

# **IOTC Catch Documentation Scheme**

## **Strategy**

**Version 1.0**

## Contents

PREAMBLE.....	2
SCOPE AND SPECIES.....	2
GOALS (GENERAL OBJECTIVES).....	3
SPECIFIC OBJECTIVE (PURPOSE).....	3
EXPECTED RESULTS (OUTPUTS).....	3
ACTIVITIES.....	3
INDICATORS.....	8
TIMELINE.....	9
LOGICAL FRAMEWORK.....	12
ASSESSMENT CRITERIA.....	16
SELECT BIBLIOGRAPHY.....	18

## **PREAMBLE**

The second performance review of IOTC, which took place in 2016, recommended that “the IOTC should continue to develop a comprehensive monitoring, control and surveillance (MCS) system through the implementation of the measures already in force, and through the adoption of new measures and tools such as a possible catch documentation scheme, noting the process currently being undertaken within the FAO.”<sup>1</sup>

Subsequent to this, a detailed study was commissioned in 2018 and published in 2019 on *Developing a comprehensive MCS system and an electronic Catch Documentation Scheme for IOTC*.<sup>2</sup> The report rationalises various IOTC Resolutions related to MCS in its first part and makes a proposal for an electronic catch documentation scheme (CDS) in its second part. The IOTC formed a Catch Documentation Scheme CDS Working Group, whose Terms of Reference were approved by the Seventeenth Session of the Compliance Committee in 2020.<sup>3</sup>

In its seventh meeting in 2022, the Chair of the CDS Working Group offered to work jointly with the IOTC Secretariat on a first draft of IOTC CDS Strategy, to be distributed to IOTC Contracting Parties (or “Members”) and cooperating non-Contracting Parties (together CPCs) and for consideration by the Compliance Committee in 2023. This Strategy is complemented by the IOTC Strategy Companion, which provides the discussion and justification for its different elements, and a draft CDS Resolution.

## **SCOPE AND SPECIES**

The three tropical tuna species (Bigeye tuna, Skipjack tuna and Yellowfin tuna) and Swordfish should be covered in the first instance. All IOTC species should be covered in the long run, with consideration given to including shark species.

The species falling under the CDS should be covered in their global range. This will imply including the port States and processing States that are not at present members of IOTC, most probably as Cooperating non-Contracting Parties (CNCs).

Though IOTC shall develop its own platform, it must allow for other systems to access some of its data, and vice-versa. This implies using standardised key data elements and exchange with other RFMOs.

Though initially trade-based for the artisanal sector, to achieve its goals the IOTC CDS will eventually be fisheries-based. All internationally-traded fish and as much landed fish as

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<sup>1</sup> PRIOTC02 para. 149 <http://www.iotc.org/documents/report-2nd-iotc-performance-review>

<sup>2</sup> [IOTC-2019-WPICMM02-MCS CDS Study](#)

<sup>3</sup> The Terms of Reference are to be found in Appendix 9 of the Report of the Seventeenth Session of the Compliance Committee. [IOTC-2020-CoC17-R\[E\]](#)

possible must be covered to achieve objectives. On a case-by-case basis, the CDS will evolve as soon as possible to being fisheries-based CDS.

## **GOALS (GENERAL OBJECTIVES)**

The goals of the IOTC Catch Documentation Scheme are:

- Reduced fishing of and trade in illegally caught products; and
- Improved provision of catch information for fisheries management.

## **SPECIFIC OBJECTIVE (PURPOSE)**

An effective Catch Documentation Scheme is in place for IOTC species and other relevant species

## **EXPECTED RESULTS (OUTPUTS)**

**Expected result 0:** An IOTC CDS is designed, instituted, developed and maintained

**Expected result 1:** A fishery-based industrial catch documentation scheme is operational for the three tropical tunas and swordfish (Phase 1 Stage 1)

**Expected result 2:** A trade-based (Phase 1 Stage 2) and later fishery-based (Phase 3) artisanal catch documentation scheme is operational

**Expected result 3:** All relevant port States and processing States are included in the IOTC CDS (Phase 2).

**Expected result 4:** All IOTC species and relevant sharks are covered by the IOTC CDS (Phase 2)

**Expected result 5:** The species covered by the IOTC CDS are documented by other RFMOs and vice versa (Phase 2)

## **ACTIVITIES**

### **0 Design, development, operation, monitoring and evaluation**

#### 0.1 Adopt IOTC CDS Strategy.

The IOTC CDS Strategy will have been agreed at the CDS Working Group. The IOTC CDS Strategy is effectively the dedicated CDS project suggested in the MCS CDS Study. It would be recommended to the Commission subject to some incorporation of comments, if any, and then passed by the Commission.

#### 0.2 Elaborate and approve eCDS Concept paper

Based on the IOTC CDS Strategy, the Secretariat will commission the elaboration of a detailed eCDS Concept Paper, that will specify the technical model, requirements and specifications, projections of data load and infrastructure needs, detailed description of individual eCDS functions and

programming language. Staffing implications will of necessity have to arise from this: the distribution of time between existing staff and a new CDS Officer if appropriate.

### 0.3 Deliberate and adopt Resolutions

#### 0.3.1 IOTC CDS Resolution

CPCs will deliberate on the draft Resolution in Annex 4 to the IOTC CDS Strategy Companion. The Resolution shall be “gold standard” incorporating all the essential requirements for achieving the Specific Objective or Purpose of the IOTC CDS Strategy. The parts relating to Phase 1 Stage 2 and subsequent Phases are put on abeyance to be implemented at later dates, in accordance with the phasing in this IOTC CDS Strategy. The draft Resolution scope is trade-based, whereas the Seventh meeting of the CDS Working Group agreed on a trade-based CDS that is later upgraded to a fishery-based CDS; thus, consideration is given to expanding the scope of the Resolution, whilst incorporating the different stages. The Commission shall approve.

#### 0.3.2 Rationalise and consolidate IOTC Resolutions relating to MCS

Key to the effectiveness of the CDS system in achieving its goals is a measure of rationalisation and consolidation of IOTC Resolutions, as recommended by the Second Performance Review of IOTC and elaborated by the MCS CDS Study. The Commission shall approve.

### 0.4 Develop eCDS platform

#### 0.4.1 Secure budgets (distribution between grant projects and recurrent budget) and recruit CDS team (professional, general service local staff or national project personnel; consultants).

There are three financial aspects that will be addressed: investment costs in establishing the eCDS (elaborating the technical specifications, developing the electronic platforms<sup>4</sup>, piloting and eventual launch into production, some training costs in IOTC CPCs over a number of years after production); the investment costs of implementing the IOTC CDS in selected developing coastal States; and the costs of maintaining the IOTC CDS at the IOTC Secretariat. Given the different scenarios, further consultations with those RFMOs who have implemented a CDS would be fruitful.

#### 0.4.2 Ensure compatibility with IOTC’s MCS tools and European Union Catch Certification Scheme

Establish the precise conditions under which the IOTC CDS (simplified catch certificate and Trade Certificate) can be recognised by the European Union under Article 13 of Council Regulation No 1005/2008, and for importation to the United States of America’s Seafood Import Monitoring Programme. Consideration will be given to the integration, complementarity of the IOTC CDS with IOTC’s and CPCs’ other MCS tools (record of authorised vessels, ePSM, IUU vessel lists, VMS, original documents such as authorisations to fish, logbooks, licences and signatories). Exhaustive consideration would be given to the key data elements (basic, enhanced and advanced) provided by the FAO and in use by other RFMOs. Confidentiality and security considerations must be integrated.

#### 0.4.3 Purchase and install software and hardware (if any)

#### 0.4.4 Programme and set up platforms, ideally cloud-based.

In order to reduce the costs of hardware, and ensure maximum flexibility across the different CPCs and eventually RFMOs, the platforms would be cloud-based. The platform would be compatible with the PCs, tablets and mobile phones, where appropriate.

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<sup>4</sup> The formats for electronic or paper forms (even if the system is electronic, the forms may on occasion need to be printed on completion) are proposed in Annexes I, II and III of the draft Resolution reproduced in **Error! Reference source not found.** to the IOTC CDS Strategy Companion.

#### 0.4.5 Test

Testing would take place at every stage, with the Secretariat, CPCs as they come on board, in iterative cycles

#### 0.4.6 Develop information and training materials.

Platforms would be as intuitive as possible, obviating the need for large complicated manuals. Notwithstanding this, there will be a need for start-up guides and perhaps instructive videos on the three main components (the estimate and verified Catch Certificate, the simplified Catch Certificate and the Trade Certificate).

#### 0.5 Roll out training in the application of the eCDS

Three types of training: 1. IOTC Secretariat for the overall use, management and maintenance of the system, taking on issues relating to data confidentiality as well as technical matters, 2. All CPCs training in the use of the eCDS (administration, CC<sub>est</sub>, CC<sub>ver.</sub> and TC) for all CPCs (flag State, port State; processing State), 3. Special training for developing CPCs regarding artisanal fisheries for the simplified CC (coastal State).

#### 0.6 Operate & maintain

System integrity and functionality would be assured by the CDS Officer at the Secretariat. CPCs would operate the CDS on the relevant platforms at their disposal (PC, tablet or mobile phone). External assistance may be required for programming maintenance.

#### 0.7 Monitor and Evaluate

The progress in relation to all aspects of this CDS Strategy will be monitored at least every year by the Working Party on the Implementation of CMMs, the Compliance Committee and the Commission, and adjustments made to the Strategy and IOTC Resolutions (the CDS Resolution and others as appropriate) as agreed by the Commission. The system shall be evaluated externally three years after introduction of the fishery-based CDS for industrial fisheries.

### **1 Fishery-based industrial documentation for three tropical tuna species and swordfish (Phase 1 Stage 1)**

#### 1.1 Define industrial vessels

The vessels covered by this component are defined as those that are listed on the IOTC Record of Authorised Vessels. Catch certificates from these cover all catches not just those exported, thus fisheries-based.

#### 1.2 Carry out pilot trials of the estimate Catch Certificate and the verified Catch Certificate.

Volunteer CPCs to try issuing and verifying Catch Certificates on their various fisheries.

#### 1.3 Carry out pilot trials of the Trade Certificate

Since Trade Certificates draw on Catch Certificates, Trade Certificates are tested after Catch Certificates have been piloted. Trade Certificates can only be instituted after both industrial and artisanal sectors have instituted Catch Certificates.

#### 1.4 Notify industrial private sector actors and (coastal, flag, port and processing) State competent authorities

Private sector actors generate estimate Catch Certificates. The CDS has a registry of private sector actors populated by CPCs. CPCs notify the IOTC Secretariat of details of coastal State, flag State, port State and processing State competent authorities (name, post, contact).

#### 1.5 Train in use of Catch Certificates and Trade Certificates.

Estimate Catch Certificate is generated by vessel and verified by flag State (may be blocked by coastal State), CC verified by Port State and Trade Certificate.

#### 1.6 Implement the CDS (mandatory)

A date is defined for the mandatory use of Trade Certificates<sup>5</sup>, which must refer to existing Catch Certificates, so Catch Certificates shall be mandatory three months before Trade Certificates are mandatory, or alternatively catches or landings before a certain date are exempted.

#### 1.7 Monitor and evaluate as per 0.7.

## **2 Trade-based artisanal CDS for three tropical tuna species and swordfish (Phase 1 Stage 2)**

#### 2.1 Define artisanal vessels.

Vessels not on the IOTC record of authorised vessels may generate estimate Catch Certificates to be verified by the flag State as in the industrial sector if they desire to do so. Vessels not on the IOTC record of authorised vessels are eligible for the simplified Catch Certificate system.

#### 2.2 Identify funding for capacity building in developing coastal States.

Funding is identified for capacity building activities in developing CPCs, to be used on demand from CPCs.

#### 2.3 Carry out pilot trials of the simplified Catch Certificate.

CPCs to try issuing and verifying simplified Catch Certificates on their various fisheries.

#### 2.4 Carry out pilot trials of the Trade Certificate

Since Trade Certificates draw on Catch Certificates, Trade Certificates are tested after Catch Certificates have been piloted. Specific verifications of the links between simplified Catch Certificates and Trade Certificates will be required.

#### 2.5 Notify private sector actors (buyers and operators) and of coastal State competent authorities

Private sector actors generate simplified Catch Certificates. The CDS has a registry of private sector actors populated by CPCs. CPCs notify the IOTC Secretariat of details of coastal State competent authorities (name, post, contact) not already notified under the industrial component.

#### 2.6 Training and capacity building in use of Catch Certificates and Trade Certificates.

Simplified Catch Certificate is generated by buyer or operator and endorsed by flag State, CC validated by Coastal State and Trade Certificate.

#### 2.7 Mandatory implementation

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<sup>5</sup> This shall be the same date as trade certificates are made mandatory for the artisanal sector.

A date is defined for the mandatory use of Trade Certificates<sup>6</sup>, which must refer to existing Catch Certificates, so Catch Certificates shall be mandatory three months before Trade Certificates are mandatory, or alternatively catches or landings before a certain date are exempted.

2.8 Monitor and evaluate as per 0.7.

### **3 Port State & processing State documentation (Phase 2)**

3.1 Identify those port States and processing States that are not already CPCs.

There are port States that receive products from IOTC fisheries. Similarly, products from IOTC fisheries are processed in third countries that are not end-market States. These shall be party to the eCDS Resolution to ensure effectiveness of the IOTC CDS.

3.2 Invite relevant port States and processing States to be members of IOTC

Evaluate whether CPC or NCPC status is best on a case-by-case basis.

3.3 Include all port and processing States into the CDS

All relevant States shall be included.

3.4 Monitor and evaluate as per 0.7.

### **4 Expand number of species (Phase 2)**

4.1 Identify further species for adoption

The three tropical tuna species are included in the first instance. Closing some species to IUU fishing pressure increases the pressure on other species, so achievement of the CDS purpose and goals is contingent on maximum coverage. Marginal costs of additional species are low.

4.2 Expand to eight IOTC species

First transition from four to eight species to include those recommended by the MCS CDS Study (albacore, blue marlin, black marlin, striped marlin).

4.3 Expand to all 16 IOTC species.

All IOTC species shall be included.

4.4 Include relevant sharks.

Priority shall be given to those sharks most associated with fishing on IOTC species.

4.5 Monitor and evaluate as per 0.7.

### **5 Other regional fisheries management organisations included (Phase 2)**

5.1 Assess progress on CDS in other tuna RFMOs.

The progress other RFMOs are making with respect to CDS covering relevant species will be monitored.

5.2 Ensure technical compatibility.

The IOTC CDS will consider use of Key Data Elements recommended in the FAO CDS Guide for National Authorities. The Key data elements in the IOTC CDS and those used by other RFMOs will be reviewed. Data compatibility for potential exchange will be assessed.

5.3 Agree data exchange and mutual recognition

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<sup>6</sup> This is the same date as the Trade Certificate is made mandatory for the industrial sector.

Letters (or memoranda) of understanding will be drafted to formalise the conditions of data exchange, access to platforms and mutual recognition of Catch Certificates and Trade Certificates.

5.4 Monitor and evaluate as per 0.7.

## **INDICATORS**

Indicators are intended to conform in all cases with the following criteria:

- a) Quantity: It should establish in numerical terms the level of progress with respect to what was planned.
- b) Quality: Offers information about the attributes of the outputs.
- c) Time: Measures the achievements in a specific period of time.
- d) Area: Offers information on the coverage of the achievements

## TIMELINE

Activity	Who	Duration	Year											
			2023	2024	2025	2026	2027	2028	2029					
0 DESIGN, DEVELOPMENT & OPERATION														
0.1 Adopt IOTC Strategy	Secretariat & CPCs	3m												
0.2 Elaborate & approve eCDS concept paper	Commission													
0.3 Deliberate & adopt Resolutions	Commission	6m												
- Adopt IOTC CDS Resolution														
- Rationalise & consolidate IOTC Resolutions relating to MCS														
0.4 Develop eCDS platform		6m												
- Secure budgets & recruit CDS team														
- Ensure compatibility with IOTC's MCS tools & European Union Catch Certification Scheme														
- Purchase and install software & hardware (if any)														
- Programme and set up platforms, ideally cloud-based														
- Test														
- Develop information & training materials														
0.5 Roll out training in the application of the eCDS														
0.6 Operate & maintain														
0.7 Monitor & evaluate (E)													E	
PHASE 1														
1 PHASE 1 STAGE 1 FISHERY-BASED CDS FOR INDUSTRIAL FISHERIES (FOUR SPECIES)														
1.1 Define industrial vessels														

Activity	Who	Duration	Year										
			2023	2024	2025	2026	2027	2028	2029				
1.2 Carry out pilot trials of estimate CC & verified CC													
1.3 Carry out pilot trials of the Trade Certificate													
1.4 Notify private sector actors & State competent authorities													
1.5 Train in use of Catch Certificates & Trade Certificates													
1.6 Implement the eCDS													
1.7 Monitor & evaluate (E)													E
<b>2 PHASE 1 STAGE 2 TRADE-BASED CDS FOR ARTISANAL FISHERIES (FOUR SPECIES)</b>													
2.1 Define artisanal vessels													
2.2 Identify funding for capacity building in developing coastal States													
2.3 Carry out pilot trials of the simplified CC													
2.4 Carry out trials of the Trade Certificate													
2.5 Notify artisanal private sector actors & coastal State competent authorities													
2.6 Training & capacity building in use of simplified Catch Certificates & Trade Certificates													
2.7 Mandatory implementation													
2.8 Monitor & evaluate (E)													E
<b>PHASE 2</b>													
<b>3 PORT STATE &amp; PROCESSING STATE DOCUMENTATION</b>													
3.1 Identify port States & processing States that are not already CPCs													
3.2 Invite relevant States to be members of IOTC													

Activity	Who	Duration	Year												
			2023	2024	2025	2026	2027	2028	2029						
3.3 Include all port & processing States into the CDS															
3.4 Monitor & evaluate (E)															E
4 EXPANDED NUMBER OF SPECIES															
4.1 Identify further species for adoption															
4.2 Expand to eight IOTC species															
4.3 Expand to all 16 IOTC species															
4.4 Include relevant sharks															
4.5 Monitor & evaluate (E)															E
5 OTHER RFMOS ADOPTION OF OR EXCHANGE WITH IOTC CDS															
5.1 Assess progress on CDS in other tuna RFMOs															
5.2 Ensure technical compatibility															
5.3 Agree data exchange and mutual recognition															
5.4 Monitor & evaluate (E)															E
Notes															

## LOGICAL FRAMEWORK<sup>7</sup>

Project description	Objectively verifiable indicators (with dates)	Means of verification	Assumptions
<p><b>Goals</b></p> <ul style="list-style-type: none"> <li>-Reduced IUU fishing of and trade in illegally caught products</li> <li>-Improved provision of catch data for fisheries management</li> </ul>	<p>Results indicators</p> <ul style="list-style-type: none"> <li>-Number of infractions reported to IOTC Compliance Committee reduced from x in 2025 to y in 2029</li> <li>-Compliance rate of nominal catches to IOTC improved from x% in 2025 to y% in 2029</li> </ul>	<ul style="list-style-type: none"> <li>-External evaluation</li> <li>-Compliance Committee Reports</li> <li>-WPICMM Reports</li> </ul>	
<p><b>Objective (purpose)</b></p> <p>An effective Catch Documentation Scheme is in place for IOTC species and other relevant species</p>	<p>Results indicators</p> <ul style="list-style-type: none"> <li>-Compliance rate of requirements in IOTC CDS Resolution across CPCs reaches 75% by 2027 and 85% by 2029</li> </ul>	<ul style="list-style-type: none"> <li>-External evaluation</li> <li>-Reports of the Compliance Committee</li> </ul>	As much landed fish as possible is included and all traded fish.
<p><b>Expected results (outputs)</b></p> <p><b>0:</b> An IOTC CDS is designed, instituted, developed &amp; maintained</p> <p><b>1:</b> A fishery-based industrial catch documentation scheme is operational for the three tropical tunas and swordfish</p> <p><b>2:</b> A trade-based and later fishery-based artisanal catch documentation scheme is operational</p>	<p>Process indicators</p> <ul style="list-style-type: none"> <li>-A comprehensive CDS Resolution is adopted for IOTC in 2024</li> <li>-MCS Resolutions rationalised &amp; consolidated by 2025.</li> <li>-Estimate Catch Certificates, verified Catch Certificates and Trade Certificates used comprehensively for industrial fisheries from 2026.</li> <li>-Simplified Catch Certificates and Trade Certificates used in artisanal fisheries from 2026.</li> </ul>	<ul style="list-style-type: none"> <li>-External evaluation</li> <li>-Reports of the Commission</li> <li>-Reports of the Compliance Committee and WPICMM</li> </ul>	<ul style="list-style-type: none"> <li>-IOTC eCDS Resolution complied with.</li> <li>-IOTC MCS Resolutions rationalised &amp; consolidated.</li> <li>-eCDS integrated with IOTC's MCS tools (ePSM, IUU Vessel List, RAV, VMS)</li> <li>-End-market States recognise IOTC's eCDS</li> <li>-Traceability from Catch Certificates to Trade Certificates works</li> <li>-All traded products included.</li> </ul>

<sup>7</sup> Based on FAO. 2014. Results-based public management. Santiago <https://www.fao.org/3/i3937e/i3937e.pdf>

Project description	Objectively verifiable indicators (with dates)	Means of verification	Assumptions
<p><b>3:</b> All relevant port States and processing States are included in the IOTC CDS</p> <p><b>4:</b> All IOTC species and relevant sharks are covered by the IOTC CDS</p> <p><b>5:</b> The species covered by the IOTC CDS are documented by other RFMOs and vice versa</p>	<p>-Relevant port States &amp; processing States parties to the IOTC CDS by 2028.</p> <p>-All IOTC species &amp; three most relevant shark species covered by 2029.</p> <p>-IOTC &amp; one other RFMOs share key data elements by 2028, two by 2030.</p>		<p>-As many landings as possible included.</p> <p>-All relevant port State and processing States included</p> <p>-All IOTC species and sharks at risk of IUU fishing included</p> <p>-CDS covers IOTC species globally</p> <p>-Tuna RFMOs adopt standard key data indicators</p>
<p>Activities 0</p> <p>-Adopt IOTC Strategy</p> <p>-Elaborate &amp; approve eCDS concept paper</p> <p>-Deliberate &amp; adopt Resolutions</p> <p>-Develop eCDS platform</p> <p>-Roll out training in the application of the eCDS</p> <p>-Operate &amp; maintain</p> <p>-Monitor &amp; evaluate</p>	-	<p>-External evaluation</p> <p>-Reports of the Commission</p> <p>-Reports of the Compliance Committee and WPICMM</p>	<p>-CPCs agree to strategy</p> <p>-Concept paper comprehensive</p> <p>-Commission adopts eCDS Resolution</p> <p>-eCDS Catch Certificates, Trade Certificates &amp; platforms practical &amp; user-friendly</p> <p>-CPCs volunteer for training</p> <p>-IOTC Secretariat has budget for eCDS maintenance</p> <p>-External evaluation recruited</p>
<p>Activities 1</p> <p>-Define industrial vessels</p> <p>-Carry out pilot trials of estimate CC &amp; verified CC</p> <p>-Carry out pilot trials of the Trade Certificate</p>	-	<p>-External evaluation</p> <p>-Reports of the Commission</p> <p>-Reports of the Compliance Committee and WPICMM</p>	<p>-All relevant industrial vessels included</p> <p>-CPCs institute requirements of IOTC Resolutions</p> <p>-Relevant private sector actors &amp; competent authorities nominated</p>

Project description	Objectively verifiable indicators (with dates)	Means of verification	Assumptions
<ul style="list-style-type: none"> <li>-Notify private sector actors &amp; State competent authorities</li> <li>-Train in use of Catch Certificates &amp; Trade Certificates</li> <li>-Implement the eCDS</li> <li>-Monitor &amp; evaluate</li> </ul>			<ul style="list-style-type: none"> <li>-Trainees are the relevant officers</li> <li>-Officers in place for implementing the eCDS</li> </ul>
<p>Activities 2</p> <ul style="list-style-type: none"> <li>-Define artisanal vessels Identify funding for capacity building in developing coastal States</li> <li>-Carry out pilot trials of the simplified CC</li> <li>-Carry out trials of the Trade Certificate</li> <li>-Notify artisanal private sector actors &amp; coastal State competent authorities</li> <li>-Training &amp; capacity building in use of simplified Catch Certificates &amp; Trade Certificates</li> <li>-Mandatory implementation</li> <li>-Monitor &amp; evaluate</li> </ul>	-	<ul style="list-style-type: none"> <li>-External evaluation</li> <li>-Reports of the Commission</li> <li>-Reports of the Compliance Committee and WPICMM</li> </ul>	<ul style="list-style-type: none"> <li>-All relevant artisanal vessels included</li> <li>-CPCs institute requirements of IOTC Resolutions</li> <li>-Relevant private sector actors &amp; competent authorities nominated</li> <li>-Trainees are the relevant officers</li> <li>-Officers in place for implementing the eCDS</li> </ul>
<p>Activities 3</p> <ul style="list-style-type: none"> <li>-Identify port States &amp; processing States that are not already CPCs</li> <li>-Invite relevant States to be members of IOTC</li> </ul>	-	<ul style="list-style-type: none"> <li>-External evaluation</li> <li>-Reports of the Commission</li> <li>-Reports of the Compliance Committee and WPICMM</li> </ul>	<ul style="list-style-type: none"> <li>-Relevant port &amp; processing States accept CNCP status for eCDS</li> </ul>

Project description	Objectively verifiable indicators (with dates)	Means of verification	Assumptions
<ul style="list-style-type: none"> <li>-Include all port &amp; processing States into the CDS</li> <li>-Include all port &amp; processing States into the CDS</li> <li>-Monitor &amp; evaluate</li> </ul>			
<p>Activities 4</p> <ul style="list-style-type: none"> <li>-Identify further species for adoption</li> <li>-Expand to eight IOTC species</li> <li>-Expand to all 16 IOTC species</li> <li>-Include relevant sharks</li> <li>-Monitor &amp; evaluate</li> </ul>	-	<ul style="list-style-type: none"> <li>-External evaluation</li> <li>-Reports of the Commission</li> <li>-Reports of the Compliance Committee and WPICMM</li> </ul>	<ul style="list-style-type: none"> <li>-CPCs accept expanding to all IOTC species and relevant sharks</li> <li>-eCDS easily expandible technically and practically</li> </ul>
<p>Activities 5</p> <ul style="list-style-type: none"> <li>-Assess progress on CDS in other tuna RFMOs</li> <li>-Ensure technical compatibility</li> <li>-Agree data exchange and mutual recognition</li> <li>-Monitor &amp; evaluate</li> </ul>	-	<ul style="list-style-type: none"> <li>-External evaluation</li> <li>-Reports of the Commission</li> <li>-Reports of the Compliance Committee and WPICMM</li> </ul>	<ul style="list-style-type: none"> <li>-Other tuna RFMOs accept common key data elements or use the eCDS that IOTC has instituted</li> </ul>

## ASSESSMENT CRITERIA

**Relevance**<sup>8</sup> A Catch Documentation Scheme is potentially an effective tool in both addressing illegal, unreported and unregulated fishing activities and in enhancing the availability of information for both science and fisheries management.

**Efficacy**<sup>9</sup> The five components or expected results together form comprehensive means of ensuring that the IOTC CDS is effective and watertight.

- In a multilateral institution faced with complex challenges, such as the IOTC, process regarding design, operation and maintenance is key to effective implementation. Including both industrial and artisanal fisheries is essential to ensure that the majority of catches, and all those that are traded, are covered.
- Phasing the artisanal sector adoption allows both for the particularities of that sector and also the need for capacity building.
- Including the global supply chain through the introduction of port State and processing State membership outside the IOTC area of competence ensures that IOTC catches do not leak to other regions.
- Covering the three main tropical tuna species and swordfish in the first instance allows for testing the CDS, without compromising the later expansion of the scheme to cover all IOTC species and appropriate sharks.
- The adoption of FAO's key data elements allows for standardisation and exchange with other RFMOs, thereby enabling a CDS with global coverage.

**Efficiency**<sup>10</sup> Creating a global design while phasing in different sectors is a cost-efficient approach. Phasing in of the Artisanal sector allows for testing the catch and trade certificates before introducing the simplified catch certificate. The phasing also allows for the introduction of the simplified catch certificate electronically, without incurring the costs of a paper system and its subsequent transition to an electronic system. Adding further species to the CDS will not incur extra costs of significance.

**Financial viability**<sup>11</sup> Examining the different technical options, including "off-the-shelf" and cloud-based ones where appropriate, will lead to low investment and operation costs. The most cost-effective staffing option institutionally would be desirable. The experience to date of other RFMOs will inform technical choice.

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<sup>8</sup> This refers to the coherence that the alternative has with the policies of the implementing institution and with the priorities of the target population. The stakeholder analysis helps to clarify which alternative better meets the priorities of the potential population.

<sup>9</sup> Measures the degree to which the alternative solves or best contributes to solving the problem that was identified. This criterion has a great deal of weight, since it has to do with moving from the problem situation to the desired situation.

<sup>10</sup> Analyses the balance between the benefit and the cost of each alternative from the economic point of view; in other words, what alternative generates the greatest benefit at the least cost. The cost-benefit and cost-effectiveness analyses are useful for evaluating this criterion.

<sup>11</sup> Examines the financial viability of each alternative. It centres on evaluating the availability of financial resources for funding the alternatives, as well as on the opportunity cost of the alternatives.

**Technical viability**<sup>12</sup> The experience of ICCAT, CCAMLR show that the technology exists for an effective CDS, either using off-the-shelf programmes or a tailored system, such as that developed for eMARIS. Ensuring the maintenance of technical specification would be performed by the permanent professional staff in the IOTC Secretariat, daily functionality assured by the existing IT Specialist and operation of the system by a dedicated CD Officer to be recruited. Specialised equipment is not envisaged, as the most appropriate platform(s) would be cloud-based, so as not to depend on the internet of any particular CPC.

**Institutional viability**<sup>13</sup> The Secretariat of the IOTC can safely be assumed to be an established institution, with a permanent mandate and stable and secure revenues. CPCs are also committed to the implementation of IOTC conservation and management measures and are required to ensure national institutions are staffed, equipped and financed to ensure compliance.

**Environmental impact**<sup>14</sup> The increased environmental impact relates to the use of the internet for the eCDS. This is less than the environmental impact of a paper-based system, which would depend on vast quantities of paper, printing and photocopying. The environmental impact of any increased internet usage would be outweighed by the environmental benefits of reduced IUU fishing activities and improved data for fisheries management.

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<sup>12</sup> This is the technical capability (specialized human resources and adequate equipment) to implement the program or project.

<sup>13</sup> This refers to the institutional capacity which depends on various factors, such as the institutional setting in which the program or project will be implemented.

<sup>14</sup> Analyzes the environmental impact and cost compared to the benefit of each alternative.

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