**T-RFMO CLAV**

Report and documentation of the

## Second Workshop on Exchange of Information and Maintenance

## of the Consolidated List of Authorized Vessels of

## Tuna Regional Fisheries Management Organizations

**Rome, 6-7 June 2012**

## PREPARATION OF THIS DOCUMENT

Since the late 1990's the Tuna Regional Fisheries Management Organizations (T-RFMO) have adopted measures that call for their members to authorize large scale fishing vessels, carrier vessels and other types of vessels, depending on the case, to operate in their areas of competence or catch species under their purview. T-RFMO Secretariats are responsible for maintaining and disseminating Records of Authorized Vessels, in a timely manner. During the first joint T-RFMO meeting, held in Kobe, Japan, in 2007, the participants "underlined the need for a stronger cooperation and coordination among tuna RFMOs particularly, unification of lists of authorized as well as IUU vessels. T-RFMOs agreed to work towards the creation of a harmonized list of tuna fishing vessels that is as comprehensive as possible (positive list) including use of a permanent unique identifier for each vessel such as an IMO number", in addition to those maintained at each T-RFMO. Consolidated lists were created in 2009 and 2010 and published in the T-RFMO Web Site, thanks to the work carried out by the IATTC and the IOTC, respectively. These lists, albeit useful at the time they were created, represented only a snapshot in time of the T-RFMO Lists of Authorized Vessels, having limited use. In 2010 the T-RFMOs requested their Secretariats further work to devise a mechanism for the consolidation of lists of authorized vessels from all T-RFMOs and maintenance of this record in as timely a manner as possible. Following this request and financial assistance provided by the International Seafood Sustainability Foundation (ISSF), in February 2011 the T-RFMO Secretariats agreed to organize a Workshop in the FAO Headquarters in Rome, attended by technical staff from the T-RFMO Secretariats, and he FAO. The First Workshop on Exchange of Information and Maintenance of the Consolidated List of Authorized Vessels of Tuna Regional Fisheries Management Organizations agreed to the use of a template to exchange records of authorized vessels; the IOTC Secretariat to coordinate updates of the CLAV; updates to occur monthly or every other month; identification of individual vessels through IMO numbers or allocation of Unique Vessel Identifiers (TUVIs); and further development of a software to handle the T-RFMO Consolidated List of Authorized Vessels (CLAV), along the lines of FAO's Vessel Record Management Framework. Following the Rome meeting, the CLAV has been updated in nine occasions with regular exchanges of lists of authorized vessels from the T-RFMOs. Following completion of the CLAV System by the FAO, in cooperation with the T-RFMOs, the T-RFMO Secretariats agreed to organize a follow-up workshop to assess the use of FAO's software for future updates of the CLAV to occur in close-to-real time.

This document contains the report of the workshop and the background information presented at the meeting. The revised procedures for the exchange of records of authorized vessels and maintenance of the consolidated list of Authorized Vessels at the T-RFMO Web Site, as agreed by the participants (pages 3-4), represent a review of the existing mechanism for the exchange of information on authorized vessels and procedures for the consolidation of lists of authorized vessels, including updates of the CLAV in close-to-real time and dissemination using a new interface in the T-RFMO Web Site. In addition, the recommendations issued by the Workshop will serve as basis for further work on extending the capabilities of the CLAV.

This meeting was convened by the T-RFMO with additional support from the International Seafood Sustainability Foundation (ISSF). Miguel Herrera (IOTC) coordinated the preparation of this meeting report that provides a record of activities at the meeting and outcomes of the meeting as agreed to by the participants.

**Distribution:**
Participants in the workshop
Commission for the Conservation of Southern Bluefin Tuna (CCSBT)
Indian Ocean Tuna Commission (IOTC)
Inter-American Tropical Tuna Commission (IATTC)
International Commission for the Conservation of Atlantic Tunas (ICCAT)
Western and Central Pacific Fisheries Commission (WCPFC)
Food and Agriculture Organization of the United Nations (FAO)
Foreign Fisheries Agency (FFA)
International Seafood Sustainability Foundation (ISSF)
Secretariat of the Pacific Community (SPC)

T-RFMO CLAV

Second Workshop on Exchange of Information and Maintenance of the Consolidated List of Authorized Vessels of Tuna Regional Fisheries Management Organizations. Rome, 6–7 June 2012.

T-RFMO CLAV Technical Report. No. 2. Rome, T-RFMO. 2012. 22 pp.

## EXECUTIVE SUMMARY

The "Second Workshop on Exchange of Information and Maintenance of the Consolidated List of Authorized Vessels of Tuna Regional Fisheries Management Organizations" was held in Rome from 6 to 7 June 2012. The First Workshop, held in Rome from 7-8 February 2011, was a response to a request issued by the joint T-RFMO meeting in Kobe (Japan),   for the T-RFMO Secretariats to establish a procedure for the consolidation and dissemination of their lists of authorized vessels and allocation of T-RFMO unique vessel identifiers (TUVI).  The main objective of the Second Workshop is to assess the current status of the CLAV and the future use of a new System to handle the CLAV, developed by the FAO in consultation with the T-RFMOs, for updates of the CLAV to occur in close-to-real time in the future. The Agenda, as agreed by the Workshop, is presented in Appendix A.

This meeting was convened by the T-RFMOs and was attended by database and compliance managers from the T-RFMOs and participants from the FAO and SPC (Appendix B). WCPFC, CCSBT, and SPC apologized for not being able to attend the meeting in Rome and were contacted through video-conference.  The funds necessary for the organization of the Workshop and the participation of one expert from each T-RFMO were provided by the T-RFMOs and the International Seafood Sustainability Foundation (ISSF). The meeting was kindly hosted by the FAO who also provided video-conference services.

The Workshop reviewed the CLAV System developed by the FAO in consultation with the T-RFMO Secretariats and agreed to use it in the future, once that FAO finalizes development of the software and make it available to T-RFMO Secretariats, including the source code.  The Workshop agreed to host the new CLAV System at the IOTC or the IATTC, as required. The Workshop recommended that the terms and conditions that apply to the use of the CLAV System and exchange of information are incorporated in a Memorandum Of Understanding, to be agreed by the FAO and the T-RFMOs.

The Workshop further agreed to revised procedures and time frames to be used in the consolidation of vessel records, in particular to the CLAV displaying, at the same time, information as reported to each T-RFMO for each individual vessel; and using of a standard set of CLAV codes that are the same for all T-RFMOs. In addition, the Workshop agreed that future updates of the CLAV shall occur in as close-to-real time as possible; and to extending the CLAV so as it incorporates authorizations of non-fishing vessels and all available historical information of both fishing and non-fishing vessels.

The Workshop assessed the time frames that may be required for the implementation of the new CLAV System, agreeing to a roadmap of implementation, as presented in Appendix E.

The Workshop noted that a considerable amount of time and resources will need to be devoted to maintaining the CLAV, in particular to the identification of duplicates and follow-up of inconsistent reports of vessel attributes, agreeing that hiring of one additional staff may be required during the first year. The Terms of Reference for the position of CLAV Database manager, as agreed by the Workshop, are included in Appendix D.

In addition, the Workshop noted that all T-RFMO Secretariats will need to establish procedures in their record of authorized vessels databases to facilitate exchange of records of authorized vessels for the CLAV in real time, in accordance to the roadmap agreed by the Workshop. The Workshop noted that this work may take around two months and hiring of an IT Expert may be advisable to ensure timely set up and harmonization of procedures in all T-RFMO Secretariats. The Terms of Reference for the position of CLAV IT Expert, as agreed by the Workshop, are included in Appendix C.

The Workshop invites the T-RFMO Secretariats to consider the above recommendations.

**ACRONYMS USED**

| | |
|---|---|
| CCSBT | Commission for the Conservation of Southern Bluefin Tuna |
| CLAV | Consolidated List of Authorized Vessels |
| FAO | Food and Agriculture Organization of the United Nations |
| FFA | Foreign Fisheries Agency |
| FIPS | FAO Statistics and Information Service |
| HSVAR | High Seas Vessels Authorization Record Database (FAO) |
| IATTC | Inter-American Tropical Tuna Commission |
| ICCAT | International Commission for the Conservation of Atlantic Tunas |
| ISSF | International Seafood Sustainability Foundation |
| IMO | International Maritime Organization |
| IOTC | Indian Ocean Tuna Commission |
| MOU | Memorandum of Understanding |
| SPC | Secretariat of the Pacific Community |
| TOR | Terms of Reference |
| T-RFMO | Tuna - Regional Fisheries Management Organization |
| TUVI | T-RFMO Unique Vessel Identifier |
| VRMF | Vessel Record Management Framework (FAO FIPS) |
| WCPFC | Western and Central Pacific Fisheries Commission |

**CONTENTS**

**Report of the Workshop on Exchange of Information and Maintenance of the Consolidated List of Authorized Vessels of Tuna Regional Fisheries Management Organizations**

## 1. BACKGROUND

The "Second Workshop on Exchange of Information and Maintenance of the Consolidated List of Authorized Vessels of Tuna Regional Fisheries Management Organizations" was held in Rome from 6 to 7 June 2012.

Since the late 1990's the Tuna Regional Fisheries Management Organizations (T-RFMO) have adopted measures that call for their members to authorize large scale fishing vessels, carrier vessels and other types of vessels, depending on the case, to operate in their areas of competence or catch species under their purview. T-RFMO Secretariats are responsible for maintaining and disseminating Records of Authorized Vessels, in a timely manner. During the first joint T-RFMO meeting, held in Kobe, Japan, in 2007, the participants "underlined the need for a stronger cooperation and coordination among tuna RFMOs particularly, unification of lists of authorized as well as IUU vessels. T-RFMOs agreed to work towards the creation of a harmonized list of tuna fishing vessels that is as comprehensive as possible (positive list) including use of a permanent unique identifier for each vessel such as an IMO number", in addition to those maintained at each T-RFMO. Consolidated lists were created in 2009 and 2010 and published in the T-RFMO Web Site, thanks to the work carried out by the IATTC and the IOTC, respectively. These lists, albeit useful at the time they were created, represented only a snapshot in time of the T-RFMO Lists of Authorized Vessels, having limited use. In 2010 the T-RFMOs requested their Secretariats further work to devise a mechanism for the consolidation of lists of authorized vessels from all T-RFMOs and maintenance of this record in as timely a manner as possible. Following this request and financial assistance provided by the International Seafood Sustainability Foundation (ISSF), in February 2011 the T-RFMO Secretariats agreed to organize a Workshop in the FAO Headquarters in Rome, attended by technical staff from the T-RFMO Secretariats, and he FAO. The First Workshop on Exchange of Information and Maintenance of the Consolidated List of Authorized Vessels of Tuna Regional Fisheries Management Organizations agreed to the use of a template to exchange records of authorized vessels; the IOTC Secretariat to coordinate updates of the CLAV; updates to occur monthly or every other month; identification of individual vessels through IMO numbers or allocation of Unique Vessel Identifiers (TUVIs); and further development of a software to handle the T-RFMO Consolidated List of Authorized Vessels (CLAV), along the lines of FAO's Vessel Record Management Framework. Following the Rome meeting, the CLAV has been updated in nine occasions with regular exchanges of lists of authorized vessels from the T-RFMOs. Following completion of a System to handle the CLAV by the FAO, in cooperation with the T-RFMOs, the T-RFMO Secretariats agreed to organize a follow-up workshop to assess the use of FAO's software for future updates of the CLAV to occur in close-to-real time.

This meeting was convened by the T-RFMOs and was attended by database and compliance managers from the T-RFMOs and participants from the FAO. WCPFC, CCSBT, and SPC apologized for not being able to attend the meeting in Rome and were contacted through video-conference. The funds necessary for the organization of the Workshop and the participation of one expert from each T-RFMO were provided by the T-RFMOs and the International Seafood Sustainability Foundation (ISSF). The meeting was kindly hosted by the FAO who also provided video-conference services.

## 2. OPENING SESSION

The Workshop was attended by 6 experts, working for the FAO, IATTC, ICCAT and IOTC. In addition, representatives from CCSBT, WCPFC, and the SPC joined the WS through video conference.

The participant list is given in Appendix B.

Mr. Miguel Herrera (IOTC) acted as moderator for the session.

Miguel Herrera, IOTC Data Coordinator, provided background information on the Workshop, its main objective and expected outcomes:

- The main objective of this meeting is to assess the status of the CLAV System, developed by the FAO in cooperation with the T-RFMOs, and the potential use of this software to handle close-to real time updates of the CLAV in the future.

- Identify the arrangements that would be necessary to implement the above, including establishment of a roadmap to govern such implementation, and need for additional resources to manage the CLAV.

- Assess if T-RFMOs will require additional resources for the implementation of the CLAV in close-to real time and detail the type of activities that would require assistance.

The preliminary Workshop agenda was introduced and adopted by Workshop participants. It is given in Appendix A.

## 3. CURRENT STATUS OF THE CLAV

### 3.1 Preparation of vessel data and exchange for updates of the CLAV

A representative from each T-RFMO presented the status of data preparation and exchange concerning the CLAV. A summary of the information presented is provided in the following paragraphs.

The CCSBT noted that to date it has provided updates to its record of authorized vessels using the template agreed by the CLAV (hereinafter referred to as CLAV template) at its first meeting in February 2012 in Rome Workshop. In this regard, the CCSBT informed that it has experienced some difficulties in providing information for the CLAV concerning vessels that need to be removed from the CLAV, i.e. vessels no longer authorized due to having expired authorizations. The CCSBT informed that it is currently working to resolve this problem and new updates will incorporate also this information. The CCSBT also noted that it had been unable to exchange information for the CLAV on carrier vessels authorized by the CCSBT because carrier vessels might be authorized by more than one CCSBT Member with different authorization periods depending on the source.

The IATTC noted that it has used the CLAV template to exchange updates for the CLAV since its implementation and will continue doing so in the future. The IATTC also informed that so far it had reported fish carrying capacity instead of vessel tonnage for its authorized purse seiners, noting that it will modify the existing routines so as GRT is obtained from all vessels in the future.

The ICCAT informed that it had conducted a major review of the ICCAT vessel registry throughout 2011 and this had limited its capacity to report data to the CLAV in the past. The ICCAT informed that, although such review is still ongoing, it is now possible to report updates for the CLAV, following the CLAV template.

The IOTC informed that it has exchanged data for the CLAV following the agreed template since its inception. The IOTC further informed that reports so far had been limited to fishing vessels, as the information it holds on carrier vessels has the same format than information reported to the CCSBT.

The WCPFC informed that it has been making best efforts to provide submissions to the CLAV, and updates using the CLAV Template have been exchanged since the last quarter of 2011. However, the WCPFC has experienced some difficulties to report some of the data components in the format agreed, due to legal constraints. This is because the WCPFC Rules specify that the WCPFC Record of Fishing Vessels needs to display the exact information provided by individual WCPFC Member or Cooperating Non-Members, as maintained in their national records. The WCPFC Secretariat is not able to modify or clarify vessel record data while it is within the WCPFC record of fishing vessels, and in providing extractions of the WCPFC record, including for submissions to the CLAV. This includes information on the vessel type, gear type, previous name, and previous flag.

### 3.2 General discussion

The Workshop noted that some T-RFMOs have difficulties to provide data to the CLAV as per the template agreed in 2009. In particular, WCPFC noted that WCPFC rules and procedures do not allow dissemination of information in a format different from that agreed by WCPFC Members, in particular vessel type, previous name and previous flag. In this regard, the Workshop noted that, in the future, it may be preferable that the CLAV uses both information as recorded by each T-RFMO and the standard codes currently used by the CLAV.

The Workshop noted the issues identified by the CLAV, as presented by the IOTC, in particular the fact that some T-RFMO Members seem to be reporting data for their vessels that is conflicting, with different vessel identifiers or dimensions reported for the same vessel to the same or several T-RFMOs. In this regard, the Workshop noted the usefulness of the CLAV to identify those issues and agreed that some of the countries concerned may require assistance in order to improve reporting.

The Workshop stressed the importance for each T-RFMO to verify that the number of vessels authorized in the CLAV agrees with the number of vessels authorized by the T-RFMO at the time of the update and report back to the CLAV administrator on any discrepancy identified between CLAV and T-RFMO database.

## 4. STRUCTURE AND CONTENTS OF THE NEW T-RFMO CLAV DATABASE (AS PROPOSED BY THE FAO)

The FAO presented ongoing work in the development of the Vessel Record Management Framework, in particular the module to be used by the CLAV, developed in coordination with the T-RFMOs. The FAO CLAV portal prototype is built upon, and takes advantage of, the Vessel Record Management Framework (VRMF - for references see: http://www.fao.org/fishery/statistics/software/fvrmf/en). As such, it can actively access the VRMF tools and components in order to perform its core tasks and allow users to manage the full vessel data workflow, including the import of legacy vessel data as currently collected by the existing CLAV, the data download and upload process, the identification of vessel duplicates and the immediate dissemination of the results. The full workflow cycle, assuming that RFMO Members communicate updates to RFMO Secretariats in a timely manner, may be completed almost in real time thus easing the process of providing public access to constantly up-to-date data. Among the benefits of this approach (and of the underlying technology) there is the adoption of a single database for both the collection of the data updates and dissemination of the results, plus the ability to limit the access to any data subset by the adoption of specific user grants. Furthermore, the libraries and components included in the VRMF allow for a very powerful integration of external data sources as well as continuous linkage with other vessel registries (e.g. the EU fleet registry, the forthcoming VRMF public vessel browser and the five tuna RFMOs vessel registries) that can help to cross-verify and enrich the CLAV data and consequently the RFMOs originating sources. As it is now, the CLAV prototype is expected to store just the vessel data provided by the tuna RFMOs: in principle, though, it could also accommodate for any other data source currently available. This means that external sources' data could also be used to identify duplicates among the CLAV vessels by providing sort of a "bridge" between apparently unrelated CLAV vessels. The VRMF components' modularization could also be used to build additional portals and applications to grant access to CLAV data in many different ways, e.g. by providing live statistics about the current registry and a constant flow of notifications to interested parties anytime an update is committed and disseminated by the system. Additionally, the CLAV prototype and its underlying modules could be custom-tailored to fulfill any future need or request as the inclusion of new vessel attributes to be handled by the system. The VRMF database model at its core (which is almost completely normalized) provides great flexibility about this aspect and currently the set of vessel attributes it can handle is not fully used by the CLAV prototype. Other relevant issues that emerged during the past years as the difficulties for some RFMOs to provide data to the CLAV in the expected format or the inability to provide data for carrier vessels (having multiple authorizations valid at the same time and issued by different countries) could be easily solved by fully adopting this model. The VRMF modules for the data extraction and the data upload could potentially serve or accept the required contents in many a different format, from binary XLS files to CSV files, and JSON or XML documents. This allows for a much greater flexibility in terms of data exchange capabilities for the system and potentially may lead the CLAV portal to become an authoritative source for vessel data information worldwide.

The Workshop agreed that the new version of the CLAV shall incorporate the history of vessels in the CLAV, where putting together this information does not represent a big burden to the T-RFMO concerned. As an initial step the Workshop agreed that the historical information already available in the CLAV, which is not currently displayed, is incorporated.

The Workshop further agreed that the new CLAV shall incorporate information of all vessel types authorized by T-RFMOs, in particular carrier vessels. In this regard, the Workshop noted the concerns raised by the CCSBT that the authorization of carrier vessels is not possible to handle under the current arrangements. The Workshop agreed to limit the information to be provided on carriers for it not to include authorization periods and sources, i.e. that each report for a carrier consists on a single row.

The Workshop noted that while some T-RFMOs may issue authorizations that apply to specific gear(s) and/or species and/or time-period(s) (e.g. ICCAT for bluefin tuna fisheries), other T-RFMOs authorize vessels in a broader sense, covering any species, gear, or time-period (e.g. IATTC). In this regard, the Workshop recommended that T-RFMOs exchange all available information for future updates of the CLAV, and the CLAV System is extended so as to accommodate and display this information.

The Workshop recommended that the new CLAV incorporates a disclaimer covering the above and other details about the information that is displayed. In particular the Workshop agreed that CLAV users shall be addressed to the individual T-RFMO Websites to verify the status of authorizations of vessels in the CLAV for each ocean.

The Workshop reviewed the status of the software developed by the FAO in consultation with the T-RFMOs. The Workshop congratulated Mr. Fabio Fiorellato for his extensive work in developing the software, noting that the software will be ready soon. In reviewing the information that will be displayed in the tuna-org website, the Workshop recommended that:

- The vessel table displayed at the front, which includes one record for each TUVI, as allocated by the administrator of the CLAV, to contain TUVI, vessel name, IMO, CLAV vessel type code, CLAV gear type code, vessel length, type of vessel length, vessel tonnage, type of tonnage, and T-RFMO(s) that reported the vessel authorized. The details displayed for each vessel shall correspond to the latest report available for each vessel attribute concerned.

- The details for each vessel, which are displayed upon selection of the vessel in the front page, to include vessel attributes as recorded in each individual T-RFMO database. In this regard, the Workshop agreed that each T-RFMO shall undertake mapping of T-RFMO codes on to CLAV codes and provide this information for including in the CLAV.

## 5. HOSTING OF T-RFMO CLAV DATABASE AND FREQUENCY OF UPDATES

The Workshop noted that, at present, transferring of records from T-RFMO databases to the CLAV requires that each T-RFMO dump vessel updates according to the template currently in use and time frames of convenience. While recognizing this as a possible approach, the general view of the Workshop was to promote updates that are run automatically following updates from each T-RFMO database, or run at preset times, e.g. once a day. In this regard, the Workshop noted that the current workload of T-RFMO database administrators may delay implementation of such a tool, agreeing that outsourcing of this work may be needed to complete this work, where required. The Workshop agreed to establish a period of six months to allow each T-RFMO to set up their systems to make possible automatic updates, as agreed, recommending that T-RFMO consider outsourcing of these activities if this work is not finalized within the proposed time-frame. With this in mind, the Workshop developed draft Terms of Reference for the job at hand, as presented in Appendix C, recommending that T-RFMO Secretariats identify funds for the execution of these activities, where required. In addition, the Workshop, agreed that the data dump facility, already in place, could be used until such a time where automatic updates become possible.

In addition to the above, the Workshop noted that, at present, the CLAV is updated every other month, agreeing that moving towards close-to-real time updates will make maintenance of the CLAV more time-consuming and will be difficult to achieve unless one additional staff is hired to assist with maintenance of the CLAV. The Workshop further noted that maintenance of the CLAV may include identification and follow-up of conflicting data reports with the T-RFMOs concerned, and preparation of regular reports on the status of development of the CLAV and data available, e.g. to be disseminated through a Newsletter or similar tool. With this in mind, the Workshop developed draft Terms of Reference for the job at hand, as presented in Appendix D, recommending that the T-RFMO Secretariats identify funds for the execution of these activities.

The Workshop recommended that the terms and conditions that apply to the use of the CLAV system, as provided by the FAO, are specified in a MOU and signed by the FAO and the T-RFMOs. The Workshop further recommended that, in preparing the draft MOU, the FAO considers incorporating the following provisions:

- The CLAV System will be installed in the server of one of the t-RFMOs, and monitored by the T-RFMO concerned as part of the tuna-org web site.

- The T-RFMOs will have access to the source code of the CLAV System, to be used only within the context of the CLAV, unless otherwise agreed by the FAO and the t-RFMO(s) concerned; t-RFMOs and the FAO to notify each other on changes to the source code affecting the CLAV System, so as to keep its consistency. The CLAV in the tuna-org web site to include proper acknowledgement of the FAO in developing the system.

- The T-RFMOs will facilitate exchange of vessel data with the FAO upon updates of the CLAV, in order to assist the development of the Global Vessel Record Database at the FAO.

- Where possible, the T-RFMOs and FAO will cooperate on further development of the CLAV System with a view to enhance the quality of the vessel data handled by RFMOs and the FAO.

Concerning the physical location of the CLAV the Workshop agreed to explore hosting of the application by the IATTC or the IOTC, as proposed by both. The FAO also informed that it will provide full access to the source code of the application, to be used only by the T-RFMO Secretariats, following exchange of an MOU.

In reviewing the recommendations issued in the previous pages, the Workshop noted that it may take around six months for the CLAV to go fully operational, so as to allow incorporation of all changes proposed, thorough testing of the system, and hiring of new staff. In order to facilitate the task, the Workshop recommended that the system is tested in its present location, as follows:

- Each T-RFMO to upload updates to the CLAV using the template currently in use, with updates to be uploaded once a month (e.g. 25th each month)

- The IOTC to handle the updates received from T-RFMOs towards identification of duplicates, allocation of TUVIs, and forwarding of database updates to the IATTC for restoring in the tuna-org website.

The Workshop agreed on a tentative roadmap to be followed to implement the above activities, as presented in Appendix F.

## 6. ANY OTHER MATTERS

The Workshop noted the request from the Foreign Fisheries Agency (FFA) and the Secretariat of the Pacific Community (SPC), who utilize information in the WCPFC Record of Fishing Vessels and are future users of the T-RFMO CLAV, to allow for XML format export of CLAV data, noting that the new design will make this possible.

In considering a long-term plan for the CLAV, the Workshop agreed that in the future it would be advisable to revert the flow of updates, so as updates from T-RFMO Members are processed at the CLAV end and forwarded to each T-RFMO for dissemination. However, while recognizing that such an approach may be the most logical, the Workshop noted that it will require that T-RFMOs delegate handling of updates to the CLAV, something that is unlikely at the moment. In this regard, the Workshop deferred consideration of this approach to the T-RFMO Secretaries, agreeing to further this cause in the event of a positive response.

The Workshop agreed on the need to maintain cooperation with the FAO for further development and harmonization of the software, where required. In this regard, the Workshop noted that the setting up of T-RFMO databases for automatic updates of the CLAV would be best achieved in cooperation with the FAO, recommending that Mr. Fabio Fiorellato is considered to undertake this work, where required.

## 7. ADOPTION OF THE REPORT AND CLOSING OF THE WORKSHOP

The report was adopted on 7 June 2012.

Miguel Herrera thanked participants for their contributions, the ISSF and the FAO, and closed the Workshop at approximately16:00 hours on 7 June 2012.

**APPENDIX A**

**Workshop agenda**

1.      Opening of the session

2.      Adoption of the agenda

3.      Current status of the CLAV

4.      Structure and contents of the new consolidated T-RFMO CLAV database (as proposed by the FAO)

5.      Hosting of T-RFMO CLAV database and frequency of updates

6.      Any other matters

7.      Adoption of the report and closing of the session

## APPENDIX B

## List of participants

| NO | Name | Post | E-mail |
|----|------|------|--------|
| 1 | Miguel Herrera | Data Coordinator - Indian Ocean Tuna Commission (IOTC) | **Miguel.Herrera@iotc.org** |
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| 3 | Simon Morgan* | Data Manager - Commission for the Conservation of Southern Bluefin Tuna | **smorgan@ccsbt.org `** |
| 4 | Mauricio Ortiz | Data Analyst - International Commission for the Conservation of Atlantic Tunas (ICCAT) | **Mauricio.Ortiz@iccat.int** |
| 5 | Alejandro Perez | Data Manager - Inter-American Tropical Tuna Commission (IATTC) | **aperez@iattc.org** |
| 6 | Bryan Scott* | Secretariat of the Pacific Community (SPC) | **Bryan.scott@pacificvms.net** |
| 7 | Sachiko Tsuji | Senior Fishery Statistician - FAO Statistics and Information Service (FIPS) | **Sachiko.Tsuji@fao.org** |
| 8 | Fabio Fiorellato | IT Consultant - Vessel Record Management Framework FIPS | **Fabio.Fiorellato@fao.org** |
| 9 | Fernando Jara | Fishery Statistician – Fishing Fleets FIPS | **Fernando.Jara@fao.org** |

*Video-conference

**APPENDIX C**

**Terms of Reference CLAV IT Expert**

**Rationale**

Since 2009, the T-RFMO Secretariats have worked together in the consolidation and dissemination, through the tuna-org Website, of their records of authorized vessels. Regular updates of the T-RFMO Consolidated List of Authorized Vessels (CLAV) were initiated in 2011, following the first Workshop on Exchange of Information and Maintenance of the Consolidated List of Authorized Vessels of Tuna Regional Fisheries Management Organizations, held in Rome in February 2011.

In July 2011, the T-RFMOs presented progress concerning development of the CLAV and ongoing cooperation with the FAO at the 3$^{rd}$ Joint Tuna RFMO Meeting, held in La Jolla, San Diego. The Meeting congratulated the T-RFMO Secretariats and the FAO for the progress achieved, encouraging them to continue development of the CLAV.

Following the above recommendation, the FAO and the T-RFMOs continued cooperation in the development of the software to be used in updating the CLAV, funder the framework of FAO's Vessel Record Management Framework (VRMF), so far used to handle the High Seas Vessels Authorization Record (HSVAR). Development of the CLAV System under the VRMF has been finalized and is currently being tested by the T-RFMOs. The new module will allow for the CLAV to be updated in close-to-real time, following updates at each T-RFMO. For this to be possible, each T-RFMO Secretariat will need to set up a procedure to make it possible automatic transfer of vessel updates to the CLAV.

**Service to be provided:**

1. Assist the T-RFMO Secretariats in establishing a mechanism to ensure exchange of updates of records of authorized vessels in real-time, following the standards agreed by T-RFMOs, upon update of each T-RFMO database; and exchange of new TUVIs assigned by the CLAV upon each update, with the T-RFMO concerned.
2. Document the existing T-RFMO Databases and procedures to extract information for the CLAV.

**Conditions**

In total the service will require two months of work, including briefing at the IOTC Secretariat and visits to all five T-RFMOs in order to set-up procedures for each database.

**APPENDIX D**

**Terms of Reference CLAV Database Manager**

**Rationale**

Since 2009, the T-RFMO Secretariats have worked together in the consolidation and dissemination, through the tuna-org Website, of their records of authorized vessels. Regular updates of the T-RFMO Consolidated List of Authorized Vessels (CLAV) were initiated in 2011, following the first Workshop on Exchange of Information and Maintenance of the Consolidated List of Authorized Vessels of Tuna Regional Fisheries Management Organizations, held in Rome in February 2011.

In July 2011, the T-RFMOs presented progress concerning development of the CLAV and ongoing cooperation with the FAO at the 3$^{rd}$ Joint Tuna RFMO Meeting, held in La Jolla, San Diego. The Meeting congratulated the T-RFMO Secretariats and the FAO for the progress achieved, encouraging them to continue development of the CLAV.

Following the above recommendation, the FAO and the T-RFMOs continued cooperation in the development of the software to be used in updating the CLAV, funder the framework of FAO's Vessel Record Management Framework (VRMF), so far used to handle the High Seas Vessels Authorization Record (HSVAR). Development of the CLAV System under the VRMF has been finalized and is currently being tested by the T-RFMOs. The new module will allow for the CLAV to be updated in close-to-real time, following updates at each T-RFMO. However, the identification of individual vessels is not simple, as T-RFMOs may have different standards for the reporting of vessels, not involving the same type of vessel attributes, and T-RFMO Members may report inconsistent data for the same vessel to two or more T-RFMOs. Therefore, a substantial amount of time may be required to identify duplicates and, especially, in following up on the issues identified with the T-RFMO Members concerned, in order to improve the quality of the information stored and make it possible CLAV updates that are fully automatic in the future.

**Service to be provided:**

1. Manage the CLAV System at the IOTC Secretariat, including coordination of exchange of vessel records from the five T-RFMO Secretariats.
2. Cross-verify records of authorized vessels, as exchanged by the T-RFMO Secretariats, including follow-up on issues identified with each T-RFMO Secretariat.
3. Prepare reports on the status of the CLAV on a regular basis for dissemination to all T-RFMO Secretariats.
4. Prepare the materials required for the regular dissemination of a Newsletter, to all T-RFMO members or other interested parties.
5. Prepare a Final Report on the status of the CLAV and evaluation of the first year of the new system to be considered by the T-RFMO Secretariats.
6. Attend any other duties, as required by the Coordinator of the CLAV.

**Conditions**

In total the service will require one year of work based at the IOTC Secretariat in Victoria, Seychelles.

# APPENDIX E

**Roadmap of implementation of the new CLAV System and procedures**

Timeline: Jun-12 | Jul-12 | Aug-12 | Sep-12 | Oct-12 | Nov-12 | Dec-12 | Jan-13 | Feb-13 | Mar-13 | Apr-13 | May-13 | Dec-13

- Recommendations from the Second CLAV Workshop to be reviewed by the T-RFMO Secretariats

- FAO CLAV System set in the agreed server

- The T-RFMOs, coordinated by IOTC, start using FAO prototype and feedback on any issues to FAO

- T-RFMOs, coordinated by IOTC, use data dump facility as to upload updates to the CLAV System

- T-RFMO Secretariats set up its systems to facilitate exchange of updates of their vessel record databases in real time to the CLAV, according to the agreed standards. A CLAV IT Expert to assist in the implementation of the above, where required.

- Updates to the CLAV using the existing CLAV System and procedures (IOTC)

- FAO provides first draft of MOU

- Completion and signature of MOU following feedback from T-RFMOs and exchange with FAO

- The T-RFMOs start using FAO prototype as CLAV portal CLAV Database manager is hired for one year (Jan-Dec 2013)

- Evaluation of the CLAV