

IOTC Agreement – Article X

Report of Implementation for the year 2022 (CoC20)

Deadline for submission: 9/3/2023

READING NOTES:

- This report is composed of 5 sections reporting on the implementation of IOTC Resolutions.
- Answers provided by CPCs are presented in [blue text](#).
- A red dash ("–") indicates that no answer was provided.

Reporting CPC: China

Date of submission: 09 March 2023 - 05:27

You can consult your previous Implementation Report for CoC 19, by [clicking here](#).

Note: All laws, regulations and administrative instructions in force must be uploaded in the requirement 1.5 named "Transposition of IOTC Conservation and Management Measures into national legislation".

Section 1 – LEGAL OBLIGATION

Articles X & XI.2 of the IOTC Agreement - Legal obligation – Transposition of IOTC CMMs into national legislation

REQ 1.5

Legal obligation: Provide information on the status of the transposition of all the cmm requirements into the national legislation.

1 – All requirements of IOTC Conservation and Management Measures are fully transposed into national legislation: [Yes – Fully transposed into national legislation](#) –

2 – Laws, regulations and administrative instructions in force related to the IOTC Conservation and Management Measures uploaded: [Yes 10 February 2023 - 08:51](#)

3 – Comments/remarks about your submission and the implementation of IOTC Conservation and Management Measures:

–

Section 2 – Part A

Actions taken, under national legislation, in the previous year to implement CMMs adopted by the Commission at S26

Resolution 22/01

REQ 1.1Aa

Actions taken, under national legislation, in the previous year to implement *Resolution 22/01 on climate change as it relates to the Indian ocean Tuna Commission*, adopted by the Commission at its Twenty-Sixth Session (S26):

The Chinese overseas fishery companies have been obliged by Chinese government about the new CMM in the res 22/01 as the notification below.

2021年，中国远洋渔业公司已经受到中国政府关于新CMM的22/01号决议的通知。

The new national legislation will be published soon.

Resolution 22/02

REQ 1.1Ab

Actions taken, under national legislation, in the previous year to implement *Resolution 22/02 on establishing a programme for transshipment by large-scale fishing vessels*, adopted by the Commission at its Twenty-Sixth Session (S26):

The Chinese overseas fishery companies have been obliged by Chinese government about the new CMMs in the res 22/02 as below.

2021年，中国远洋渔业公司已经受到中国政府关于新CMM的22/02号决议的通知。

The new national legislation will be published soon.

REQ 8.1

Information required: At sea transshipments – CPCs reports participating in the ROP

1 - I have participated in the IOTC regional observer programme (ROP) to monitor transshipment at sea in 2021: **Yes**

2 - The reports on the list of LSTLVs & the quantities transhipped in 2021, and the assessment of observer reports in 2021, have been reported to the IOTC Secretariat: **Yes - Completely** –

3 - If YES:

- Number of LSTLVs having transhipped at sea in 2021: **77**
- Quantities transhipped at sea (kg) in 2021: **12485593**

4 - This requirement is not applicable: **–**

Legal obligation

Reference of laws, regulations and administrative instructions in force related to this requirement:

–

Text of the laws, regulations and administrative instructions in force related to this requirement:

–

REQ 8.2

Information required: Report on transshipments in foreign ports

FOR ALL CPCs:

1 - Flag LSTVs have transhipped in foreign ports in 2022: **Yes**

2 - The reports on the list of LSTVs & the quantities transhipped in foreign ports in 2022, have been provided to the IOTC Secretariat: **Yes - Completely** [Intend to submit the report in the CQ.](#)

NIL report: -

3 - If YES:

- Number of LSTLVs having transhipped in foreign ports in 2022: -
- Quantities transhipped in foreign ports (kg) in 2022: -

4 - This requirement is not applicable: -

FOR MALDIVES ONLY:

1 - Flag Pole and line fishing vessel(s) and collector vessel(s) have transhipped in 2022: -

2 - The reports on the list of Pole and line fishing vessel(s) and collector vessel(s) & the quantities transhipped in 2022, have been provided to the IOTC Secretariat: - -

NIL report: -

3 - If YES:

- Number of Pole and line fishing vessel(s) and collector vessel(s) having transhipped in 2022: -
- Quantities transhipped (kg) in 2022: -

4 - This requirement is not applicable: -

Legal obligation

Reference of laws, regulations and administrative instructions in force related to this requirement:

-

Text of the laws, regulations and administrative instructions in force related to this requirement:

-

REQ 8.3

Required information: list of authorised carrier vessels

1 - Flag LSTLVs have transhipped in ports and/or at sea in 2022: **Yes**

2 - All the mandatory information has been provided to the IOTC Secretariat for all authorized carrier vessels: **Yes – Complete (-)**

3 - Mandatory information not fully provided or missing: -

Reason for missing information: -

4 - In 2022, we have authorized:

- Carrier vessels under our flag (Nb): -
- Carrier vessels under the flag of other fleets (Nb): **10**

5 - This requirement is not applicable: -

Legal obligation

Reference of laws, regulations and administrative instructions in force related to this requirement:

-

Text of the laws, regulations and administrative instructions in force related to this requirement:

-

REQ 8.4

Information required: Results of the investigation on possible infraction in 2022 of IOTC regulations by LSTLVs/carrier vessels

1 - The reports on the results of investigation on possible infractions in 2022 have been submitted to the IOTC Secretariat: **Yes - Completely (-)**

2 - If YES:

- Number of possible infractions related to ATF: **5**
- Number of possible infractions related to VMS: **0**
- Number of possible infractions related to fishing logbook: **8**
- Number of possible infractions related to LSTLVs marking: **12**
- Total number of possible infractions in 2022: **25**

3 - This requirement is not applicable: -

Legal obligation

Reference of laws, regulations and administrative instructions in force related to this requirement:

Notification by General Office of Ministry of Agriculture and Rural Affairs on Completely Comply with International Tuna Measures¹

Nongbanyu2
(2022) No.1

Text of the laws, regulations and administrative instructions in force related to this requirement:

REQ 8.5

Information required: ROP fee

1 - I have participated in the IOTC regional observer programme (ROP) to monitor transshipment at sea in 2022: **Yes**

2 - I have paid my ROP contribution for the ROP last call for fund: **Yes - Completely (-)**

3 - This requirement is not applicable: **-**

Legal obligation

Reference of laws, regulations and administrative instructions in force related to this requirement:

-

Text of the laws, regulations and administrative instructions in force related to this requirement:

-

Resolution 22/03**REQ 1.1Ac**

Actions taken, under national legislation, in the previous year to implement *Resolution 22/03 on a management procedure for bigeye tuna in the IOTC Area of Competence*, adopted by the Commission at its Twenty-Sixth Session (S26):

The Chinese overseas fishery companies have been obliged by Chinese government about the new CMMs in res 22/03.

中国远洋渔业公司在2022年受到中国政府关于新CMMs的约束。

The national legislation will be published soon.

Resolution 22/04**REQ 1.1Ad**

Actions taken, under national legislation, in the previous year to implement *Resolution 22/04 on a regional observer scheme*, adopted by the Commission at its Twenty-Sixth Session (S26):

The Chinese overseas fishery companies have been obliged by Chinese government about the new CMM in the res 22/04 as the notification below.

中国远洋渔业公司在2022年受到中国政府关于新CMM的约束。

The new national legislation will be published soon.

Section 3 – Part B

Actions taken, under national legislation, to implement CMMs adopted by the Commission in previous Sessions which have not been reported previously

REQ 1.1B

1. Actions taken, under national legislation, to implement conservation and management measures adopted by the Commission in previous Sessions, and which have not been reported previously:

The national legislation was published: Notification by General Office of Ministry of Agriculture and Rural Affairs on Completely Comply with International Tuna Measures¹

Nongbanyu2
(2022) No.1

2. We have taken actions, under national legislation, to implement conservation and management measures adopted by the Commission in previous Sessions: **Yes**

Section 4 – Part C

Data and information reporting requirements for CPCs to be included in this report

Resolution 01/03

REQ 7.Xg

Information required: Observations of non-contracting parties, entities or fishing entities indicating fishing contrary to IOTC CMM

1. Observation/Sightings report of Non-Contracting Party, Entity or fishing Entity vessels, indicating that there are grounds for believing that these vessels are fishing contrary to IOTC Conservation or Management Measures

Observation of vessels in 2022: –

–

NIL report: Nil report for 2022 – no observation of vessel fishing contrary to IOTC Conservation or Management Measures in the IOTC Area of Competence

REQ 7.Xh

1. Reporting on inspections in ports of vessels of Non-Contracting Parties, Entities or fishing Entities: –

–

NIL report: Nil report for 2022 – no inspection conducted on NCP vessels

Resolution 01/06

REQ 10.3

1. A system for monitoring export and re-export of frozen bigeye tunas exists: Yes

EXPORT:

2. Frozen bigeye tunas were exported in 2021: Yes

Total quantity of frozen bigeye tunas exported in 2021 (kg): 4042377.91

Country' vessels from which the bigeye tunas were exported: Japan Korea EU

RE-EXPORT:

3. Frozen bigeye tunas were re-exported in 2021: No

Total quantity of frozen bigeye tunas re-exported in 2021 (kg): –

Country' vessels from which the bigeye tunas were exported: –

4. This requirement is not applicable: –

Resolution 07/01

REQ 7.XJ

Information required: reports on actions and measures taken to investigate allegations and/or reports on IUU fishing involving nationals

1 - Reporting on actions and measures taken to investigate allegations and/or reports on IUU fishing involving nationals: No

2 - If YES, information on the national(s) (natural or legal persons): –

3 - NIL report: –

Resolution 11/02

REQ 2.22

1. Reporting observations of damaged data buoys in 2022:

Not applicable. China is not operating purse seine fisheries in the Indian Ocean.
Nil Report - No report received from flag vessels in 2022

Resolution 11/04

REQ 9.1

NOT TO BE ASSESSED FOR THE YEAR 2021 FOR THE COMPLIANCE COMMITTEE 20

1. We are implementing the regional observer scheme (ROS) at national level for: **All fishing vessels of 24 meters length overall and above**
2. The number of vessels monitored and the coverage achieved by gear type, have been reported to the IOTC Secretariat & the IOTC Scientific Committee: **Yes - entirely -**

Type of fishing gear	No of vessels monitored in 2021:	Coverage in 2021 (%)
Purse seine	-	-
Longline	-	-
Gillnet	-	-
Baitboats	-	-
Handline	-	-

Additional gear types: Type of fishing gear, Nb of vessels monitored in 2021, Coverage in 2021 (%)

Four scientific observers were deployed on Chinese longline vessels to collect data for both target and bycatch species as required in 2021. The coverage percentage of hooks observed is 5.00%.

3. The requirement is not applicable: -

Resolution 12/04

REQ 6.9

1. Reporting the progress of implementation of Resolution 12/04: **Yes - the Report is attached in the UPLOAD section**
2. If NO, requirement of the Resolution 12/04 on which you reported on:
Collect (through logbooks and observer programs) and provide to the Scientific Committee all data on their vessels interactions with marine turtles,
Furnish information to the Scientific Committee on successful mitigation measures and other impacts on marine turtles (such as the deterioration of nesting sites & swallowing of marine debris):
Yes Sea turtles are one of the species to be recorded in the logbook for tuna fishing. China officially issued logbook for tuna fishing in 2008 and revised the form several times to accommodate latest requirements in Conservation and Management Measures. We have formally initiated in 2010 observer scheme for IOTC fishing, and currently more budget is allocated to the scheme to improve coverage and data collection, including that on sea turtles. Observer reports are provided to the Commission as per required.

Require fishermen to bring aboard, if practicable, any captured hard shelled turtle that is comatose or inactive as soon as possible and foster its recovery, including aiding in its resuscitation, before safely returning it to the water.

Ensure that fishermen are aware of and use proper mitigation and handling techniques and keep on board all necessary equipment for the release of turtles:

Yes

In 2013, Ministry of Agriculture at the time issued a regulation on tuna fishing, where requirements on proper handling of bycatch, including sea turtle, are also stated. This regulation was updated in 2019. Guidelines on proper handling of the sea turtles incidentally caught are distributed to vessel owners for their implementation. **3. Sea Turtles** All longline vessels shall equip de-hooks, and use circle hooks whenever possible, to minimum the harm to possible bycaught sea turtles. As far as possible, longline vessels shall use circle hooks to reduce damage of possible incident caught sea turtles. The longline vessels operating in Indian Ocean are encouraged to use finfish as bait, using squid as bait is not encouraged. Longline vessels that fish in a shallow-set manner (the majority of hooks fish at depth shallower than 100 meters) shall use circle hooks and shall not use squid as bait. Tuna purse seine vessels operating in the western and central Pacific Ocean shall avoid encirclement of sea turtles. if a sea turtle is encircled or entangled, take practicable measures to safely release the turtle in accordance with relevant requirements. The enterprise shall record all incidents involving sea turtles during fishing operations and report such incidents to China Distant Water Fisheries Data Center according to regulations.

For gillnet vessels: Require vessel to record all incidents involving marine turtles in the logbooks and report incidents to authorities of the CPC:

Yes Not applicable to China.

For longline vessels / Pour les palangriers

(a) Ensure that longline vessels carry line cutters & de-hookers to facilitate the handling and release of marine turtles caught or entangled

(b) Encourage use of whole finfish bait;

(c) Require vessel to record all incidents involving marine turtles in the logbooks and report incidents to authorities of the CPC.

Yes Line cutters, de-hookers and dip-nets have been distributed to each LL vessel since 2008 by China Overseas Fisheries Association (formerly Distant Water Fisheries Branch, China Fisheries Association). Vessels are using fin fish bait to reduce incidental catch on sea turtle. Vessels are obliged to record accurately on logbook of their fishing activity as well as bycatch, including marine mammal. Such data would come to fishery authority and be reported to the Commission. **3. Sea Turtles** All longline vessels shall equip de-hooks, and use circle hooks whenever possible, to minimum the harm to possible bycaught sea turtles. As far as possible, longline vessels shall use circle hooks to reduce damage of possible incident caught sea turtles. The longline vessels operating in Indian Ocean are encouraged to use finfish as bait, using squid as bait is not encouraged. Longline vessels that fish in a shallow-set manner (the majority of hooks fish at depth shallower than 100 meters) shall use circle hooks and shall not use squid as bait. Tuna purse seine vessels operating in the western and central Pacific Ocean shall avoid encirclement of sea turtles. if a sea turtle is encircled or entangled, take practicable measures to safely release the turtle in accordance with relevant requirements. The enterprise shall record all incidents involving sea turtles during fishing operations and report such incidents to China Distant Water Fisheries Data Center according to regulations.

For purse seine vessels:

(a) Ensure that vessels:

(i) Avoid encirclement of marine turtles, if a marine turtle is encircled/ entangled, take measures to safely release the turtle.

(ii) Release all marine turtles observed entangled in fish aggregating devices (FADs) or fishing gear.

(iii) If a marine turtle is entangled in the net, stop net roll as soon as the turtle comes out of the water; disentangle the turtle without injuring it before resuming the net roll; and assist the recovery of the turtle before returning it to the water.

(iv) Carry and employ dip nets to handle turtles.

(b) Encourage vessel to adopt FAD designs which reduce the incidence of entanglement of turtles;

(c) Require vessel to record incidents involving marine turtles in the logbooks and report incidents to authorities of the CPC.

Yes Not applicable to China

CPCs to undertake research trials of circle hooks, use of whole finfish for bait, alternative FAD designs, alternative handling techniques, gillnet design and fishing practices and other mitigation methods which may improve the mitigation of adverse effects on turtles.

Yes China has been conducted an experiment at sea for catch rates of circle hooks in 2005 and 2009 with one trip in each year. However, the results may not be representative due to the small sample size.

CPCs continue to undertake research and development to improve the mitigation of adverse affects on marine turtles & provide research outcomes to the Scientific Committee.

Yes

In recent years, no such experiment trial was implemented in the IOTC water. **3. Sea Turtles** All longline vessels shall equip de-hooks, and use circle hooks whenever possible, to minimum the harm to possible bycaught sea turtles. As far as possible, longline vessels shall use circle hooks to reduce damage of possible incident caught sea turtles. The longline vessels operating in Indian Ocean are encouraged to use finfish as bait, using

squid as bait is not encouraged. Longline vessels that fish in a shallow-set manner (the majority of hooks fish at depth shallower than 100 meters) shall use circle hooks and shall not use squid as bait. Tuna purse seine vessels operating in the western and central Pacific Ocean shall avoid encirclement of sea turtles. If a sea turtle is encircled or entangled, take practicable measures to safely release the turtle in accordance with relevant requirements. The enterprise shall record all incidents involving sea turtles during fishing operations and report such incidents to China Distant Water Fisheries Data Center according to regulations.

Collaborate with the IOSEA and take into account the IOSEA MoU

Yes China is willing to collaborate with IOSEA and contribute to the research for sea turtles.

3. This requirement is not applicable in 2022

Resolution 12/06

REQ 6.14

1. The obligation for all longline vessels to use at least two of the three mitigation measures: [Has been implemented in national legislation](#) –

2. This requirement is not applicable: –

Legal obligation:

Reference of laws, regulations and administrative instructions in force related to this requirement:

–

Text of the laws, regulations and administrative instructions in force related to this requirement:

–

Resolution 13/05

REQ 6.16

1. Cetaceans have been encircled by the purse seine nets as reported by flagged vessels in 2022: –

2. Reporting instances of cetaceans encircled: –

3. This requirement is not applicable: [Not applicable – in 2022 no purse seine fishing vessels operating in the IOTC Area of Competence](#).

Resolution 13/04

REQ 6.18

1. Whale sharks have been encircled by the purse seine nets as reported by flagged vessels in 2022: –

2. Report on instances of whale sharks encircled:

–

Number of instances of encirclement in 2022: –

3. This requirement is not applicable: [Not applicable – in 2022 no purse seine fishing vessels operating in the IOTC Area of Competence](#)

Resolution 14/05

REQ 3.10

Information required: Access agreements information

1 - A system exist to sign Government to Government access agreement for foreign vessels to operate in your waters, within the IOTC Area: –

2 - Foreign vessels were licensed in 2022 under a Government to Government access agreement: –

3 - CPC-to-CPC agreements in 2022 exist and information concerning these agreements submitted to the IOTC Secretariat: – –

4 - If No, information about these agreements: – –

5 - All the mandatory information has been provided to the IOTC Secretariat for all CPC/CPC access agreement: – –

–

- The stock or species authorized for harvest, including any applicable catch limits: –
- The CPC's quota or catch limit to which the catch will be applied, where applicable: –
- Monitoring, control, and surveillance measures required by the flag CPC and coastal CPC involved: –
- Data reporting obligations stipulated in the agreement, including those between the parties involved, as well as those regarding information that must be provided to the Commission: –

6 - Mandatory information are not fully provided or missing: – –

7 - This requirement is not applicable: [CPC does not have CPC-CPC agreement in 2022](#)

Resolution 16/05

REQ 7.Xf

1. Reporting on vessel without nationality that may be fishing in the high seas of the IOTC area of competence: [Nil report for 2022 – no sighting of vessel without nationality](#)

Information on any sighted vessels:

–

Resolution 16/08

REQ 2.14X

1. Reporting occurrence of a fishing operation undertaken with the aid of aircraft or unmanned aerial vehicle in the IOTC area of competence: [Nil report for 2022 – no occurrence of vessel fishing operation with the aid of aircraft or unmanned aerial vehicle](#)

For each occurrence: date, vessel name and identifiers as well as actions taken:

–

Resolution 17/07

[Objection received from Pakistan: does not apply to Pakistan](#)

REQ 2.8

Prohibition from: using large-scale driftnets in the entire IOTC area of competence

1 - Use of large scale driftnets is banned in the IOTC area of competence (high seas and EEZ): [Has been banned by national legislation \(-\)](#)

Legal obligation:

Reference of laws, regulations and administrative instructions in force related to this requirement:

[Notification by General Office of Ministry of Agriculture and Rural Affairs on Completely Comply with International Tuna Measures¹](#)

[Nongbanyu2 \(2022\) No.1](#)

Text of laws, regulations and administrative instructions in force related to this requirement:

[IV. Time and Area of Fishing Operation and Fishing Gear \(Including Supporting Equipment\)](#)

91. All tuna fishery enterprises and fishing vessels shall strictly follow fishing area and condition specified in the High Seas Fishing Permit while conducting fishing operation. It is prohibited from conducting fishing activities in the jurisdiction of other countries without authorization from the country that has the resources. Fishing vessels conducted fishing operation on the high seas shall keep at least one nautical mile of safe and buffer distance from outer limit of nearby jurisdiction of other countries. It is prohibited from using large scale drift net on the high seas. All vessels must not enter into the Mediterranean Sea for fishing operation.

Objection received from Pakistan: does not apply to Pakistan

REQ 2.9

Information required: Report on MCS actions related to large-scale driftnet fishing.

Monitoring, control, and surveillance (MCS) actions:

1. Monitoring, control, and surveillance actions are applicable to:

Flag vessels

2. Monitoring, control, and surveillance actions are:

Control/ban of large-scale driftnet import • Control/ban of large-scale driftnet sale

Additional MCS actions in place:

–

Resolution 18/07**REQ 2.21**

1. A system to collect fisheries data exists: **Yes**

2. Mandatory data/statistics reported: **Yes**

3. Action(s) to improve data collection that facilitate improvements in compliance in terms of IOTC mandatory reporting obligations:

a. *Development or improvements in the implementation of logbooks:* **Yes**

Measures taken and the implementation progress for artisanal (coastal) IOTC fisheries: **Not applicable. China is not operating artisanal fisheries in the Indian Ocean.**

Measures taken and the implementation progress for Industrial IOTC fisheries: China started the pilot logbook data submission system in 2005 to obtain more detailed information about catch and fishing efforts as required by the IOTC. In 2006 the Bureau of Fisheries, Ministry of Agriculture and Rural Affairs, required all tuna fishing vessels to fill out logbooks and return them to the Bureau of Fisheries. The Bureau also announced that the implementation of the logbook program would be considered as one of the main factors for renewing fishing permission and licenses. With the support of the China Overseas Fisheries Association (COFA) and the cooperation of the tuna fishing companies, China's logbook system has been developed and implemented smoothly as a regular monitoring program. Since 2009, 100% logbook coverage for the longline fishery has been achieved. In 2021, 100% of the logbooks have been returned to the SHOU for data checking. All the information in those logbooks has been entered into the national tuna fishery database at SHOU and is being processed. Preliminary analyses showed that the data quality of logbooks has improved than before. As indicated above, records for bycatch species, low-value species, in particular, are developing higher quality. China is making efforts to contribute to data collection for ecosystem and bycatch issues in the Indian Ocean, based on our observer and logbook programs. Scientists and analysts from the SHOU take major responsibility for China's tuna fishery and bycatch research in the Indian Ocean. China is also working on stock assessments using data-poor approaches for sharks. China has provided scientific data from its observer program, which was used for biological study and ecological risk analysis for sharks.

b. *Port-based sampling or related fisheries surveys:* **Yes**

Measures taken and the implementation progress for artisanal (coastal) IOTC fisheries: **Not applicable. China is not operating artisanal fisheries in the Indian Ocean.**

Measures taken and the implementation progress for Industrial IOTC fisheries: China set up a port sampling program in early 2012. The program was designed for vessels which return and unload catch in domestic ports in China. Size and species composition are the main information to be collected from the program. The challenge is the lack of detailed capture information (e.g., catch date and position) for the pooled catch unloaded in port. In 2021, about 239 individuals were measured from port sampling.

c. *National observer scheme:* **Yes**

Measures taken and the implementation progress for artisanal (coastal) IOTC fisheries: **Not applicable. China is not operating artisanal fisheries in the Indian Ocean.**

Measures taken and the implementation progress for Industrial IOTC fisheries: Under authorization by the Bureau of Fisheries, Ministry of Agriculture and Rural Affairs, the SHOU has been in charge of the national tuna observer program in the Pacific Ocean, Atlantic Ocean and Indian Ocean. China began to implement Scientific Observer program for tuna fishery in IOTC in 2002. So far, the program has been implemented successfully with the support of COFA. Observers have been dispatched each year since then, except the year 2011 due to the piracy activity (even though the observer had been selected and trained). In 2016, in order to further promote the normalization and institutionalization of the national distant water fisheries observers' program, the Ministry of Agriculture and Rural Affairs formulated the implementation rules of national distant-water fisheries observer management. Since then, the government of China has provided more funding to support the observer program and a series of reforms have taken place in recruitment, training, and dispatching and management for observers. The development of national observer database and recruitment of observers from the general public guarantee the numbers required to meet the coverage. Four observers were deployed in 2021.

d. *National Vessel registry:* **Yes**

Measures taken and the implementation progress for artisanal (coastal) IOTC fisheries: **Not applicable. China is not operating artisanal fisheries in the Indian Ocean.**

Measures taken and the implementation progress for Industrial IOTC fisheries: [The Regulations on the Management of Distant Water Fisheries have been implemented since 2003, to strengthen the supervision and management of DWF. In 2020, the revised Regulations on the Management of Distant Water Fisheries were issued and implemented. Corresponding provisions are made in Part III 19 and Part IV 23 respectively.](#)

e. Electronic data capture, VMS, or on-board electronic monitoring: [Yes](#)

Measures taken and the implementation progress for artisanal (coastal) IOTC fisheries: [Not applicable. China is not operating artisanal fisheries in the Indian Ocean.](#)

Measures taken and the implementation progress for Industrial IOTC fisheries: [The Regulations on the Management of Distant Water Fisheries have been implemented since 2003, to strengthen the supervision and management of DWF. In 2020, the revised Regulations on the Management of Distant Water Fisheries were issued and implemented. All the Chinese longline vessels operating in the Indian Ocean have been equipped with the VMS system. Implement the most stringent monitoring system for distant water fishing vessels in the world, requiring reporting of vessel positions every 1 hour, which is higher than the internationally accepted requirement of reporting every 4 hours, and strictly preventing fishing vessels from illegally crossing the border.](#)

4. Action(s) to improve data processing and reporting systems that facilitate submission of data to the IOTC Secretariat:

a. Development of fisheries databases: [Yes](#)

Measures taken and the implementation progress for artisanal (coastal) IOTC fisheries: [Not applicable. China is not operating artisanal fisheries in the Indian Ocean.](#)

Measures taken and the implementation progress for Industrial IOTC fisheries: [National Data Centre for Distant-water Fisheries of China \(DCFC\), The Center works on data collection, compilation, storage, analysis and management for distant-water fisheries of China. China is improving data collection and processing to increase the port sampling sample size and observer coverage.](#)

b. Development of data dissemination systems: [No](#)

Measures taken and the implementation progress for artisanal (coastal) IOTC fisheries: [Not applicable. China is not operating artisanal fisheries in the Indian Ocean.](#)

Measures taken and the implementation progress for Industrial IOTC fisheries: [No](#)

c. Frame surveys: [Yes](#)

Measures taken and the implementation progress for artisanal (coastal) IOTC fisheries: [Not applicable. China is not operating artisanal fisheries in the Indian Ocean.](#)

Measures taken and the implementation progress for Industrial IOTC fisheries: [By conducting scientific surveys of specific sea areas, mainly for catch rates, collection of by-catch data, shark tagging surveys, etc.](#)

d. Coherence of data with alternative fisheries datasets: [Yes](#)

Measures taken and the implementation progress for artisanal (coastal) IOTC fisheries: [Not applicable. China is not operating artisanal fisheries in the Indian Ocean.](#)

Measures taken and the implementation progress for Industrial IOTC fisheries: [China collects, processes and submits data in accordance with the requirements of the iotc database to maintain consistency.](#)

e. Development of automated routines to process and extract IOTC data submission: [No](#)

Measures taken and the implementation progress for artisanal (coastal) IOTC fisheries: [Not applicable. China is not operating artisanal fisheries in the Indian Ocean.](#)

Measures taken and the implementation progress for Industrial IOTC fisheries: [No](#)

f. Steps to minimise data entry errors: [Yes](#)

Measures taken and the implementation progress for artisanal (coastal) IOTC fisheries: [Not applicable. China is not operating artisanal fisheries in the Indian Ocean.](#)

Measures taken and the implementation progress for Industrial IOTC fisheries:

(1) [Set up clear guidelines: Establish clear guidelines for entering data, including the format, type of data, and any specific data validation requirements.](#)

(2) [Simplify data entry: Streamline the data entry process by making it as easy and straightforward as possible. Use drop-down menus, pre-populated fields, and other tools to reduce the need for manual data entry.](#)

(3) [Train SHOU staff: Train SHOU staff on proper data entry procedures, including the importance of accuracy and attention to detail. Provide ongoing training and support to reinforce good habits.](#)

(4) [Conduct regular audits: Conduct regular audits of data entry processes to identify any issues and make necessary improvements.](#)

5. Action(s) to improve the quality and accuracy of data submitted to the IOTC Secretariat:

a. Steps to improve data validation: [Yes](#)

Measures taken and the implementation progress for artisanal (coastal) IOTC fisheries: [Not applicable. China is not operating artisanal fisheries in the Indian Ocean.](#)

Measures taken and the implementation progress for Industrial IOTC fisheries:

(1) [Use data validation: Implement data validation techniques to ensure that the data being entered is accurate, complete, and consistent. This can include using automated checks for data format, range, and logic.](#)

(2) [Provide feedback: Provide feedback to SHOU staff on their data entry performance, highlighting areas of success and areas that need improvement. This can help motivate staff to improve their data entry skills and increase accuracy.](#)

- (3) Standardize data fields: Standardize data fields and formats to reduce errors and improve data quality. This can include using consistent naming conventions, abbreviations, and units of measurement.
- (4) Encourage collaboration: Encourage collaboration among SHOU staff to identify areas for improvement in the data entry process. This can include soliciting feedback from staff on ways to streamline the process and reduce errors.
- (5) Monitor data quality: Regularly monitor data quality and completeness to ensure that the data being entered is accurate, timely, and consistent. This can include running reports to identify data entry errors or inconsistencies and addressing these issues in a timely manner.

b. Improvements in sampling coverage: –

Measures taken and the implementation progress for artisanal (coastal) IOTC fisheries: **Not applicable. China is not operating artisanal fisheries in the Indian Ocean.**

Measures taken and the implementation progress for Industrial IOTC fisheries: **China is improving data collection and processing to increase the port sampling sample size and observer coverage.**

c. Frame surveys: –

Measures taken and the implementation progress for artisanal (coastal) IOTC fisheries: **Not applicable. China is not operating artisanal fisheries in the Indian Ocean.**

Measures taken and the implementation progress for Industrial IOTC fisheries: –

d. Coherence of data with alternative fisheries datasets: –

Measures taken and the implementation progress for artisanal (coastal) IOTC fisheries: **Not applicable. China is not operating artisanal fisheries in the Indian Ocean.**

Measures taken and the implementation progress for Industrial IOTC fisheries: –

e. Comparability of data from previous years: –

Measures taken and the implementation progress for artisanal (coastal) IOTC fisheries: **Not applicable. China is not operating artisanal fisheries in the Indian Ocean.**

Measures taken and the implementation progress for Industrial IOTC fisheries: –

6. This requirement is not applicable in 2022 : –

Resolution 18/03

REQ 7.Xa

1. Reporting illegal activity of vessels in 2022 / 2023 : A-Detail of the vessel, B-Details of IOTC Resolution Elements Contravened, C-Associated documents and D-Recommended action: **No**

If yes, the IUU forms and relevant details including date, location, source of information have been uploaded: **No**

2. If Yes, summary of vessel illegal activity as reported in the IUU forms, with the following information for each:

- Name of vessel
- Flag of vessel
- IRCS
- IMO number
- Recommended actions (see below)

Recommended Actions:

A Notification to IOTC Secretariat only. No further action is recommended.

B Notification of illegal activity to IOTC Secretariat. Recommend notification of activity to flag State.

C Recommended for inclusion on IOTC IUU list

–

3. Nil report for 2022 / 2023

2023: **No illegal activity of vessel within the IOTC Area and in relation to species covered by the IOTC Agreement or by IOTC Conservation and Management Measures to report**

REQ 7.Xb

1. Reporting comments and information from flag State on vessel included on the Draft IUU Vessel List: –

If yes, the IUU forms and relevant details including date, location, source of information have been uploaded: **No**

2. If yes, summary of vessel illegal activity as reported in the draft IUU vessel list, with the following information for each:

- Name of vessel
- Flag of vessel
- IRCS

- IMO number

3. The information provided show that the listed vessel under my flag on the Draft IUU Vessel List have:

4. Nil report: [No flag vessel on the Draft IUU list](#)

REQ 7.Xc

1. Reporting additional information on vessel included in the Draft IUU Vessel List: –

IUU forms uploaded: [No](#)

2. Vessels included in the draft IUU vessel list on which information is provided:

- Name of vessel
- Flag of vessel
- IRCS
- IMO number

3. The information provided show that the vessel listed on the Draft IUU Vessel List have:

4. Nil report: [No additional information on vessels on the Draft IUU list](#)

REQ 7.Xd

1. Providing information on flag vessel on the IOTC IUU Vessels List for the purpose of delisting the vessel: [No](#)

Information uploaded: [No](#)

2. Vessels included in the IUU vessel on which the information is provided:

- Number of the vessel in the IOTC IUU List (1)
- Name of vessel
- Flag of vessel
- IRCS
- IMO number

3. The information provided as the flag State of the vessel listed on the IOTC IUU Vessels List, demonstrates that:

REQ 7.Xe

1. Reporting additional information on vessel included in the Draft IUU Vessel List: [No](#)

Information uploaded: [No](#)

2. Vessels included in the draft IUU vessel list on which information is provided:

- Name of vessel
- Flag of vessel
- IRCS
- IMO number

3. The information provided show that the vessel listed on the Draft IUU Vessel List have:

4. Nil report: [No additional information on vessels on the Draft IUU list](#)

Resolution 19/02

REQ 2.11

1. FADs management plans were implemented and reported for following year(s): –

Additional information: –

2. Reporting the 2023 FADs management plan: –
3. The 2023 FADs management plan has been prepared in accordance with the Guideline (Annex I or II): –
4. Not applicable: [For 2023 no purse seine vessels / supply vessels fishing on Drifting Fish Aggregating Devices.](#)

REQ 2.12

1. FADs management plans were implemented and progress reports on the implementation reported for the years: –
Additional information: –
2. Reporting the progress report on implementation of the 2022 FADs management plan: –
3. Not applicable: [In 2022 no purse seine vessels / supply vessels fishing on Drifting Fish Aggregating Devices](#)

Resolution 19/04**REQ 2.28**

1. Paragraph 11.a):

Fulfil in respect of the vessels the requirements and responsibilities under the IOTC Agreement and its Conservation and Management Measures: [I have conducted a review of the internal actions & measures, punitive actions and sanctions for paragraph 11.a\):](#)

If such a review has been conducted, list of measures with, for each the following details: Actions & Measures, Punitive Actions, Sanctions:

- [THE REGULATION ON DISTANT WATER FISHERIES, NONG BAN YU \[2022\]1](#) has been issued to ensure the Chinese-flagged vessels' compliance with adopted resolutions. The investigation mechanism has been established. A possible fraction triggers an official investigation and any confirmed violation courts different punishments by government according to the nature of violation. The most serious punishment forbids a vessel owner engaging in fishing permanently.

2. Paragraph 11.b):

Ensure that AFVs comply with all the relevant IOTC Conservation and Management Measures: [I have conducted a review of the internal actions & measures, punitive actions and sanctions for paragraph 11.b\):](#)

If such a review has been conducted, list of measures with, for each the following details: Actions & Measures, Punitive Actions, Sanctions:

- [THE REGULATION ON DISTANT WATER FISHERIES, NONG BAN YU \[2022\]1](#) has been issued to ensure the Chinese-flagged vessels' compliance with adopted resolutions. The investigation mechanism has been established. A possible fraction triggers an official investigation and any confirmed violation courts different punishments by government according to the nature of violation. The most serious punishment forbids a vessel owner engaging in fishing permanently.

-

3. Paragraph 11.c):

Ensure AFVs on the IOTC Record keep on board valid certificates of vessel registration and valid authorisation to fish and/or tranship: [I have conducted a review of the internal actions & measures, punitive actions and sanctions for paragraph 11.c\):](#)

If such a review has been conducted, list of measures with, for each the following details: Actions & Measures, Punitive Actions, Sanctions:

- [THE REGULATION ON DISTANT WATER FISHERIES, NONG BAN YU \[2022\]1](#) has been issued to regulate all AFVs carry valid certificates of vessel registration and valid ATF onboard. The companies are also being mentioned from time to time to ensure their certificates and ATFs are valid. Chinese government issues the valid certificates or ATFs once they are expired or updated.

4. Paragraph 11.d):

Ensure AFVs on the IOTC Record have no history of IUU fishing activities or that AFVs are not engaged in or associated with IUU fishing: [I have conducted a review of the internal actions & measures, punitive actions and sanctions for paragraph 11.d\):](#)

If such a review has been conducted, list of measures with, for each the following details: Actions & Measures, Punitive Actions, Sanctions:

- [THE REGULATION ON DISTANT WATER FISHERIES, NONG BAN YU \[2022\]1](#) has been issued to regulate all AFVs carry valid certificates of vessel registration and valid ATF onboard. The companies are also being mentioned from time to time to ensure their certificates and ATFs are valid. Chinese government issues the valid certificates or ATFs once they are expired or updated.

5. Paragraph 11.e):

Ensure under domestic law the owners/operators of AFVs on the IOTC Record are not engaged in/associated with tuna fishing activities conducted by vessels not entered into the IOTC Record in the IOTC area of competence: [I have conducted a review of the internal actions & measures, punitive actions and sanctions for paragraph 11.e\)](#):

If such a review has been conducted, list of measures with, for each the following details: Actions & Measures, Punitive Actions, Sanctions:

- [THE REGULATION ON DISTANT WATER FISHERIES, THE FISHERIES LAW, etc.](#) requires the vessel owners to apply for fishing in IOTC competence area. Once it is confirmed that the vessels are qualified and the national IOTC quota allows for additional vessels, the government will issue fishing licenses and permitted the vessels to be registered in the IOTC active list. After proper registration, the vessels then fish in the IOTC competence area with all the required documents on board, including but not limited to the official fishing licenses.

6. Paragraph 11.f):

Ensure under domestic law the owners of the AFVs on the IOTC Record are citizens or legal entities within the flag CPCs so that any control or punitive actions can be effectively taken against them: [I have conducted a review of the internal actions & measures, punitive actions and sanctions for paragraph 11.f\)](#):

If such a review has been conducted, list of measures with, for each the following details: Actions & Measures, Punitive Actions, Sanctions:

- [THE REGULATION ON DISTANT WATER FISHERIES, THE FISHERIES LAW, etc.](#) require the vessel owners must be Chinese citizens or entities. The government does not issue fishing licenses to foreign vessels.

7. Nil report: –

8. Not applicable: –

REQ 7.Xi

1. Reporting factual information showing that there are reasonable grounds for suspecting vessels not on the IOTC Record to be engaged in fishing and/or transshipment of tuna and tuna-like species in the IOTC area of competence: –

Additional information: –

2. NIL report: [Nil report for 2022 – no factual information](#)

Resolution 21/01**REQ 2.15**

[Objection received from India, Indonesia, the Islamic Republic of Iran, Madagascar, Oman and Somalia: does not apply to these CPCs.](#)

[Resolution 19/01 remains binding for Indonesia, the Islamic Republic of Iran, Madagascar, Oman and Somalia. Resolution 18/01 remains binding for India.](#)

1. CPC subject to yellowfin tuna catch reductions in 2021, due to over-catch in 2020: –

If Yes, YFT catch declared and over-catch in 2020: – / –

2. Our catch of yellowfin tuna in 2022 was reduced by the following percentage: –

3. If the CPC is subject to catch reduction due to over-catch, report on corrective actions taken to adhere to prescribed catch levels: –

4. Provide any additional information below: –

5. This requirement is not applicable: [CPC is not subject to yellowfin tuna catch reductions in 2021 due to no over-catch in 2020](#)

REQ 2.16

[Objections received:](#)

- [Not applicable to India: Resolution 18/01 remains binding.](#)
- [Not applicable Indonesia, the Islamic Republic of Iran, Madagascar, Oman and Somalia: Resolution 19/01 remains binding.](#)

1. The CPC is subject to yellowfin tuna catch reductions: –

If Yes, overcatch: –

2. The report on methods for achieving the yellowfin tuna catch reductions has been provided to the IOTC Secretariat: –

If No, report uploaded: [No](#)

3. The methods for achieving the yellowfin tuna catch reductions implemented at national level are: –

Additional methods: –

4. Additional information: –

5. This requirement is not applicable: [CPC is not subject to yellowfin tuna catch reductions in 2022](#)

REQ 2.18

Objections received:

- [Not applicable to India: Resolution 18/01 remains binding.](#)
- [Not applicable Indonesia, the Islamic Republic of Iran, Madagascar, Oman and Somalia: Resolution 19/01 remains binding.](#)

1. CPC has PS/SP vessels on the Record of authorized vessels: [No – No purse seiner \(PS\) and no supply vessel \(SP\) on the IOTC Record of authorised vessels](#)

2. The plan for reducing the use of supply vessel was provided for: –

The plan was uploaded: [No](#)

3. This requirement is not applicable: [CPC has no purse seiners \(PS\) and no supply vessel \(SP\) on the IOTC Record of authorised vessels](#)

REQ 2.20

1. I have reported gillnet catch in 2022, I have gillnet fishing vessels on the Record of authorised vessels, the gillnet fleet was active in the IOTC Area of Competence: [No](#)

2. Level of implementation of paragraph 21 - Phasing out or convert gillnet fishing vessels to other gears: [not applicable.](#)

3. Level of implementation of paragraph 22 - Set gillnets at 2m depth from the surface in gillnet fisheries: [not applicable.](#)

4. Level of implementation of paragraph 23 - Increase observer coverage or field sampling in gillnet fishing vessels by 10% using alternative data collection methodologies (electronic or human): [not applicable.](#)

5. This requirement is not applicable: [No gillnet fishing vessels on the IOTC Record of authorized Vessels](#)

Letter of feedback on compliances issues

REQ 1.4

1. The response to the feedback letter on compliances issues (from the 2022 CoC) has been provided to the IOTC Secretariat: [Yes](#)

Date of submission: [9th Mar 2023](#)

2. Not applicable: –

Section 5 – Part D - Data and information reporting requirements for CPCs that have objected to some Resolutions

Objection received from Pakistan on Resolution 17/07:

- Resolution 12/12 remains binding for Pakistan

Objection received from India, Indonesia, the Islamic Republic of Iran, Madagascar, Oman and Somalia on Resolution 21/01:

- Resolution 19/01 remains binding for Indonesia, the Islamic Republic of Iran, Madagascar, Oman and Somalia.
- Resolution 18/01 remains binding for India

Objection received from India on Resolution 19/01:

- Resolution 18/01 remains binding for India

Resolution 12/12 (binding on Pakistan)

REQ 2.80bj1707

ONLY APPLICABLE TO PAKISTAN

1. Actions taken to implement conservation and management measures in "Resolution 12/12 to prohibit the use of large-scale driftnets on the high seas in the IOTC area" adopted by the Commission: -

2. Use of large-scale driftnets is banned on the high seas in the IOTC Area of competence: -

If banned, date; if not banned, reasons: -

Legal obligation

Reference of laws, regulations and administrative instructions in force related to this requirement:

-

Text of the laws, regulations and administrative instructions in force related to this requirement:

-

REQ 2.90bj1707

ONLY APPLICABLE TO PAKISTAN

1. Monitoring, control, and surveillance actions are applicable to: -

2. Monitoring, control, and surveillance actions are: -

Additional MCS actions in place: -

Legal obligation

Reference of laws, regulations and administrative instructions in force related to this requirement:

-

Text of the laws, regulations and administrative instructions in force related to this requirement:

-

Resolution 18/01 (binding on India)

REQ 2.160bj1901

ONLY APPLICABLE TO INDIA

1. Actions taken to implement conservation and management measures in "Resolution 18/01 On an interim plan for rebuilding the Indian Ocean yellowfin tuna stock in the IOTC area of competence" adopted by the Commission: -

2. CPC is subject to yellowfin tuna catch reductions: -

If Yes, YFT over-catch: -

3. The report on methods for achieving the yellowfin tuna catch reductions has been provided to the IOTC Secretariat: -

4. The methods for achieving the yellowfin tuna catch reductions implemented at national level are: -

Any method implemented and not listed above: -

5. Additional information: -

6. This requirement is not applicable: –

Legal obligation

Reference of laws, regulations and administrative instructions in force related to this requirement:

–

Text of the laws, regulations and administrative instructions in force related to this requirement:

–

REQ 2.180bj1901

ONLY APPLICABLE TO INDIA

1. CPC has PS/SP vessels on the Record of authorised vessels: –
2. The plan for reducing the use of supply vessel was provided for: –
3. This requirement is not applicable: –

Legal obligation

Reference of laws, regulations and administrative instructions in force related to this requirement:

–

Text of the laws, regulations and administrative instructions in force related to this requirement:

–

REQ 2.190bj1901

ONLY APPLICABLE TO INDIA

1 - CPC is subject to yellowfin tuna catch reductions:

–

2 - The catch of yellowfin tuna in 2021 reported to the IOTC Secretariat and the reductions were:

Fishing gear	Baseline year	YFT catch of baseline year	YFT catch in 2021 (T)	Reduction (%)
Purse seine	–	–	–	–
Longline	–	–	–	–
Gillnet	–	–	–	–
Pole and line	–	–	–	–

3 - This requirement is not applicable: –

Legal obligation

Reference of laws, regulations and administrative instructions in force related to this requirement:

–

Text of the laws, regulations and administrative instructions in force related to this requirement:

– –

Resolution 19/01 (Binding on Indonesia, Iran, Madagascar, Oman and Somalia)

REQ 2.160bj2101

ONLY APPLICABLE TO INDONESIA, THE ISLAMIC REPUBLIC OF IRAN, MADAGASCAR, OMAN AND SOMALIA

1. Actions taken to implement conservation and management measures in "Resolution 19/01 On an interim plan for rebuilding the Indian Ocean yellowfin tuna stock in the IOTC area of competence" adopted by the Commission: –
2. The CPC is subject to yellowfin tuna catch reductions: –
- If Yes, overcatch: –
3. The report on methods for achieving the yellowfin tuna catch reductions has been provided to the IOTC Secretariat: –
- If No, report uploaded: –
4. The methods for achieving the yellowfin tuna catch reductions implemented at national level are: –
- Additional methods: –
5. Additional information: –
6. This requirement is not applicable: –

Legal obligation

Reference of laws, regulations and administrative instructions in force related to this requirement:

–

Text of the laws, regulations and administrative instructions in force related to this requirement:

–

REQ 2.170bj2101

ONLY APPLICABLE TO INDONESIA, THE ISLAMIC REPUBLIC OF IRAN, MADAGASCAR, OMAN AND SOMALIA

- 1 - CPC has PS/SP vessels on the Record of authorised vessels: –
- 2 - The information on purse seiners served by each supply vessel in 2023 has been provided to the Secretariat: –
- 3 - This requirement is not applicable: –

Legal obligation

Reference of laws, regulations and administrative instructions in force related to this requirement:

–

Text of the laws, regulations and administrative instructions in force related to this requirement:

–

REQ 2.180bj2101

ONLY APPLICABLE TO INDONESIA, THE ISLAMIC REPUBLIC OF IRAN, MADAGASCAR, OMAN AND SOMALIA

1. CPC has PS/SP vessels on the Record of authorised vessels: –
2. The plan for reducing the use of supply vessel was provided for: –
3. This requirement is not applicable: –

Legal obligation

Reference of laws, regulations and administrative instructions in force related to this requirement:

–

Text of the laws, regulations and administrative instructions in force related to this requirement:

–

REQ 2.190bj2101

ONLY APPLICABLE TO INDONESIA, THE ISLAMIC REPUBLIC OF IRAN, MADAGASCAR, OMAN AND SOMALIA

- 1 - CPC is subject to yellowfin tuna catch reductions: –
- 2 - The catch of yellowfin tuna in 2021 reported to the IOTC Secretariat and the reductions were:

Fishing gear	Baseline year	YFT catch of baseline year	YFT catch in 2021 (T)	Reduction (%)
Purse seine	–	–	–	–
Longline	–	–	–	–

Gillnet	-	-	-	-
Pole and line	-	-	-	-

3 - This requirement is not applicable: -

Legal obligation

Reference of laws, regulations and administrative instructions in force related to this requirement:

-

Text of the laws, regulations and administrative instructions in force related to this requirement:

-

REQ 2.200bj2101

ONLY APPLICABLE TO INDONESIA, THE ISLAMIC REPUBLIC OF IRAN, MADAGASCAR, OMAN AND SOMALIA

1. I have reported gillnet catch in 2022, I have gillnet fishing vessels on the Record of authorised vessels, the gillnet fleet was active in the IOTC Area of Competence: -
2. Level of implementation of paragraph 20 - Phasing out or convert gillnet fishing vessels to other gears: -
3. Level of implementation of paragraph 21 - Set gillnets at 2m depth from the surface in gillnet fisheries: -
4. Level of implementation of paragraph 22 - Increase observer coverage or field sampling in gillnet fishing vessels by 10% using alternative data collection methodologies (electronic or human): -
5. This requirement is not applicable: -

Legal obligation

Reference of laws, regulations and administrative instructions in force related to this requirement:

-

Text of the laws, regulations and administrative instructions in force related to this requirement:

-