

FAD Watch

Final report – July 2025



**SEYCHELLES
FISHERIES
AUTHORITY**



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1. Background

In August 2023 a Memorandum of Understanding (MoU) for the FAD Watch project signed between the Seychelles Fisheries Authority (SFA), the Asociación de Grandes Atuneros Congeladores (AGAC) and the Sustainable Indian Ocean Tuna Initiative (SIOTI) partners came into force for a period of 24 months.

The objective of the MoU is to *“prevent and mitigate at the maximum level possible stranding and entanglement of drifting Fish Aggregating Devices (dFADs) in coral reefs, shallow water habitats and coastal zones of Seychelles”*. The FAD Watch Project is a collaborative project requiring the involvement of several organisations including: SFA, the Seychelles Coastguard (SCG), SIOTI and AGAC.

The MoU provided the organisation of two recovery campaigns by the SCG Saya de Malha vessel, financed by the SIOTI FIP and AGAC. The MoU also included the embarkation of scientific observers to collect data on the recovered FADs.

This report was written by the FAD Watch project partners and covers various steps that led to the Saya de Malha missions and the results of those missions.

2. Finalisation of *ShoreManager* tools

The *ShoreManager* software, developed by Thalos in 2021, was used in the previous version of the FAD Watch project. In its initial phase, the software enabled e-mail alerts to be sent whenever a FAD approached an island. Initially, five islands were included in the software: Alphonse, Desroches, Farquhar, Aride and Silhouette.

In 2022, the software was improved to classify and identify potentially stranded FADs by taking into account the latest geographical positions. The transmission frequency, the number of positions per hour, was also increased to facilitate searching at sea.

New islands were then added to the software, which now covers 15 islands: Assomption, Astove, Cosmoledo, Farquhar, Providence, Desnoeufs, Poivre, Alphonse, Marie-Louise, Remire, Silhouette, Desroches, Aride, Platte and Coëtivy. Various indicators have also been added to the software, enabling analysis of positions and data collected since 2021, in preparation for recovery campaigns.

3. Steering Committee meetings

A steering committee was set up in June 2024 to monitor the implementation of project activities.

The FAD Watch steering committee is made up of a representative from each project partner: SFA, SCG, SIOTI, AGAC, ORTHONGEL, ANABAC, SIOTI processors (Thai Union or Princes Limited) and the SIOTI FIP coordinator.

Four steering committee meetings have been held since its creation. A summary of the discussions and decisions taken during these meetings is presented in the following paragraphs.

3.1. First steering committee meeting

The first steering committee meeting was held on 2 August 2024. At this meeting, the Chair and Vice-Chair of the steering committee were selected.

The purposes of the meeting were to (i) present to all members of the steering committee the data available in the FAD Watch module of *ShoreManager* software and the analyses that can be made from it, and (ii) plan the actions required to prepare for the first campaign.

The following actions were planned during the meeting : (i) analysing the FAD Watch module of *ShoreManager* software data to identify potential islands, (ii) improving the forms use to collect data on recovered FADs and (iii) equipping the SCGV Saya de Malha with internet so that the FAD Watch module of *ShoreManager* software can be used during the campaigns.

The steering committee decided that these actions would be carried out inter-sessionally and the results presented at the second steering committee meeting.

3.2. Second steering committee meeting

The second steering committee meeting was held on 6 November 2024. The organisation of the first SCGV Saya de Malha mission was the first priority of this meeting.

The second steering committee meeting was used to validate the data collection forms.

Finally, a count of stranded FADs by island was presented, making it possible to list the islands to be visited as a priority. The following islands, by order of priority, were therefore proposed to the SCG:

1. Farquhar and Providence;
2. Alphonse;
3. Desnoeuufs, Desroches, Marie-Louise, Poivre and Remire.

3.3. Third steering committee meeting

The third steering committee meeting was held on 31 January 2025. The priorities of this meeting were to review the main points highlighted during the debriefing of the first mission and to list the actions required to prepare the second mission.

The data collection forms were discussed again during this meeting. Suggestions were made to make them easier to use and add some missing fields. The members of the steering committee decided to work on these forms between sessions so that they could be validated before the second SCGV Saya de Malha mission.

The members of the steering committee also decided to re-analyse the FAD Watch module of *ShoreManager* software data in order to list the islands to be prioritised for the second mission. A number of proposals for new analyses were made during the meeting. The steering committee members decided to carry out these analyses between sessions so that they could be presented during the fourth meeting of the steering committee.

3.4. Fourth steering committee meeting

The fourth steering committee meeting was held on 21 May 2025.

The report of the second missions of the SCGV Saya de Malha was discussed, and proposals for changes were made during the meeting. The steering committee members decided to modify and adopt the report between sessions.

Discussions took place regarding actions to be taken before the end of the actual MoU, such as the final report or the drafting of a new MoU.

Finally, discussions took place regarding potential further improvements to the FAD Watch module of *ShoreManager* software. These discussions will continue at the next steering committee meeting.

4. Saya de Malha missions

4.1. Preparation and debriefing

Two SCGV Saya de Malha missions were organised in 2024 and 2025. Prior to each mission's ,start steering committee meetings were held. These meetings laid out what the required outcomes from the SCGV Saya de Malha deployment during the missions should be.

Prior each mission, SFA provided training and familiarisation with the FAD Watch module of *ShoreManager* software as well as dFAD component familiarisation and basic data collection awareness was provided to SFA technicians, students from the Seychelles Maritime Academy (SMA), SCG personnel and divers.

Presentations were prepared and provided to the students in charge of collecting data during missions. These presentations focussed on FADs in general, the materials and the conditions they were likely to encounter. Historical data on strandings and transit events helped planning (see Table 1).

Table 1. Historical *Shoremanger* data relating to strandings and transit events on the selected islands

Island	2021		2022		2023		2024		2025	
	Transit	Stran- ded	Transit	Stran- ded	Transit	Stran- ded	Transit	Stran- ded	Transit	Stran- ded
Alphonse	25	6	108	8	122	10	138	0	53	7
Aride	1	5	49	1	58	1	23	1	17	0
Assomption	30	1	104	1	138	2	114	3	18	0
Astove	23	3	111	4	111	5	92	3	27	2
Coetivy	9	1	42	2	52	15	28	5	10	0
Cosmoledo	27	3	163	7	151	4	121	5	16	3
Desnoeufs	3	0	55	1	39	0	45	2	14	0
Desroches	12	4	152	3	225	1	104	3	59	3
Farqhar	27	6	71	14	74	8	64	11	14	0
Marie-Louise	5	3	57	0	39	2	62	5	18	0
Platte	1	1	38	5	46	8	14	2	24	0
Poivre	8	1	70	4	67	2	46	5	9	0
Providence	6	0	44	6	39	7	32	12	4	1
Remire	2	0	46	8	41	8	36	4	13	3
Sihouette	22	1	243	1	195	1	138	0	43	2
Total	201	35	1353	65	1397	74	1057	61	339	21

4.2. First mission of the SCGV Saya de Malha

The first mission of the SCGV Saya de Malha took place from 26 November to 16 December 2024. The mission visited 12 islands: Providence, Ile Cerf, Farquhar, Astove, Assumption, Aldabra, Cosmoledo, Saint François, D'arros, Saint Joseph, Remire and African Banks (Figure 1). It should be noted that some of these islands are not included in the FAD Watch project. Recovery on these islands therefore had to be carried out without the help of the FAD Watch module of *ShoreManager* software.

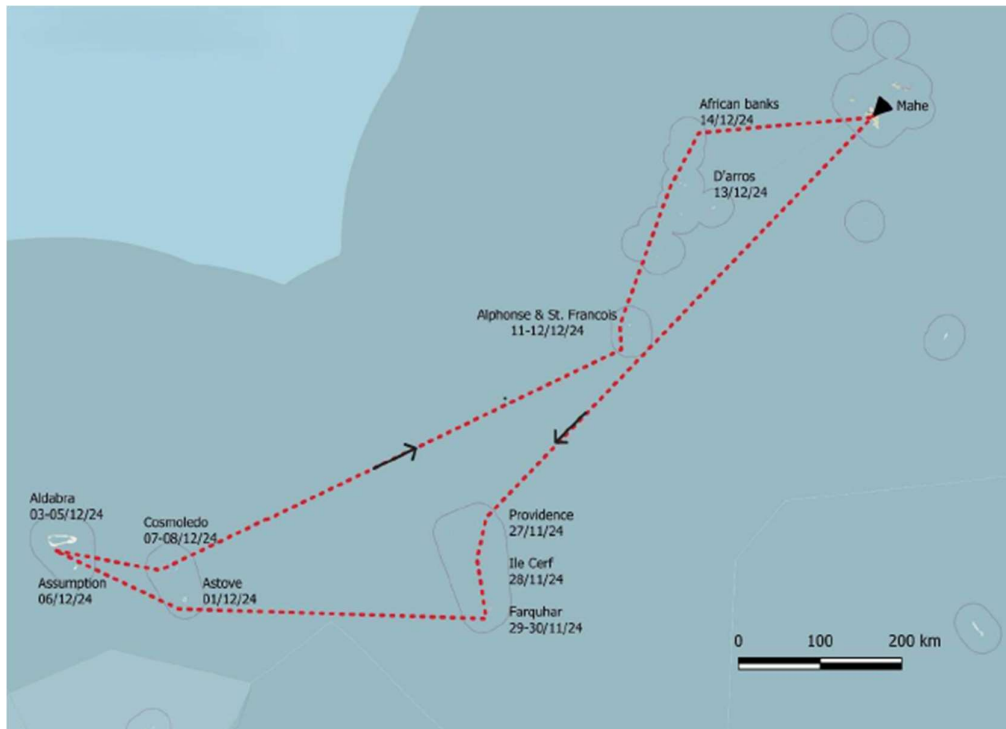


Figure 1. First mission track of SCGV Saya de Malha

Sixty-seven FADs were recovered during the first campaign of the SCGV Saya de Malha. The condition of these FADs was assessed by the observers (Table 2). Forty-three FADs were partial at the time of recovery, meaning that some parts of the FAD (raft, ropes, etc.) were missing, and 17 FADs were recovered whole. For seven FADs, the condition was not collected or could not be determined. 40 FADs were recovered stranded on the beach and 13 FADs were caught on the reef. Seven FADs were intercepted in transit or in the lagoon area. Four FADs had been recovered prior to the mission by management teams on the islands and were taken on board the SCGV Saya de Malha to be brought back to Mahé.

Information on the components was collected for 88% of the FADs, i.e. 59 FADs out of the 67 recovered. The majority of the FADs were composed of synthetic elements (58 FADs) and metallic elements (29 FADs). Ten FADs also included natural elements such as bamboo or biodegradable ropes. Meshing components were noted for 15 recovered FADs. One FAD recovered was also associated with a longline gear.

Table 2. Condition and location of FADs recovered during the first mission of SCGV Saya de Malha.

At sea = FAD in transit or in the lagoon area. NC = not collected.

	Whole FAD				Partial FAD				Unknown condition				Total
	Beach	Reef	At sea	NC	Beach	Reef	At sea	NC	Beach	Reef	At sea	NC	
Aldabra		1		1	4	4			1				11
Alphonse			1	4									5
Astove					11				1				12
Cosmoledo		1	1		1	1		1	1	1			7
D'Arros			1							1			2
Farquhar		2			10		2	1	1				16
Ile Cerf	1	1			3					1			6
Providence	2				4								6
St. François			1				1						2
Total	3	5	4	5	33	5	3	2	4	3			67
	17				43				7				

Seventy-five instrumented buoys were recovered during the first SCGV Saya de Malha mission (Table 3). Thirty-eight instrumented buoys were found attached to a FAD and 37 were found alone. Seventy-two per cent of the instrumented were recovered on the beach.

Table 3. Location of instrumented buoys recovered during the first mission of SCGV Saya de Malha.

At sea = buoy in transit or in the lagoon area. NC = not collected.

	Attached to a FAD				Alone				Total
	Beach	Reef	At sea	NC	Beach	Reef	At sea	NC	
African Banks					1				1
Aldabra	2	3		1	4	2			12
Alphonse			1	1					2
Astove	6				4				10
Cosmoledo	1	2	1	1	4	1		1	11
D'Arros		1							1
Farquhar	12				8	4		2	26
Ile Cerf	3				1				4
Providence	3				4				7
St. François					1				1
Total	27	6	2	3	27	7		3	75
	38				37				

4.3. Second mission of the SCGV Saya de Malha

The second mission of the SCGV Saya de Malha took place from 10 March to 24 March 2025. The mission visited nine islands: Silhouette, Aride, Coëtivy, Desnoeuvs, Marie-Louise, Poivre and Ile du Sud, Desroches, Remire (Figure 2).

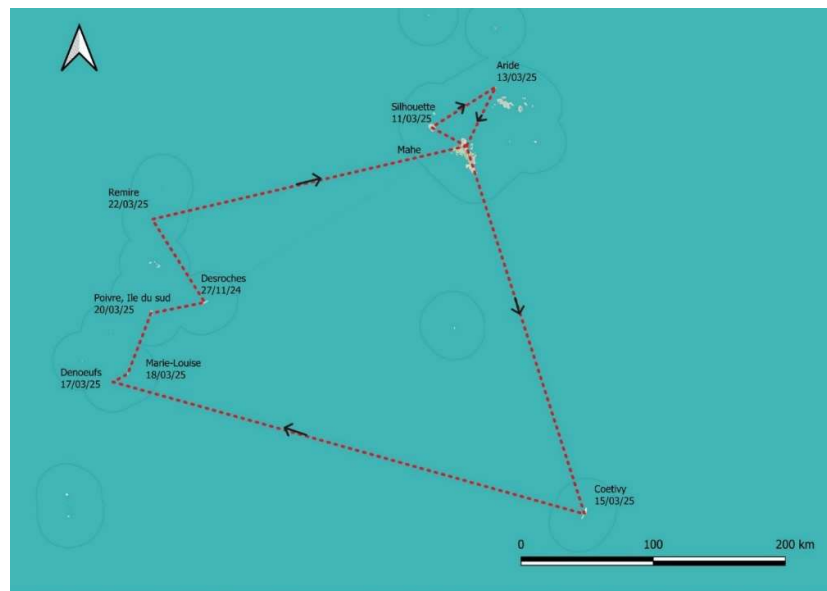


Figure 2. Second mission track of SCGV Saya de Malha

Twenty-two FADs were recovered during the second campaign of the SCGV Saya de Malha. The condition of these FADs was assessed by the observers (Table 4). Six FADs were partial at the time of recovery, meaning that some parts of the FAD (raft, ropes, etc.) were missing, and 15 FADs were recovered whole. For one FAD, the condition was not collected or could not be determined. Ten FADs were recovered stranded on the beach and ten FADs were caught on the reef. One FAD was intercepted in transit or in the lagoon area. Six FADs had been recovered prior to the mission by management teams on the islands and were taken on board the SCGV Saya de Malha to be brought back to Mahé.

Information on the components was collected for 91% of the FADs, i.e. 20 FADs out of the 22 recovered. The majority of the FADs were composed of synthetic elements (20 FADs) and metallic elements (18 FADs). Two FADs also included natural elements such as bamboo or plants material. Meshing components were noted for seven recovered FADs.

Table 4. Condition and location of FADs recovered during the second mission of SCGV Saya de Malha. At sea = FAD in transit or in the lagoon area. NC = not collected.

	Whole FAD				Partial FAD				Unknown condition				Total
	Beach	Reef	At sea	NC	Beach	Reef	At sea	NC	Beach	Reef	At sea	NC	
Aride	1												1
Coëtivy	1	1			1								3
Desnoeufs		2			1								3
Desroches		3											3
Marie-Louise	1				1								2
Poivre, Ile du Sud	1	1	1	1	2				1				7
Remire		2				1							3
Total	4	9	1	1	5	1			1				22
	15				6				1				

Twenty-two instrumented buoys were recovered during the second SCGV Saya de Malha mission (Table 5). Eleven instrumented buoys were found attached to a FAD and 11 were found alone. Thirteen instrumented buoys were recovered on the beach, eight were caught on reefs and one in mangroves.

Table 5. Location of instrumented buoys recovered during the second mission of SCGV Saya de Malha. At sea = buoy in transit or in the lagoon area.

	Attached to a FAD				Alone				Total
	Beach	Reef	At sea	Mangrove	Beach	Reef	At sea	Mangrove	
Aride	1								1
Coëtivy	1				4				5
Desnoeuifs	1	2			1				4
Desroches		3							3
Marie-Louise					1				1
Poivre, Ile du Sud					4			1	5
Remire		3							3
Total	3	8			10			1	22
	11				11				

5. Conclusions and next phase

The two SCGV Saya de Malha campaigns visited 22 islands and recovered 89 FADs and 97 instrumented buoys. Forty-nine FADs were partial and 32 complete. Most of the FADs were found stranded on the beach. It should be noted that ten FADs had been recovered by the management teams present on the islands prior to the campaigns. These FADs were taken aboard the Saya de Malha for transport back to Mahé.

Although improvements were made during the project to the forms and the FAD Watch module of *ShoreManager* software, the two campaigns showed that further improvements were needed. Firstly, the data collection forms need to be improved, particularly with regard to the condition of the FADs recovered (whole or partial). Not all FADs have the same design and it can therefore be difficult to determine the condition of recovered FADs. An improvement to the FAD Watch module of *ShoreManager* software is also envisaged to improve the alert zones around the islands in order to help the SCGV Saya de Malha during the campaigns.

Consideration will be given to full coverage of all selected islands during the two inter-monsoon seasons per year, budget permitting. This will probably require splitting each mission into two separate missions per inter-monsoon period.

Other improvements such as the inclusion of local NGOs to improve the efficiency of the project, selected invitations for scientific participation, or the inclusion of new islands in the FAD Watch module of *ShoreManager* software are also envisaged in the longer term.

The project partners will also be working on drafting a new MoU to enable the FAD Watch project to continue, taking into account the results of the two campaigns carried out by the SCGV Saya de Malha.
