

25 May 2022

IOTC CIRCULAR
2022-35

Dear Sir/Madam

CONSERVATION AND MANAGEMENT MEASURES ADOPTED BY THE IOTC AT ITS 26TH SESSION

I have the honour to transmit to you the texts of the following four Conservation and Management Measures adopted by the Commission at its 26th Session which was held in Seychelles from 16 to 20 May 2022.

Resolution 22/01 *On climate change as it relates to the Indian Ocean Tuna Commission.*

Resolution 22/02 *On establishing a programme for transshipment by large-scale fishing vessels.*

Resolution 22/03 *On a Management Procedure for bigeye tuna in the IOTC area of competence.*

Resolution 22/04 *On a Regional Observer Scheme.*

Pursuant to Articles IX.4 & 5 of the IOTC Agreement, these Conservation and Management Measures shall become binding on Members, 120 days from the date of this notification, i.e. 22 September 2022, unless an objection is lodged.

The texts of the Conservation and Management Measures adopted are attached to this circular.

Yours sincerely



Christopher O'Brien
Executive Secretary

Attachments:

- CMMs adopted in 2022

Distribution

IOTC Contracting Parties: Australia, Bangladesh, China, Comoros, Eritrea, European Union, France (Territories), India, Indonesia, Iran (Islamic Rep of), Japan, Kenya, Rep. of Korea, Madagascar, Malaysia, Maldives, Mauritius, Mozambique, Oman, Pakistan, Philippines, Seychelles, Somalia, South Africa, Sri Lanka, Sudan, United Rep. of Tanzania, Thailand, United Kingdom, Yemen. **Cooperating Non-Contracting Parties:** Liberia. **Intergovernmental Organisations, Non-Governmental Organisations. Chairperson IOTC. Copy to:** FAO Headquarters, FAO Representatives to CPCs.

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RESOLUTION 22/01
ON CLIMATE CHANGE AS IT RELATES TO THE INDIAN OCEAN TUNA COMMISSION

Keywords: Climate Change, Precautionary Approach

The Indian Ocean Tuna Commission (IOTC)

RECOGNISING international initiatives to address the impacts of climate change including through the United Nations Framework Convention on Climate Change and the Paris Agreement;

NOTING the work of the Intergovernmental Panel on Climate Change;

MINDFUL of the work of the Scientific Committee and the Working Parties in assessing the impacts of climate change on tuna stocks and by-catch, and species belonging to the same ecosystem or dependent or associated with the target stocks in the Convention Area;

CONVINCED of the importance of addressing the potential impacts of climate change and other environmental degradation on target stocks, non-target species, and species belonging to the same ecosystem or dependent or associated with the target stocks in the IOTC Area of Competence;

BEARING IN MIND that the Agreement for the implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) was adopted in cognisance of the need to avoid adverse impacts on the marine environment, preserve biodiversity, maintain the integrity of marine ecosystems and minimise the risk of long-term or irreversible effects of fishing operations;

RECALLING that Article 5 of the UNFSA requires States to assess the impacts of fishing, other human activities and environmental factors on target stocks and species belonging to the same ecosystem or associated with or dependent upon the target stocks and to adopt, where necessary, conservation and management measures for species belonging to the same ecosystem or associated with or dependent upon the target stocks, with a view to maintaining or restoring populations of such species above levels at which their reproduction may become seriously threatened;

CONCERNED by the findings of the 2022 Intergovernmental Panel on Climate Change with high confidence that climate change is causing the redistribution of marine fish stocks, increasing risk of transboundary management conflicts among fisheries users, and negatively affecting equitable distribution of food provisioning services as fish stocks shift from lower to higher latitude regions, thereby increasing the need for climate-informed transboundary management and cooperation

RECALLING the concern of the 23rd Session of the Working Party on Tropical Tuna that changes in ocean temperatures could have direct impacts on tuna spatial distributions and stock dynamics.

FURTHER RECALLING that the 24th Session of the Scientific Committee noted the importance of understanding the impact of climate change in particular on tropical tuna;

ADOPTS, in accordance with Article IX, paragraph 1 of the IOTC Agreement, the following:

1. The Commission shall in its deliberations, to the extent possible, including in the development of conservation and management measures, take into account scientific information available from the Scientific Committee and other relevant international processes on the potential impacts of climate change on tuna stocks, bycatch and species belonging to the same ecosystem or dependent on or associated with tuna stocks.

2. The Commission shall support further scientific research into the relationship between climate change, tuna fisheries and tuna stocks, bycatch, and ecosystem or dependent on or associated with the tuna stocks, including research to inform potential measures to mitigate and/or adapt to climate change impacts.
3. The IOTC Scientific Committee, when requested by the Commission, shall consider and where possible, advise on the potential impacts of climate change on highly migratory fish stocks and any related impacts on the economies, food security and livelihood of CPCs in particular developing States among them Least Developing States and Small Island Developing States.
4. The IOTC Scientific Committee shall consider how climate change and fishing activities may be related and provide advice to the Commission on the potential implications for these relationships for the conservation and management of tuna and associated stocks.
5. The IOTC Executive Secretary, with the advice of the IOTC Scientific Committee, upon the availability of supplementary funds, shall undertake capacity-building programs in particular in the developing coastal States among them the Least Developed States and Small Island Developing States, to improve climate change science and the understanding of climate change impacts on tuna stocks, bycatch and species belonging to the same ecosystem or dependent on or associated with the tuna stocks.
6. The IOTC Executive Secretary shall seek funding for the implementation of climate change related scientific works and capacity building programs through various funding mechanisms such as the Global Environmental Facility, World Bank and others for the implementation of this resolution.
7. The IOTC Executive Secretary shall propose for endorsement by the Commission, for its 2023 session, options and alternatives to reduce the environmental impacts of the IOTC activities related to headquarters' operation and meetings of the Commission and its subsidiary bodies. In particular, the Secretariat is requested to propose guidelines to reduce the impact of in person meetings, including a list of meetings to be held virtually.

RESOLUTION 22/02

ON ESTABLISHING A PROGRAMME FOR TRANSHIPMENT BY LARGE-SCALE FISHING VESSELS

Keyword: transshipment

The Indian Ocean Tuna Commission (IOTC),

TAKING ACCOUNT of the need to combat illegal, unregulated and unreported (IUU) fishing activities because they undermine the effectiveness of the Conservation and Management Measures (CMMs) already adopted by the IOTC;

EXPRESSING GRAVE CONCERN that organized tuna laundering operations have been conducted and a significant amount of catches by IUU fishing vessels have been transhipped under the names of duly licensed fishing vessels;

IN VIEW THEREFORE OF THE NEED to ensure the monitoring of the transshipment activities by large-scale longline vessels in the IOTC area of competence, including the control of their landings;

TAKING ACCOUNT of the need to collect catch data of such large scale long-line tuna vessels to improve the scientific assessments of those stocks;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, the following:

PART 1. GENERAL RULES

1. Except under the programme to monitor transshipments at sea provided below in paragraph 4, all transshipment operations of tuna and tuna-like species and sharks caught in association with tuna and tuna-like fisheries in the IOTC area of competence (tuna and tuna like species and sharks) shall take place in port¹.
2. The Contracting Parties and Cooperating Non-Contracting Parties (CPCs) shall take the necessary measures to ensure that their flag large scale tuna vessels² (LSTVs) comply with the obligations in Annex I when transshipping in port.
3. Transshipment operations within the Maldives between pole and line fishing vessels, and collector vessels flagged in the Maldives and registered on the IOTC Record of Authorized Vessels shall be exempted from the data reporting requirements specified in Annex I and Annex III. Such transshipment operations shall conform to the criteria provided in Annex II of this Resolution.

PART 2. PROGRAMME TO MONITOR TRANSHIPMENTS

4. The Commission hereby establishes a programme to monitor transshipment which applies only to largescale tuna longline fishing vessels (hereafter referred to as the "LSTLVs") and to carrier vessels authorised to receive transshipments from these vessels. No at-sea transshipment of tuna and tuna-like species and sharks by fishing vessels other than LSTLVs shall be allowed. The Commission shall review and, as appropriate, revise this Resolution.

¹ Port includes offshore terminals and other installations for landing, transshipping, packaging, processing, refuelling or resupplying (as defined by the FAO Port State Measures Agreement)

² Large Scale Tuna Vessels (LSTV) – means fishing vessels targeting tuna and tuna like species in the IOTC area of competence that are 24 metres length overall and above and are on the IOTC Record of Authorised Vessels (IOTC RAV).

5. This Resolution does not apply to transshipments outside the IOTC area of competence where such transshipment is subject to a comparable monitoring program established by another regional fisheries management organization. However, the information on tuna and tuna like species and sharks being transhipped outside the IOTC area of competence shall be provided to the IOTC Secretariat as required in paragraph 17 and paragraph 3 of Annex I.
6. The CPCs that flag LSTLVs shall determine whether or not to authorise their LSTLVs to tranship at sea. However, if the flag CPC authorises the at-sea transshipment by its flag LSTLVs, such transshipment shall be conducted in accordance with the procedures defined in Parts 4 and 5, and Annex III and Annex IV of this Resolution.

PART 3. RECORD OF CARRIER VESSELS AUTHORISED TO RECEIVE TRANSHIPMENTS-IN THE IOTC AREA OF COMPETENCE

7. The Commission shall establish and maintain an IOTC Record of Carrier Vessels authorised to receive tuna and tuna-like species and sharks from LSTLVs in the IOTC area of competence (IOTC RCV). For the purposes of this Resolution, carrier vessels not entered on the Record are deemed not to be authorised to receive tuna and tuna-like species and sharks.
8. Each CPC shall submit, electronically where possible, to the IOTC Executive Secretary the list of the carrier vessels that are authorised to receive transshipments from its LSTLVs in the IOTC area of competence. This list shall include the following information:
 - a. flag of the vessel;
 - b. name of vessel, register number;
 - c. IMO number;
 - d. previous name (if any);
 - e. previous flag (if any);
 - f. previous details of deletion from other registries (if any);
 - g. International Radio Call Sign;
 - h. type of vessels, length, gross tonnage (GT) and carrying capacity;
 - i. name and address of owner(s) and operator(s); and
 - j. time period authorised for transhipping;
 - k. type of transshipment authorised (i.e., in port and/or at sea);
 - l. Colour photographs of the vessel showing:
 - the starboard side and portside of the vessel, each showing the whole structure
 - the bow of the vessel
 - at least one of the photographs clearly showing at least one of the external markings specified in 8(b) or 8(c).
9. Each CPC shall promptly notify the IOTC Executive Secretary, after the establishment of the initial IOTC RCV, of any addition to, any deletion from and/or any modification of the IOTC RCV, at any time such changes occur.
10. The IOTC Executive Secretary shall maintain the IOTC RCV and take measures to ensure publicity of the RCV through electronic means, including placing it on the IOTC website, in a manner consistent with confidentiality requirements notified by CPCs for their flag vessels.
11. Carrier vessels authorised for transshipment shall be required to install and operate a Vessel Monitoring System (VMS).

Port Inspection

12. Consistent with Resolution 16/11 on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, port State CPCs should prioritize inspection in port of (a) carrier vessels whose AIS/VMS signals disappear under suspicious circumstances and without explanation and/or indicate dubious movements, and (b) carrier vessels not entered into the IOTC Record of Carrier Vessels to verify tuna and tuna-like species and sharks are not on board. Inspection of transshipment activities in port should involve the monitoring of the entire transshipment process and include a cross check of transhipped amounts by species as reported in the fishing vessel's logbook and review of the prior authorization to tranship in port issued by the flag CPC to the fishing vessel.

Separation of cargo

13. Carrier vessels authorized to receive transshipments of tuna and tuna-like species and sharks shall be required to separate and stow transhipped fish by fishing vessel and develop a stowage plan to show the locations in the hold of the quantities by vessel and major species (i.e. bigeye, yellowfin and albacore) and desirably by other species. The carrier vessel master shall submit the stowage plan to inspectors, if requested.

PART 4. AT-SEA TRANSHIPMENT

14. Transshipments by LSTLVs in waters under the jurisdiction of the CPCs are subject to prior authorisation from the coastal State concerned. CPCs shall take the necessary measures to ensure that LSTLVs flying their flag comply with the following conditions:

Flag State Authorization

15. LSTLVs shall not be authorised to tranship at sea, unless they have obtained prior authorisation from their flag CPC.

Notification obligations

Fishing vessel:

16. To receive the prior authorisation referenced in paragraph 15, the master and/or owner of the LSTLV must notify the following information to its flag CPC authorities at least 24 hours in advance of an intended transshipment:
 - a. name of the LSTLV, its number in the IOTC RAV, and its IMO number, if issued;
 - b. name of the carrier vessel, its number in the IOTC RCV, its IMO number, and the product to be transhipped;
 - c. tonnage by product to be transhipped;
 - d. date and location of transshipment;
 - e. geographic location of the catches.

17. The master and/or owner of the LSTLV concerned shall complete and transmit to its flag CPC, not later than 5 working days after the transshipment, the IOTC Transshipment Declaration, along with its number in the IOTC RAV, in accordance with the format in Annex III.

Receiving carrier vessel:

18. Before starting transshipment, the master of the receiving carrier vessel shall confirm that the LSTLV concerned is participating in the IOTC programme to monitor transshipment at sea (which includes payment of the fee required in paragraph 13 of Annex IV) and has obtained the prior authorisation from their flag State referred to in paragraph 15. The master of the receiving carrier vessel shall not start transshipment without such confirmation.

19. The master of the receiving carrier vessel shall complete and transmit the IOTC transshipment declaration to the IOTC Secretariat and the flag CPC of the LSTLV, along with its number in the IOTC RCV within 24 hours of the completion of the transshipment.
20. The master of the receiving carrier vessel shall, 48 hours before the first point of landing, transmit an IOTC transshipment declaration, along with its number in the IOTC RCV to the competent authorities of the State where the landing takes place.
21. The Commission shall consider the introduction of supply declaration as follows at its annual Session in 2024 taking into account the effectiveness of such supply declaration introduced in ICCAT since 2022.
 - a. Anytime a carrier vessel on the IOTC RCV provides supply services to another vessel at sea in the IOTC area of competence, the master of the carrier vessel completes a supply declaration in accordance with the format set out in Annex V and send it by electronic means to its flag State and the IOTC Secretariat 24 hours in advance of the activity.
 - b. A separate supply declaration is not required when the supply activity is conducted in association with transshipment that is monitored by an IOTC Regional Observer.

Availability of Reports

22. The IOTC Secretariat shall promptly publish the documents received pursuant to paragraph 19 in the secure part of the IOTC website for the facilitation of implementation of Resolution 16/11 on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing.

Regional Observer Programme:

23. Each CPC shall ensure that all carrier vessels transshipping at sea have on board an IOTC observer, in accordance with the IOTC Regional Observer Programme in Annex IV. The IOTC observer shall observe the compliance with this Resolution, and notably that the transhipped quantities are consistent with the reported catch in the IOTC transshipment declaration.
24. CPCs shall prohibit vessels from commencing or continuing at-sea transshipping in the IOTC area of competence without an IOTC regional observer on board, except in cases of “force majeure” duly notified to the IOTC Secretariat. In those situations of “force majeure”, CPCs should also notify to the IOTC Secretariat the alternative monitoring, control and surveillance measures put in place.
25. In the case of the seventeen (17) Indonesian wooden carrier vessels listed on the IOTC Record of Authorised Vessel and listed in Annex VI, a national observer programme may be used in place of an observer from the regional observer programme for Indonesian wooden carrier vessels listed on the IOTC Record of Authorised Vessel. National observers shall be trained to at least one tuna-RFMO regional observer programme standards and will carry out all of the functions of the regional observer, including provision of all data as required by the IOTC regional observer programme and the reports equivalent to those prepared by the ROP Contractor. This provision shall only apply to the seventeen (17) specific wooden carrier vessels referenced in this paragraph, as indicated in Annex VI. Those wooden carrier vessels shall only be authorized to participate in transshipment operations with fishing vessels flagged to Indonesia. Replacement of those wooden carrier vessels are only permitted if the material of substitute vessel shall remain wooden and the carrying capacity or fish hold volume not larger than the vessel(s) being replaced. In such case, the authorisation of the replaced wooden vessel shall be immediately revoked.
26. The provisions in paragraph 25 will be rescheduled in consultation with the IOTC Secretariat as a two-year pilot project that started in 2021. The results of the project, including data collection, reports and the effectiveness of

the project shall be examined in 2023 by the IOTC Compliance Committee on the basis of a report prepared by Indonesia and analysis by the IOTC Secretariat. This review shall include whether the programme offers the same level of assurances as those provided by the ROP. It shall also explore the feasibility of obtaining an IMO number for the vessels concerned. The extension of the project or the integration of the project into the ROP shall be subject to a new decision of the Commission.

PART 5. GENERAL PROVISIONS

27. To ensure the effectiveness of the IOTC Conservation and Management Measures (CMMs) pertaining to species covered by the Statistical Document Program:
 - a. in validating the Statistical Document, flag CPCs of LSTLVs shall ensure that transshipments are consistent with the reported catch amount by each LSTLV;
 - b. the flag CPCs of LSTLVs shall validate the Statistical Documents for the transhipped fish, after confirming that the transshipment was conducted in accordance with this Resolution and this confirmation shall be based on the information obtained through the IOTC ROP;
 - c. CPCs shall require that the species covered by the Statistical Document Program caught by LSTLVs in the IOTC area of competence, when imported into the territory of a CPC, be accompanied by statistical documents validated for the vessels on the IOTC record and a copy of the IOTC transshipment declaration.
28. The CPCs shall report annually before 15 September to the IOTC Executive Secretary:
 - a. the quantities by species transhipped by their flag vessels during the previous calendar year;
 - b. the list of the LSTLVs registered in the IOTC RAV which have transhipped during the previous calendar year;
 - c. a comprehensive report assessing the content and conclusions of the reports of the observers assigned to carrier vessels which have received transshipment from their flag LSTLVs during the previous calendar year.
29. All tuna and tuna-like species and sharks landed or imported either unprocessed or after having been processed on board and which are transhipped, shall be accompanied by the IOTC transshipment declaration until the first sale has taken place.
30. Each year, the IOTC Executive Secretary shall present a report on the implementation of this Resolution to the annual meeting of the Commission which shall review compliance with this Resolution.
31. The IOTC Secretariat shall, when providing CPCs with copies of all raw data, summaries and reports in accordance with paragraph 10 of Annex IV to this Resolution, also indicate evidence indicating possible violation of IOTC CMMs by LSTLVs/carrier vessels flagged to that CPC. Upon receiving such evidence, each CPC shall investigate the cases and report the results of the investigation back to the IOTC Secretariat three months prior to the annual Session of the IOTC Compliance Committee. The IOTC Secretariat shall circulate among CPCs the list of names and flags of the LSTLVs/Carrier vessels that were involved in such possible violations as well as the response of the flag CPCs 80 days prior to the annual Session of the IOTC Compliance Committee.
32. Resolution 21/02 *On establishing a programme for transshipment by large-scale fishing vessels* is superseded by this Resolution.

ANNEX I
CONDITIONS RELATING TO IN PORT TRANSHIPMENT

General

1. Transshipment operations in port may only be undertaken in accordance with the procedures detailed below:

Notification obligations

2. Fishing vessel:
 - 2.1. Prior to transshipping, the master of the LSTV must notify the following information to the port State authorities, at least 48 hours in advance:
 - a) the name of the LSTV, IMO number and its number in the IOTC record of fishing vessels;
 - b) the name of the carrier vessel, IMO number and the product to be transhipped;
 - c) the tonnage by product to be transhipped;
 - d) the date and location of transshipment;
 - e) the geographic location of the tuna and tuna-like species and sharks catches.
 - 2.2. The master of a LSTV shall, at the time of the transshipment, inform its flag State of the following:
 - a) the products and quantities involved;
 - b) the date and place of the transshipment;
 - c) the name, registration number, IMO number and flag of the receiving carrier vessel;
 - d) the geographic location of the tuna and tuna-like species and sharks catches.
 - 2.3. The master of the LSTV concerned shall complete and transmit to its flag State the IOTC transshipment declaration, along with its number in the IOTC Record of Authorised Vessels, in the format set out in Annex III not later than 15 days after the transshipment.
3. Receiving vessel:

Not later than 24 hours before the beginning and at the end of the transshipment, the master of the receiving carrier vessel shall inform the port State authorities of the quantities of tuna and tuna-like species and sharks transhipped to his vessel, and complete and transmit the IOTC transshipment declaration, to the competent authorities and the IOTC Executive Secretary within 24 hours.

Landing State:

4. The master of the receiving carrier vessel shall, 48 hours before landing, complete and transmit an IOTC transshipment declaration, to the competent authorities of the landing State where the landing takes place.
5. The port State and the landing State referred to in the above paragraphs shall take the appropriate measures to verify the accuracy of the information received and shall cooperate with the flag CPC of the LSTV to ensure that landings are consistent with the reported catches amount of each vessel. This verification shall be carried out so that the vessel suffers the minimum interference and inconvenience, and that degradation of the fish is avoided.
6. Each flag CPC of the LSTVs shall include in its annual Implementation Report the details on the transshipments by its vessels.
 - 6.1. the quantities by species transhipped by their flag vessels during the previous calendar year;
 - 6.2. the list of the LSTVs registered in the IOTC RAV which have transhipped during the previous calendar year.

ANNEX II

CONDITIONS RELATING TO TRANSHIPMENTS BETWEEN MALDIVIAN COLLECTOR VESSELS AND POLE AND LINE FISHING VESSELS

General requirements

1. The pole and line fishing vessel(s) involved shall be flagged in the Maldives and shall have a valid license to fish issued by the competent authorities of the Maldives.
2. The collector vessel(s) involved shall be flagged in the Maldives and shall have a valid license to operate issued by the competent authorities of the Maldives.
3. The vessel(s) involved shall not be authorized to fish or engage in fisheries related activities outside the area of national jurisdiction of the Maldives.
4. Transshipment operation shall only take place inside the atolls within the area of national jurisdiction of the Maldives.
5. The Collector Vessel(s) involved must be equipped and tracked by the competent authorities of the Maldives via a functional vessel monitoring system and shall also be equipped with an electronic observer system suitable for monitoring the transshipment activity.
6. The fishing vessel(s) involved in the transshipment operation should be tracked by the competent authorities of the Maldives via a functional vessel monitoring system as required by Resolution 15/03 *On the vessel monitoring system (VMS) programme*.

Reporting requirements

7. The flag State shall report in its annual Implementation Report the details on such transshipments by its vessels.
8. The data recording and reporting requirements set forth by the competent authorities of the Maldives for shore-based reporting or recording requirements shall also be applicable to transshipment operations between Maldivian collector vessels and pole and line fishing vessels.

ANNEX III

IOTC TRANSHIPMENT DECLARATION

Carrier Vessel	Fishing Vessel
Name of the Vessel and Radio Call Sign:	Name of the Vessel and Radio Call Sign:
Flag:	Flag:
IMO number:	IMO number:
Flag State license number:	Flag State license number:
National Register Number, if available:	National Register Number, if available:
IOTC Register Number, if available:	IOTC Register Number, if available:

	Day	Month	Hour	Year				
Departure								
Return								
Transhipment								

Agent's name:

Signature:

Master's name of LSTV:

Signature:

Master's name of Carrier:

Signature:

Indicate the weight in kilograms or the unit used (e.g. box, basket) and the landed weight in kilograms of this unit: _____ kilograms

LOCATION OF TRANSHIPMENT

Species	Port	Sea	Type of product							
			Whole	Gutted	Headed	Filletted				

If transhipment effected at sea, IOTC Observer Name and Signature:

ANNEX IV

IOTC REGIONAL OBSERVER PROGRAMME

1. Each CPC shall require carrier vessels included in the IOTC Record of Carrier Vessels authorised to receive transhipments in the IOTC area of competence (RCV) and which tranship at sea, to carry an IOTC observer during each transhipment operation in the IOTC area of competence.
2. The IOTC Executive Secretary shall appoint the observers and shall place them on board the carrier vessels authorised to receive transhipments in the IOTC area of competence from LSTLVs flagged to CPCs that implement the IOTC Regional Observer Programme.

Designation of the observers

3. The designated observers shall have the following qualifications to accomplish their tasks:
 - a) sufficient experience to identify species and fishing gear;
 - b) satisfactory knowledge of the IOTC Conservation and Management Measures;
 - c) the ability to observe and record information accurately;
 - d) a satisfactory knowledge of the language of the flag of the vessel observed.

Obligations of the observer

4. Observers shall:
 - a) have completed the technical training required by the guidelines established by IOTC;
 - b) not be, to the extent possible, nationals of the flag State of the receiving carrier vessel;
 - c) be capable of performing the duties provided in paragraph 5;
 - d) be included in the list of observers maintained by the Secretariat;
 - e) not be a crew member of an LSTLV or an employee of an LSTLV company.
5. The observer tasks shall be as follows:
 - a) On the fishing vessel intending to tranship to the carrier vessel and before the transhipment takes place, the observer shall:
 - i. check the validity of the fishing vessel's authorisation or licence to fish tuna and tuna-like species and sharks in the IOTC area of competence;
 - ii. check and note the total quantity of catch on board, and the quantity to be transferred to the carrier vessel;
 - iii. check that the VMS is functioning and examine the logbook;
 - iv. verify whether any of the catch on board resulted from transfers from other vessels, and check documentation on such transfers;
 - v. in the case of an indication that there are any violations involving the fishing vessel, immediately report the violations to the carrier vessel's master,
 - vi. report the results of these duties on the fishing vessel in the observers report.
 - b) On the carrier vessel:
monitor the carrier vessel's compliance with the relevant Conservation and Management Measures adopted by the Commission and in particular the observers shall:
 - i. record and report upon the transhipment activities carried out;

- ii. verify the position of the vessel when engaged in transshipping;
 - iii. observe and estimate products transhipped;
 - iv. verify and record the name of the LSTLV concerned and its IOTC registration number;
 - v. verify the data contained in the transshipment declaration;
 - vi. certify the data contained in the transshipment declaration;
 - vii. countersign the transshipment declaration;
 - viii. issue a daily report of the carrier vessels transshipping activities;
 - ix. prepare a general report compiling the information collected in accordance with this paragraph and provide the master the opportunity to include therein any relevant information;
 - x. submit to the Executive Secretary the aforementioned general report within 20 days from the end of the period of observation;
 - xi. exercise any other functions as defined by the Commission.
6. Observers shall treat as confidential all information with respect to the fishing operations of the LSTLVs and of the LSTLV owners and accept this requirement in writing as a condition of appointment as an observer.
 7. Observers shall comply with requirements established in the laws and regulations of the flag State which exercises jurisdiction over the vessel to which the observer is assigned.
 8. Observers shall respect the hierarchy and general rules of behaviour which apply to all vessel personnel, provided such rules do not interfere with the duties of the observer under this programme, and with the obligations of vessel personnel provided in paragraph 9 of this programme.

Obligations of the flag States of carrier vessels

9. The responsibilities of the flag States of the carrier vessels and their masters in relation to observers shall include the following:
 - a) observers shall be allowed access to the vessel personnel and to the gear and equipment;
 - b) upon request, observers shall also be allowed access to the following equipment, if present on the vessels to which they are assigned, in order to facilitate the carrying out of their duties provided in paragraph 5:
 - i. satellite navigation equipment;
 - ii. radar display viewing screens when in use; and
 - iii. electronic means of communication.
 - c) observers shall be provided accommodation, including lodging, food and adequate sanitary facilities, equal to those of officers;
 - d) observers shall be provided with adequate space on the bridge or pilot house for clerical work, as well as space on deck adequate for carrying out observer duties; and
 - e) the flag States shall ensure that masters, crew and vessel owners do not obstruct, intimidate, interfere with, influence, bribe or attempt to bribe an observer in the performance of his/her duties.
10. The Executive Secretary, in a manner consistent with any applicable confidentiality requirements, shall provide to the flag State of the carrier vessel and to the flag CPC of the LSTLV, copies of all available raw data, summaries, and reports pertaining to the trip four months prior to the next annual Session of the IOTC Compliance Committee.

Obligations of LSTLV during transhipment

11. Observers shall be allowed to visit the fishing vessel, if weather conditions permit it, and access shall be granted to personnel and areas of the vessel necessary to carry out their duties provided in paragraph 5.
12. The Executive Secretary shall submit the observer reports to the IOTC Compliance Committee and to the IOTC Scientific Committee.

Observer fees

13. The costs of implementing this program shall be financed by the flag CPCs of LSTLVs wishing to engage in transhipment operations. The fee shall be calculated on the basis of the total costs of the program. This fee shall be paid into a special account of the Secretariat and the Executive Secretary shall manage the account for implementing the program.
14. No LSTLV may participate in the at-sea transhipment program unless the fees required under paragraph 13, have been paid.

ANNEX V
IOTC SUPPLY DECLARATION

Carrier (supply donor) Vessel:		Receiving vessel:	
Name:		Name:	
IOTC Register No.		IOTC Register No. (24 m or over)	
		National registration number (less than 24 m or non-IOTC vessel)	
IMO number, if available		IMO number, if available	
International Radio Call Sign		International Radio Call Sign	
Current Flag:		Current Flag:	
Date			
Latitude			
Longitude			
Goods supplied:		remarks (if any)	
- Fuel	<input type="checkbox"/>		
- Bait	<input type="checkbox"/>		
- Victuals	<input type="checkbox"/>		
- Spare parts	<input type="checkbox"/>		
- Medical supplies	<input type="checkbox"/>		
- Passengers/Crew	<input type="checkbox"/>		
- Other (specify)	<input type="checkbox"/>		

ANNEX VI
INDONESIAN CARRIER VESSELS AUTHORISED TO TRANSHIP AT SEA

No.	Name of Wooden Carrier	Vessel Gross Tonnage
1	BANDAR NELAYAN 2017	300
2	PERMATA TUNA WIJAYA 01	298
3	HIROYOSHI - 17	171
4	KILAT MAJU JAYA - 21	197
5	BANDAR NELAYAN 271	242
6	PERINTIS JAYA - 36	99
7	NUSANTARA JAYA -12	149
8	NAGA MAS PERKASA 89	146
9	BANDAR NELAYAN 519	196
10	MUTIARA 36	294
11	BAHARI - 116	167
12	GOLDEN TUNA 99	199
13	BAHARI NUSANTARA	136
14	BANDAR NELAYAN 2018	290
15	BANDAR NELAYAN 308	244
16	BANDAR NELAYAN 2023	295
17	BAHARI 89	163

RESOLUTION 22/03

ON A MANAGEMENT PROCEDURE FOR BIGEYE TUNA IN THE IOTC AREA OF COMPETENCE

Keywords: *Bigeye tuna, Management Procedure, Harvest Strategy, Target reference point, MSY.*

The Indian Ocean Tuna Commission (IOTC),

HAVING responsibility for the conservation and optimum utilization of tuna and tuna-like species in the Indian Ocean;

RECOGNISING the need for action to ensure the achievement of IOTC objectives to conserve and manage tuna resources in the IOTC area of competence;

RECOGNISING the adopted management objectives of the Commission set out in Resolution 15/10 are to: 1) maintain the biomass at or above levels required to produce MSY or its proxy, 2) maintain the fishing mortality rate at or below F_{MSY} or its proxy, and 3) avoid the biomass being below B_{LIM} and the fishing mortality rate being above F_{LIM} ;

MINDFUL of Article XVI of the IOTC Agreement regarding the rights of Coastal States and of Articles 87 and 116 of the UN Convention on the Law of the Sea regarding the right to fish on the high seas;

RECOGNISING the special requirements of developing States, particularly Small Island developing States, in Article 24 of the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA);

RECOGNISING *Resolution 12/01 On the implementation of the precautionary approach* calls on the Indian Ocean Tuna Commission to implement and apply the precautionary approach, in accordance with Article 6 of UNFSA;

RECALLING *Resolution 15/10 On Target and Limit Reference Points and a Decision Framework*, which identifies objectives of the Commission to maintain stocks in perpetuity and with high probability, at levels not less than those capable of producing their maximum sustainable yield as qualified by relevant environmental and economic factors including the special requirements of developing States in the IOTC area of competence; and identifies reference points for IOTC stocks including bigeye tuna;

RECOGNIZING the intent of the Commission to adopt management procedures aimed at achieving the objectives of the IOTC Agreement (Resolution 15/10) aided by advice of the Technical Committee on Management Procedures (TCMP), as established in *Resolution 16/09* and as further expounded in the *Schedule of work for the development of management procedures for key species in the IOTC Area*;

ACKNOWLEDGING the Scientific Committee advice that the most recent stock assessment in 2019 determined bigeye tuna is not overfished but subject to overfishing;

FURTHER CONSIDERING the endorsement of the bigeye tuna operating model by the 24th meeting of the Scientific Committee (December 2021, SC24) and the SC24's advice that the key technical work (management strategy evaluation) required to test the performance of candidate management procedures had been completed;

FURTHER CONSIDERING the advice and recommendations of the 5th Session of the Technical Committee on Management Procedures (TCMP) regarding a management procedure for bigeye tuna which noted that both candidate management procedures for bigeye tuna presented to the TCMP achieved the management objective and recommended the 26th Session of the Commission discuss and select a candidate management procedure for adoption.

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement:

1. A management procedure for the bigeye tuna stock managed by the IOTC with a view of maintaining the stock biomass in the green zone of the Kobe plot (not overfished and not subject to overfishing) while maximizing the average catch from the fishery and reducing the variation in the total allowable catch (TAC) between management periods.

Management procedure

2. The adopted management procedure for bigeye tuna known as MP1 Harvest is described in Annex I (MP).
3. Consistent with the adopted management objectives of the Commission, the management procedure is designed to achieve:
 - a) a 60% probability that the bigeye tuna spawning stock biomass achieves the target reference point of SB_{MSY}^3 by 2034-2038;
 - b) the bigeye tuna spawning stock biomass avoids breaching the interim limit reference point specified in Resolution 15/10 with a high probability;and operates with the following constraint:
 - c) the maximum increase or decrease in the TAC shall be 15% relative to the previous TAC.

Total Allowable Catch setting

4. The Scientific Committee shall run the MP and advise the Commission of the outcome, including a recommended TAC and any advice on exceptional circumstances in accordance with the Commission endorsed Guidelines for the Provisions of Exceptional Circumstances for IOTC MPs as documented in Appendix 6a of IOTC-2021-SC24-R.
5. The Commission shall adopt the TAC based on the outcome of the MP, unless the Scientific Committee identifies exceptional circumstances that require consideration of alternate management actions to be taken by the Commission.
6. The first TAC derived from the MP shall apply in 2024 and 2025. After 2025, the TAC shall apply in each of the subsequent three years following the year it is set by the Commission⁴.
7. The schedule for setting and applying the TAC, beginning the calendar year immediately following adoption of this Resolution, is shown in Annex II.
8. If exceptional circumstances are triggered, the pre-existing TAC shall remain in place until a new TAC or other management action is agreed by the Commission.

TAC allocation

9. Allocation of the TAC among CPCs will take place according to a process agreed external to this measure.
10. The Commission will develop a mechanism to constrain catch to the MP derived TAC for bigeye tuna no later than 2025, if an allocation scheme has not yet been agreed and implemented by the Commission.

³ The spawning stock biomass associated with achieving maximum sustainable yield.

⁴ E.g. the Scientific Committee runs the MP in 2022, the TAC is set by the Commission in 2023, the TAC applies in 2024 and 2025. The Scientific Committee runs the MP in 2024, the TAC is set by the Commission in 2025, the TAC applies from 2026-2028.

Review

11. A review of performance of the MP by the Commission and its subcommittees is to occur in 2030. The aim of the review is to ensure the MP is performing as expected and whether there are any conditions that warrant reconditioning the operating models, retuning the existing MP, or consideration of alternate candidate MPs and a new full management strategy evaluation.
12. The Scientific Committee is requested to review, and if necessary, further develop and refine (not later than 2024), the exceptional circumstances guidelines (adopted by SC24 and S26), taking into account, *inter alia*, the need for an appropriate balance between specificity versus flexibility in defining exceptional circumstances, and the appropriate level of robustness to ensure that exceptional circumstances are triggered only when necessary.
13. The IOTC, through the Technical Committee on Management Procedures, is requested to review the need for, and if necessary, develop at latest by 2025, guidance on a range of appropriate management responses should those exceptional circumstances be found to occur.

ANNEX I

DESCRIPTION AND FORMULAE FOR CALCULATING TACS FOR MP1_HARVEST

MP1 Harvest has two data inputs: total catch biomass and spatially aggregated longline CPUE from 1980 to the most recent year of catch data. It then fits a Pella-Tomlinson biomass dynamic model to the CPUE data given the catch biomass. Estimated parameters are carrying capacity (K), intrinsic rate of increase (r), initial biomass depletion (δ), the production curve shape parameter (m), and finally annual biomass B and its stochastic variability σ_B . From these parameters we derive the key variables used in the harvest control rule (HCR):

1. Ratio of fishing mortality to the value which produces MSY (F_{MSY} ratio)
2. Relative biomass or depletion: B/K

The HCR is a simple hockey stick type: for biomass depletion above 0.4 the HCR multiplier (HCR_{mult}) is 1, it decreases to (almost) zero linearly by a biomass depletion of 0.1. The overall fishing mortality used to estimate the TAC is calculated as follows: F_{MSY} ratio x HCR_{mult} x tuning parameter (F_{mult}). This fishing mortality is used in conjunction with the estimated biomass B to calculate the new TAC. A symmetric maximum change of 15% is then applied to calculate the actual recommended TAC. The main suite of equations that define the HCR are as follows:

$$HCR_{mult} = 1 \text{ if } \frac{B_y}{K} \geq 0.4$$

$$HCR_{mult} = \frac{\frac{B_y}{K} - 0.1}{0.3} \text{ if } 0.1 < \frac{B_y}{K} < 0.4$$

$$HCR_{mult} = 0.0001 \text{ if } \frac{B_y}{K} \leq 0.1$$

$$TAC_{new} = B_y(1 - \exp(-F_{mult} \times HCR_{mult} \times F_{MSY} \text{ ratio}))$$

DATA SPECIFICATION

The input data for MP1_Harvest are:

- b) Total catches of bigeye tuna in the IOTC Area of Competence. These are collated by the IOTC Secretariat and prepared annually for the IOTC Working Party on Tropical Tuna. Data used are from 1980 to the most recent year of data available.
- c) Standardised and spatially aggregated longline catch per unit effort (CPUE). These are derived from the joint standardisation analysis approach described in Hoyle *et al* (2019)⁵ applied to catch and effort data from 1980 to the most recent year of data available.

⁵ Hoyle, S., Chang, S.T, Fu, D., Kim, D.N., Lee, S.I., Matsumoto, T., Chassot, E., Yeh, Y.M. 2019. Collaborative study of bigeye and yellowfin tuna CPUE from multiple Indian Ocean longline fleets in 2019, with consideration of discarding. IOTC–2019–WPM10–16.

ANNEX II
SCHEDULE FOR MP IMPLEMENTATION

IOTC COMMITTEE	2022	2023	2024	2025	2026	2027	2028	2029
Commission (May/June)	Select and adopt BET MP							
	Annual Review of SC advice							
		Set TAC (2024-2025)		Set TAC (2026-2028)			Set TAC (2029-2031)	
WPTT and WPM (Oct)	Collate catch data and CPUE series used in MP		Collate data used in MP		Collate data used in MP			
	Consider exceptional circumstances (EC), advise SC		Consider EC		Consider EC			
SC (Dec)	Run MP		Run MP		Run MP			
	Assess* stock status				Assess stock status		Assess stock status	
	Annual Review of Exceptional Circumstances							
	Provide TAC advice to the Commission		Provide TAC advice		Provide TAC advice			

- The assessment of stock status has a distinct role and purpose from the management procedure and is not used for TAC advice. It is included in this schedule to identify best practice in the timing of running of the assessment, i.e. in the year after MP TAC decisions have been made.

RESOLUTION 22/04
ON A REGIONAL OBSERVER SCHEME

The Indian Ocean Tuna Commission (IOTC),

TAKING INTO ACCOUNT the need to increase the scientific information, in particular to provide the IOTC Scientific Committee (SC) working material in order to improve the management of the tuna and tuna-like species fished in the Indian Ocean;

REITERATING the responsibilities of flag States to ensure that their vessels conduct their fishing activities in a responsible manner, fully respecting IOTC Conservation and Management Measures;

CONSIDERING the need for action to ensure the effectiveness of the IOTC objectives;

CONSIDERING the obligation of all IOTC Contracting Parties and Cooperating Non-Contracting Parties (hereinafter CPCs) to fully comply with the IOTC Conservation and Management Measures;

AWARE of the necessity for sustained efforts by CPCs to ensure the enforcement of IOTC's Conservation and Management Measures, and the need to encourage Non-Contracting Parties (NCPs) to abide by these measures;

UNDERLINING that the adoption of this measure is intended to help support the implementation of Conservation and Management Measures as well as scientific research for tuna and tuna-like species;

CONSIDERING the provisions set forth in Resolution 11/04 *On A Regional Observer Scheme*, adopted by the Commission;

CONSIDERING Resolution 16/04 On the implementation of a pilot project in view of promoting the regional observer scheme of IOTC;

FURTHER CONSIDERING the deliberation of the 21st Session of the IOTC Scientific Committee held in Seychelles, from 3 to 7 December 2018;

RECALLING the discussion of the 23rd session of the IOTC held in Hyderabad, India, from 17 to 21 June 2019;

FURTHER RECALLING that the 23rd session of the IOTC Scientific Committee expressed the concern on the low observer coverage level at 2.15% and on the fact that there is no coverage of the artisanal fleet, which comprise a large portion of catches taken in the Indian Ocean;

CONSIDERING the recurrent non-compliance of multiple fleets to the minimum observer coverage since the adoption of Resolution 11/04;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

Definition

1. In this Resolution:

- a. "field sampler" means a person who collects information on land during the unloading of fishing vessels and field sampling programs can be used *inter alia* for quantifying catch, retained bycatch and collecting tag returns; and
- b. "observer" means a person who collects information on board fishing vessels, in the framework of observer programs, can be used *inter alia* for monitoring fishing activities, quantifying species composition of target species and bycatch, whether they are retained or discarded and deploying or collecting tags.

- c. “Electronic Monitoring System” (EMS) means an integrated system of hardware and software that supports acquisition of video footages of fishing activity, positional data and/or sensor, that allows the analysis and reporting of EM records.
- d. “Pool of observers” means a list of IOTC recognised observers that have been allocated an IOTC registration number and trained according to IOTC standards who may be called upon by other flag States.

Objective

2. The objective of the IOTC Regional Observer Scheme (ROS) shall be to collect verified catch data and other scientific data related to the fisheries for tuna and tuna-like species in the IOTC area of competence.

Observer Scheme

3. In order to improve the collection of scientific data, each CPC shall ensure that all fishing vessels of 24 meters length overall and above and under 24 meters, if they operate outside the exclusive economic zone (EEZ) of the flag CPC and in the IOTC area of competence, comply with the minimum observer coverage of 5% as defined by the number of operations/sets.
4. The IOTC Scientific Committee, in collaboration with the Compliance Committee, shall develop and agree on minimum standards for the use of EMS for purse seine, longline, bait boat (pole and line), handline, and gillnet fleets by 2023 at the latest, including on modalities of the substitution of the human observer coverage by an EMS, taking into account factors such as, the principles and regulations regarding minimum safe manning requirements. The Commission may consider and adopt these standards by 2024 in a separate Resolution.
5. Once the EMS standards are adopted and providing CPCs meet the minimum mandatory ROS data reporting standards, the minimum human observer coverage provided for in paragraph 3 may be complemented or substituted by means of an EMS. To ensure the minimum mandatory ROS data reporting standards are met, the EMS may be complemented by port sampling and/or other Commission approved data collection methods. CPCs are encouraged to use an EMS to improve the collection of scientific data before the standards mentioned in paragraph 4 are adopted.
6. CPCs shall endeavor to provide a list of observers to the IOTC Secretariat constituting the basis for the development of a regional pool of observers. The regional pool of observers shall be composed of observers registered through authorised observer providers according to the IOTC ROS standards. Each observer shall be allocated an IOTC registration number that must be included on reported data.
7. When purse seiners are carrying an observer in accordance with paragraph 3, this observer shall also monitor the catches at unloading to identify the species composition of targeted tuna species. The requirement for the observer to monitor catches at unloading is not applicable to CPCs already having a sampling scheme, with at least the coverage set out in paragraph 3.
8. Landings from artisanal fishing vessels shall also be monitored at the landing place by field samplers. The indicative level of the coverage of the artisanal fishing vessels shall be 5% of the total levels of vessel activity (i.e. total number of vessel trips or total number of active vessels).
9. Field samplers shall monitor catches at the landing place with a view to estimating catch-at-size by type of boat, gear and species, or carry out such scientific work as may be requested by the IOTC Scientific Committee.
10. CPCs shall:
 - a. have the primary responsibility to obtain qualified observers and each CPC may choose to use either deployed national or non-national of the flag State of the vessel on which they are deployed;
 - b. ensure that the minimum level of coverage is met;
 - c. take all necessary measures to ensure that observers are able to carry out their duties in a competent and safe manner;
 - d. endeavour to ensure that the observers alternate vessels between their assignments;

- e. ensure that observers perform duties described in paragraphs 7, 15 and 16. If observers are entrusted with complementary tasks by the relevant CPC fisheries research institutes, this shall in no way affect their performance on the above-mentioned duties;
 - f. ensure that the vessel on which an observer is placed shall provide suitable food and lodging during the observer's deployment at the same level as the officers, where possible; and
 - g. require vessel masters to ensure that all necessary cooperation is extended to observers in order for them to carry out their duties safely including providing access, as required, to the retained catch, and catch which is intended to be discarded.
11. If the coverage referred in paragraphs 3 is not met by a CPC, any other CPC may, subject to the consent of the CPC who has not met its coverage, place an observer to fulfil the tasks defined in the paragraphs 7, 15, 16 and 17 until that CPC provides a replacement or the target coverage level is met.
 12. CPCs shall provide to the IOTC Secretariat and the IOTC Scientific Committee, annually in their national scientific reports, a description of the protocols supporting their observer programs and sampling schemes mentioned in paragraphs 3, 5, 7 and 8, the number of fishing vessels and of fishing effort sampled, as well as the coverage achieved by gear type in accordance with the provisions of this Resolution.
 13. Observers shall:
 - a. record and report fishing activities, verify positions of the vessel;
 - b. observe and estimate catches as far as possible with a view to identifying catch composition and bycatch and to monitoring discards including their fate (e.g. released alive) and size frequency;
 - c. record the gear type, mesh size and attachments employed by the master;
 - d. collect information to enable the cross-checking of entries made to the logbooks (species composition and quantities, live and processed weight and location, where available); and
 - e. carry out such scientific work (e.g. collecting samples), as requested by the IOTC Scientific Committee.
 14. The IOTC Scientific Committee shall adopt by 2023 the IOTC ROS Observer Manual and the IOTC Observer Forms used for reporting (including minimum data fields) and provide advice on a training program.
 15. Once adopted by the IOTC Scientific Committee, observers shall use the IOTC ROS *Minimum Standard Data Fields*, the IOTC data collection forms, the IOTC Species identification cards, the IOTC Regional Observers Scheme (ROS) Observer Manual and the IOTC Observer Forms when carrying out their duty. The Secretariat shall publish this information in a dedicated area of the IOTC website.
 16. Each observer shall provide, within 30 days of completion of each trip, a report to the flag CPC of the vessel. If the vessel was fishing in the EEZ of a coastal State, the part of the observer report covering fishing activities in the EEZ shall be also submitted to that coastal State.
 17. Each CPC shall provide, to the IOTC Secretariat within 150 days the latest, each report and observer data, following IOTC observer reporting templates and standards. The Executive Secretary shall make the information available to the IOTC Scientific Committee.
 18. The data referenced in paragraph 17 shall be provided by 1°x1° square and month. CPC shall endeavor to send these data in an electronic format suitable for automated data extraction.
 19. The confidentiality rules set out in Resolution 12/02 *Data confidentiality policy and procedures for fine-scale data* shall apply.
 20. The funds available from the IOTC balance of funds may be used to support the implementation of this program in developing coastal CPCs, notably the training of observers and field samplers.

21. The elements of the Observer Scheme, notably those regarding its coverage and the adoption of EMS standards, are subject to review and revision, as appropriate, for application in 2023 and subsequent years.
22. All provisions in this resolution related to the deployment of observers onboard fishing vessels, shall apply *mutatis mutandis* to the use of EMS, as applicable.
23. This Resolution supersedes Resolution 11/04 *On A Regional Observer Scheme*.