

# FISH AGGREGATING DEVICE MANAGEMENT PLAN FOR VESSELS FLAGGED IN CURAÇAO

## 1. Background

According to the fisheries management policies that Curaçao has been traditionally carrying out in order to assure the sustainable management of the fishing resources in general; also considering that the control of fishing effort is a necessary issue in the ICCAT area; and with the aim to guarantee the sustainability of the target and bycatch populations of species related to tuna fisheries, the following Fish Aggregating Device<sup>1</sup> Management Plan is hereby established.

## 2. Objectives

- To provide a scientific basis for the approval of measures that guarantee the rational use of FADs in the tuna fisheries of the Atlantic Ocean.
- To widen the technical knowledge of these devices and of their eventual positive or negative impact on the ecosystems.
- To develop joint information exchange schemes between operators, scientists and Administrations to facilitate the communication of any progress made in this field and the implications it could have.
- To improve the knowledge on the composition of species and sizes to be found in the sets made on FADs.

## 3. Application field

This Management Plan applies to the tuna purse seiner vessels licensed to fish in the Atlantic Ocean.

## 4. Definitions

Fish Aggregating Device (FAD). Floating objects, either natural or man-made, which gather some species underneath, thus making those species more accessible to their search and subsequent catch by fishing vessels.

### FAD types:

- Anchored FADs: those that are artificially fixed to the bottom of the sea preventing them from drifting; these include the support vessels anchored at an underwater mountain.

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<sup>1</sup> Hereinafter referred to as FADs.

- Drifting object with a net: those non anchored FADs composed of either a continuous panel or one in the shape of a grill, which is associated to a hanging piece of net or rope, which serves as a sail under the sea.
- Drifting object without hanging materials: those non anchored FADs composed of either a continuous panel, or one in the shape of a grill.
- Natural FADs: any floating object found at sea, such as vegetable waste, dead animals or debris of human origin used as a FAD.
- Other drifting FADs: any FAD that differs from the above-mentioned.

Activities related to FADs:

- Deployment: The activity that involves the deployment of any given FAD at sea.
- Checking: The fishing activity that involves the monitoring of the previously deployed FADs to carry out maintenance tasks or verify the fish gathering underneath the device.
- Set: The fishing operating to catch the fish schools associated to a FAD.
- Collection: The fishing activity that involves the recovery of a FAD from the sea.

Buoy types:

GPS buoy: A buoy equipped with a GPS system.

Radio buoy: A buoy equipped with a radio system.

Visual buoy: A buoy equipped with no electronic system, only identifiable at sight.

Oceanographic buoys: buoys used for oceanographic research.

**5. Identification of FADs**

Each FAD to be deployed must be previously assigned a sequence of characters that will identify it. That sequence must be maintained during its lifetime.

Operators might select the identification system they prefer, provided that the sequence assigned remains individual and unique for each FAD.

Depending on the results obtained by the application of the present Plan, this Administration could, if needed be, establish common and compulsory marking system for all the FADs used by the fleet flagged in Curaçao.

**6. Register and communication of FAD related information**

**6.1. Inventory**

As an initial measure, by December the 31<sup>st</sup>, 2012 all operators must deliver to the Ministry of Economic Development a list of the operative FADs used by the fleet before that date.

The list must include the information requested in Annex I for each FAD.

The list must be updated at least on a quarterly basis.

The objective of this inventory is to provide all possible information on the characteristics of the FADs in use. It also aims to provide the scientific community with an analysis of the logbook entries derived from the individual identification of each FAD.

## **6.2. Specific Activity Registry**

Operators must keep a Registry that includes all activities related with FADs.

The information to be incorporated in this registry is included in Annex II.

In the event of using a natural FAD, operators must also register this information, assuming by “deployment” the assignment of a buoy and as “collection” its removal. If this FAD is intended to be of further use, its information must be included in the inventory already mentioned in the previous chapter.

Whenever a fishing or auxiliary boat carries out any given activity which is related to a FAD that originally did not belong to that ship, all information regarding this activity must still be registered. In these cases, the box that contains the identification of the FAD must be filled with the word “external”, along with a visible character sequence that leads to the identification of the FAD.

Lastly, for each activity carried out on a FAD, all events related to by catch must be recorded, including the following data: species, number of individuals and number of individuals which were set free alive.

This Registry of Activity must be delivered to the competent Authorities at least on a quarterly basis.

## **6.3. Logbook entries**

Apart from the specific record mentioned in the previous section, Masters must continue to record in the logbook the following information related to the activity over FADs:

- Set on FADs: position, date, identification and results must be indicated.
- As stated in the previous point, all the sets made on FADs not originally belonging to the fishing vessel, as well as set made on natural FADs which are to be included in the inventory, must be duly recorded in the logbook.
- Catches associated to marine mammals, whale sharks, underwater mountains, or any element that could contribute to gather fish (such as dead animals, concentration of random materials, etc.) have to be recorded as well. The aim is to provide the most complete possible information about the set made, including position, date and result of the set.

## **7. FAD monitoring**

The vessels must, to the extent possible, keep the monitoring information for each FAD that carries a satellite buoy. Such information must be linked to the ID number assigned to that particular FAD.

## **8. Measures to avoid the loss of FADs**

The operators of the vessels must avoid as much as possible the loss of FADs at sea.

In case of loss or impossibility to recover any given FAD (i.e. those that fall in areas or periods closed for the fishing) operators must record in the Specific Activity Registry its last known position and date.

## **9. Measures to mitigate the catch of juvenile and non-target species**

The use of the most selective methods to avoid the catch of juvenile and associated species will be encouraged. These might include, among others, size-sorting grids incorporated in the purse seine nets.

Along with that, the use of acoustic systems (such as echo sounders) will also be encouraged. They should help to avoid the catch of non target species or sizes, allowing their identification before the set is made.

Research related to mechanisms that provide an alternative to net pieces hanging below the FADs will be promoted. These systems should avoid the entangling of marine species, especially turtles, by using different materials or smaller nets, in order to minimize their negative impact. Vessel shall also develop new FAD prototypes made of biodegradable materials.

## **10. Specific closures on FAD fisheries. ICCAT Recommendation 15-01 and 16-01**

During the FAD closure period established by ICCAT (REC 16-01), fishing activities, or those in support of them, which are related to bigeye and yellowfin tuna, and are also associated with floating objects (including FADs), are forbidden, as follows:

- a) From January the 1<sup>st</sup> to February the 28<sup>th</sup> every year and,
- b) In the area defined below:

Northern limit: Parallel 05° North latitude  
Southern limit: Parallel 04° South latitude  
Western limit: Meridian 20° West longitude  
Eastern limit: African coast

The prohibition includes:

- the deployment of any floating object, with or without buoys
- Fishing around, under or in association with artificial objects, including vessels

- Fishing around, under or in association with natural objects, and
- Towing floating objects located inside the area to a position outside it.

FAD limits:

Curaçao shall ensure that for purse seiners flying our flag and fishing for bigeye, yellowfin or skipjack tunas on FADs the following provisional limits are not exceeded:

- No more than 500 FADs with or without instrumental buoys are active at any one time in relation to each of our vessels through such measures as, for example, the verification of telecommunication bills.

### **11. Control and monitoring measures**

The relevant authorities could carry out documentary inspections regarding the provisions specified in the present plan. They might request, if needed be, the data referred to in the sixth paragraph.

The Ministry of Economic Development will be the responsible for processing and monitoring the information supplied by the operators. This Authority shall be entitled to prepare the monitoring reports of the present plan and also to propose the measures it may see fit in order to improve the overall performance of the system.

### **12. Measures for the confidentiality of the data supplied by the operators**

The information supplied by the operators will always be treated confidentially. Its use will be strictly limited to scientific ends, or those of control, if necessary. The Ministry of Economic Development assumes that this information will not be made public beyond the above-mentioned limits, at least without the express consent of the shipowners.