



eCDS for the CCSBT Review of Members concerns and ICCAT's experiences with e-BCD

Background

The Seventh meeting of the Compliance Committee (CC) requested that the Secretariat conduct a cost benefit analysis of an electronic Catch Documentation Scheme (eCDS) for the CCSBT for CC8. In order to develop the cost benefit analysis, the Secretariat prepared an eCDS concept proposal and presented it to CCWG2. Following this, the Secretariat prepared specifications, obtained preliminary quotes, and presented a cost-benefit analysis to CC8.

CC8 agreed to delay final recommendations on an eCDS for one year to allow the CCSBT to learn from The International Commission for the Conservation of Atlantic Tunas' (ICCAT) experiences with their e-BCD¹ system, and for the Secretariat to work on practical aspects of implementation with respect to issues that had been identified. The Secretariat wrote to Members during 2014 to obtain further details of their concerns, and also wrote to ICCAT to learn of their experiences with their system. The Member's responses are compiled in Attachment A.

Introduction

This paper is divided into three sections:

1. A summary of concerns raised by Members with respect to the implementation of an eCDS for the CCSBT together with comments regarding how these concerns may be addressed in the eCDS;
2. The ICCAT e-BCD project, including lessons learned from ICCAT's experience and an option to take advantage of development work by ICCAT; and
3. Recommendations addressing Members' concerns and the experiences and advice from ICCAT.

Section 1: Summary of Concerns raised by Members

Responses to the Secretariat's questionnaire showed that Members had concerns in eight broad areas, these being:

- a. Lack of reliable and cost-effective internet at Sea and in port;
- b. Risks of interrupted trade;
- c. Required timeframes for completion of certain CDS forms;
- d. Data confidentiality and security;
- e. Administration of the eCDS;
- f. Users and roles; and
- g. Implementation and tender process.

Each of these broad areas of concern are addressed below, by noting:

- The specific concerns that have been raised, and whether these are new concerns mentioned in response to the Secretariat's questionnaire or whether these concerns had been raised previously;

¹ Electronic Bluefin Catch Document

- eCDS recommendations necessary to address the concerns; and
- The extent to which the concerns had been addressed in the Secretariat's original proposal together with any further solutions to address the concerns.

a) Lack of reliable and cost-effective internet at sea and in port

Members previously raised the concern that internet access would be required for an eCDS, yet there was a lack of reliable and cost-effective internet at sea and in some ports. The Secretariat asked each Member to indicate the level of internet and email access on vessels at sea and in relevant ports.

Vessel internet access at sea

Responses from Members indicate that while some fishing vessels have internet and email access at sea, there are many vessels that do not, with some vessels having only radio communication.

Internet access at port

Members reported that all relevant ports have internet access, although some ports have been noted as having disruptions to internet and in some cases internet access is not available at the site of landing, but at an office some distance away (up to 30 minutes). In particular Port Louis and Cape Town do not have regular and easily accessible internet availability.

eCDS requirements that would be needed to address these concerns

- The eCDS should not require fishing vessels at sea to have internet or email access.
- There should be a backup procedure in place if port internet is not available or is disrupted.

Were these concerns addressed already by the Secretariat's original proposal?

The eCDS relies on internet access to function fully, but eCDS documents do not usually need to be completed while vessels are still at sea. The exception is for transshipments at sea, but even in this case, it would be possible for a vessel master to provide delegated authority for someone on shore to complete the document on the master's behalf. In addition, the Secretariat's initial proposal was designed to be compatible with the current paper-based CDS system so that a paper-based alternative is available as an emergency back-up.

Some solutions for the lack of internet for transshipments at sea include:

- Always permit use of paper-based forms for transshipments at sea. These could be entered into the system when the receiving vessel returns to port.
- Remove the Certification requirements from the transshipment section of the form and allow the catch/harvest and transshipment parts of a Catch Monitoring Form (CMF) to be created and completed by either the master or a representative of the vessel, e.g. an agent or company representative, at port or elsewhere. The details of the transshipment could be transmitted to the representative by radio or any means possible, with the representative transmitting back the relevant form number and unique identifier. The master certification requirements could be removed, see *Recommendation 2: Remove certification from CDS forms*. Under this scenario, no internet access is required by the vessel.

b) Risks of interrupted trade

Issues previously identified by Members

The eCDS may increase the risk of interrupted trade through factors such as:

- System or internet connection failure;
- Strict automated electronic checks preventing the product from being validated; and
- Government intervention may be required when problems are encountered.

The eCDS needs to cater for the above and other unforeseen circumstances so as not to cause interruption to trade, especially considering that:

- The collection and reporting time window is often narrow;
- Airfreight deadlines often require that documentation requirements are met rapidly; and
- Operations are often outside of government office opening hours.

Additional concerns raised by Members

- A validator or certifier may not be available to certify/validate the eCDS document at the time of shipment.
- There may be a need to define whether issues caused by system or internet failure should be considered as non-compliance (if not catered for adequately by the system).
- Fish measurements taken at sea may not be exact, for example due to rough weather. At-sea weights may differ from the final landed weight, and fresh weights may differ from final frozen landed weights. There is a concern that these differences may cause interruption to trade if these situations do not pass the system checks.
- Electronic checks should not be so strict that they cause interruption to trade, but should not be too lenient either, so that compliance levels are not lowered which may impose additional burden to import countries.
- If eCDS forms are completed during fishing operations, fishermen are likely to make input mistakes, being generally unfamiliar with computers. Therefore, the Secretariat should identify ways to prevent any input errors by users.

eCDS requirements that would be needed to address these concerns

- Electronic checks in the eCDS need to be carefully designed and implemented to maintain compliance, yet allow for normal variation such as acceptable variation in quantities and weights between vessel measurements and port measurements, and not cause undue interruption to trade. The validator should be allowed to over-ride differences when these differences fail system checks but are acceptable and are properly explained.
- The system needs to have a backup plan in case of system failure, lack of internet, or other unforeseen circumstances.
- Data entry errors should be minimised by system checks.

Were these concerns addressed already by the Secretariat's original proposal?

The Secretariat's preliminary specifications caters for most of these issues already by proposing the use of an "override" feature:

To ensure the flow of SBT product is not disrupted, there will be a number of Validator 'overrides' available in which the validator may override errors generated by the system.

This feature can be used to ensure a form is validated in any situation where the reason for the override is acceptable (these situations will be defined) and the system is functioning. The reason will be recorded in the audit information.

The situations of complete system failure and lack of internet access have not yet been fully specified by the Secretariat's initial proposal, but the proposal is designed to be compatible with the current paper-based CDS system so that a paper-based alternative is available as an emergency back-up.

Data entry checks are included in the initial specifications so that data entry errors will be minimised.

c) Required timeframes for completion of certain CDS forms

To be effective, the Secretariat's proposal states that the eCDS requires the necessary forms to be complete at the time of issue (e.g. Catch Tagging Forms (CTFs) should be complete at the time when a CMF is validated).

Issues previously identified by Members

- At present, CTFs from farm operators are provided to the Secretariat at the end of the harvest season. Any requirement for real time provision of tag data for *“operators that harvest thousands of fish a day could be both costly and impractical with no real benefit as this data isn't required to enable you to complete the Catch Monitoring Form. The sheer volume of tagging data entry necessary by the farms could and would mean real delays in product been shipped”*.
- Export countries should validate CDS documents before actual export.

eCDS requirements that would be needed to address these concerns

- CTFs should not be required to have been completed/saved before CMFs are validated.
- CDS documents should be validated before export.

Were these concerns addressed already by the Secretariat's original proposal?

The Secretariat's initial proposal requires that forms are validated before export, and requires that CTFs are complete when CMFs are validated. In order to address Members concerns, this requirement will need to be reviewed to see if this will be possible in practice (see *Recommendation 3: Review the Catch Tagging Form (CTF) completion requirement*).

d) Data confidentiality and security

Issues previously identified by Members

- The possibility of users being able to see data of other users that is confidential.
- The possibility of people hacking into the system and accessing confidential data.
- Lack of paper copies of forms will increase the possibility of fraudulent activity by individuals making changes to the electronic copy of CDS forms after they have been issued.

Additional concerns raised by Members

- There is a concern that data will be available to all Members under the eCDS, for example catch tagging data forms if it is made mandatory that they accompany all shipments of SBT.
- The system must be secure and robust. As described by the Secretariat, it would be a problem to manage the access to other user's confidential information. ICCAT is still discussing who can access confidential documents attached to CDS such as invoices, and how to manage such rights of access in the system.

eCDS requirements to address these concerns

- The system needs to be secure and have tight security control, with users only able to access data they need and have been approved access for. The authority to view and make changes to forms after issue needs to be restricted.

Were these concerns addressed already by the Secretariat's original proposal?

The Secretariat's initial proposal has a well-defined and multi-tiered security and confidentiality model that specifies that users only see and change what they are authorised to see and change, prevents un-audited changes, protects the security of data, and maintains a full audit trail. The proposal includes both unique document numbers and unique system identifiers that ensure that only those with the unique identifiers and having appropriate authorisation can access an eCDS form.

Technically speaking, it is not difficult to implement the required security in such a system if the model is defined properly and managed correctly.

e) Administration of the eCDS

Issues previously identified by Members

- Developing States may not have sufficient capacity (both in terms of facilities and training) to properly operate an eCDS.

Additional concerns raised by Members

- Vessel operators would need to be adequately trained to use the eCDS.
- It would be a challenge to incorporate trade activities involving non-member countries into the system. This trade seems to be increasing in recent years.
- It is necessary to review this issue adequately in order to prevent any non-compliance of developing countries that may arise from their limited capacity.

eCDS requirements that would be needed to address these concerns

- The system should be as easy to use as possible.
- Comprehensive training and training material should be available.
- Minimising the number of users will be an advantage.

Were these concerns addressed already by the Secretariat's original proposal?

The initial proposal is for a web-based system compatible with commonly available web-browser software. This makes the system accessible from any device that can access the internet such as computers, tablets, and smart phones. The simplicity of the system will

depend on how it is implemented but can become a specification requirement and be reviewed during the development phase.

The main concern with respect to training and the number of users comes from the number of certifiers required by the current system. See the next section and also *Recommendation 2: Remove certification from CDS forms*, for discussion on this issue.

f) Users and roles

Issues previously identified by Members

- The eCDS will require that a large number of certifiers be registered and trained to use the eCDS. A large number of new certifiers may require training each year, and it is likely that it may not be possible to identify some of the new certifiers in advance of them being required to certify new documents.
- Some certifiers may have very little experience with computers, and/or no access to a computer.

Additional concerns raised by Members

- As only certain operators complete CMF/CTFs, there seems to be no problem. However, given that export companies are not defined, for example for REEF forms, there should be education beforehand about adding and authorising users and how to use the eCDS.
- The form and reporting system needs to be simplified so that only minimum and simple information is required.

eCDS requirements that would be needed to address these concerns

- Reduce the number of users required in the eCDS.
- Design the eCDS system to be as easy to use as possible.
- Provide comprehensive training and training materials, including an eCDS manual in all Member languages.

Were these concerns addressed already by the Secretariat's original proposal?

A reduction in the number of certifiers was not considered in the Secretariat's initial proposal. This could be addressed by removing the need for certification altogether, see *Recommendation 2: Remove certification from CDS forms*. Making the system as easy to use as possible has already been mentioned in section e) and a solution is provided in *Recommendation 4: Design the system to be as simple and easy to use as possible*.

g) Implementation and tender process

Issues previously identified by Members

- Development and implementation will involve significant cost.
- ICCAT has experienced delays and increased costs in developing and implementing its eCDS. The CCSBT may experience similar problems.
- Operating paper-based and eCDS in parallel will increase burden and costs.
- Revision of the CDS Resolution will probably be required for an eCDS.

Additional concerns raised by Members

- The costs associated with the software and licenses for users, technical support, the server and the back-up server which may be located in Australia, the staff time to

develop and learn the software, the pilot program for the eCDS, workshops to train vessel operators, and on-going maintenance of the system.

- The cost to users of the eCDS.
- While the CCSBT has introduced relatively high-cost compliance policies such as the QAR, some Members are facing increasingly severe budget constraints. In order to manage the increase in the Extended Commission's budget at an appropriate level, cost-benefit analysis and prioritisation of policies should be considered carefully.
- It is expected that introduction of the eCDS would involve significant time and costs based on the experience at ICCAT. If the CCSBT introduces an eCDS, it would be better to agree on how to cover such costs beforehand.
- The tender process should be as short as possible to reduce the cost. To achieve this, discussions on the introduction of an eCDS should start when all the countries concerned are ready to transition to eCDS.
- The CCSBT should start considering possible amendments to the CDS resolution when it starts development of the system. As ICCAT started discussion on amendment of its CDS recommendation after the system was almost completed, it has not finalised the system yet.

eCDS requirements that would be needed to address these concerns

- The costs of development and using the system need to be properly considered, well-defined and controlled.
- Possible amendments to the CDS should be considered before development of the eCDS.
- The CCSBT needs to avoid the problems faced by ICCAT with its e-BCD system.

Were these concerns addressed already by the Secretariat's original proposal?

Typical development costs have been seen with the development proposals submitted to the Secretariat already. These could be significantly reduced if the CCSBT is able to use ICCAT's e-BCD system (see the next section). Once the system is running then ongoing costs for the system itself should not be excessive. These would include server hosting, maintenance and technical support. Costs to the users should be minimal as there would be no licensing fees. The main costs would be training and workshops, etc. If the system is easy to use then costs should be no more onerous than at present, and current users that are familiar with the hard-copy CDS forms should adapt quickly to an eCDS that has similar functionality. Further investigations into potential ongoing costs could be made, including requesting potential indicative costs from ICCAT with respect to their e-BCD system.

The Secretariat has been in contact with ICCAT to learn about its experiences with their e-BCD system, and has already gained some valuable information. See the next section for the details.

See Recommendation 1: Consider amendments to the CDS system before developing eCDS for comment on possible amendments to the CDS.

Section 2: ICCAT e-BCD project

This section reports on information received from the ICCAT CDS technical contact on some of the problems ICCAT has faced with their e-BCD project and provides: (a) advice to the CCSBT with respect to implementing a similar system by the CCSBT; and (b) information on some developments that may lead to the CCSBT using parts of the e-BCD system for its own eCDS system.

a) Advice received from ICCAT with respect to developing an eCDS

In June 2014, the Secretariat contacted the technical contact for the ICCAT e-BCD project to ask for ICCAT's comments on its experience with its e-BCD development and advice for the CCSBT in regards to developing a similar system. The response from ICCAT is summarised below.

The major difficulties experienced during the development and implementation of e-BCD were:

- Delays that pushed development from the estimated 1 year to over 2 years.
- New features that were not considered in the original project. These are mainly country specific requirements that were previously dealt with internally by the countries and now need to be transferred to the e-BCD, such as registration of traders, authorities, vessels, etc. Countries have different national regulations that create differences that the system needs to cater for.

These issues caused the costs to increase such that the estimated cost of the project as at June 2014 was 1.5 to 2 times greater than the original estimate.

The main issues with respect to implementation of the e-BCD are:

- Approvals and over-cost authorisations. The Commission created a Technical Working Group (e-BCD WG) that oversees the project, which meets about 2 -3 times a year and makes recommendations, decisions, etc. However, their decisions are in some cases postponed to be discussed and approved by the Commission that only meets once a year, which includes cost associated decisions.
- The lack of required data, such as the registration of users, primary traders, and fishers from each country has prevented the system from being fully useable. Differences in the way countries store this information has made it difficult to obtain and transfer to the e-BCD system. Apart from these important data gaps, the e-BCD software has been considered to be fully functional since 2013 and is technically ready to be used.
- For implementation, scheduled for May 2015, more commitment from each ICCAT Contracting Party, Cooperating non-Contracting Party, Entity or Fishing Entity (CPC) is required with respect to training of fisheries personnel and promotion of the system to local fishers and traders.

Internet access at sea and/or in port has not yet been a problem for the e-BCD. However, ICCAT has not yet fully implemented the e-BCD and does not have reports on this aspect of the system yet. The CPCs that have tested or used the system so far have been able to operate without major problems, however having a good internet connection is required. The main users of the system have relatively fast internet access, therefore they are not expecting issues with their connection. In the case of small vessels, by-catch, or recreational fishers (if

approved), alternatives such as the creation of e-BCD at port, or by port authorities, etc. have been discussed. For now ICCAT has no clear answer in that regard.

The main recommendations from ICCAT to the CCSBT were to:

- Revise and update all procedures, compliance regulations and rules before developing the system. ICCAT found it difficult and complex to accommodate all of the existing rules and regulations into e-BCD since some were ambiguous, obsolete, or contradictory, which could have been reviewed before starting development to streamline the process.
- Implement the CDS with a transition period in which both paper and electronic formats are valid, and have this transition included in the project design. ICCAT's original plan intended full implementation of the electronic format, replacing paper 100% on a given date. However, in practice is likely that the e-BCD project needs to consider a transition period.

b) e-BCD availability for the CCSBT

The Global Environment Facility (GEF) funded project "Sustainable Management of Tuna Fisheries and Biodiversity Conservation in the ABNJ" (Tuna ABNJ Project) is providing significant funding to ICCAT for completion and expansion of its e-BCD project. As part of the agreement to provide this funding, the Tuna ABNJ Project partners emphasised the need to ensure that the system would be flexible enough to allow customisation to different fisheries if so required. ICCAT also agreed that it would share the final product with other partners and it would share the experience and lessons learnt in the implementation of the system.

The ICCAT Secretariat has confirmed that it is willing to share its e-BCD software with CCSBT once completed. It is also supportive of the CCSBT Secretariat visiting ICCAT in order to receive a detailed briefing on e-BCD. This will allow CCSBT to evaluate whether the system can be adapted for its own use. A visit by the CCSBT Secretariat would be possible by the 3rd quarter of 2015, after the e-CDS is fully functional.

If the e-BCD system is fit for purpose with respect to the CCSBT eCDS then it gives significant advantages:

- Costs of the eCDS development could be significantly reduced;
- The e-BCD will have been tested and should already be stable;
- The security of the system will have been tested and will be functional;
- Even though the e-BCD and eCDS forms differ, the core of the e-BCD system, which includes security, basic structure, database connections etc., should be similar and reusable. This is often the largest part of the development of a system such as this, so if it has been engineered correctly then the modification of e-BCD to suit eCDS should be relatively straight-forward; and
- The eCDS will have the same look and feel as e-BCD, which should be beneficial to users who may use both systems.

Disadvantages:

- The e-BCD may be complicated and costly to modify if poorly engineered.

Section 3: Recommendations

The following recommendations should be considered for the CCSBT eCDS if the Extended Commission decides to proceed with an eCDS.

Recommendation 1: Consider amendments to the CDS Resolution before commencing development of an eCDS

ICCAT commented that in order to streamline the development and introduction of an electronic CDS, it would be prudent to first review existing CCSBT Resolutions (mainly the CDS Resolution), decisions and management measures associated with the CDS. Attention should be focused on whether existing measures would need to be amended to allow for replacement of the current paper-based CDS system. Reviewing these items in advance of any system development work should facilitate a smoother and faster transition to an e-CDS that is based on a clear set of rules.

Essentially, ICCAT advised that it would be much simpler and more cost-effective to revise and streamline the CDS Resolution to take into account electronic implementation before an eCDS is developed, rather than implementing an eCDS based on the current paper-based system and then trying to revise the eCDS later.

It is therefore recommended that Members consider reviewing the CDS Resolution (and any associated measures), specifically noting any amendments that would be required to allow the implementation of an eCDS, and that this is done as soon as possible. Such a review could include consideration of the removal of certification requirements (recommendation 2), amendment of transshipment at sea requirements (e.g. allowing companies at shore to complete the eCDS form, or Flag State authorities, also mentioned in recommendation 2), and review of the requirement for CTFs to be completed in advance of CMF submissions.

The draft compliance action plan for 2015 - 2017 currently has a CDS review scheduled for 2015/16. That review could include consideration of amendments to the CDS Resolution and other measures that might be required in order to facilitate the implementation of an eCDS. Such a review could be undertaken during a 3 day workshop during 2015.

Recommendation 2: Remove certification from CDS forms

Electronic certification of eCDS forms causes a number of problems as noted in the Members' concerns in this document. Certification seems to be of limited value, and the Secretariat therefore recommends that certification requirements are completely removed. This will greatly simplify eCDS document completion. Without certification, responsibility for correctness of the information falls upon whoever completes the form online, and upon the validator. For example for a CMF:

- The catch / harvest section could be completed by the vessel master, company representative, or the flag state (with sufficient supporting evidence), and then validated. Whoever completes the form is essentially certifying the correctness of the information. The person who completes the form would still provide all the same information that is currently on the form. It is only the number of signatures and the number of people completing the form would be reduced to a more manageable level.
- The Export section would be completed by the exporter who is inherently certifying the information on the form, which is then validated.

- The final product destination section is completed by the importer or buyer, which again can be considered as certification.

Re-export forms (REEFs) are similar and have two certifications - one for the exporter and one for the importer. The REEF will be completed by both the exporter and importer, therefore certification by these two parties is achieved implicitly when they fill out and submit the eCDS form.

The certification of the information at lodgement could be made more formal by including appropriate text on the eCDS form submission button or an acknowledgement, e.g. 'In submitting this information, I certify that it is true and correct to the best of my knowledge'.

Removing certifiers has several benefits:

- It considerably reduces the number of users of the system;
- The form can be completed by company representatives or the Flag State, thereby removing problems with internet access at sea;
- The complexity of the system is reduced;
- There will be less users to register and train;
- There will be less issues with internet access;
- There will be less issues with security; and
- Form submission is much simpler, with each step requiring a single person to enter and submit the information, and then a validator to validate it.

Recommendation 3: Review the Catch Tagging Form (CTF) completion requirement

The Secretariat's original eCDS proposal states that CTF completion before CMF validation is required in order to take full advantage of the benefits of an electronic system. However, at least one Member is concerned that this may not be possible in practice without causing delays in trade. The Secretariat has not yet identified a suitable solution to this problem and it is recommended that further investigation be conducted. One possibility is the use of bar codes on tags to enable efficient real-time electronic entry of information with the potential for automatic logging of lengths and weights. Another option that could be considered is continuing the requirement for tagging SBT, but have no requirement for completing or providing Catch Tagging Forms. This would substantially reduce the administrative burden on both Members and the Secretariat. Furthermore, there is currently no agreement to share catch tagging data amongst Members, so unless there is agreement to share these data in the future, omission of these data from an eCDS will have no impact on the use of these data by Member scientists.

Recommendation 4: Design the system to be as simple and easy to use as possible

An overly complicated system and particularly a complex user interface requires more training and is likely to cause more problems and delays. It is worth focusing closely on the design of the system and user interface to ensure that it is as streamlined and easy to use as possible. This recommendation is to ensure that during the specifications and design phase, feedback is sought from Members and users on the ease of use of the system, before it is finalised, in order to make it possible for users to operate with virtually no training. This could include help buttons on the screens to guide users if required.

Recommendation 5: Evaluate ICCAT's e-BCD system for use by the CCSBT

A close technical examination of the ICCAT e-BCD by the Secretariat is recommended during 2015, with the intent of using the framework of the system for the CCSBT eCDS. This will both reduce development costs and provide a common look and feel for the eCDS to the ICCAT system, as well as the other advantages discussed in section 2 of this document.

Prepared by the Secretariat

Members Responses on Concerns on implementation of a web-based eCDS for SBT

1. Lack of reliable and cost-effective Internet at sea and in port

Concerns that have been raised:

- Many vessels may have difficulty accessing the internet, particularly at sea. Some may not have the equipment, and internet access at sea is considered to be expensive and unstable.
- Internet access at some ports may not be adequate.
- Are there any other concerns?

Members Responses

Australia:

Costs associated with the software and licenses for users, technical support, server and back-up server to be located in Australia, staff time to develop and learn the software, pilot program for the eCDS, workshop to train vessel operators, on-going maintenance of the system.

Indonesia:

Most of Indonesia fishing vessels are small scale fishing vessels that do not have equipments to support internet access.

Japan:

eCDS may impose additional burden on the master and crew since many of crew are not used to operate a computer. There may be confusion due to wrong operations or wrong inputs.

Korea:

No comments.

New Zealand:

No comments.

Taiwan:

No comments.

To assist the Secretariat to evaluate the extent of this concern, it would be helpful if each Member could also answer the following questions. Please also be specific as to the type of vessels involved (e.g. make it clear what responses relate to distant water vessels and what relate to coastal waters fishing):

- a) What communications are available to your vessels at sea (in particular: fax, phone, radio)?
- b) Do your vessels have email access while at sea?
- c) Do your vessels have computers capable of accessing websites?
- d) Do you have important SBT ports that do not have internet access?

Members Responses

Australia:

- a) Varies between vessels but some are limited to basic radio communications.
- b) Majority but not all.
- c) Majority but not all, and those that do would have differing degrees of accessibility.
- d) No.

Indonesia:

- a) Some Indonesia large scale fishing vessels at sea communicate by using fax, phone and radio, however, Indonesia small scale fishing vessels at sea communicate by using radio.
- b) Indonesia fishing vessels do not have email access while at sea.
- c) Indonesia fishing vessels do not have computer capable of accessing websites.
- d) No.

Japan:

- a) Usual communications are FAX, phone and radio. Although certain parts (around 60-70 %) of the vessels have internet access at sea, connection can be unstable under rough weather and oceanic conditions.
- b) Although certain parts (around 60-70 %) of the vessels have email access at sea, connection can be unstable under rough weather and oceanic conditions.
- c) Although certain parts (around 60-70 %) of the vessels have internet access at sea, connection can be unstable under rough weather and oceanic conditions.
- d) We have eight designated foreign ports to land SBT. All of the eight ports seem to have internet access, although we have not check it (it will take some time to confirm the internet availability in those ports).

Korea:

- a) Satellite telephone, fax and e-mail are available to Korean-flagged distant water fishing vessels (long-liners) at sea by using satellite communication devices. E-mail is the most useful modes of communications at sea.
- b) Korean vessels have internet access while at sea. However, people on board the vessels use internet simply to exchange Outlook Express e-mails rather than accessing and browsing internet websites.
- c) Korean fishing vessels have computers for accessing websites, but internet access is not continuous or can be used for a long time.
- d) Communication disruptions took place in Cape Town, Port Louis and other major ports for loading Southern Blue-fin Tuna.

New Zealand:

- a) Standard cell phone coverage is poor and vessels quite commonly carry Satellite (Sat) phones. Single Side Band Radios (SSB) will be on vessels as part of their surveying requirements and all vessels monitor the VHF Radio emergency channel.
- b) The majority of New Zealand's domestic fleet would not have access to e-mail while at sea.
- c) We would anticipate that most operators would have access to a computer capable of accessing websites however that access would be land-based.
- d) All New Zealand ports have access to the internet.

Taiwan:

- a) All of our authorized SBT vessels are installed with satellite phone and satellite fax for communication while they fish at sea.
- b) All of our authorized SBT vessels do not have the function for accessing email.
- c) All of our authorized SBT vessels have no computer capable of accessing websites at the present.
- d) In our designated domestic port, a fishery building is next to the port facility and is able to provide internet access in the office of fishery companies. In the two designated foreign ports, which are Port Louis of Mauritius and Cape Town of South Africa, our fisheries representatives could only access to the internet when they get back to the office and the travel time from port to their offices is about 30 minutes.

Other concerns:

Considered that in the southern high latitude of Indian Ocean, the wave and wind are very strong, it is difficult to ensure electronic equipments to be well-functioned. Therefore, we are concerned about the high possibility of malfunction for the equipment.

2. Risks of interrupted trade

Concerns that have been raised:

The eCDS may increase the risk of interrupted trade through factors such as:

- System or internet failure.
- Strict automated electronic checks preventing the product from being validated.
- Government intervention may be required when problems are encountered.
- Are there any other concerns?

Members Responses

Australia:

If a validator or certifier is not available to certify/validate eCDS at the time of shipment. Consideration would need to be given to making provision for the generation of paper copies to allow for the continuation of trade in the event of a Member being unable to use the eCDS (eg. poor connectivity, system failure etc).

Indonesia:

No comments.

Japan:

No comments.

Korea:

No comments.

New Zealand:

No comments.

Taiwan:

Due to the high wave at sea, it may not be possible to have the exact fish weight measured at sea by comparison with fish weight measured at land. In addition, the fish weight measured at sea is the fresh weight but landing weight is frozen weight. It may cause the final landed weight different from the original weight. We concern it would cause trade barrier.

The system needs to cater for the above and other unforeseen circumstances so as not to cause interruption to trade, especially considering that:

- The collection and reporting time window is often narrow.
- Airfreight deadlines often require that documentation requirements are met rapidly.
- Operations are often outside of government office opening hours.
- Are there any other circumstances that need to be catered for?

Members Responses

Australia:

No comments.

Indonesia:

No comments.

Japan:

Although we share the concern that overly strict electric checks may unduly interrupt trade of SBT, we believe that efficient electric check of compliance is one of the most important merits of eCDS. Thus, if CCSBT would introduce eCDS, it should be carefully considered based on the actual trade conditions to how extent inconsistency of data should be allowed, whether adjustments afterwards should be allowed or not, etc. We cannot accept to reduce export countries' compliance level for introducing eCDS, as it may impose additional burden on import countries.

Further, the system must be sufficiently robust to avoid interrupt of trade caused by error or break-down of the system.

Korea:

There is a necessity to define whether issues caused by system or internet failure should be considered as compliance or non-compliance with conservation and management measures (in particular, in case of no internet access or system failure).

New Zealand:

No comments.

Taiwan:

No comments.

3. Required timeframes for completion of certain CDS forms

Concerns that have been raised

- To be effective, the Secretariat's proposal states that the eCDS requires the necessary forms to be complete at the time of issue (e.g. Tagging Forms complete at the time when a Catch Monitoring Form is validated). If this is a problem for you, please describe the reasons.
- Are there any other concerns?

Members Responses

Australia:

The current CDS measure allows farm operators to provide Catch Tagging Forms (CTF) at the end of the harvest season. Any proposal to change this requirement would require careful thought as moving to a real time system for operators that harvest thousands of fish a day could be both costly and impractical with no real benefit as this data isn't required to enable you to complete the Catch Monitoring Form. The sheer volume of tagging data entry necessary by the farms could and would mean real delays in product been shipped.

Indonesia:

No comments.

Japan:

In addition to the Secretariat's point above, export countries should validate CDS documents before actual export.

Korea:

Korea exports all Southern Blue-fin Tuna to Japan. Currently, catch document is issued after quantities of SBT are checked at a point of landing at Japanese ports. In other words, quantities of SBT may be adjusted from the quantities first reported. Against this backdrop, if eCDS is completed and issued on aboard the vessel right after the fishing operation, there can be gaps between quantities reported for the first time and quantities of landing. Therefore, efforts should be made to solve this problem.

If eCDS is completed on the spot of a fishing vessel, seafarers who are not familiar with using computer are likely to make an input mistake. Therefore, the Secretariat should identify ways to prevent any input errors such as mis-description.

New Zealand:

No comments.

Taiwan:

No comments.

4. Data confidentiality and security

Concerns that have been raised

- The possibility of users being able to see data of other users that is confidential.
- The possibility of people hacking into the system and accessing confidential data.
- With the lack of hard-copy, the possibility of fraudulent activity by people making changes to the electronic copy of CDS forms after they have been issued.
- Are there any other concerns?

Members Responses

Australia:

Having data available to all members under eCDS, in cases such as catch tagging data forms been made mandatory to accompany all shipments of SBT.

Indonesia:

No comments.

Japan:

The system must be secure and robust. As described by the Secretariat, it would be a problem to manage the access to other user's confidential information. ICCAT is still discussing who can access to confidential documents attached to CDS such as invoices, and how to manage such rights of access in the system.

Korea:

No comments.

New Zealand:

No comments.

Taiwan:

No comments.

5. Administration of the eCDS

Concerns that have been raised

- Developing States may not have sufficient capacity (both in terms of facilities and training) to properly operate an eCDS.
- Are there any other concerns?

Members Responses

Australia:

Ensuring vessel operators are adequately trained to use the eCDS.

Indonesia:

No comments.

Japan:

It would be also a challenge to incorporate trade activities involving non-member countries, which seems increasing recent years, into the system.

Korea:

It is necessary to review this issue with enough time taken in order to prevent any non-compliance of developing countries caused by their limited capacity.

New Zealand:

No comments.

Taiwan:

No comments.

6. Users and roles

Concerns that have been raised

- The eCDS will require that a large number of certifiers be registered and trained to use the eCDS. A large number of new certifiers may require training each year, and it is likely that it may not be possible to identify some of the new certifiers in advance of them being required to certify new documents.
- Some certifiers are likely to have very little experience with computers, and/or no access to a computer.
- Are there any other concerns?

Members Responses

Australia:

No comments.

Indonesia:

No comments.

Japan:

No comments.

Korea:

As only certain operators complete CMF/CTF, there seems to be no problem. However, given that export companies are not defined when it comes to REEF, there should be education beforehand about granting eCDS authorities and how to use eCDS.

The form and reporting system needs to be simplified so that only minimum and simple information is required.

New Zealand:

No comments.

Taiwan:

No comments.

7. Implementation and tender process

Concerns that have been raised

- Development and implementation will involve significant cost
- ICCAT has experienced delays and increased costs in developing and implementing its eCDS. CCSBT may experience similar problems.
- Operating paper-based and eCDS in parallel will increase burden and costs.
- Revision of the CDS Resolution will probably be required for an eCDS.
- Are there any other concerns?

Members Responses

Australia:

Costs to user for eCDS.

Indonesia:

No comments.

Japan:

While CCSBT has introduced relatively high-cost compliance policies such as the QAR, it seems that some members including Japan face increasingly severe budget constraints. In order to manage the increase in commission budget at an appropriate level, cost-benefit analysis and prioritization of policies should be considered carefully.

It is expected that introduction of eCDS would involve significant time and costs based on the experience at ICCAT. If CCSBT introduce it, it would be better to agree on how to cover such costs beforehand.

In addition, tender process should be as short as possible to reduce the cost. In order to secure this point, concrete discussion on introduction of eCDS should start when all the countries concerned become ready to transition to eCDS.

Further, CCSBT should start considering the necessity of possible amendments of the CDS resolution when it starts development of the system. As ICCAT started discussion on amendment of its CDS recommendation after the system was almost completed, it has not finalized the system yet.

Korea:

No comments.

New Zealand:

No comments.

Taiwan:

No comments.