

ANABAC Good Practices for Responsible Tuna Purse-Seining



The Good Practices below are aimed at optimizing the **ANABAC** tuna purse-seining fleet's practices in the Atlantic and Indian Oceans. They reflect the practices implemented by the **ANABAC** fleet to improve tuna purse-seining selectivity, promoting a responsible approach to fishing that minimises the impact on the marine ecosystem and enables a sustainable management.

This code of Good Practices was signed in 2012 and is reviewed annually with the aim of incorporating best practices available, based on the most recent scientific advances. The agreement is mainly based on the following points:

- 1. The design and use of FADs** (Fish Aggregating Devices) that do not entangle sensitive associated species, such as sea turtles and sharks.
- 2. The development and application of releasing techniques that pose less risk** to associated species and maximise those species' survival and minimise risk to crew, including the use of materials and equipment specifically designed for this purpose.
- 3. The application of a sustainable FAD management system** by the implementation of a FAD logbook, that through its monitorization enables activity and responsible use traceability during all its life cycle.
- 4. Full observer coverage** that guarantees observer presence in 100% of the vessels, including support vessels.
- 5. Continued training and capacitation** of skippers, crew, and scientific observers in Good Practices and sustainable techniques.
- 6. Scientific verification** of activities related with Good Practices by independent scientific organism and continuous **tracking** by a steering committee.
- 7. Continuous revision of the Code:** The Code of Good Practices is periodically reviewed.

If in any of the points that are described below, the Regional Fisheries Management Organizations (RFMOs) have more demanding requirements than those described here, then RFMO criteria will be adopted in the area of competence to which they belong.

Likewise, the points reflected here conform to the agreed basic characteristics, considered as the minimum standard to be used. It is understood, however, that each company can develop and apply complementary measures that further minimize the impact of tuna purse seine fishing on non-target species and/or any other impact on the marine environment.

1. Non-entangling and biodegradable FAD design

Work has been conducted since 2012 to arrive to a consensus on an alternative FAD design that minimise its impact on non-target species, especially sea turtles and sharks. The results of this effort set the foundations for gradually replacing the **FADs used by the ANABAC** fleet with **non-entangling models**, that are in accordance with the following minimum standards:

All the elements making up the floating part (raft) and the submerged part (tail) of the FAD must be designed to **prevent the entanglement** of sea turtles and sharks. FADs may be made with:

- Non-entangling materials: with **non-mesh** (for example, canvas).

From **January 1, 2025**, this code establishes that purse seiners and support vessels must only use and deploy FADs constructed with non-mesh material. From this date onwards the use of netting material for the construction of FADs (Figure 1) is totally prohibited. It is worth noting that in the Indian Ocean its RFMO requires the construction of FADs with no mesh since 2020 (Figure 1).

- Ropes.

Biodegradable materials: With the objective of evaluating their functionality and facilitate a progressive transition towards more sustainable practices, the incorporation of biodegradable materials in the floating and submerged parts of FADs is promoted.

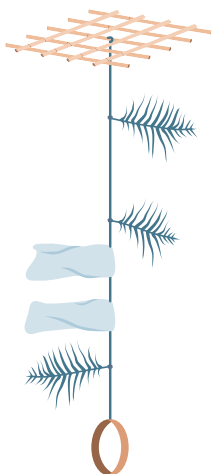


Figure 1. Example of non-entangling FAD.

GENERAL NOTES:

- If the Regional Fisheries Management Organizations (RFMOs) implement more demanding requirements than those described here for the construction of the floating and/or submerged structure, these criteria will be adopted in the area of competence of those RFMOs.
- From the **1st of January 2025**, FADs with **non-mesh** will be deployed in all oceans.

In visits to FADs that are followed by a change of the instrumented buoy by the fleet, when entangling materials are replaced by non-entangling materials, this must be done following the criteria defined in the Code. If there are any FAD modifications by the crew, the removed synthetic materials will be kept on board for their later disposal in port.

2. Associated species release manoeuvres

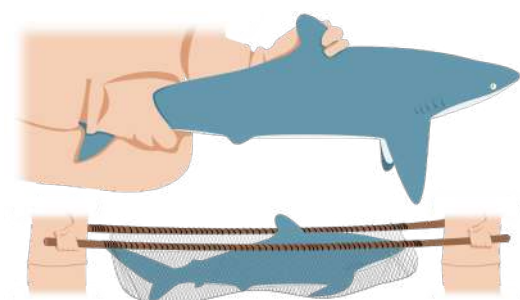
2.a. SHARKS

Intentional sets on sharks and the intentional retention of any shark is forbidden in the ANABAC fleet, being strict and **inflexible regarding the practice of shark finning**. In the case of unintentional retention, all fins must remain naturally attached. While the number of sharks incidentally caught by purse seiners is not globally significant when compared to other fishing gears, it can be reduced by applying suitable handling and release protocols.

When hauling the catch on board, any shark detected in the working deck or the lower deck will be released immediately, following RFMOs recommendations¹ and maximising precautions to avoid harming the animals and guaranteeing crew safety.

Handling: Holding sharks only by the tail must be avoided (unless it is with a suitable device) or the gills, to avoid injuring the animal and to protect the crew from dangerous reactions (Figure 2). **Release:** Nooses may not be used to release sharks that appear onboard. If sharks are found inside the purse seine net, the crew must attempt to get them out of the net using the brailer employed to bring the catch on board, even if a certain amount of target fish (2-3 tonnes) is lost, or else must use some other cradle-like device, to avoid the possibility of injury. **Maintenance:** If immediate release is not possible, it is recommended to keep the animals in the shade, wet, and if possible, facilitating their breathing by introducing a water hose in their mouth, for example.

Yes



No

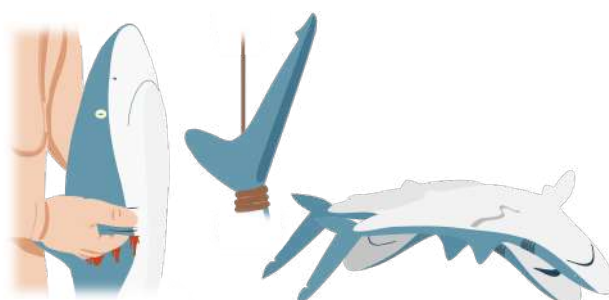


Figure 2. Correct release practices for sharks (left) and incorrect ones (right).

¹ICCAT: Rec 04-10, Rec 07-06, Rec 09-07, Rec 10-07, Rec 10-08, Rec 11-08, Rec 15-06, Rec 18-06, Rec 21-09, Rec 22-11, Rec 23-10, Rec 23-11.

IOTC: Res 25/08, Res 25/09.

IATTC: C-11-10, C-23-08, C-24-05.

WCPFC: CMM 2024-05.

In interactions in which a high incidence of sharks is observed, to the extent possible, it is recommended to:

- Release them directly from the sack back to sea using the brailer, without bringing them onboard.
- Avoid the set if the target species school is < 10 tonnes.

It is mandatory for vessels to have a net carrier, a stretcher or a tarp on board and/or similar equipment close to the brailer, to handle sharks found on deck more easily. The use of selective devices, such as ramps for sharks, stretchers and/or velcros, that facilitate safer and faster releases, reducing direct contact with the crew, are recommended.

2.b. SEA TURTLES

Following the recommendations² of the RFMOs on sea turtle conservation, even though sea turtle entanglements are unusual, the crew must attempt by all means to release every sea turtle that could become entangled in FADs and/or encircled by the purse seine net.

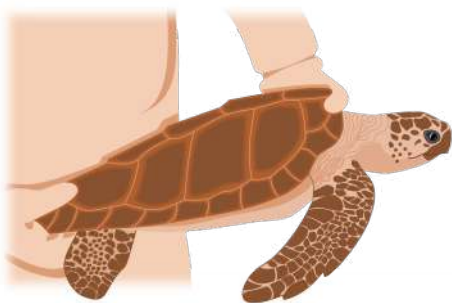
If an entangled sea turtle is found in the net, **the net hauling operation must be stopped immediately**, so that the animal does not accidentally pass through the power-block. As soon as possible, the crew must release sea turtles found inside the net, trying to prevent any risk of injury.

If a sea turtle is injured during the operation, it must be kept on board in wet and cool conditions and checked that it has completely recovered before release. If the sea turtle is carrying any plastic items or pieces of net on it, or if it has any longline hooks embedded, these must be removed and/or disentangled, even if these materials do not originate from that vessel. Likewise, if crew find an entangled sea turtle when visiting a FAD, they must disentangle the sea turtle and release it using the same procedures.

Sea turtles must **be handled by the shell**, avoiding holding the shell by its head area, to protect the hands of crew should the animal retract its head (Figure 3). In addition, **turning over sea turtles shall be avoided**.

² ICCAT: Rec 22-12, Rec 23-13.
IOTC: Res 12/04.
IATTC: C-04-07, C-19-04.
WCPFC: CMM 2018-04.

Yes



No

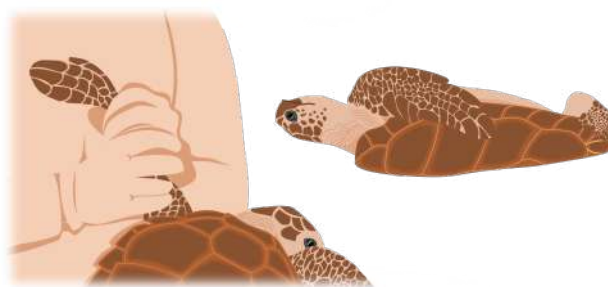


Figure 3. Correct handling practices for sea turtles (left) and incorrect ones (right).

It is important to remember **not to hold the animal by its flippers**, as they are sensitive and could easily be dislocated. If a sea turtle appears to be irresponsive to stimuli or is inactive, it is recommended to place it in the resuscitation position to help with its recovery. This position consists in lifting the animal by its rear legs about 15 cm, resting face down on an adequate surface. Additionally, the animal must wet frequently and kept out of direct sunlight. Thanks to these practices, the mortality rate of sea turtles in the ANABAC purse seine fleet is practically null.

2.c. MOBULIDS AND RAYS

Although very few mobulids and rays are involved in purse seine floating object sets, a safe protocol is in place for their release, in line with adopted RFMO recommendations³. The objective of this procedure is to get the animal out of the purse seine using the brailer, even if this implies the loss of a small amount of target catch (2-3 tonnes). If this is not possible, other specific equipment or device - such as a cargo net or a sorting grid - that minimises any possible injury may be used.

Yes



No

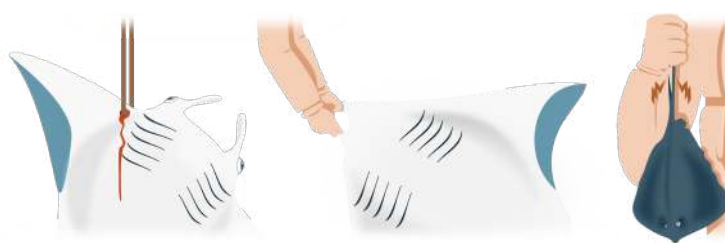


Figure 4. Correct release practices for mobulids and rays (left) and incorrect ones (right).

³ ICCAT: Rec 24-12.
IOTC : Res 19/03.
IATTC: C-15-04.
WCPFC: CMM 2019-05.

If the animal is not detected or cannot be released before it is brought on board, it must be released from the deck. The recommendation is to have a carrier net, canvas, slings and/or similar equipment alongside the brailer, to facilitate handling of large individuals when they are found on deck, enabling their release with the aid of the crane (Figure 4). There are also methods such as using a cargo net or sorting grids with wide spaces, which are placed over the unloading hatch or hopper, so the fish can be unloaded while the ray stays on top, from where it can be lifted for release with the crane. In cases when the release is by hand, holding by the tail, gills, or the cephalic lobes must be avoided to prevent injuries to the animal and possible risks to crew. It is particularly recommended to avoid handling them by the rear part, as many stingrays have a poisonous spike in their tail. It is therefore preferable to handle these animals from the front, holding them by the pectoral fins.

2.d. WHALE SHARKS AND LARGE CETACEANS

Intentional sets on whale sharks and large cetaceans **are prohibited**.

Some RFMOs⁴ have implemented measures prohibiting fishing practices that intentionally target whale sharks (*Rhincodon typus*). However, these animals may end up in the net unintentionally because they often swim well below the surface, making it difficult for fishers to detect them before the set. Similarly, cetaceans are regulated by the EU⁵, some RFMOs⁶ and some bilateral agreements, which forbid intentional sets on these species' groups. The interaction with cetaceans, principally baleen whales, is rare and non-intentional. Mainly, these rare interactions occur with large cetaceans (e.g., humpback whale; *Megaptera novaeangliae*) which generally escape the net before its closure or by their own means.

Following the recommendations established with the objective of minimizing impacts on these groups of species that are accidentally found inside the net, the crew must take all possible actions to prevent damage to the animal, despite the complexity involved in their release.

In cases when a whale shark or a whale is detected inside the net, hauling of the net should be done with extreme care, to isolate the animal in a small area of the bunt. After this, and depending on the sea conditions, the animal's behaviour, and always prioritizing crew safety, the following measures may be applied (Figure 5):

⁴ICCAT: 23-12.
IOTC: Res. 25/08.
IATTC: C-19-06.
WCPFC: CMM-24-05.

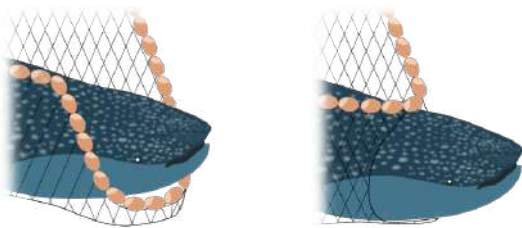
⁵EU: EC - No 520/2007 (Art. 29)

⁶ICCAT: Rec 23-15.
IOTC: Res 23/06.
WCPFC: CMM-24-07.

A. Protocol when the animal is floating on the surface.

- A.1.** The crew must carefully haul the net, from the animal's tail toward its head, and on its ventral side, with the objective of moving it closer and guiding it towards the cork line.
- A.2.** If the animal is small (2 metres or less), it may be released using the brailer, always with care to avoid injuries.
- A.3.** The cork line can be partially sunk to create an escape route, enabling the animal to go out by itself.
- A.4.** Once the escape route has been created, wait patiently for the animal to freely swim out of the net.
- A.5.** The catch may only be brought on board after the animal has been released from the net, guaranteeing its wellbeing.

Yes



No

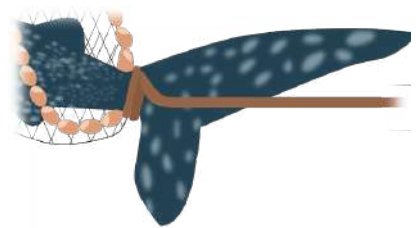


Figure 5. Correct release practices for whale sharks (left) and incorrect ones (right).

B. Protocol when the animal does not appear at the surface.

The catch may be brought on board until the animal appears at the surface. At this point, the crew must cease immediately brailing the catch and proceed following the protocol described in point A.

C. Protocol when the animal pushes the net with its head before the corks go down.

Sometimes the animal may push the net before the cork line can be lowered, complicating its backward movement. In this case, from the boat the cork line must be lowered using specific manoeuvres with weights, poles or canes to enable the animal to move its head freely above the corks.

D. Protocol when the animal is trapped in the bunt with its head facing sternward.

In this case, the manoeuvre to release the animal over the cork line becomes more complex, and for this reason it is recommended that once the animal is in the bunt, the purse line closest to the animal's head is located and cut a couple of fathoms of net to create an escape window. The net should be lowered to submerge the window, to enable the animal to get out through it.

GENERAL NOTES:

- Regardless of the circumstances, the crew must verify that the animal's behaviour is normal and record the operation in the logbook. If an odd behaviour is observed, it will be recorded in the logbook.
- Tests will be carried out with new release devices designed to facilitate safe handling and increase the survival of sharks, manta rays and rays.
- Is recommended to collaborate and participate in marine fauna tagging initiatives to assess post-release survival.

3. FAD management system

ANABAC agrees to comply with the FAD management system adopted by the pertinent authorities, and which includes the collection of standardized information on FAD associated activities (Figure 6).

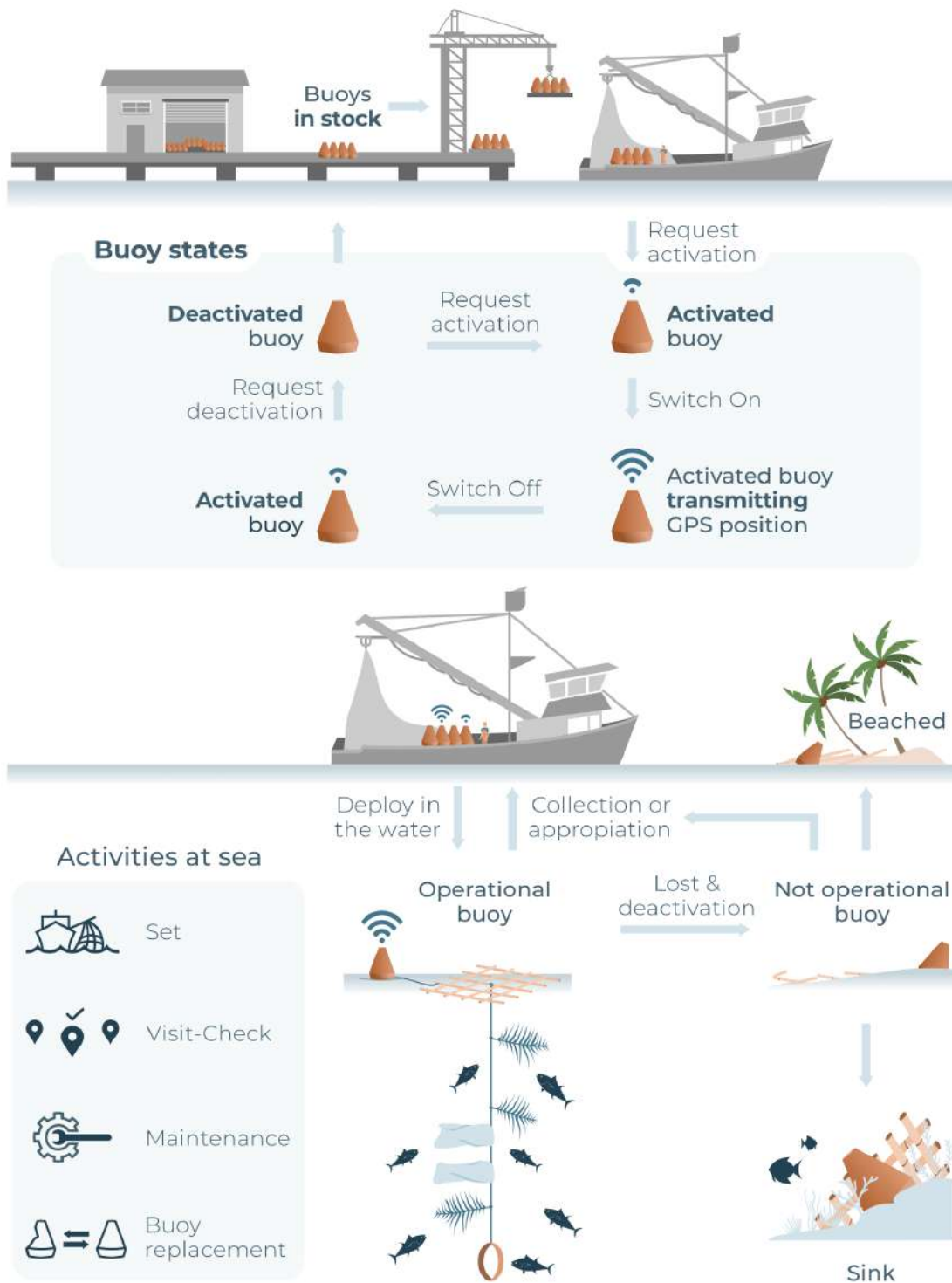


Figure 6. FAD management flow diagram.

4. 100% Observer coverage, including support vessels

The agreement considers it necessary and mandatory to have 100% coverage of fishing activities as of 1 January 2015 and extends such coverage rate to supply vessels as of 1 January 2017. This coverage rate complies with the requirements of the ICCAT and goes well beyond the current requirements set by the IOTC (5%).

The information gathered during fishing trips to verify Good Practices compliance is recorded by specifically trained scientific observers, and more recently, also by electronic monitoring systems (EMS) validated and approved by the scientific bodies that backup this Code (Figure 7). Either way, the purse seiner fleet must still maintain the minimum required human observer coverage required by each RMFO or flag state. However, for support vessels, coverage may be provided entirely by electronic observers, due to limited space onboard.

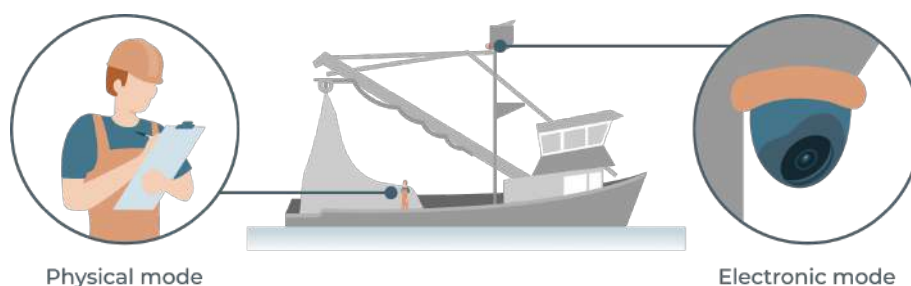


Figure 7. Observer coverage in tuna purse seiners and support vessels: human and electronic.

5. Training for fishing masters, crew, and scientific observers

Onboard personnel, both professional fishers and scientific observers, are trained continuously and in detail on the items covered in this Code of Good Practices, with special emphasis on handling and of associated species and the correct construction and use of FADs.

Similarly, the Code encourages the training of scientific observers for the correct collection of high-quality data and fosters development and capacitation of local and third-country observers. Training periods are also used as follow-ups to evaluate each programme and learn about any challenges that may arise.

6. Scientific verification of activities related with the Code of Good Practices and continuous follow-up by a steering committee

All the activities mentioned in the above points are verified by an independent scientific body that ensures the proper functioning of the programme. The scientific organisation works to compile 100% of the coverage, register the information provided by the different observer organisations involved and

process it to be analysed on a per-vessel and per-trip basis.

The results are shown in biannual compliance reports and provide specific advice if necessary. Similarly, with the objective of continuously improving the Code of Good Practices, a Steering Committee is created, which counts with pertinent scientific advice and meets semi-annually to ensure the application of the Code, find practical solutions to structural or punctual problems and keep the programme updated, always following the recommendations and suggestions of the scientific advisors.

7. Continuous revision of the Code

This text is the revised and agreed version by the signatories of the Agreement of February 20, 2012, of the Code of Good Practices and replaces the text and its subsequent revisions.

Date:	Version:	Description:
February-2012	Rev.0	Creation of the Code
February-2015	Rev.1	Review of the document for the introduction of detailed release strategies, characteristics of non-entangling FADs
February-2017	Rev.2	Introduction of the auxiliary vessels
February-2020	Rev.3	Introduction of release practices for large cetaceans and determined practices in the use of FADs throughout their life cycle
May-2022	Rev.4	Review of the use of materials for the construction of FADs
June-2025	Rev.5 (Current)	Review of mesh use prohibition in FAD construction, introduction of the non-intentionality in sets on whale sharks and cetaceans

Sukarrieta, 24th June 2025,

ANABAC President