



Food and Agriculture
Organization of the
United Nations



Indian Ocean Tuna Commission
Commission des Thons de l'Océan Indien

Electronic Monitoring And Reporting Information System (e-MARIS)

-

A comprehensive reporting system for IOTC

CWP 27th session

IOTC Secretariat/e-MARIS Dev Team

RATIONALE

- IOTC requires that its CPC report specific information throughout the year, according to IOTC regulations, management & conservation measures and other decisions.
- The aim of the e-MARIS application is to replace the current manual process with a web-based centralized system that would allow CPCs to declare their information and help the IOTC Secretariat in assessing the Compliance Status of each CPC.

GOALS

- replace the current paper-based reporting and assessment process
- allow for a centralised, flexible tool, fully configurable by IOTC
- improve the process with easy scheduling and notifications
- allow CPCs to handle their own internal reporting processes
- help compiling Reports from reported data
- allow integration with other IOTC systems

SCOPE

- e-MARIS covers all requirements, both for Compliance and Science
- e-MARIS covers the whole process:
 - Information calls
 - Reporting by CPCs
 - Submission review and Compliance assessment
 - Production of reports & other compliance products

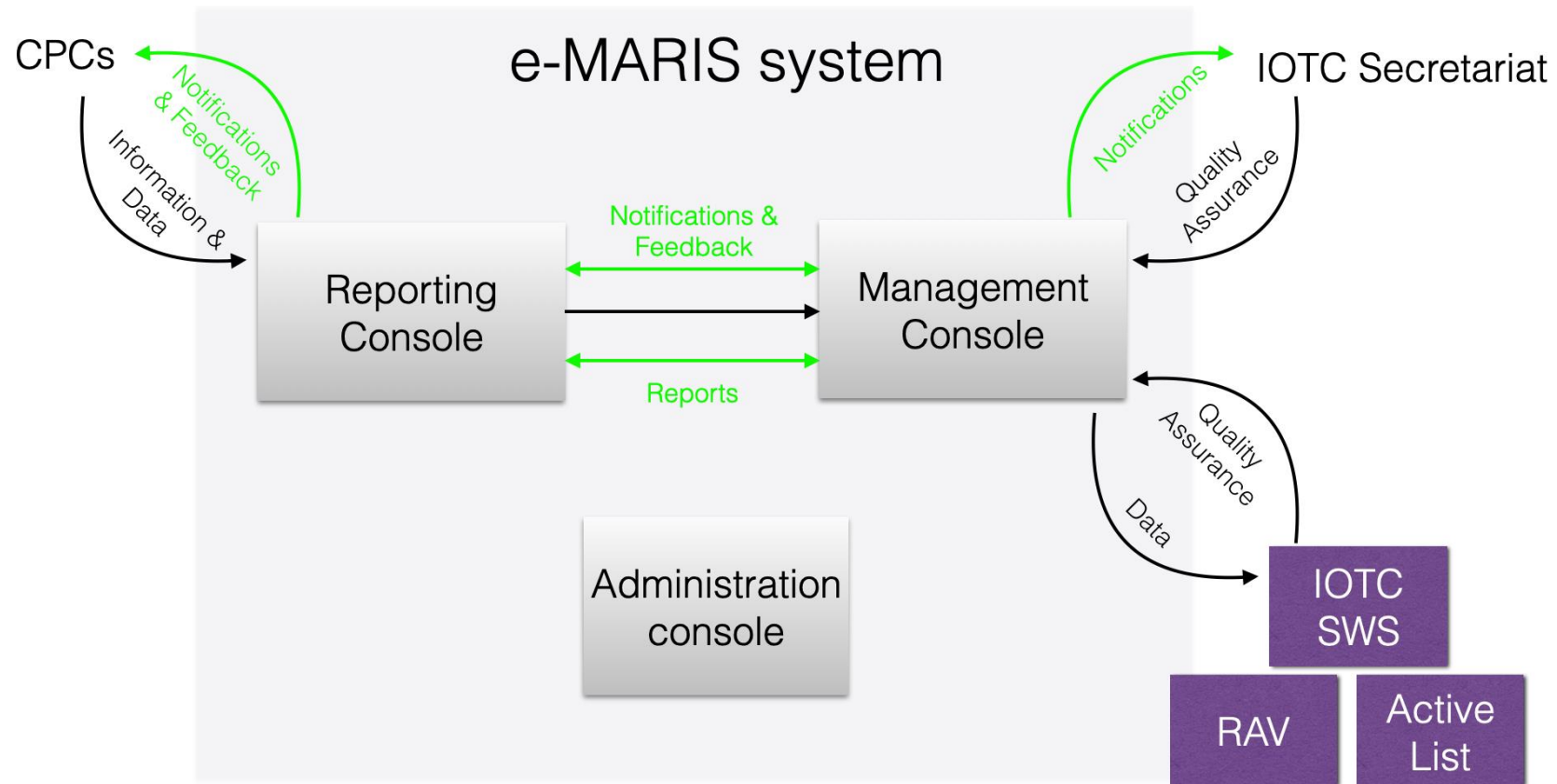
The e-MARIS workflow

- IOTC Secretariat: designs submission requirements and report templates, schedules them
- CPCs: consult requirements, prepare and validate submissions, submit information
- IOTC Secretariat: receives submissions, assesses their compliance
- CPCs: produce their annual Report of implementation
- IOTC Secretariat: produces the annual Compliance reports
- CPCs/Secretariat: built-in communication channels (in-app messages and email notifications for system events and bilateral communication)

e-MARIS architecture

- Developed using modern web technologies (React and Java)
- Runs on a cloud platform (Google)
- Allows for easy creation of new instances (e.g. staging, training, production)
- High reliability & scalability, accessible everywhere
- Fully backed up

e-MARIS organisation



e-MARIS organisation

- **Administration console:** allows to manage users (IOTC & CPCs), configure the application, etc.
- **Management console:** allows IOTC to create & manage requirements, information collection campaigns & report templates, as well as to manage running campaigns and assess compliance
- **Reporting Console:** allows CPCs to consult the calendar of requirements, report information according to their internal processes, follow the status of their submissions and compliance...

A look at e-MARIS in action

e-MARIS for CPCs: The Dashboard

e-MARIS / Dashboard / 2022 Assessment / Summary

16 June 2022 - 11:46 Australia Manager

Australia

Coastal state CP Flag state Market state Port state

Summary Calendar Requirements Reports Messages Shared

2022 Assessment

SUBMISSION RATES

70%

SUBMITTED

14/20

REQUIREMENTS

13/19

REPORTS

1/1

LATE RATE

35%

HORIZON (365 DAYS)

STATISTICS

SUBMITTED LATE

7/14

PENDING

0

DRAFT

4

LATEST SUBMISSIONS

REQUIREMENT

19/01 YFT reduction

DATE

an hour ago

REPORT

DATE

a month ago

TO DO | DONE

NAME	DUE DATE	CURRENT STATUS	SUBMITTED	TIMELINESS	COMPLIANCE
15/03 VMS report	a year ago	Draft	7 months ago	Late	
19/06 LSTLV TRX	9 months ago	Submitted	9 months ago	On Time	
19/01 Seiners & supply vessels	5 months ago	Draft	9 months ago	On Time	
14/05 Foreign vessels licensed	4 months ago	Submitted	5 months ago	On Time	
19/07 Charter Agreements	4 months ago	Submitted	3 months ago	On Time	
19/06 Results Investigations	4 months ago	Draft	7 months ago	On Time	

LATEST MESSAGES

Assessment has been revoked.

Mark Unread

15/01 CATCH DATA

SUBMISSION

e-MARIS 15 June 2022 - 09:50

Has been assessed (Compliant).

Mark Unread


19/01 YFT REDUCTION


SUBMISSION


e-MARIS 16 June 2022 - 10:27


Awaits internal approval.

e-MARIS for CPCs: The Dashboard









>

e-MARIS / Dashboard / 2022 Assessment / Calendar

16 June 2022 - 11:48 Australia Manager

Australia

Coastal state CP Flag state Market state Port state

Summary Calendar Requirements Reports Messages Shared

List View 2022 Assessment

86 search events... Type Requirement Report

DATE	NAME
June 2022	
Friday 10 June	01/06 BET annual report has been Assessed
Friday 10 June	19/06 LSTLV TRX has been Assessed
Friday 10 June	14/05 Foreign vessels licensed has been Assessed
Monday 13 June	11/02 Damaged buoys has been Assessed
Monday 13 June	13/05 Whale sharks nets has been Submitted
Monday 13 June	13/05 Whale sharks nets has been Assessed
Monday 13 June	12/04 Guidelines turtles has been Submitted
Monday 13 June	12/04 Guidelines turtles has been Assessed
Monday 13 June	12/04 Guidelines turtles has been Submitted
Monday 13 June	12/04 Guidelines turtles has been Assessed
Monday 13 June	13/05 Whale sharks report has been Submitted
Monday 13 June	13/05 Whale sharks report has been Assessed

e-MARIS for CPCs: Reporting information

e-MARIS / Dashboard / 2022 Assessment / Requirements / 15/03 VMS report / Latest16 June 2022 - 11:46Australia Manager

Resolution 15/03 VMS report on implementation and technical failures

Source: Resolution 15/03 On the vessel monitoring system (VMS) programme

Due Jun 30, 2021

Draft

Late

CMM

Compliance Cycle

Normal

Data

Submission History

Messages

EnglishSave

VMS report on implementation and technical failures

Paragraph 12:
Each CPC shall provide to the IOTC Secretariat, by 30 June each year, a report on the progress of implementation of its VMS programme, including technical failures.

Please upload your report:

quantities.xlsx

Drag or choose one or more files. Max file size 20Mb



Please enter any comment about your submission

Normal

B I U

Updated submission including the NIL report

e-MARIS for CPCs : Messages



e-MARIS / Dashboard / 2022 Assessment / Requirements / 15/03 VMS report / Latest

16 June 2022 - 11:49 Australia Manager

Resolution 15/03 VMS report on implementation and technical failures

Source: Resolution 15/03 On the vessel monitoring system (VMS) programme

Due Jun 30, 2021

Draft

Late

CMM


Compliance Cycle

Normal

Data

Submission History


Messages

 e-MARIS 08 November 2021 - 16:40

Awaits internal approval.

Mark Unread


Quote

 e-MARIS 08 November 2021 - 16:40

Available for assessment.

Mark Unread


Quote

 08 November 2021 - 16:41

You still need to upload your report

Mark Unread


Quote

 e-MARIS 08 November 2021 - 16:42

Awaits internal approval.

Mark Unread


Quote

 e-MARIS 08 November 2021 - 16:42

Available for assessment.

Mark Unread

Quote



UNREAD

 e-MARIS 08 November 2021 - 16:42

Has been assessed (Compliant).

Mark Read

Quote

Type a message...

Send ↵

e-MARIS for IOTC: Managing a Campaign

eMARIS / Dashboard / 2022 Assessment / Summary

16 June 2022 - 11:38 Olivier Roux

2022 Assessment

Running Compliance Cycle

Summary Calendar Parties Requirements Reports Messages Shared

2022 Assessment

SUBMISSION RATES DUE NEXT PAST DUE

3%

VERY LOW
29

LOW
0

BETTER
1

BEST
0

HORIZON (365 DAYS)

STATISTICS

SUBMITTED LATE	PENDING	DRAFT
40%	2	11

LATEST SUBMISSIONS

REQUIREMENT	PARTY
19/01 YFT reduction	Australia
REPORT	PARTY
2022 Implementation report	Comoros

NAME	DUE DATE	SUBMISSION RATE	ASSESSMENT RATE	COMPLIANCE RATE
14/05 Access agreements	a month ago			
19/02 FAD management plans	a month ago			
2022 Implementation report	2 months ago			
11/02 Damaged buoys	2 months ago			
12/04 Guidelines turtles	2 months ago			
13/05 Whale sharks report	2 months ago			
15/01 Catch data	2 months ago			

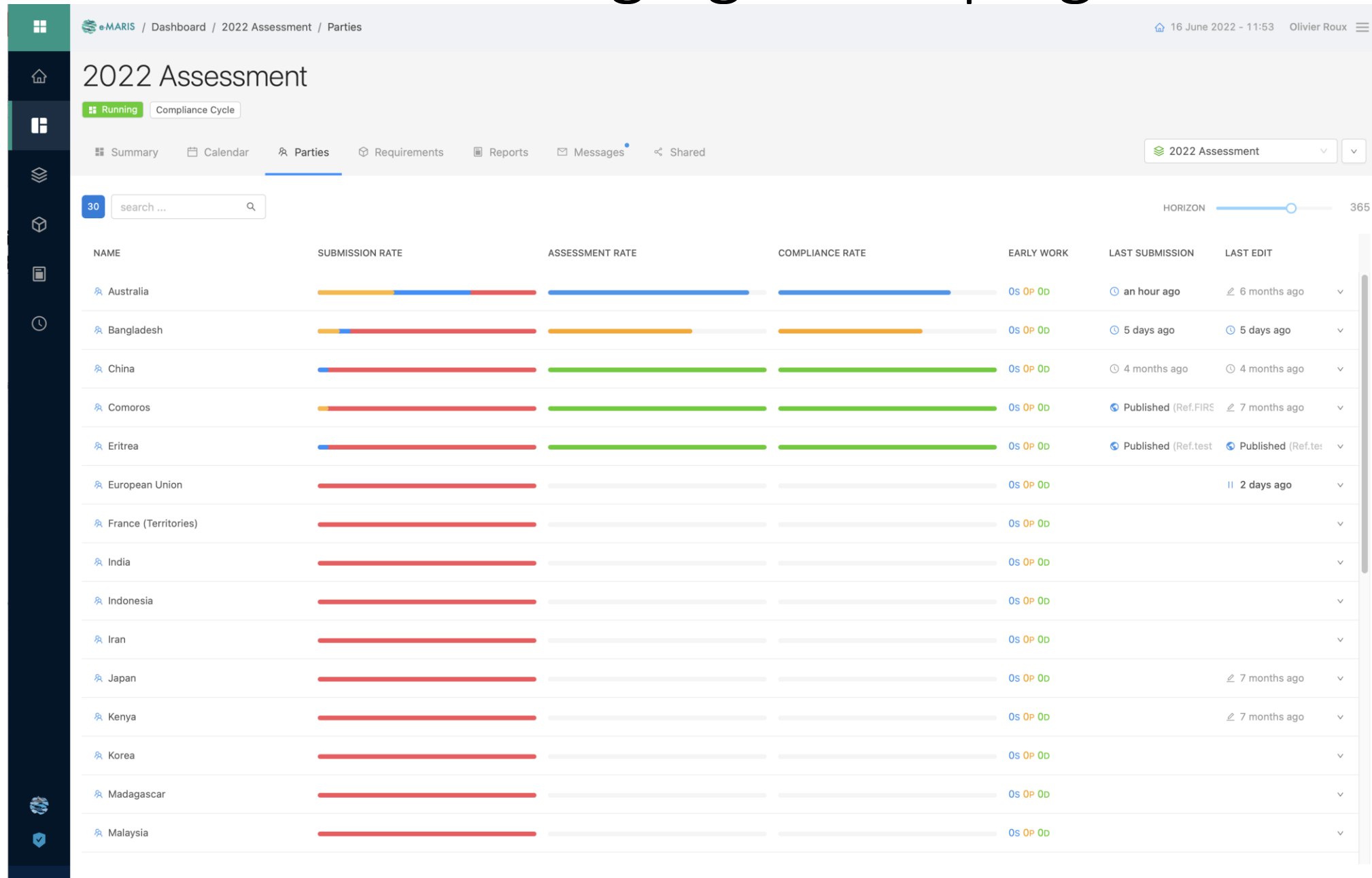
LATEST MESSAGES

Assessment has been revoked.
Mark Unread


AUSTRALIA 15/01 CATCH DATA SUBMISSION
e-MARIS 15 June 2022 - 09:50
Has been assessed (Compliant).
Mark Unread

AUSTRALIA 19/01 YFT REDUCTION SUBMISSION
e-MARIS 16 June 2022 - 10:27
Awaits internal approval.
Mark Unread

e-MARIS for IOTC: Managing a Campaign



e-MARIS for IOTC: Designing a Campaign

 e-MARIS / Campaigns

16 June 2022 - 11:42

Olivier Roux






























All Campaigns

Add Campaign +


7

search campaigns...

All Contexts

	NAME ↑	STATUS	LINEAGE	
<input type="checkbox"/>	 2022 Assessment 	  Running	 Unknown	▼
<input type="checkbox"/>	 2023 Assessment test of year reported on 	 Planned	 2022 Assessment 	▼
<input type="checkbox"/>	 TEST2 	 Running	 Unknown	▼
<input type="checkbox"/>	 TEST3	 Ended	 None	▼
<input type="checkbox"/>	 TEST23 	 Planned	 TEST2 	▼
<input type="checkbox"/>	 TEST640	 Running	 None	▼
<input type="checkbox"/>	 TEST3333 	 Planned	 TEST3	▼

e-MARIS for IOTC: Designing a Campaign

 / Campaigns / 2022 Assessment / Requirements

16 June 2022 - 11:43 Olivier Roux

2022 Assessment

Lineage: Unknown

Running Compliance Cycle

General

Parties

Requirements

Reports

Events

25

search requirements...

User Profile


Audience Tags

Tags

Add Requirements +

NAME	AUDIENCE TAGS	USER PROFILE	TAGS	EVENTS
<input type="checkbox"/> 01/06 BET annual report	CNCP CP +1	Compliance staff	CMM Compliance Compliance Cycle Normal	2
<input type="checkbox"/> 01/06 BET forms	CNCP CP +1	All Users	CMM Compliance Compliance Cycle Normal	0
<input type="checkbox"/> 11/02 Damaged buoys	CNCP CP +1	All Users	CMM Compliance Compliance Cycle Normal	2
<input type="checkbox"/> 12/04 Guidelines turtles	CNCP CP	All Users	CMM Compliance Compliance Cycle Normal	2
<input type="checkbox"/> 13/05 Whale sharks nets	CNCP CP +1	All Users	CMM Compliance Cycle Normal Science	2
<input type="checkbox"/> 13/05 Whale sharks report	CNCP CP +1	All Users	Agreement Compliance Compliance Cycle Normal	2
<input type="checkbox"/> 14/05 Access agreements	CNCP Coastal state +2	All Users	CMM Compliance Compliance Cycle Normal	2
<input type="checkbox"/> 14/05 Costal license template	CNCP Coastal state +1	All Users	CMM Compliance Compliance Cycle Normal	0
<input type="checkbox"/> 14/05 Foreign vessels denied	CNCP Coastal state +1	All Users	CMM Compliance Compliance Cycle Normal	2
<input type="checkbox"/> 14/05 Foreign vessels licensed	CNCP Coastal state +1	All Users	CMM Compliance Compliance Cycle Normal	2
<input type="checkbox"/> 15/01 Catch data	CNCP CP +1	Science staff	CMM Compliance Cycle Normal Science	1
<input type="checkbox"/> 15/01 Logbook template	CNCP CP +1	Compliance staff	CMM Compliance Compliance Cycle Normal	2

e-MARIS for IOTC: Designing a Campaign

 e-MARIS / Requirements / 01/06 BET annual report

16 June 2022 - 11:43 Olivier Roux

01/06 BET annual report

Resolution 01/06 BET exporter - Report the Results of the Data Cross-checking Exercise

CMM Compliance Compliance Cycle Very Important

General Layout

Save

Edit Parameters

Edit Themes

Show Preview

Title

Import of bigeye tuna - Report the results of the data cross-checking exercise

Paragraph

Paragraph 6:

CPCs which export bigeye tuna shall examine export data upon receiving the import data from the Secretary, and report the results to the Commission annually.

How to report: CPCs ought to use the excel template form developed for this exercise, available below. Examples on how to fill these separate sheets are provided for guidance. The reporting is done annually.

Document

Reporting template

report_crosschecks

Export/re-export of bigeye tuna - report of crosschecks

Settings

Paragraph

Title

Text Input

Multichoice

File Upload

Row

Row Section

Separator

Document

MARIS / Reports / 2021 Implementation report
16 June 2022 - 11:44 Olivier Roux

2021 Implementation report

Compliance Cycle
Important

General
Layout

Save

Edit Parameters

Edit Themes

Show Preview

PAGES

- Page 1
- Page 2
- New Page

Food and Agriculture Organization of the United Nations

Indian Ocean Tuna Commission
Commission des Thons de l'Océan Indien

`report.reference`

Title

IOTC Agreement Article X

Report of Implementation for the year 2021

Separator

Paragraph

Reporting CPC: `party.name`

Due date: `report.deadline`

Reporting date: `report.submissionDate`

Please NOTE: this document is composed of 3 sections to report on the implementation of IOTC Resolutions

Settings

Paragraph

Title

Submission Section

Text Input

Multichoice

File Upload

Row

Row Section

Separator

Document

e-MARIS Parties & User management

e-MARIS / Parties

16 June 2022 - 12:01 Olivier Roux

All Parties

Add Party +

35 search parties... Tags Filters

	NAME ↑	TAGS	
<input type="checkbox"/>	Australia	Coastal state CP Flag state Market state Port state	▼
<input type="checkbox"/>	Bangladesh	Coastal state CP Flag state Market state Port state	▼
<input type="checkbox"/>	Belize	DWFN Flag state NCP	▼
<input type="checkbox"/>	China	CP DWFN Flag state Market state Port state	▼
<input type="checkbox"/>	Comoros	Coastal state CP Flag state Market state Port state	▼
<input type="checkbox"/>	Eritrea	Coastal state CP Flag state Market state Port state	▼
<input type="checkbox"/>	European Union	Coastal state CP DWFN Flag state Market state Port state	▼
<input type="checkbox"/>	France (Territories)	Coastal state CP Market state Port state	▼
<input type="checkbox"/>	Guinea	Port state	▼
<input type="checkbox"/>	India	Coastal state CP Flag state Market state Port state	▼
<input type="checkbox"/>	Indonesia	Coastal state CP Flag state Market state Port state	▼
<input type="checkbox"/>	Iran	Coastal state CP Flag state Market state Port state	▼

e-MARIS Parties & User management

e-MARIS / Users / AUSTRALIA2

16 June 2022 - 12:01 Olivier Roux

Home

Users

Profile

Australia Manager

Account Active

Compliance staff

Science staff

Focal Point

General

Permissions

Save

Active

☒

The active status.

Username

AUSTRALIA2

A symbolic and unique identifier.

First Name

Australia

Last Name

Manager

The combination of first and last name is also a unique identifier for the user, but it is used mainly for presentation.

Party

Australia

The party of this User.

E-mail

australiamanager@otolithe.com

Primary address.

Address

466 Road Street, Canberra, Australia

Free-form text.

Phone

2222222

Includes all relevant prefixes.

Profile

Compliance staff

Science staff

Select one option.

Inactive users are excluded from some views and processes. Only inactive users may be removed.

The identifier distinguishes the user from all other users. It is also how the user is referenced, eg. in URLs. Identifiers should be stable as they can't be changed.

Users assigned to a party are only visible to administrators and users of the same party.

The email of the user is used exclusively for communication.

Any information available about the location of the user.

A work number where the user is most easily reachable for urgent enquiries.

The domain of competence of a user

e-MARIS timeline

- October 2017: Completion of the feasibility study (funded by the ABNJ project)
- July 2019: Start of the development phase
- June 2020: Minimum Viable Product delivered
- November 2021: First Pilot phase with IOTC Secretariat and selected CPCs
- **June 2022: Second Pilot phase**
- August 2022: entry in production