on formulas in (1) and (2) above		
	(4) Calculation of the proportion of the estimated distribution amount in (3) to the global distribution amount of SBT and assessment of the value of the estimation works		
b. Further utilization of CDS data	(1) Verification of SBT international trade and domestic distribution utilizing CDS data	<ul style="list-style-type: none"> <li>➤ General and preliminary support (para 56)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Request the Secretariat to implement this on a pilot basis for presentation to the next CC meeting</li> <li>➤ The result will be shared with the external expert</li> </ul>
	(2) Development of Resolution to seek cooperation of non-Members	<ul style="list-style-type: none"> <li>➤ Reservation was made (para 56); more utilization of existing Resolutions and consistency with WTO (Q13 bis)</li> <li>➤ The spirit is understandable: more standardized approach to Non-Members will be reasonable (Q13 ter)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Defer further discussion on this topic to the next CC and EC when results of further interactions with non-Members become available</li> </ul>
	(3) Verification of reported catch with tag data	<ul style="list-style-type: none"> <li>➤ General and preliminary support, with reservation on CCSBT's expense to tag management survey (para 56)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Defer discussion on CCSBT's expense to the next EC/FAC in 2021</li> </ul>
c. Development of system to detect illegally caught products	(1) Improvement of tagging based on current CDS Resolution	<ul style="list-style-type: none"> <li>➤ Value of extending current survey in Japan to other markets was noted, in terms of direct estimation of UAM (para 182 and Q4)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Item b(3): Request the Secretariat to conduct a trial analysis for data up to 2020 which will be provided by Japan</li> <li>➤ Item c(1): Japan continues its current tag survey in 2021 and report the result to CC and EC in 2021</li> <li>➤ Item c(2): Discuss this at TCWG meeting, if possible with relevant technical experts</li> </ul>
	(2) Creation of intersessional working group for future improvement of tag specifications		

全メンバー漁獲量検証に向けた日本への SBT 流通モニタリングに関する提案  
 Proposal on monitoring of SBT distribution in Japan to verify catch of all Members

森田侑樹<sup>1</sup>、伊藤智幸<sup>2</sup>  
 Yuki Morita<sup>1</sup>, Tomoyuki Itoh<sup>2</sup>

1: Fisheries Agency of Japan 水産庁

2: Fisheries Resources Institute, Japan Fisheries Research Agency 水産研究・教育機構 水産資源研究所

【要約】

2019 年の ESC において、日本のみならず全メンバーの漁獲量検証を日本市場から得られる情報を用いて行うことが勧告された。これを受け、最大のミナミマグロ消費国である日本市場を活用し、全メンバー漁獲量の検証を行うとともに CDS も活用して、グローバルな規模でのミナミマグロ漁獲量の不確実性を低減させる観点から、以下を提案する。

a. 日本における全メンバー漁獲量の定量的検証

- (1) 日本による漁獲物の日本での流通量について、推定式のアップデート
- (2) 日本以外のメンバーによる漁獲物の日本での流通量について、推定式の新規構築
- (3) 上記 (1) (2) の推定式に基づく流通推定量の算出 (毎年)
- (4) 本調査で把握される推定流通量が全世界流通量に占める割合の算出と、それを踏まえた推定作業の意義の検証

b. CDS データの更なる活用

- (1) CDS データを活用した SBT 輸出入・国内流通の検証
- (2) 非メンバーへの協力要請決議の作成
- (3) タグデータを活用した漁獲量検証

c. 違法な漁獲物検出に向けた体制構築

- (1) 現行 CDS 決議に基づくタグ付けの適正化
- (2) 将来的なタグ仕様改善に向けた閉会期間中作業部会の設置

ミナミマグロの適切な管理のためには CCSBT 全メンバーの漁獲量検証及び非メンバーによる漁獲の検出が重要である。このため、その実施が合意された場合には、実施費用については CCSBT 委員会予算から支出すべき旨提案する。また重要性を鑑み、合意が得られた項目から速やかに実施することを提案したい。

(Summary)

In ESC24 last year, it was recommended that the mechanism to verify catch of not only Japan but also all Members should be developed by using information obtained from Japanese markets. Given this background, with a view to reduce uncertainties of SBT catch in the global scale through verification of all Member's SBT catch and utilization of CDS as well as information of markets of Japan which consumes the largest amount of SBT, we would like to propose implementing following, from those agreement was reached among Members.

a. Verification of all Members' catch in Japanese market

- (1) Update of estimation formula of distribution amount of Japanese SBT catch in Japan
- (2) New development of estimation formulas for distribution amount of other Member's catch in Japan
- (3) Calculation of distribution amount estimate based on formulas in (1) and (2) above
- (4) Calculation of the proportion of the estimated distribution amount in (3) to the global distribution amount of SBT and assessment of the value of the estimation works

b. Further utilization of CDS data

- (1) Verification of SBT international trade and domestic distribution utilizing CDS data
- (2) Development of Resolution to seek cooperation of non-Members
- (3) Verification of reported catch with tag data

c. Development of system to detect illegally caught products

- (1) Improvement of tagging based on current CDS Resolution
- (2) Creation of intersessional working group for future improvement of tag specifications

For proper management of SBT, verification of SBT catch by all the CCSBT Members and detection of catch by non-Member is important. For this reason, we would like to propose that once agreed on implementation of the proposal item(s), the implementation cost should be spent from the CCSBT Commission's budget.

## I. 背景

### 1. Background

1. 2019 年の ESC において、以下が合意された。

1. Following was agreed at the ESC24 in 2019.

*60. Specific findings and recommendations arising from the Market Expert's report were considered and accepted by the ESC.*

*(a)...It was therefore recommended that to be useful for SBT management, the market estimation methodology would need to be re-visited to update key parameters, and re-designed to incorporate uncertainty and allow for catch verification of all Members.*

*(b)...It was recommended that the Secretariat, with input from CCSBT Members, should identify potential correspondences between Japanese market data and CDS quantities, and trial comparison of the market and CDS data series as a means of flagging discrepancies for further investigation. The results of the trial should be reported to the Compliance Committee to evaluate the practicality and usefulness of the comparisons.*

*(c)...The ESC further recommended that CCSBT Members should establish programs to identify instances of illegal (untagged fish for which legal provenance cannot be established) SBT in markets and trade and report on the scope and results of the programmes to the Secretariat to inform estimates of unaccounted mortalities. To support this work, CCSBT Members should consider requiring tags to*

*be retained on all SBT until the fish is no longer whole. Any barriers to this requirement, as well as ways of overcoming them, should be reported to the Secretariat.*

2. 2019年の拡大委員会（EC）において、以下の議論があった。

2. In the Extended Commission meeting in 2019, following discussion was made.

*86. Japan committed to submit a paper to the ESC and CCSBT 27, which will include a proposal to compare Japanese market data with catch data from all Members to identify any anomalies or discrepancies.*

## II. 提案内容

### II. Contents of Proposal

#### 1. 一般事項

上記の背景を踏まえ、最大のミナミマグロ消費国である日本の市場データ（現在、主として豊洲市場に着目）を活用し、全メンバー漁獲量の検証を行うとともにCDSも活用して、グローバルな規模でのミナミマグロ漁獲量の不確実性を低減させる観点から、以下2の提案を行う。なお各項目見出しにあるアルファベットについては、I. 1のESCレポートのサブパラ番号に対応している。また、各項目について想定される実施主体等の主要要素については、**別添1**のとおり。

自然死亡と漁獲死亡とから資源の動態を記述する現代の水産資源学において、正確な漁獲量が報告されること、さらにそれが検証されることは基本的な事柄である。漁獲量が不正確な場合には資源管理を大いに危うくする。従来、日本漁業による漁獲量のみが日本市場を用いて検証されてきたが、ミナミマグロの適切な管理のためにはCCSBT全メンバーの漁獲量検証及び非メンバーによる漁獲の検出が重要である。このため、その実施が合意された場合には、実施費用についてはCCSBT委員会予算から支出すべき旨提案する。

この提案は、上記目的に照らして出来るだけ包括的なものとなるよう3つのアイデアを提示するものである。しかしながら、必ずしもこれら3つを1つのパッケージとして提案しているものではなく、メンバー間で実施に合意できたものからステップバイステップで速やかに実施していくことを提案している。

#### 1. General matters

Given the above background, we would like to propose as 2 below, with a view to reduce uncertainties of SBT catch in a global scale through verification of all Member's SBT catch and utilization of CDS using market data (currently focusing mainly on Toyosu market) in Japan which consumes the largest amount of SBT. The alphabet at each item headline corresponds to that of each sub-paragraph of the ESC Report referred in I.1 above. Possible subjects and other relevant components of each item are as shown in **Attachment 1**.

Under contemporary fisheries stock science which describes stock dynamics with natural

and fishing mortalities, it is very basic premise that the catch quantity is correctly reported and the reported catch is properly verified. With incorrect reporting of the catch, the stock management would be threatened. While only SBT catch by Japanese fishing vessels has been verified using Japanese market so far, verification of SBT catch by all the CCSBT Members and detection of catch by non-Member is important for proper management of SBT. For this reason, we would like to propose that once agreed on implementation of the proposal item(s), the implementation cost should be spent from the CCSBT Commission's budget.

This proposal presents three ideas to comprehensively address the above objectives. However, it does not necessarily present these three items as a package proposal. Rather, it proposes implementing each item step by step immediately, from those whose implementation is agreed among Members.

## 2. 提案の具体的内容

### a. 日本における全メンバー漁獲量の定量的検証

本項目は提案の中核を占めるもの。全メンバーの漁獲量検証を中立的に実施すべく、本件作業に向けて外部専門家を雇用することを提案する。なお、雇用する外部専門家については、本件が CCSBT 全メンバーにとって重要なものであることに鑑み、全メンバーのコンセンサス合意によって選出されるべきである。

なお、市場専門家は以下の指摘を行っている（ESC24 レポート抜粋）

*58. ...However, even if the market estimates were improved through revising the methodology (e.g. to include uncertainties and tolerances) and updating the parameters, the Market Expert considered it likely that they would remain imprecise and might not be able to reliably identify anything but a large amount of overcatch...*

ここで指摘されているように、市場データによる精緻な漁獲量検証は困難であり、本件は専ら一定レベル以上の大きな過剰漁獲の可能性を検出する（又は、それが無いことを確認する）ために実施するものと位置づけるべきである。このため、本件取り組みで報告漁獲量と若干の差が検出されたとしても、直ちに不確実性に結びつくものではないことに留意すべき。

## 2. Detailed contents of the proposal

### a. Verification of all Members' catch in Japan

This item is the core of the proposal. In order to neutrally implement verification of all Member's catch, we would like to propose hiring an external expert for this work. Given the importance of this matter to all CCSBT Members, the external experts should be elected based on consensus agreement among all Members.

In relation to this item, the Market Expert pointed out following (excerpt from ESC24 Report).

*58. ...However, even if the market estimates were improved through revising the methodology (e.g. to include uncertainties and tolerances) and updating the parameters, the Market Expert considered*

*it likely that they would remain imprecise and might not be able to reliably identify anything but a large amount of overcatch...*

As pointed out here, it is challenging to conduct catch verification using market data with high precision. Thus, this item should be implemented for the sole purpose of detecting potential over-catch exceeding certain level (or confirming non-existence of such a large over-catch). For this reason, it should be noted that even if some deviation from the reported catch is detected, it does not immediately lead to uncertainty.

(1) 日本による漁獲物の日本での流通量について、推定式のアップデート

2008 年以降、日本は日本漁船によって漁獲された SBT 流通量の検証の取り組みを続けてきた。具体的には、2006 年の Japan Market Research (JMR) の推定手法をベースとして、市場の実情を反映してパラメータを更新し (JMR の不確実性を低減し)、市場アンケート・管理タグ調査を実施して漁獲量の検証を実施し、毎年 ESC・CC に提出してきた。この結果、2019 年 ESC で市場専門家 (Market Expert) により確認され合意されているとおり、日本漁船による過剰漁獲を示唆する明確なシグナルは示されていない。

他方、2019 年の ESC で市場専門家によって指摘されているとおり、推定に用いる 11 のパラメータのうち、市場経由率などについては最新の状況を反映したアップデートが必要 (詳細は、CCSBT-ESC/1909/21 を参照)。このため、外部専門家を雇用し、このアップデート作業を ESC24 に提出された市場専門家の検証結果も十分に踏まえた上で中立的に実施してもらうことを提案する。なお、この作業にあたっては、各メンバー及びその専門家からのコメント機会が設けられるべきであろう。

なお、本項目の実施がただちに合意されない場合は、日本としては従来どおり、市場を活用した日本漁獲量の検証を継続していく考えである。

(1) Update of estimation formula of distribution amount of Japanese SBT catch in Japan

Since 2008, Japan has continued its effort to verify distribution quantity in Japanese market of SBT caught by Japanese fishing vessels. More specifically, on the basis of estimation methodology of 2006 Japan Market Research (JMR), Japan have updated some parameters reflecting market situation (and thereby reduced uncertainty of JMR methodology). With the updated methodology, Japan have conducted verification of SBT catch through interviews in market and SBT management tag survey and have submitted the results to ESC and CC meeting every year. Consequently, as confirmed by the Market Expert and agreed in ESC24 meeting in 2019, there is no clear signal suggesting over-catch by Japanese fishing vessels.

Having said that, however, as pointed out by the Market Expert in the ESC meeting in 2019, some of the eleven parameters used for estimation (e.g. off-market selling rate) need to be updated for reflection of the most up-to-date situation of the market. For this reason, we would like to propose hiring an external expert for the purpose of neutral implementation of this work of update with full consideration of the examination result presented by the Market

Expert to ESC24. In proceeding with this work, opportunities to make comments should be provided to Members and their experts.

In case that implementation of this item is not agreed immediately, Japan plans to continue verification of Japan's SBT catch utilizing market as before.

(2) 日本以外のメンバーによる漁獲物の日本での流通量について、推定式の新規構築

昨年の ESC においては、日本だけでなく全てのメンバーの漁獲量について検証する体制を構築すべきことが合意された。上記(1)のとおり、日本の漁獲物については、日本独自の取組により検証の土台が出来ているものの、日本以外のメンバーの漁獲量検証については確立された手法が存在しないのが現状。このため、この手法の新規構築についても、上記(1)の外部専門家に依頼することを提案する。上記(1)同様、手法の新規構築にあたっては、各メンバー及びその専門家からのコメント機会が設けられるべきであろう。

なお、日本が各メンバーの報告漁獲量と、日本への輸入実績を試行的に比較したところ、**別添2**のとおりである。

なお、本項目の実施がただちに合意されない場合は、日本としては他メンバー SBT の日本市場への流通量についても、市場アンケートや管理タグ調査などに基づく独自の検証を継続し、作業に貢献していく。

(2) New development of estimation formulas for distribution amount of other Member's catch in Japan

In ESC24 last year, it was agreed that the mechanism to verify catch of not only Japan but also all Members should be developed. As mentioned in (1) above, basis for verification of Japan's catch has been already developed by Japan's voluntary efforts so far. However, currently there is no established methodology (formula) as for verification of catch by other Members. For this reason, we would like to propose requesting the external expert in (1) above to newly develop the methodology. Like (1) above, in proceeding with this work, opportunities to make comments should be provided to Members and their experts.

For information, Japan conducted pilot comparison between each Member's reported catch and their import to Japan. The result is shown in **Attachment 2**.

In case that implementation of this item is not agreed immediately, Japan plans to contribute to this work, through continuing its original effort to verify SBT catch by other Members based on interviews to market stakeholders, SBT management tag survey among others.

(3) 上記(1)(2)の推定式に基づく流通推定量の算出(毎年)

上記(1)(2)の推定式が構築された後は、右に基づいて毎年の流通量推定値の算出を行うことで、SBTの全世界漁獲量の不確実性低減に資することが期待される。算出の実施主体については、上記(1)(2)の進捗を見て議論することが適当であろう。



## (3) Calculation of distribution amount estimate based on formulas in (1) and (2) above

Once formulas in (1) and (2) are developed, it is expected that through conducting calculation of SBT distribution amount estimate based on them every year, thereby it would contribute to reduction of uncertainty of SBT global catch. With regard to who should conduct the calculation works, it would be appropriate to discuss after waiting for progress in (1) and (2).

## (4) (3) で把握される推定流通量が全世界流通量に占める割合の算出と、それを踏まえた推定作業の意義の検証

漁獲量の検証手法は、SBT の多様かつ複雑な流通経路を反映したものであるべきである。特に、日本の最近の市場調査で得られた情報では、日本以外のメンバーによる漁獲物は卸売市場を経由しないことが示唆されている。また、近年、日本以外の市場も発達し、日本の SBT 市場としての重要性は相対的に低下してきている。このため、外部専門家は上記流通推定量が全世界の推定流通量に占める割合を計算するとともに、現在主に着目している豊洲市場の相対的重要性を評価し、その結果に基づき、流通データを遵守目的で活用するための新たなシステムを提案すべき。

上記(1)(2)同様、この作業にあたっては、各メンバー及びその専門家からのコメント機会が設けられるべき。さらに、評価の結果にかかわらず、全メンバー漁獲量検証のための今後の調査手法の実施コストについては CCSBT 委員会予算から支出すべき。

## (4) Calculation of the proportion of the estimated distribution amount in (3) to the global distribution amount of SBT and assessment of the value of the estimation works

The catch verification methodology should reflect complex and diverse SBT distribution modalities. Especially, information gathered in Japan's recent market survey indicates that the most SBT from other Members than Japan do not pass wholesale markets. Also, as other markets for SBT are developing, the relative importance of the Japanese market has been decreasing. Therefore, we propose that the external expert calculate the proportion of the estimated distribution amount in (3) above to the global SBT distribution amount and assess relative importance of Toyosu market which is mainly focused at present. Based on the findings, the external expert should propose a new system to utilize SBT distribution data for compliance purpose.

Like (1) and (2), in proceeding with this work, opportunities to make comments should be provided to Members and their experts. Also, no matter the result of assessment, the implementation cost of future survey methodology for verification of all Members' catch should be spent from the CCSBT Commission's budget.

## **b. CDS データの更なる活用**

本項目は、漁獲された SBT が日本市場のみを流通する訳ではないことを踏まえ、a 及び c の取組を補完し、よりグローバルな視点での漁獲量検証を行うために提案するものである。

## **b. Further utilization of CDS data**

This item is proposed with a view to complement efforts in **a** and **c** for proceeding with catch verification in more global scale, taking into account that caught SBT is not distributed to Japanese market only.

### (1) CDS データを活用した SBT 輸出入・国内流通の検証

現在、事務局が UN Comtrade の貿易実績データに基づき SBT の輸出入実績をまとめた表を作成し、CC に提出（例：CCSBT-CC/1910/10）し、SBT の貿易状況の把握に貢献している。他方、各メンバーによる漁獲量の検証や、日本以外における流通状況の把握を行い、よりグローバルな流通情報をもとに包括的な漁獲量検証を実施する観点からは、以下の追加的な作業を行うことで、更なる改善に繋がると考えられる。

(i) 貿易実績ベースの輸出入実績と、CDS ベースの輸出入実績の比較検証。CDS のみでは補足しきれない SBT の輸出入の把握がより容易となる。（イメージについて、**別添 3** 参照）

(ii) 各メンバー漁獲量から、(i) に基づく輸出入実績を加除。各メンバー・非メンバーの国内流通量が推定でき、日本以外への流通状況の把握につながる可能性。a の日本市場への流通量も加味することで、グローバルな流通量の定量把握・漁獲量検証に貢献する可能性。（イメージについて、**別添 4** 参照）

### (1) Verification of SBT international trade and domestic distribution utilizing CDS data

Currently, the Secretariat develops tables of SBT export and import based on international trade data of UN Comtrade, and submits to CC (e.g. CCSBT-CC/1910/10), thereby contributing to understanding of the latest situation of SBT international trade. With a view to conduct more comprehensive catch verification based on wider range of global information on SBT distribution through verifying catch of each Member and understand the latest situation of SBT distribution to other than Japan, further improvement is expected with following additional works:

(i) Comparison between export/import data based on trade statistics and that based on CDS. It would make easier to understand SBT export/import which is not captured by CDS (See **Attachment 3** for the image).

(ii) Addition and subtraction of export/import amount based on (i) to/from each Member's catch. This would lead to understanding of SBT distribution to other than Japan through calculation of SBT domestic distribution within each Member and non-Member. It might contribute to quantitative understanding of SBT distribution and catch verification in a global scale, through incorporating distribution to Japanese market estimated in **a** (See

**Attachment 4** for the image).

## (2) 非メンバーへの協力要請決議の作成

例年、事務局による貿易状況の把握により、非メンバーによる SBT の漁獲や輸入が疑われる際には、事務局がレターを当局に送付し、CDS 決議等への自主的な協力を呼び掛けているところ。他方、右をもってしても十分な事実関係の把握や協力に結びつかないケースも散見され、グローバルな SBT の流通量の正確な把握や、それによる全メンバーの漁獲量検証にあたって支障が生じる可能性がある。CCSBT は 2000 年に便宜置籍船対策を主な念頭として「行動計画 (Action Plan)」決議を採択したが、その後 20 年の間、非メンバーを念頭にした決議等の更新・採択を行っておらず、この観点からの対応が必要。

そこで、全世界規模での流通量をより正確に把握し、全メンバーの漁獲量検証をより精緻に実施することができるようにする観点から、現行の「行動計画決議」をベースとして非メンバーに特化した協力要請決議を作成・採択し、CCSBT として非メンバーへのメッセージを強化することを提案したい。具体的な決議案は本提案に関する議論も踏まえ、他の RFMO の事例も踏まえつつ事務局で作成することが適切と考えられるが、想定される内容としては、CCSBT メンバーによる全メンバー漁獲量検証の取り組みを促進する観点から、自主的協力を求める保存管理措置の具体化（例：CDS 決議、みなみまぐろの全ての死亡要因の報告に関する決議等）や、非協力的な非メンバーに対する対応（例：貿易制限措置、CCSBT ウェブサイトでの公表）などが考えられる。

## (2) Development of Resolution to seek cooperation of non-Members

Usually, upon alleged cases of catch or import of SBT by non-Members based on information gathering of trade record by the Secretariat, the Secretariat has sought their voluntary cooperation with the CDS Resolution among others through delivering its letter to their competent authorities. However, in some cases such efforts do not necessarily lead to full understanding of the situation or full cooperation from the non-Members. Such cases could hamper the effort toward correct understanding of global SBT distribution and catch verification of all Members based on the information. While the CCSBT adopted the Resolution on “Action Plan” in 2000 mainly bearing in mind counteraction against flag of convenience (FOC) vessels, thereafter it has not updated or adopted its Resolution targeting non-Members for twenty years. Action from such a viewpoint is needed.

Bearing these in mind, with a view to correctly understand the SBT distribution, we would like to propose strengthening CCSBT's message to non-Members, through developing a Resolution which exclusively targets non-Members and seeks their cooperation, on the basis of the Resolution on Action Plan currently in force. As for the specific contents of the Resolution, it would be appropriate that the Secretariat develops the draft taking into account the discussion on this item and cases in other RFMOs. With a view to facilitate CCSBT Members' efforts to verify SBT catch of all Members, the possible contents would include

clarification of conservation and management measures which non-Member's cooperation should be sought (e.g. CDS Resolution, Resolution on Reporting all Sources of Mortality of Southern Bluefin Tuna), and action against non-cooperative non-Members (e.g. trade-restrictive measures, publication in the CCSBT website)

### (3) タグデータを活用した漁獲量検証

日本は、自主的に月2回豊洲市場（従来は築地市場、焼津市場。2007年以降。）において管理タグ調査を実施し、日本及び他メンバーにより漁獲された SBT 個体へのタグ装着状況を確認し、そのデータ（漁獲メンバー、個体番号、市場で測定された重量など）を収集している（収集されたデータの概要は別添5を参照）。このデータを事務局に送付し、各メンバーから事務局に提出された CTF フォームの個体別情報と照合することで、各メンバーから提出された個体別重量の妥当性が検証でき、各メンバーによる報告漁獲量の検証の追加材料となる情報が提供される。

したがって、管理タグ調査で得られた情報を、事務局が CTF データと比較検証すること、ならびにその結果を毎年 CC に報告し、議論・検証することを提案する。なお、日本が個体別データを有する日本漁船について、試行的に比較検証した暫定結果は別添6のとおり。他のメンバー分のデータの例については別添7のとおりだが、日本は他メンバーの CTF 情報を有さないため、日本での比較検証は実施できない。

また、豊洲市場を通して流通せずタグ調査の捕捉を受けない SBT（日本以外の漁獲物が主）についても、CCSBT として同様の検証を行うスキームを検討する必要がある。これは、a における外部専門家の検証においても手当されるべきであろう。

### (3) Verification of reported catch with tag data

Japan has voluntarily conducted SBT management tag survey twice a month at Toyosu market (So far at Tsukiji and Yaizu market since 2007). Through this survey, it has surveyed actual situation on tag attachment and collected the data (e.g. catching Member, individual fish number, weight measured at market) (See **Attachment 5** for the outline of collected data). If the data is sent to the Secretariat and compared with fish-by-fish information of Catch Tagging Form (CTF) submitted to the Secretariat by each Member, validity of individual fish weight reported by Members would be verified. This would be additional information to be used for verification of catch reported by Members.

Therefore, we would like to propose that the Secretariat compares the data obtained in the tag management survey with the CTF data, and that the result is reported to the Compliance Committee every year for its discussion and examination. For information purpose, **Attachment 6** presents preliminary result of the trial comparison of Japanese fishing vessels whose fish-by-fish data is available to Japan. While samples of data for other Members are shown in **Attachment 7**, Japan cannot conduct the comparison work as other Member's CTF information is not available to it.

Also, CCSBT should consider similar verification scheme for those SBT (mainly products of Members other than Japan) which is not distributed through Toyosu market and thus not captured by the tag management survey. This should be addressed in the examination by the external expert in a.

### c. 違法な漁獲物検出に向けた体制構築

本項目は、CCSBT の管理外の違法漁獲物を検出し、a 及び b による定量的な把握を補完するものとして提案するものである。

#### c. Development of system to detect illegally caught products

This item is proposed with a view to detect illegally caught products outside the management of the CCSBT and thereby to complement quantitative information gathering in a and b.

##### (1) 現行 CDS 決議に基づくタグ付けの適正化

日本が自主的に豊洲市場で実施している管理タグ調査（b（3）参照）においては、タグが装着されていない事例、タグが切れている事例、タグが魚体内に巻き込まれていること等により個別別情報が得られない事例が相当数（全体の 14%程度。別添5及び別添8参照）確認されており、管理タグ調査によるデータ収集に支障をきたしている状況にある。また、このような事例が、現行 CDS 決議上タグとしての機能を果たしていると言えるか、議論する必要がある。

昨年の ESC においては、管理タグを解体まで義務化するよう検討すべきことが推奨されているが、多数の流通業者全てに対してそのような義務を課すことは現実的ではない。まずは第一歩として、まずは上記のような事例を把握した上で、現行決議に基づいてどのように適正化できるか議論することが先決であろう（現行 CDS 決議においても、最初の販売まではタグ付けが義務付けられており、その後もメンバーはタグ保持を奨励する義務がある）。したがって、管理タグ調査で発見された不適切事例を日本が事務局に報告し、改善に向けて毎年の CC で議論することを提案する。

#### (1) Improvement of tagging based on current CDS Resolution

In the SBT management tag survey (see b(3)) which Japan has voluntarily conducted in the Toyosu market, the individual fish information could not be obtained in substantial number of cases (approximately 14% of all fish surveyed. See Attachment 5 and Attachment 8) where tag is unattached, cut-off or rolled into fish body among others. These cases have hindered data collection efforts through the management tag survey. Also, discussion is necessary as for whether these cases fulfill the roles of the tag under the current CDS Resolution.

In last ESC meeting, it was recommended to consider requiring tags to be retained until the cut of fish. However, it is unrealistic to impose such a burden on all of many distributors.

As the first step forward, above cases should be figured out and how to rectify these based on current Resolution should be discussed (Even under current CDS Resolution, tag retention on fish is required until the first point of sale and Members shall encourage it thereafter.). Therefore, we would like to propose that Japan reports the alleged improper cases detected in the management tag survey to the Secretariat, and that the CC meeting every year discuss such cases for future improvement.

(2) 将来的なタグ仕様改善に向けた閉会期間中作業部会の設置

日本が自主的に実施している管理タグ調査は、タグの仕様そのものの改善の必要性を示唆している。CCSBT ウェブサイトに掲載されているタグ使用マニュアルでは、タグの脱落を防ぐために魚体内に巻き込むことが推奨されているが、実際に魚体内にタグが巻き込まれている場合、タグに記載された個別別情報が容易に外部判読できず、そのタグが本来の管理タグとしての機能を果たしていないケースが見られる。

そこで、c (1) の検討結果も待った上で、切れにくく、外部から容易に情報を読み取り可能なタグの開発に向けた閉会期間中作業部会(メールベース)を設置することを提案する。この作業部会で議論する内容は、判読可能性の向上のみならず、外部からの操作への耐性向上や、電子化によるメリット等も含めることで、違法な漁獲物の検出に向けた一層の前進につながる可能性がある。

(2) Creation of intersessional working group for future improvement of tag specifications

The management tag survey voluntarily implemented by Japan suggests necessity to improve tag specifications themselves. The tag attachment instructions available at the CCSBT website recommends the users to roll the tag inside the fish body for avoidance of the detachment. However, when the tags are rolled into the fish body, the fish-by-fish information displayed on the tag cannot be easily legible from outside, and in such cases the tags do not fulfill their original function as tag for management purpose.

Therefore, we would like to propose creating a new intersessional working group (correspondence basis) for development of tag whose information is easily legible from outside, waiting for outcome of discussion in c (1). Through including not only improvement of legibility but also improvement of tamper-proofness and potential benefit of electronization into the scope of discussion, it could lead to further step forward for detection of illegal products.

**References**

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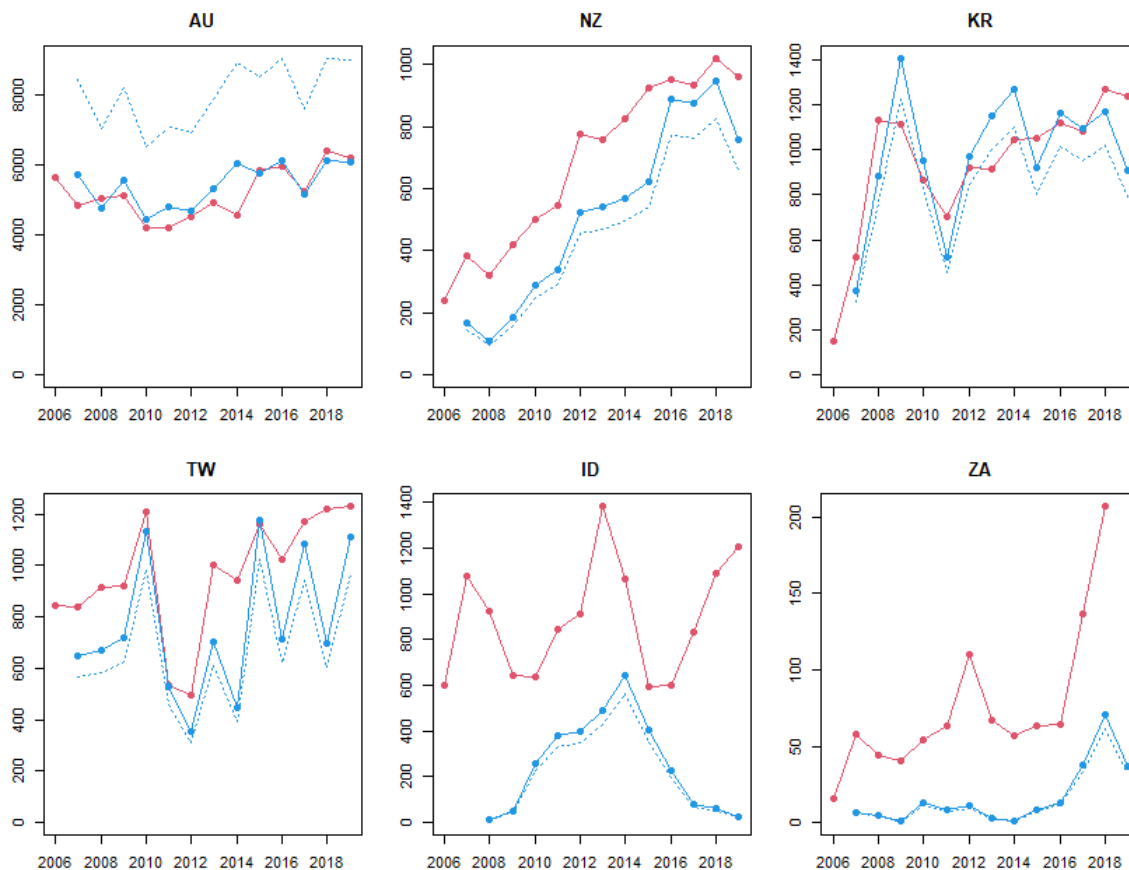
# 各提案項目の主要要素

別添 1

事項	成果物	成果物の直接的用途	達成が期待される目標	議論の場	単発／継続	主な実施主体	追加的費用負担	
a 日本における全メンバー漁獲量の定量的検証	(1) 日本による漁獲物の日本での流通量について、推定式のアップデート及び算出	・更新された2006JMRパラメータ及び流通量推定式	・資源評価・管理の基本情報である漁獲量を確実にできる。	・資源評価・管理の不確実性の低減	ESC(SRPIに追加が必要)	単発	外部専門家 委員会	
	(2) 日本以外のメンバーによる漁獲物の日本での流通量について、推定式の新規構築及び算出	・各メンバー(あるいは全メンバー合計)の日本市場での流通量 ・非メンバー由来SBTの数量	・MPで考慮している未考慮漁獲の妥当性検証 ・各国の報告漁獲量／輸出量と日本市場流通量との比較(メンバーは流通量>報告量の場合CDSに問題あり。トータルで流通量>報告量の場合は非メンバーSBTが存在する可能性)	・MPによる資源管理の精度向上 ・資源評価結果の不確実性の低減	ESC(SRPIに追加が必要)	単発	外部専門家 委員会	
	(3) 上記(1)(2)の推定式に基づく流通推定量の算出	・各年の最新の日本市場流通量	同上	・同上	ESC(SRPIに追加が必要)	継続	上記の進捗踏まえ、検討	委員会
				・CDS外のSBT流通の可能性が検出された場合、接触すべき非メンバーの特定	CC/EC	継続	事務局	なし
(4) (3)で把握される流通量が全世界流通量に占める割合の算出と、それを踏まえた推定作業の意義の検証	・世界での豊洲市場の相対的重要性の評価 ・新たな流通データ利用システムの提案	要すれば、流通データ利用システムを修正	・資源評価・管理の不確実性の低減	ESC/EC	単発	外部専門家	委員会	
b. CDSデータの更なる活用	(1) CDSデータを活用したSBT輸出入・国内流通の検証	・CDSと公開輸出統計の比較結果 ・各メンバー・非メンバーの市場規模推定	・メンバーのCDSの正確性の検証 ・非メンバーである輸入国の探索	・CDSの正確性の向上 ・より詳細な流通調査が有益となりうるメンバー(日本以外)・非メンバーの特定	CC/EC	継続	事務局	なし
	(2) 非メンバーへの協力要請決議の作成	非メンバーに対する協力要請決議	・非メンバーへの協力要請内容の具体化、メッセージの強化	・未考慮漁獲量の正確な把握等	CC/EC	継続	事務局	なし
	(3) タグデータを活用した漁獲量検証	・日本の豊洲タグ調査データとCDSデータとの突合結果	・メンバーのCDS報告の正確性の検証	・各メンバー漁獲量報告の正確性の検証	CC(常設議題の一部とする)	継続	管理タグ調査を含め、将来的に委員会で実施・負担。検証は事務局が実施。	
c. 違法な漁獲物検出に向けた体制構築	(1) 現行CDS決議に基づくタグ付けの適正化	・現場でのタグの現状に関する情報 ・タグ運用の改善	・管理タグ調査の効率性・精度向上	・各メンバー漁獲量検証の精度向上	CC(常設議題の一部とする)	継続		
	(2) 将来的なタグ仕様改善に向けた作業部会の設置	・タグの改善案						単発

# 各メンバー報告漁獲量と日本への輸入実績の試行的比較結果

別添 2



赤:報告漁獲量。青:輸入量。漁獲年と輸入年との間にはタイムラグがある点に留意。  
青の点線は輸入重量、実線とマークは畜養成長と製氷形態を考慮した野生魚漁獲時点の原魚重量。



CCSBT-CC/1910/04 Rev1, Attachment C  
(CDSベースの貿易実績)

CCSBT-CC/1910/10, Attachment G  
(UN Comtradeベースの貿易実績)

(C) Markets (2018 calendar year) Quantities are net weights in tonnes<sup>10</sup>

i) For SBT Imported on CMFs (based on the export date being in 2018)

Importer	Exporter						Total Net Weight (t)
	Australia	Indonesia	Korea	New Zealand	Taiwan	South Africa	
Australia				15.0			15.0
Canada				0.1			0.1
China	38.0						38.0
Japan	9,002.6	54.0	885.6	825.5	649.6	75.3	11,492.6
Korea	282.5						282.5
Singapore	0.1			0.1			0.2
United States	29.5			3.5		83.9	116.9
<b>Total Net Weight (t)</b>	<b>9,352.7</b>	<b>54.0</b>	<b>885.6</b>	<b>844.2</b>	<b>649.6</b>	<b>159.2</b>	<b>11,945.3</b>

ii) For SBT Imported on REEFs (based on the (re-)export date being in 2018)

Importer	Re-Exporter				Total Net Weight (t)
	Australia	Indonesia	Japan	Korea	
Australia		0.0	0.1		0.1
Brunei	0.2				0.2
China	12.2	0.0			12.2
Hong Kong	0.6		2.5		3.1
Japan	3.5	1.7		404.9	410.2
Korea	0.9	0.0	450.8		451.8
Lebanon		3.1			3.1
Malaysia	0.3				0.3
New Zealand	0.1		0.1		0.2
Singapore	0.5		0.6		1.0
Taiwan	0.0		1.0		1.0
United States	0.9	385.9	30.2	7.4	424.4
<b>Total Net Weight (t)</b>	<b>19.1</b>	<b>390.8</b>	<b>485.3</b>	<b>412.3</b>	<b>1,307.4</b>

表が分かれており、CDSベースとUN Comtradeベースの直接比較が困難



品目コード別になっており、合計のSBT輸出実績が把握しにくい



EXPORT/ IMPORT STATISTICS: 2016 – 2018 (COMTRADE)

Note: Non-Cooperating Non-Members (NCNMs) appear at the bottom of all tables and are shaded in light grey. All trade figures except for Taiwan's have been sourced from UN COMTRADE.

EXPORTS and RE-EXPORTS

Table 1a – Exports: Fresh/Chilled SBT (Commodity Code 030236)

Exporter	2016	2017	2018
Australia	1,317.6	1,049.0	5,472.8
EU	376.5 <sup>1</sup>	2.0	19.2
Indonesia			0.3
Japan	0.1	0.1	
Korea	61.3	58.8	8.2
New Zealand	761.7	765.5	827.4
South Africa	1.9	31.8	42.6
Algeria	133.7	484.6	
Iran	4.3	22.1	
Oman	20.0	33.0	
USA	127.5	97.9	141.6

Table 1b – Re-exports: Fresh/Chilled SBT (Commodity Code 030236)

Re-exporter	2016	2017	2018
Oman		33.0	
USA		34.5	36.4

Table 1c – Exports: Frozen SBT (Commodity Code 030346)

Exporter (030346)	2016	2017	2018
Australia	7,032.1	7,567.8	8,666.1
EU	0.1	5.3	0.0
Indonesia	11.0	16.0	
Japan	169.1	172.3	248.0
Korea	998.7	628.8	1,313.1
South Africa	0.6		
Taiwan	647.5	880.9	812.1 <sup>2</sup>
Oman	24.3		
Sri Lanka		14.8	
USA	15.7	2.7	
Viet Nam	1.1	8.4	

<sup>1</sup> 375.1t of this 376.5t was recorded as an export from the Netherlands  
<sup>2</sup> This figure was not yet available from COMTRADE and was instead sourced directly from Taiwan's Bureau of Foreign Trade website from which trade data is publicly accessible:  
<https://cus93.trade.gov.tw/FSC/E020E/FSC/E020E> (COMTRADE figures for 2016 and 2017 match the figures provided on this website)

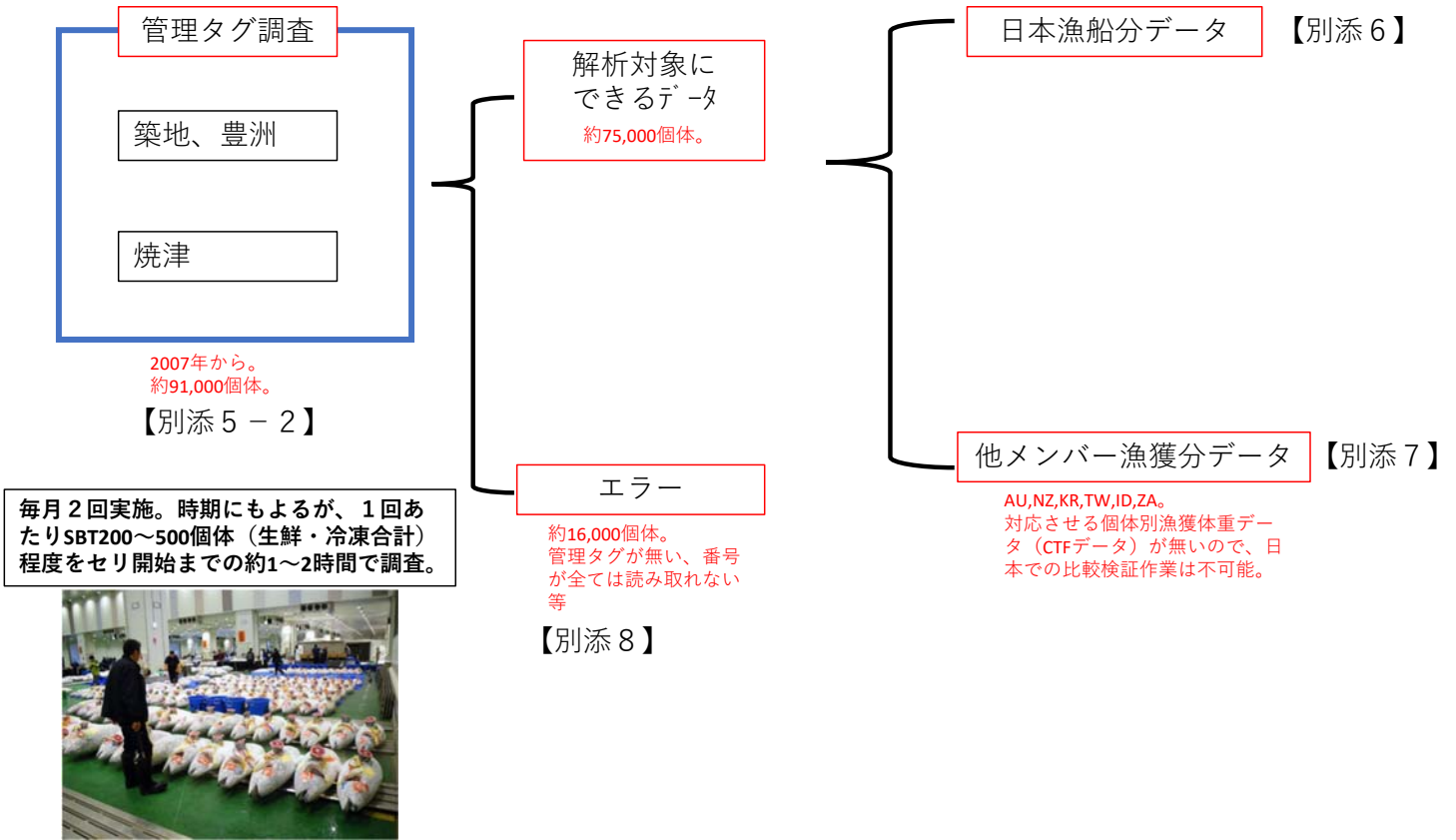
上記を踏まえ、これらを統合した表を別途作成

## グローバルなSBT流通量把握表のイメージ

Data Item	A		B		C		Estimated Domestic Distribution (Market Size) =A-B+C
	Catch		Export		Import		
	Report	CDS	UN Comtrade	CDS	UN Comtrade	CDS	
Members	Australia						
	EU						
	Indonesia						
	Japan						
	Korea						
	New Zealand						
	South Africa						
	Taiwan						
Non-Members	XX						
	YY						
	ZZ						
	...						

考慮が必要な点：  
 漁獲からCDSまで、漁獲から輸入までのタイムラグ（特に年をまたぐ場合）。畜養期間中の成長量。1製品形態による原魚換算。

# 日本の管理タグ調査で得られたデータの概要



# 日本の管理タグ調査で得られたデータの概要

- 得られる主なデータ項目は以下のとおり。
- ・調査日
  - ・タグ有無
  - ・タグ番号（漁獲メンバー、漁獲年、漁船、個体番号）
  - ・漁獲海域
  - ・個体重量（市場での測定値）



## 得られたデータ数

Code	メンバー	N1	N2	N3	N4	p.read
AU	オーストラリア	499	484	425	347	71.7%
ID	インドネシア	893	880	733	733	83.3%
JP	日本	59,087	59,058	53,888	52,759	89.3%
KR	韓国	14,175	12,994	9,760	9,386	72.2%
NZ	ニュージーランド	828	797	767	745	93.5%
TW	台湾	13,167	12,635	10,811	10,650	84.3%
ZA	南アフリカ	76	72	68	65	90.3%
PH	フィリピン	567	565	389	389	68.8%
JNZ	NZチャーター?	757				
	不明	588				
	未記載	757				
<b>Total</b>		<b>91,394</b>	<b>87,485</b>	<b>76,841</b>	<b>75,074</b>	<b>85.8%</b>

ここが解析  
 に使用でき  
 る。

別添6で  
 使用。

タグ情報が  
 ない、  
 読み取れない場  
 合を含む

エラーが  
 かなり存在する。

総数 間違っ入 タグ番号が存 タグ番号が N4/N2  
 力された他 在した場合。 読み取れて  
 メンバーの 10ケタとも  
 データを除 数字の場  
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口腔内で判読困難  
組織内に巻き込まれている  
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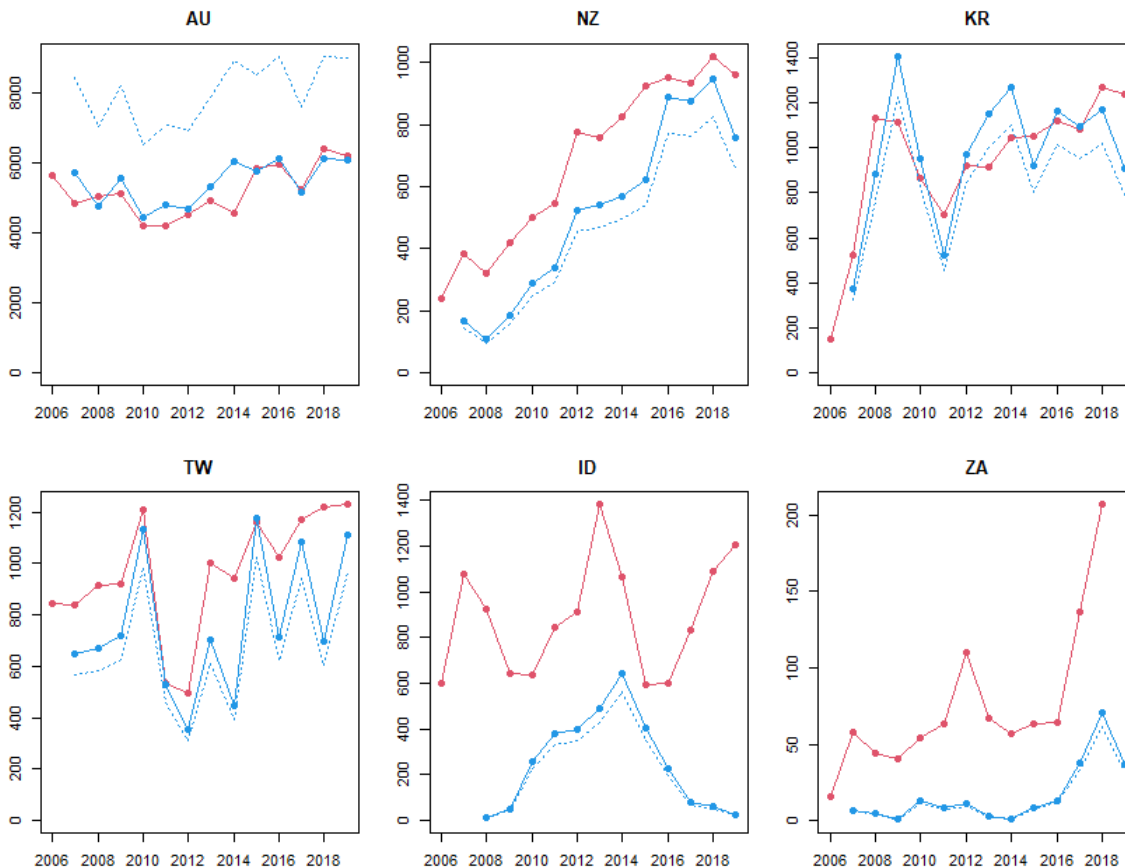


片面のみ印字で、白字のため判読困難

# Main components of each proposal item

Items	Output	Direct usage of output	Objectives expected to be achieved	Forum of discussion	One-off/ Continued	Primary Subject	Bearer of additional cost
a. Verification of all Members' catch in Japan	(1) Update of estimation formula of distribution amount of Japanese SBT catch in Japan	Updated 2006 JMR parameters and estimation formula of distribution amount	Verification of the validity of catch amount which is very basic information for stock assessment and management	Reduction of uncertainty of stock assessment and management	ESC/EC	One-off	External Expert EC
	(2) New development of estimation formulas for distribution amount of other Member's catch in Japan	-Distribution amount in Japanese market of catch by each Member (or their total) -Amount of SBT originated in non-Members	-Verification of the validity of unaccounted mortality (UAM) considered in the Management Procedure (MP) -Comparison between (A) reported catch by each Member and (B) the distribution amount in Japan; if A < B in a Member, there would be problem in the CDS. If A < B in total, it would suggest SBT caught by non-Members.	-Improved precision of management with MP -Reduction of uncertainty of stock assessment	ESC/EC	One-off	External Expert EC
	(3) Calculation of distribution amount estimate based on formulas in (1) and (2) above	-Latest distribution amount in Japan for each year	Ditto	Ditto	ESC/EC	Continued	To be considered based on progress of (1)(2) above EC
	(4) Calculation of the proportion of the estimated distribution amount in (3) to the global distribution amount of SBT and assessment of the value of the estimation works	-Assessment of relative importance of Toyosu market from global viewpoint -Proposal on new system to utilize distribution data	If necessary, modification of system to utilize distribution data	Reduction of uncertainty of stock assessment and management	ESC/EC	One-off	External Expert EC
b. Further utilization of CDS data	(1) Verification of SBT international trade and domestic distribution utilizing CDS data	-Comparison result of between CDS and official trade statistics -Estimated market size of each Member and non-Member	-Verification of CDS accuracy of each Member -Identification of non-Member importing SBT	-Improvement of CDS accuracy -Identification of Member (excluding Japan) and non-Member where more detailed distribution survey could be useful	CC/EC	Continued	Secretariat None
	(2) Development of Resolution to seek cooperation of non-Members	Resolution seeking cooperation of non-Members	-More detailed description of cooperation to be sought -Strengthened message to non-Members	More accurate information gathering of UAM etc.	CC/EC	Continued	Secretariat None
	(3) Verification of reported catch with tag data	Comparison result of management tag survey in Toyosu by Japan and CDS	Verification of accuracy of CDS report by Members	Verification of accuracy of catch reported by Members	CC	Continued	To be conducted and financed by EC in future, including management tag survey. The examination should be conducted by the Secretariat.
c. Development of system to detect illegally caught products	(1) Improvement of tagging based on current CDS Resolution	-Information of tagging in practice -Improvement of tag implementation	Improvement of efficiency and accuracy of management tag survey	Improved accuracy of catch verification for all Members	CC (To be addressed in standing agenda items)	Continued	EC (physical meeting)
	(2) Creation of intersessional working group for future improvement of tag specifications	Idea for improvement of tag itself			Correspondence, after waiting the result of c(1)	Continued	Members

# Result of pilot comparison between each Member's reported catch and their import to Japan



Red: Reported catch. Blue: Import to Japan.

Note that there could be time-lag between year of catch year and that of import

Blue dotted line is nominal import quantity. Blue solid line is original fish weight taking into account growth at farming and product type.



Possible improvement of comparison between CDS data and UN Comtrade trade statistics

CCSBT-CC/1910/04 Rev1, Attachment C  
(CDS-based trade record)

CCSBT-CC/1910/10, Attachment G  
(UN Comtrade-based trade record)

(C) Markets (2018 calendar year) Quantities are net weights in tonnes<sup>10</sup>

i) For SBT Imported on CMFs (based on the export date being in 2018)

Importer	Exporter						Total Net Weight (t)
	Australia	Indonesia	Korea	New Zealand	Taiwan	South Africa	
Australia				15.0			15.0
Canada				0.1			0.1
China	38.0						38.0
Japan	9,002.6	54.0	885.6	825.5	649.6	75.3	11,492.6
Korea	282.5						282.5
Singapore	0.1			0.1			0.2
United States	29.5			3.5		83.9	116.9
<b>Total Net Weight (t)</b>	<b>9,352.7</b>	<b>54.0</b>	<b>885.6</b>	<b>844.2</b>	<b>649.6</b>	<b>159.2</b>	<b>11,945.3</b>

ii) For SBT Imported on REEFs (based on the (re-)export date being in 2018)

Importer	Re-Exporter				Total Net Weight (t)
	Australia	Indonesia	Japan	Korea	
Australia		0.0	0.1		0.1
Brunei	0.2				0.2
China	12.2	0.0			12.2
Hong Kong	0.6		2.5		3.1
Japan	3.5	1.7		404.9	410.2
Korea	0.9	0.0	450.8		451.8
Lebanon		3.1			3.1
Malaysia	0.3				0.3
New Zealand	0.1		0.1		0.2
Singapore	0.5		0.6		1.0
Taiwan	0.0		1.0		1.0
United States	0.9	385.9	30.2	7.4	424.4
<b>Total Net Weight (t)</b>	<b>19.1</b>	<b>390.8</b>	<b>485.3</b>	<b>412.3</b>	<b>1,307.4</b>

Difficult to directly compare CDS-based and UN Comtrade-based, as the tables are separated



Difficult to grasp the total SBT import record, as tables are separated by commodity code



EXPORT/ IMPORT STATISTICS: 2016 – 2018 (COMTRADE)

Note: Non-Cooperating Non-Members (NCNMs) appear at the bottom of all tables and are shaded in light grey. All trade figures except for Taiwan's have been sourced from UN COMTRADE.

EXPORTS and RE-EXPORTS

Table 1a – Exports: Fresh/Chilled SBT (Commodity Code 030236)

Exporter	2016	2017	2018
Australia	1,317.6	1,049.0	5,472.8
EU	376.5 <sup>1</sup>	2.0	19.2
Indonesia			0.3
Japan	0.1	0.1	
Korea	61.3	58.8	8.2
New Zealand	761.7	765.5	827.4
South Africa	1.9	31.8	42.6
Algeria	133.7	484.6	
Iran	4.3	22.1	
Oman	20.0	33.0	
USA	127.5	97.9	141.6

Table 1b – Re-exports: Fresh/Chilled SBT (Commodity Code 030236)

Re-exporter	2016	2017	2018
Oman		33.0	
USA		34.5	36.4

Table 1c – Exports: Frozen SBT (Commodity Code 030346)

Exporter (030346)	2016	2017	2018
Australia	7,032.1	7,567.8	8,666.1
EU	0.1	5.3	0.0
Indonesia	11.0	16.0	
Japan	169.1	172.3	248.0
Korea	998.7	628.8	1,313.1
South Africa	0.6		
Taiwan	647.5	880.9	812.1 <sup>2</sup>
Oman	24.3		
Sri Lanka		14.8	
USA	15.7	2.7	
Viet Nam	1.1	8.4	

<sup>1</sup> 375.1t of this 376.5t was recorded as an export from the Netherlands  
<sup>2</sup> This figure was not yet available from COMTRADE and was instead sourced directly from Taiwan's Bureau of Foreign Trade website from which trade data is publicly accessible:  
<https://cus93.trade.gov.tw/FSC/E020E/FSC/E020E> (COMTRADE figures for 2016 and 2017 match the figures provided on this website)

With this in mind, another table consolidating these could be developed

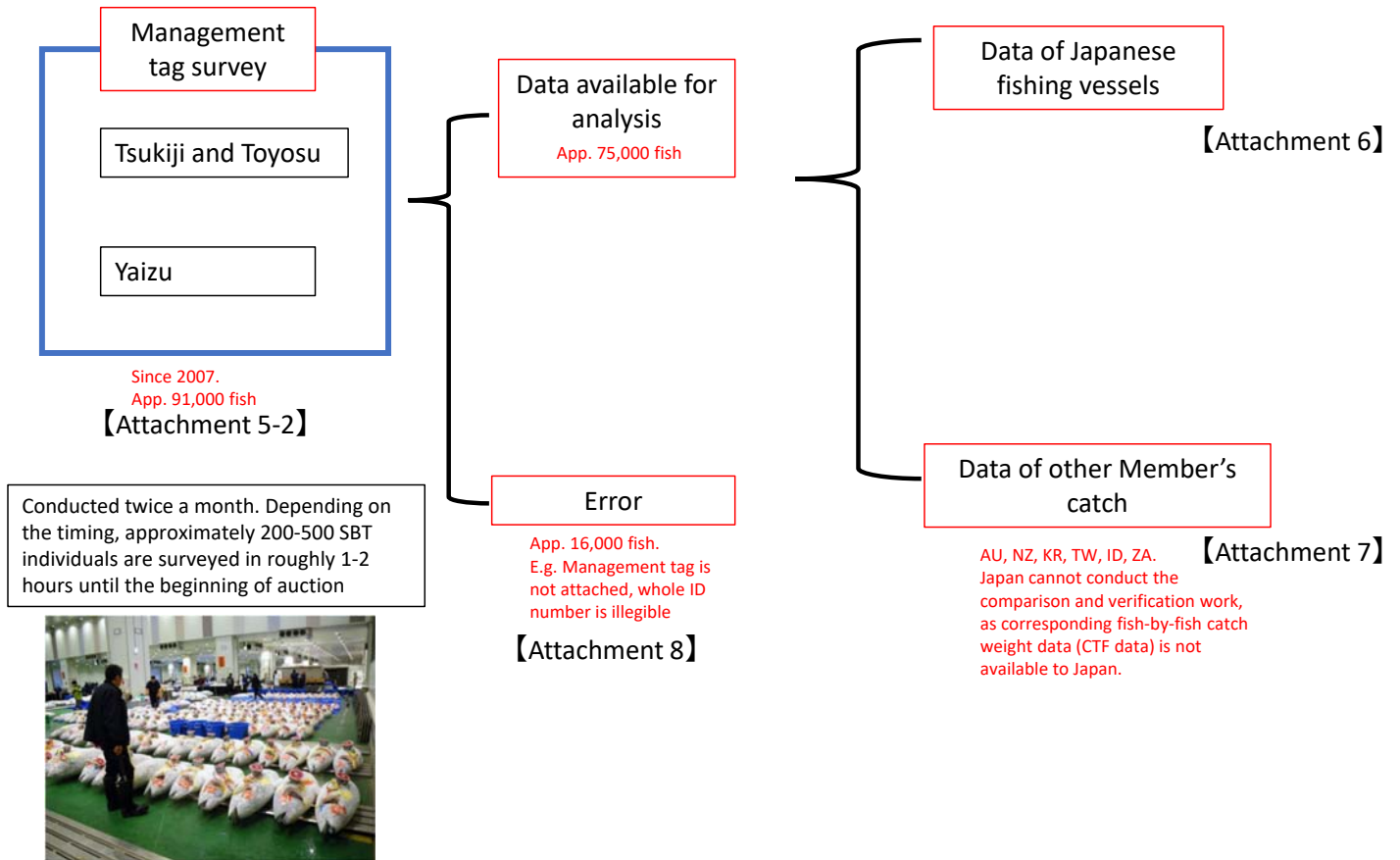
Possible global SBT distribution table

Data Item	Data Source	A		B		C		Estimated Domestic Distribution (Market Size) =A-B+C
		Catch		Export		Import		
		Report	CDS	UN Comtrade	CDS	UN Comtrade	CDS	
Members	Australia							
	EU							
	Indonesia							
	Japan							
	Korea							
	New Zealand							
	South Africa							
Non-Members	XX							
	YY							
	ZZ							
	...							

Need to take into account:

- Time-lag between catch and CDS, catch and import (especially when it is extended to next year)
- Growth during farming period
- Conversion to original fish weight by product type

# Outline of data collected through management tag survey by Japan



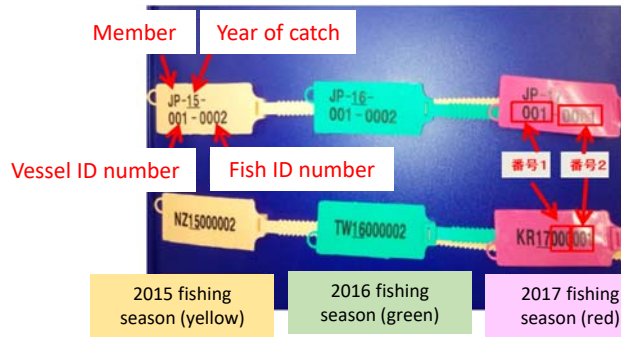
# Outline of data collected through management tag survey by Japan

- Main data items obtained are as following:**
- Date of survey
  - If tag is attached or not
  - Tag number (catching member, year of catch, fishing vessel, fish ID number)
  - Catch area
  - Fish weight (measured at market)



**Number of data obtained**

Code	Member	N1	N2	N3	N4	p.read
AU	Australia	499	484	425	347	71.7%
ID	Indonesia	893	880	733	733	83.3%
JP	Japan	59,087	59,058	53,888	52,759	89.3%
KR	Korea	14,175	12,994	9,760	9,386	72.2%
NZ	New Zealand	828	797	767	745	93.5%
TW	Taiwan	13,167	12,635	10,811	10,650	84.3%
ZA	South Africa	76	72	68	65	90.3%
PH	Philippines	567	565	389	389	68.8%
JNZ	Chartered NZ	757				
	unknown	588				
US	USA?	1				
CP	Capetown?	5				
	unknown	582				
	no record	757				
<b>Total</b>		<b>91,394</b>	<b>87,485</b>	<b>76,841</b>	<b>75,074</b>	<b>85.8%</b>



N1 is the total number.  
 N2 is N1 but eliminated records which recorded as other Member.  
 N3 is N2 but any tag ID was identified.  
 N4 is N3 but all ten-digit ID number was identified.  
 p.read is N4/N2.

Including cases of no tag information or illegible

There are a substantial number of errors







Tag is cut-off



Tag is illegible being sandwiched between fish and base.



Hard to read inside mouth. It is illegible when tag is rolled into body tissue.



Hard to read as only one side is printed.

## Excerpts from the ESC25 Report

### **Agenda Item 6. Consideration of farm and market issues**

#### ***6.2. Market uncertainties***

53. Japan presented CCSBT-ESC/2008/22 regarding the Japanese market monitoring update...*(Note: The rest is omitted)*
54. Japan presented CCSBT-ESC/2008/23 which proposed actions aimed at improving the existing methodology for monitoring of SBT product distribution in Japan. The ESC in 2019 recommended that the mechanism to verify the catch of not only Japan, but also of all Members should be developed by using information obtained from Japanese markets. Given this background, with a view to reduce uncertainties of SBT catch in the global market through verification of all Member's SBT catch and utilisation of CDS as well as information of Japanese and other markets, Japan proposed the following actions based on agreement among Members.
- (A) Verification of all Members' catch in Japanese market that includes: (a1) Update of the estimation formulae for the product distribution of the amount of Japanese SBT catch in the Japanese market; (a2) Development of new estimation formulae for the product distribution of the amount of other Members' catches in the Japanese market; (a3) Calculation of estimated amounts based on the formulae in (a1) and (a2) above; and (a4) Calculation of the proportion which the estimated amount in (3) contributes to the amount of SBT in the global market, and an assessment of the value of these estimation analysis.
- (B) Further utilisation of CDS data that includes: (b1) Verification of SBT international trade and domestic distribution utilising CDS data; (b2) Development of a Resolution to seek cooperation of non-Members; and (b3) Verification of the reported catch using tag data.
- (C) Development of a system to detect illegally caught products that includes: (c1) Improvement of tagging based on the current CDS Resolution; and (c2) Creation of an intersessional working group for future improvement of tagging specifications.
55. Japan further proposed that once agreement is reached on implementation of the proposed action(s), the implementation cost should be funded from the EC's budget.
56. Prior to the ESC meeting, Japan held a workshop about this proposal with interested ESC participants. The following summarises discussions during the workshop.
- Workshop participants appreciated the progress made in Japan's proposal toward verification of all Members' catch. It was generally agreed that the proposal captured the intent underlying previous discussions on this matter well, including

ESC 24 recommendations, and that the scope covered verification of SBT catch not only by Japan but also by all other Members, including possible unaccounted mortalities.

- Most actions proposed by Japan received preliminary support from workshop attendees, with some reservations being expressed in relation to the development of a resolution to seek cooperation from non-Members and funding arrangements for ongoing monitoring.
- Workshop participants offered several comments and raised particular questions about the proposal. Their outline and Japan's responses are attached as **Attachment 5**.
- Workshop participants agreed that taking into account discussion in this ESC, the proposal should be considered further and discussed in the 2020 Finance and Administration Committee and EC Meetings, including the priority item(s) for implementation and their budgetary implications. The workshop participants considered that draft Terms of Reference (ToR) and cost estimates would be useful input to this discussion.

57. The Workshop outcomes were reviewed and accepted by the ESC.

### **Agenda Item 13. Update of the Scientific Research Plan (SRP)**

#### ***Direct estimation of non-Member UAM***

181. The ESC recalled that there have been no direct estimates of non-Member UAM since the trade and market reviews for the presence of SBT in non-Member markets (CCSBT- ESC/1609/37) were completed in 2016.
182. The ESC noted paper CCSBT-ESC/2008/23 from Japan that outlines a proposal for monitoring catches of SBT in the Japanese market and that this study would provide improved estimates of non-Member catches if they were distributed in the Japanese market. Although the current survey is limited to the Japanese market, the ESC noted the value of extending this survey to other markets to provide a wider perspective of potential non-Member catch, and that item a4 of the Japan's proposal relates to this point.

**Outline of comments/questions to CCSBT-ESC/2008/23 and Japan's response**

**General matters**

(Q1) How would the proposal contribute to “reduction of market uncertainty”?

*(A) The primary objective of the proposal is “verification of catch reported by Members using information on SBT product distribution” and NOT “Reduction of market uncertainty.” SBT product distribution (Market) information is no more than a mean to achieve the objective. As mentioned in page 5, the verification using market information should be conducted for the sole purpose of detecting potential over-catch exceeding certain level (or confirming non-existence of such a large over-catch). Even if some over-catch is reported, this would be less serious if it is accurately reported as numerical figure, because this may be factored in management. Also, item c (development of system to detect illegally caught product) would contribute to measure (which may contribute to reduce) the degree of uncertainty relating to what is not reported: unaccounted mortalities.*

(Q2) Development of the Terms of References (ToR) will be useful for further consideration

*(A) The drafting of ToR will be useful for further discussion and Japan is willing to draft it taking into account the discussion in the ESC.*

(Q3) What will be expected budgetary implications?

*(A) Preliminary and rough estimation is as follows:*

- Item a1-a4: 50,000 AUD as the consultation fee (tentatively the same amount as farm and market expert consultation fee combined) plus 6,000 AUD as the travel fee in the first year of implementation. It is possible that this will be multi-years project.*
- Item b1-b2: No budgetary implication (except for staff cost in the Secretariat)*
- Item b3 and c1: 50,000-60,000 AUD for management tag survey under the CCSBT budget*
- Item b2: 18,900 AUD as the TCWG fee (as estimated in draft 2021 budget)*

(Q4) Primary destinations of some Member's catch is not Japan; e.g. USA. SBT product distribution survey focusing only Japan would not capture such SBT catch. Validity of regularly expending budget to this survey (especially in Toyosu market) would be discussion point.

*(A) This is exactly what item a4 (with input information on global SBT product distribution obtained in b1) proposes; reassessment of the value of current survey focusing on Toyosu and possible development of a new survey system. If the a4 work reveals the specific necessity to conduct survey in other than Toyosu/Japan, it would be worth consideration. As mentioned in b3 of the proposal, this consideration would be necessary for future tag management survey design with a view to capture SBT which does not pass Toyosu market.*

*As mentioned in b3 and c1, purpose of Toyosu market survey includes detection of possible unaccounted SBT which is not quantitatively reported, not only estimation of SBT product distribution amount.*

### **Item by Item**

#### ***a. Verification of all Members' catch in Japanese market***

(Q5) How the expert will be elected? Does Japan assume a particular expert as the candidate? Or the expert will be elected from the ground up?

*(A) As mentioned in 2.a in page 4, given the importance of this matter to all CCSBT Members, the external experts should be elected once again based on consensus agreement (not voting) among all Members. Nominations from Members will be the basis for discussion.*

(Q5 bis) In hiring external expert for this work, his/her neutrality is very important. We support that the expert should be elected based on consensus agreement among all Members.

*(A) Thank you for your support.*

(Q5 ter) We have been thinking about what information might be available to the expert. We understand that a lot of the market data is already available from the TMG. Can you advise whether the expert will be able to access that data, with JFA's support?

*(A) Aggregated data on SBT traded in the Tokyo Metropolitan Central Wholesale Market is publicly available at the Tokyo Metropolitan Government (TMG) website. More detailed data would be available through procedures of information disclosure request to the Tokyo Metropolitan Government. Necessity of additional information disclosure request to TMG will be also considered by the Expert, taking into account the past discussions.*

***a1. Update of estimation formula of distribution amount of Japanese SBT catch in Japan***

(Q6) This is what recommended by the Market Expert last year and understandable

*(A) Thank you for positive comments.*

***a2. New development of estimation formulas for distribution amount of other Member's catch in Japan***

(Q7) Would you expect that the expert considers this item from the ground up, or would there be any proposed basis for his/her consideration?

*(A) The proposed basis for expert's consideration would be JMR estimation formula for Japan's catch. However, it should be taken into account that there are some statistical data which have been aggregated as "foreign (non-Japanese)" and are hard to separate by country. There would be some factors which require different considerations (e.g. difference of primary SBT product distribution route, transaction method and/or customers). We would like the expert to consider to what extent the precision of estimate for non-Japanese catch could be improved, including search for other available statistics.*

(Q8) In some years in the figure for Korea at Attachment 2, import exceeds the reported catch. Does it include those SBT which is reexported to Japan?

*(A) The figures in Attachment 2 is very simple plot on a pilot basis and this just an example for information to Members. There could be a need to take into account factors such as reexport and difference in year (time-lag).*

***a3. Calculation of distribution amount estimate based on formulas in (1) and (2) above***

(Q9) How much budget will be required for calculation in every year? Who will do the regular calculation?

*(A) The cost would depend on the outcome of a1 and a2 and it is hard to estimate at present. We assume the hired expert as the possible subject of initial calculation for input to a4 work. From the second calculation and beyond, it is hard to assume the subject at present.*

***a4. Calculation of the proportion of the estimated distribution amount in (3) to the global distribution amount of SBT and assessment of the value of the estimation works***

(Q10) It is hard to specifically imagine “a new system to utilize SBT distribution data for compliance purpose.”

*(A) The new system may include, for example, a new SBT product distribution amount estimation methodology which focuses on not only Toyosu but also other channels (e.g. off-market transactions, SBT product distribution to other economies than Japan) and/or a new market survey(s) in other destinations than Toyosu/Japan.*

(Q) Is the cost for a4 separated from other elements?

*(A) No. It is included in the cost for entire element “a” as shown in Q3 above.*

**b. Further utilization of CDS data**

***b1. Verification of SBT international trade and domestic distribution utilizing CDS data***

(Q11) This work has been already undertaken by the Secretariat. Visual benefit of merging some tables which are currently separate is understandable, but how would it contribute to “reduction of market uncertainty?”

*(A) As mentioned in the first question, the objective of the proposal is “Reduction of verification of catch reported by Members using information on SBT product distribution,” and NOT “Reduction of market uncertainty.” We consider that the proposed re-formatting of tables would provide more visually easy-to-understand information on global SBT product distribution than present, which is the important input to the objective. Also, this information will be necessary input to work in a4 (reassessment of the value of current survey focusing on Toyosu and proposal for a new survey system). For this reason, we propose giving it a try as the first step. Seeking advice or feedback from the expert hired in item a might be another possibility.*

(Q12) With regard to Attachment 4, the row in the right end (A-B+C) would need clarification with regard to which of “Report,” “CDS” and “Comtrade” should be basis for calculation.

*(A) CDS capturing all the legitimate SBT catch should be primarily used for the calculation. Other data sources (Report, Comtrade) will be the secondary information to verify the CDS data.*

(Q12 bis) It may be a good idea to merge the relevant tables, but it should be taken into account that there is difference between reliability of different data sources. For example, there was a case where almost twice amount of SBT trade as CDS-based value is recorded and later it turns out to be due to miscoding in trade statistics.

*(A) Yes, that point would need to be taken into account. It is possible that the lower reliability of trade data is improved through examination upon flagged large discrepancies by the merged table. Such improved trade data might become more useful for future catch verification purpose.*

### ***b2. Development of Resolution to seek cooperation of non-Members***

(Q13) Primary action assumed in the Action Plan are trade restrictive measure against uncooperative non-Members. Such action is covered in the Resolution on Authorized Vessels and CDS Resolutions. It is uncertain how much it would contribute to strengthening the action against non-Members through developing the Resolution. Also, it is uncertain how much it would be appealing to non-CCSBT parties through exposure in the CCSBT website. Anyway, the EC should provide something like a format or guidance.

*(A) Development of Resolution is proposed as an example of possible method for improvement. Whatever the method is, important point is to verify accuracy of suspected catch and/or trade information by non-Members with greater reliability. Given the importance of this, our proposal is to give it a try, as the first step. Of course, this will be EC matter and the discussion in EC would be necessary.*

(Q13 bis) Before jumping to new Resolution for non-Members, more utilization of stipulations relevant to non-Members in the existing Resolutions should be considered. Relationship with the WTO Agreement should be also carefully considered.

(Q13 ter) The spirit of this item is understandable. Basic course of action to develop more standardized approach to non-Members seems reasonable. Nevertheless it seems a bit premature to use trade restrictive measures from the beginning.

*(A) Thank you for comments. These points would need to be further discussed in EC.*

### ***b3. Verification of reported catch with tag data***

(Q14) This would be a good proposal. This would be only one opportunity where CTF data and actual fish can be compared by third party. Because only the Secretariat can access CTF data without special authorization from relevant Members, it would be appropriate that the Secretariat undertakes this work.

*(A) Thank you for positive comments.*



(Q14 bis) Generally support this item for better implementation of the CDS Resolutions by Members. However, the idea to expend the implementation cost of tag management survey from the CCSBT budget would require careful consideration, as this may be a precedent which could lead to expansion of CCSBT's expense to a number of other national programs.

*(A) Our proposal is to utilize tag management survey for verification of all Member's catch, which will be useful for all Members and proper management of SBT stock. The purpose of the survey would no longer be just a domestic monitoring scheme for Japan's catch and will be changed into international cooperation scheme for all Members, if the item is agreed. For this reason, we believe that it is sufficiently reasonable to expend from the CCSBT budget for the implementation.*

(Q15 ter) Members raised the issue of cost and noted that in the interest of transparency it would be worthwhile considering the feasibility of any expanded tag survey being conducted by an independent third party. Would it replace the current tag survey by Japan?

*(A) In case that the survey cost is funded by the CCSBT budget, of course the survey should be undertaken by an independent third party in terms of transparency and neutrality. If the expense from the CCSBT budget is agreed and implemented, it would replace the management tag survey currently conducted by Japan. If the survey coverage is sufficient would need to be considered in due course, taking account the examination result of item a4.*

(Q15) It seems that Attachment 6 assumes that product type recorded in the CTF of a SBT individual and that of product sold in Toyosu market is always the same (the product type does not change in between). To what extent this assumption would be reliable?

*(A) This would worth confirmation. In principle, the product type should not change especially with regard to frozen SBT in GG. The analysis result (good match) in Attachment 6 supports this assumption with regard to Japan's catch. It is not sure if there is cases where weight of imported fresh SBT in GG is measured in market after the product type is changed, and would worth confirmation to relevant Members.*

(Q16) Is there any possibility of misunderstanding based on difference in method of tag numbering? Other Members than Japan use serial number, unlike Japan which uses numbering system by catch year and vessel. Would this difference affect the analysis result?

*(A) Such a difference has been taken into account, and does not change the analysis result.*

(Q17) Is Japan proposing to expend the cost for management tag survey (currently conducted by Japan) from CCSBT budget?

*(A) Yes, as mentioned in the summary and page 4 of the proposal, once agreed on implementation of the proposal item(s), the implementation cost should be spent from the CCSBT Commission's budget, including that of management tag survey. The rough and preliminary estimate is 50,000-60,000 AUD. Meanwhile, even if the expenditure from the CCSBT budget is agreed immediately, it would be difficult to immediately move on to transformation from 2021. Given the current COVID-19 pandemic, there should be some preparatory period at least one more year for smooth and effective transformation for avoidance of confusion among relevant parties.*

**c. Development of system to detect illegally caught products**

***c1. Improvement of tagging based on current CDS Resolution***

(Q18) This will be a good proposal and would like Japan to report the detected improper cases. Discussion for improvement would be also useful. With regard to Attachment 5-2, it is hard to understand the specific situation relating to N2, N3 and N4. Would it be possible to show some pictures as their example?

*(A) The table in Attachment 5-2 is a mixture of multiple types of errors such as illegibility of the tag, error in recording by researchers at market and error in the data entry to Excel sheet. N2 is error in data entry (For example, the country row in the Excel indicates "Korea" but the management tag number starts from "TW"). N3 and N4 errors indicate limitation in recording by researcher due to illegibility of the tag information due to problem in the tag attachment. Therefore, the table is preparatory and preliminary information, not finalized result indicating definitive number of errors. Still, this table is presented to inform that tag-attachment method needs to be improved and the data contains multiple errors. It is expected that the number of errors will decrease through improvement in tag-attachment method and data quality control*



Left: Half of the tag was embedded in frozen muscle. This tag tells us only that JP-19-J\*\*\*-068-0\*\*\*

Right: An example of when tag number could not be read and recorded.

(Q18 bis) One Member has introduced a new type of tag whose number can be read from the barcode on the tag by the dedicated scanner.

*(A) Thank you for informative input for the discussion.*

(Q18 ter) What about the idea to expand the tag attachment obligation beyond the first point of sale which was mentioned in last ESC?

*(A) As mentioned in the proposal, it is unrealistic to impose tag-attachment obligation on all of a large number of companies handling with SBT. Before jumping to such new obligation, we should consider utilizing the existing stipulation of CDS Resolution which still requires Members to encourage tag retention after the first point of sale.*

(Q18 quarter) Under the current CDS Resolution, are Members obligated to attach tag after export? Imported SBT should be attached with tags.

*(A) This question may be further addressed by the Secretariat, or future discussion on this item, but our understanding is that para 1.7 of the CDS Resolution stipulates that Members shall not permit whole SBT to be exported or re-exported without a tag except for certain cases. Also, the para 1.10 obligates Members to encourage the retention of tags even after the first point of sale.*

***c2. Creation of intersessional working group for future improvement of tag specifications***

(Q19) As electronic CDS is under development, it would be a good timing to consider transition to electronic tag (RFID tag). It would be necessary to do discussion for example in TCWG, with participation of technical experts not only Member government officials.

*(A) Yes, it would be useful to discuss with participation from relevant technical experts. Taking into the discussion in CCSBT, we would like to introduce candidate technology or relevant information when identified and ready.*

(Q19 bis) It would be a good idea to discuss possibility of using RFID tags.

*(A) Thank you for positive comments.*

(Q19 ter) It is interesting idea to considering possibility of integration of electronic tag to the CDS system. For the time being, current system should be maintained for avoidance of confusion.

*(A) Thank you for positive comments.*