

## APPENDIX IV

### DRAFT TERMS OF REFERENCES FOR THE AD-HOC WORKING GROUP ON THE DEVELOPMENT OF ELECTRONIC MONITORING PROGRAMME STANDARDS (WGEMS)

#### OBJECTIVES

To develop EM Program Standards (i.e., how the institutional structure and management of the program is organized) and EM Data Standards (i.e., the minimum data requirements to be collected and technical specifications and requirement of the EM system).

#### SPECIFIC OBJECTIVES

- To define the objectives and scope of the EM Program in the IOTC.
- Develop and agree on Electronic Monitoring related terms definitions.
- To draft EM Program Standards and EM Data Standards
  - **For EM Program Standards:** objectives of the programme, scope of the fleets, institutional structure and management of the programme, data collection and review coverage, roles and responsibilities of members, specifications and procedures, timeframes for implementation, accreditation of vendors, data confidentiality and access and use, coordination, observer training, cost and financial considerations, etc.
  - **For EM Data Standards:** minimum requirements for EM system and equipment, EM data collection and storage, EM data transfer logistics, EM data analysis and submission, EM maintenance and functioning, EM data validation and quality control, roles of EM users, including the collection of minimum data requirements.
- Identify and assess areas where EM could strengthen current IOTC collection and reporting processes.
- Develop a roadmap and workplan to progressively implemented an EM Program for IOTC fisheries including, but not limited to, fleet specific cost benefit analyses and capacity building.
- Consider how to ensure the compatibility of the data collected by EM programmes with other data currently collected through other programmes (VMS, ROS, etc.).
- Consider and review the best approach (e.g., through a Resolution) to implement the EM programme in IOTC.
- Develop tools, innovative strategies and collaborative projects for collecting, handling, processing and analysing fishery-dependent data from electronic technologies; for example, through machine learning and artificial intelligence and seek the collaboration from academia in joint-initiatives to progress on the matter.
- Consider how to ensure standards are flexible enough to not exclude or limit the use of future technological advances
- Hold an expert workshop(s) to review the draft EM Program Standards and EM Data Standards for IOTC Commission consideration.

#### FUNCTIONING

- The working group shall be open to all Commission Members, Cooperating non-members and observers and constituted preferably scientist, experts, EMS designers/vendors, other stakeholders, and, whenever possible, include the participation of managers.
- The working group shall conduct its work electronically as well as by presential meeting(s), whenever possible, that should be annually or bi-annually organized.
- The working group shall consider existing and proposed EM Programme standards and EM minimum standards and formats in other regional bodies and tuna RFMOs.
- The working group shall collaborate and communicate with the EM working groups of other tuna RFMOs as well as take into account the Kobe III recommendations and recommendations by relevant EM International groups.
- The working group shall consider the impacts of EM technologies on the broader work of the Commission/Secretariat and look at ways to minimize data collection and management costs.

- The working group shall report to the WP on Data Collection and Statistics and the Scientific Committee, where its advice and recommendations shall be discussed and endorsed for Commission consideration,
- The working group could consult or seek advice from technical experts including EM vendors as necessary.
- The working group shall be supported by the Secretariat. In particular, the Secretariat shall provide technical advice and engage relevant stakeholders in providing input into the work of the working group.

**REPORTING and PROGRESS**

- The working group and its progress will be annually report and reviewed at the IOTC WPDCS as well as to inform the Compliance Committee of its progress.
- Consistent with outcomes from EM workshop, a phased in approach to the implementation of these technologies should be considered by the Commission as specified in the workplan described in Appendix V.