Farikede Area Conservation Action Plan 2026-2036











Contents

1.	List of	f Acronyms	1
2.	Execu	utive Summary	2
3.	Introd	luction	3
4.	Desci	ription of Farikede Area	3
	4.1.	Location/ Oceanography	4
	4.2.	Marine Biodiversity	5
	4.3.	Human Activities	5
	4.3.1.	Dive Tourism	5
	4.3.2.	Small-scale fishing	6
	4.3.3.	Transport routes	6
5.	Key √	alues of Farikede Area	6
	5.1.	Internationally important populations of threatened shark & ray species	6
	5.1.1.	Coral reef supporting habitat	8
	5.2.	Economic value associated with dive tourism	8
	5.3.	Social and cultural value associated with fishing	8
6.	Threa	its, Constraints & Opportunities	9
	6.1.	Threats	9
	6.2.	Constraints	10
	6.3.	Opportunities	11
7.	Gove	rnance	11
	7.1.1.	Key Stakeholders	12
8.	Bound	dary and Permitted Activities	13
9.	Visior)	14

10. Mana	agement Principles	15
11. Mana	agement Objectives and Actions	16
11.1.	Objectives	16
11.2.	Management Actions	16
12. Com	pliance and Enforcement	21
13. Moni	itoring and Evaluation	22
13.1.	Monitoring	22
13.2.	Research	23
13.3.	Management Effectiveness Evaluation	24
13.4.	IUCN Green Listing Indicators Assessment	24
14. Refe	rences	25
14.1.	Appendix 1 – Species List	26
14.2.	Appendix 2 – Basic Monitoring Plan	27

1. List of Acronyms

CAP Conservation Action Plan

EPA Environmental Protection Agency

FCC Fuvahmulah City Council

ISRA Important Shark and Ray Area

IUCN International Union for Conservation of Nature

MOTE Ministry of Tourism and Environment

METT-4 Management Effectiveness Tracking Tool, version 4

MPA Marine Protected Area

MWSRP Maldives Whale Shark Research Programme

OCPP Ocean Country Partnership Programme

UNESCO The United Nations Educational, Scientific and Cultural Organization

PAME Protected Area Management Effectiveness

WTP Willingness to Pay

2. Executive Summary

To be completed once all sections finalised.



3. Introduction

Farikede Area was established as a Marine Protected Area (MPA) under the Environmental Protection and Preservation Act (Law no. 4/93) on the 22nd of July 2020 and covers an area of 636.75 hectares. The MPA forms a core area of the Fuvahmulah UNESCO Biosphere Reserve in Fuvahmulah City Island Atoll, southern Maldives. It was designated as a Category 6 (Habitat/Species Management Area) to sustainably preserve and maintain the biodiversity and natural resources of Farikede, and to conserve the area such that it provides sustained benefits to the local community. Farikede is a globally recognised dive site due to the number of pelagic species that frequent the area including thresher shark (*Alopias pelagicus*), oceanic manta ray (*Mobula birostris*), scalloped hammerhead (*Sphyrna lewini*) and whale shark (*Rhincodon typus*).

This Conservation Action Plan (CAP) supports the Protected Area Regulation (2018/R-78) and together they set out how Fuvahmulah City Council (FCC) and partners will manage Farikede Area, as stipulated under Article 12 of the Protected Areas Regulation (2018/R-78). The CAP describes the vision and management objectives for Farikede, and how these will be achieved, outlining short-, medium- and long-term actions for the next ten years from 2026 to 2036.

The CAP has been developed with assistance from the Ministry of Tourism and Environment (MOTE), FCC, and the UK's Ocean Country Partnership Programme (OCPP). Consultations with stakeholders and the local community were held throughout the development of the CAP from November 2024 to November 2025. Stakeholder engagement included focused meetings, online surveys and a validation workshop to help identify the key values of Farikede, develop an agreed vision and to determine priority management actions to help achieve the MPA's objectives. The CAP was also informed by a Protected Area Management Effectiveness (PAME) evaluation of Farikede Area that was completed between 2024 and 2025.

4. Description of Farikede Area

Farikede Area is designated as a Category 6 Habitat/Species Management Area under the national Maldives Protected Area Categories. This is the equivalent of the IUCN Protected Area Category IV Protected Area with Sustainable Use of Natural Resources. As well as forming a core area of the UNESCO Fuvahmulah Biosphere Reserve, the MPA is also included in the Fuvahmulah Atoll Important Shark and Ray Area (ISRA), recognised and delineated by the IUCN Species Survival Commission Shark Specialist Group in 2023 (IUCN SSC Shark Specialist Group, 2023).

4.1. Location/ Oceanography

Farikede is located on the southeastern edge of Fuvahmulah Island (Figure 1). It consists of a spur and groove¹ reef that extends 2km from the shore as a gentle sloping coral reef between 10 and 15m in depth (IUCN SSC Shark Specialist Group, 2023) before it drops off into a plateau at 35 to 60m (PDF, 2022). The plateau then plunges into much deeper waters, believed to potentially reach depths of around 300m. However, the depth of the MPA is not definitely known due to a lack of bathymetry data.

Due to the isolated location of Fuvahmulah, with no landmasses nearby, Farikede is susceptible to large swells and strong currents which bring nutrient rich waters to the MPA. Oceanic currents and associated ocean upwellings are influenced by the northeast monsoon (Iruvai) from January to March and the southwest monsoon (Hulhan'gu) from May to November (Shankar et al. 2002; Anderson et al. 2011).

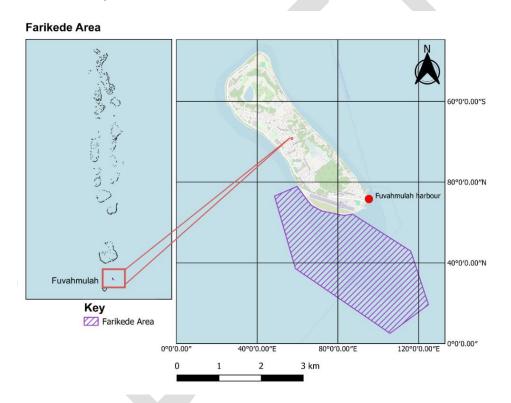


Figure 1 Map showing the location and boundary of Farikede Marine Protected Area, Fuvahmulah, Maldives

¹ A spur and groove coral reef is a type of coral reef morphology that consists of parallel ridges (spurs) separated by troughs (grooves). They are found on the outside part of the coral reef that faces open ocean.

4.2. Marine Biodiversity

The coral reef at Farikede is a good example of an oceanic reef in Maldives. While the reef has not been extensively surveyed to identify the number of coral and associated reef species present, it does include various reef forms with diverse corals, such as soft coral, mushroom corals, and cabbage gardens (Dryden et al., 2020). The reef flat is subject to excessive wave energy resulting in parts being mostly rubble. However, this wave energy brings in colder ocean currents, thought to help protect the coral from increasing sea temperatures and potentially avoid the worst risks from coral bleaching. Compared to other coral reefs across Maldives, Farikede has experienced very little bleaching to date.

The reef supports a wide range of species and ecological interactions. Due to the southern location of Farikede within the Maldives, and the colder water currents of the area, the composition of reef species in the MPA is believed to be slightly different to other reefs in central and northern Maldives. For example, there have been sightings of damsel fish species around Fuvahmulah that have not been seen elsewhere in Maldives. Large pelagic reef fish that are often sighted in the MPA include great barracudas, dogtooth yellowfin and skipjack tunas, giant trevallies, groupers, wahoo and snappers. Farikede is also one of the few places in the Maldives where ocean sunfish are seen, mostly at the end of the south-west monsoon.

The MPA is an ecologically significant site for both pelagic and reef-associated shark species (Zerr et al., 2024). Over 15 species of sharks and rays are known to utilise the area for feeding, breeding, resting and cleaning (IUCN SSC Shark Specialist Group, 2023). Most notably, the plateau hosts a pelagic thresher shark (*Alopias pelagicus*) cleaning station. Species present year-round include whitetip reef shark (*Triaenodon obesus*), silvertip (*Carcharhinus albimarginatus*), blacktip reef shark (*Carcharhinus melanopterus*), tiger shark (*Galeocerdo cuvier*) grey reef shark (*Carcharhinus amblyrhynchos*), and pelagic thresher shark (*Alopias pelagicus*). Seasonal visitors to the MPA include aggregations of scalloped hammerhead (*Sphyrna lewini*), whale shark (*Rhincodon* typus) and oceanic manta ray (*Mobula birostris*). Several other species have been recorded in the MPA including nurse shark (*Ginglymostoma cirratum*), sand tiger shark (*Carcharias taurus*), sicklefin devil ray (*Mobula tarapacana*), mako shark (*Isurus oxyrinchus*), and sickle fin lemon shark (*Negaprion acutidens*), however it is not known if they are resident or seasonal visitors.

4.3. Human Activities

4.3.1. Dive Tourism

Farikede is a popular drift dive site for advanced and expert scuba divers to view pelagic shark species, particularly, thresher sharks at the cleaning station and schooling hammerheads. On average 67% of divers that stay on Fuvahmulah participate in diving activities at Farikede (Araujo et al., 2024) with the high season taking place from January to June. However, difficult dive conditions due to strong currents limit the number of days when diving can take place in the MPA. Resulting in an average 193 dive days per year (range 70-300 days, 53% of all days) (Araujo et al.,

2024). The average dive group size taken to Farikede is 11.3 divers (range 4-20), with two dive guides per group on average (Araujo et al., 2024). Based on the current number of dive operators in Fuvahmulah (n=12), on a good day an average of 156 divers could be present in the MPA, noting that some operators have more than one vessel and this does not include liveaboards. Between December to April, liveaboards are present in Fuvahmulah with an average of 4-5 visiting at one time. Although, the extent to which the liveaboards use Farikede Area is not known.

4.3.2. Small-scale fishing

Alongside dive tourism, Farikede is used by the local community for small scale artisanal fishing, mostly for recreational purposes but some fishers also sell their catch when able to do so. Due to the currents and waves that frequent the area, fishing on the reef mainly takes place between December and February when conditions are calmer. During this time there could be 2-3 small boats (under 8 metres) a day targeting reef fishes using rod and line or handline methods. Reef fish species are sometimes also taken as live bait for tuna fishing. On exceptionally calm days, experienced free divers hand catch lobster within the MPA (although this is very rare).

4.3.3. Transport routes

Farikede is located at the south of Fuvahmulah island, approximately 0.50km from Fuvahmulah harbour at its closest point. Consequently, any vessels travelling to and from the harbour from the south are likely to transit through the MPA. This includes ferries, fishing vessels, liveaboards and dive boats. The ferry route to Addu City runs through the MPA four times a day (one return trip in the morning and a second return trip in the afternoon) seven days a week. On occasions when the waves are too large in the MPA, vessels will transit around the boundary of the MPA or sometimes travel north from the harbour and travel around the island instead for calmer conditions. However, this adds considerable time and expense to travel. Cargo ships are not likely to transit the MPA as they mostly originate from Malé, therefore they do not transit far enough south to enter the MPA.

5. Key Values of Farikede Area

5.1. Internationally important populations of threatened shark & ray species

Farikede is internationally recognised as part of the Important Shark and Ray Area (ISRA) in Fuvahmulah and is nationally important for its vast range of threatened shark and ray species that use the site. To date, over 15 species of shark and ray have been recorded in the MPA. Of these, one is listed as Critically Endangered, nine as Endangered, four as Vulnerable and one as Near Threatened on the IUCN Red List². Table 1 provides an overview of identified species,

² IUCN Red List categories as of March 2025

acknowledging that some sightings have not been recorded to species level e.g., species of eagle ray and mobula ray. Furthermore, this includes citizen science data such as observed sightings by divers and therefore this is not an exhaustive list.

Table 1 IUCN Red List categories for shark and ray species recorded in Farikede Area MPA.

IUCN Red List Category	Shark & Ray Species	Level of residency
Critically Endangered	Scalloped hammerhead shark	October - May
Endangered	Grey reef shark	Resident
	Oceanic manta ray	March-May
	Shortfin mako shark	One sighting
	Shorthorned pygmy devil ray	Occasional sighting
	Sickfin devil ray	Occasional sighting
	Sicklefin lemon shark	Occasional sighting
	Smalltooth sand tiger	Occasional sighting
	Thresher shark	Resident
	Whale shark	February – April
Vulnerable	Blacktip reef shark	Resident
	Silvertip reef shark	Resident
	Tawny nurse shark	Unknown
	Whitetip reef shark	Resident
Near Threatened	Tiger shark	Resident

The MPA is of particular importance for the following species of shark and ray:

- Regionally important cleaning station for endangered pelagic thresher shark: The
 waters of Farikede host one of only a few known sites in the Maldives and Western Indian
 Ocean where pelagic thresher sharks are observed at cleaning stations (IUCN SSC Shark
 Specialist Group, 2023).
- Nationally important oceanic manta ray hotspot: Fuvahmulah has been identified as an
 important location for oceanic manta ray in Maldives with 86% of national sightings
 recorded here (S Hilbourne unpubl. data 2023 cited in IUCN SSC Shark Specialist Group,
 2023), of which Farikede is a hotspot.
- World's largest known aggregation of tiger sharks: Fuvahmulah is home to the world's largest known tiger shark aggregation with a total of 239 individual sharks identified in the area (Vossgaetter et al., 2024). Of these individuals, 84% are female and represent both juvenile, adults and pregnant adults. It is thought that the waters of Fuvahmulah provide suitable conditions for gestation. Farikede is a hotspot for tiger shark sightings compared to other reefs around Fuvahmulah. It is suggested that their association with the site may be due to its unique topography, compared to other areas around Fuvahmulah (Zerr at al., 2024).
- National hotspot for large, female whale sharks: Whale sharks sighted at Farikede are significantly larger than populations in other areas of Maldives with individuals measuring on average 770cm with estimates of larger individuals ranging between 850-1,400 cm in length compared to 567cm at South Ari Atoll (IUCN SSC Shark Specialist Group, 2023).
 Ninety percent of whale sharks encountered (where sex has been determined) are also

female, which shows a high female sex bias compared to the rest of Maldives (South Ari 91% male sex bias (Perry et al., 2018)) and accounts for 38% of entire female sightings in Maldives (MWSRP unpubl. Data 2023). Indicating that the MPA may be a potential aggregation site for female whale sharks.

 Nationally important aggregations of critically endangered scalloped hammerheads: Seasonal aggregations of the critically endangered scalloped hammerhead can be seen at the plateau reef in Farikede between October – May. Schools of up to 30-60 scalloped hammerheads have been documented by divers every year since 2016 (IUCN SSC Shark Specialist Group, 2023).

5.1.1. Coral reef supporting habitat

The structural complexity of the coral reef and oceanic processes it is subjected to (strong currents) supports the abundance of shark species found within the MPA. The site provides resting places and ample feeding opportunities (Zerr at al., 2024; IUCN SSC Shark Specialist Group, 2023; Espinoza et al., 2014 and 2015).

5.2. Economic value associated with dive tourism

Farikede is a world class dive site due to the sheer abundance of pelagic shark species that can be observed in one dive. It is a key attraction for divers and provides an experience that cannot be experienced elsewhere in Maldives. As a result, it contributes to the success of the dive tourism industry in Fuvahmulah which has undergone rapid expansion in recent years from one dive centre in 2013 to 12 in 2025 (Araujo et al., 2024). Farikede Area potentially provides an estimated direct economic value of 1,800,000³ USD per year (Araujo et al., 2024).

5.3. Social and cultural value associated with fishing

Reef fishing in the MPA holds social and cultural significance, serving as both a cherished pastime and a connection to ancestral traditions. The reef flat within Farikede Area offers favoured fishing grounds for the local community where traditional reef fishing practices such as *Elhevadiedun* are used to target species such as goatfish and squirrelfish.

³ Estimated value based on average dive group of 11 divers across 12 boats with an average dive price of 71 USD multiplied by 193 days in the year (average number of days Farikede may be accessible to dive) (Araujo et al., 2024). Figure doesn't include liveaboards or multiple boats owned by some operators.

6. Threats, Constraints & Opportunities

6.1. Threats

The key threats to the marine environment and associated biodiversity of Farikede Area have been identified by stakeholders and summarised below in order of impact, starting with those that pose the greatest threat. Action to mitigate high risk threats should be prioritised where possible.

Climate Change

Coral bleaching due to increased sea temperatures is seen as one of the greatest threats to the MPA and Fuvahmulah as a whole. Currently, the coral reef at Farikede is in good condition and has shown resistance against bleaching events that have affected other reefs across Maldives. However, if this was to change it would have disastrous impacts on the species and people who depend on a healthy reef. A degraded reef due to coral bleaching could result in a potential decline of reef dependent shark species such as the pelagic thresher shark, which would negatively affect dive tourism. It would also result in population declines for reef fishes, negatively impacting the wider ecosystem and local fishing community. Increased sea temperatures and changes in oceanic processes such as a reduction in ocean upwelling which reduces the amount of nutrient-rich cold water brought up to the surface has been evidenced across the Indian Ocean (Harris et al., 2020) and poses a very real threat for the future for Farikede.

Recreational activities and tourism

The number of divers using the MPA has increased over recent years due to an expansion in tourism on the island. Current levels are believed to be at sustainable levels with few negative impacts on marine life observed, although minor damage to the coral reef has been noted due to divers accidentally kicking or grabbing hold of coral during strong currents. If diver numbers continually increase it could result in greater disturbance to wildlife. Shark diving Codes of Conduct have been developed by dive operators to minimise impacts during interactions with sharks, including specific guidelines for thresher sharks which are known to be timid and susceptible to disturbance. The Code of Conduct include guidelines on dive group sizes but does not include suggested limits on the overall daily visitor numbers for divers in the MPA.

Diving at Farikede is technical with strong currents, subsequently, it is informally agreed that divers must be a minimum PADI Advanced level to visit the site. However, this guidance is not followed by all dive operators and could jeopardise the reputation of the MPA as a world-class dive site if an incident were to occur.

Extraction of natural resources

The MPA provides important fishing grounds for the local community who use low-impact fishing methods such as pole and line, trolling, handline, and hand diving. However, there is no data available on fishing effort in the MPA to inform whether fishing is currently within sustainable limits. Bycatch of sharks is also a possibility, including deep sea shark species, but the extent to which sharks are accidentally caught and the impact on individual post-release survival is not known. Shark depredation (the partial or complete removal of a hooked fish by a shark from an angler's line before the line can be retrieved) is also an increasing concern for local fishers in the area.

Illegal sand extraction along the shore boundary of the MPA is an occasional issue. FCC have guidelines in place to stop this activity however, there are difficulties in implementing and enforcing the guidelines therefore, sand extraction is an ongoing threat.

Boat traffic in and around the MPA

Farikede is situated in the southwest of Fuvahmulah, close to the harbour entrance, therefore vessels travelling to and from the harbour in this direction are likely to transit through the MPA, including the twice daily ferry to Addu City. Due to the strong currents in the area vessels tend to keep up speed when transiting the site for safety reasons. High travel speed could pose a collision risk with marine life such as manta rays on the surface and divers. This risk is reduced for divers as operators use a dive flag when in the water to highlight their location. Therefore, there remains a low risk for vessel collisions with marine life.

Additionally, despite anchoring being prohibited within the MPA (in any situation other than an emergency in which a person's life is in danger) it does take place and has been observed to cause damage to the coral and reef. There may be a lack of awareness around this rule.

Development activities around the MPA

Future plans to develop Fuvahmulah airport and extend the length of the runway pose an uncertain threat to the MPA due to the airport's proximity to the MPA. There is a potential risk that expansion could fall within the boundary of the site and/or development activities could negatively impact the area through increased sedimentation and changes to ocean processes due to reclamation. However, development would be subject to Environmental Impact Assessments (EIAs) and necessary mitigation measures to reduce negative impacts on the MPA would be sought.

Pollution

A combination of inadequate waste management systems on Fuvahmulah, inappropriate disposal of organic waste close to the island from vessels and littering pose pollution risks to the marine environment generally, and this could include the Farikede Area.

6.2. Constraints

The following issues have been identified by stakeholders as constraints to the effective management of the MPA.

Governance

There is currently no staff, resources or funding allocated to undertake management and monitoring related to the MPA.

The police and other law enforcement officers are not fully aware of the regulations governing MPAs.

Community Awareness

There is a critical gap in community awareness related to the MPA and a wider lack of understanding about the importance of protecting marine life.

User Conflict

In Farikede, there are conflicts between tourism operators and fishermen, both of whom seek to generate income and undertake leisure activities in the same areas.

6.3. Opportunities

Farikede Area offers a number of opportunities for the local community and visitors.

Tourism

Economic benefits from dive tourism, with tourists attracted to Farikede due to the unique opportunity of seeing several large charismatic pelagic shark species including the pelagic thresher shark, schooling hammerheads, and whale sharks. The designation of Fuvahmulah Atoll as a Biosphere Reserve provides an opportunity for greater tourism potential in the future. Greater use of Fuvahmulah's Biosphere Reserve status could also bring wider benefits to the community.

Research and education

Being one of the few known locations in Maldives to view several pelagic shark species at once, the MPA offers an ideal opportunity to study and learn more about these endangered and threatened species. Research will build international knowledge and understanding that could be used to advance efforts in saving these species from extinction. This research also presents an exciting opportunity for the local community and visitors to access and learn from cutting edge science and provides avenues to improve awareness about the MPA.

Visitors to the site also provide an opportunity for developing citizen-science programmes which can support the collection of long-term datasets

New partnerships

The effective management and monitoring of the MPA will rely upon cross-sectoral partnerships between government and non-government bodies, working together to achieve the objectives of the site. The decentralised process in Maldives enables Fuvahmulah City Council to lead the management of the MPA, whilst drawing upon national expertise as required. The MPA also provides the opportunity to strengthen existing relationships and build new ones which will not only benefit the MPA but also wider local and national environmental management. It will also promote cross learning and understanding from different stakeholder views and experiences.

7. Governance

Farikede Area is managed by several organisations across government with monitoring and outreach efforts supported by dive operators and NGOs. Fuvahmulah City Council are ultimately responsible for the MPA with support from the Ministry of Tourism and Environment and the EPA. The governance structure for the management of the site is summarised in Table 2.

Table 2 Organisations and their roles in supporting the management of Farikede Area

Organisation

Role & Responsibilities

Fuvahmulah City Council	Responsible for the implementation of the Conservation Action Plan. Lead day-to-day management operations including managing visitor use, and collection of monitoring data.
Fuvahmulah Biosphere Reserve Advisory Committee (Consists of representatives from Fuvahmulah City Council, EPA, Ministry of Tourism and Environment, Diving Association of Fuvahmulah, Liveaboards sector, Fuvahmulah guesthouses)	Provide advice to the Council on the management of the MPA. Responsible for broader ecological monitoring e.g., annual reef check surveys
Ministry of Tourism and Environment (Environment Management and Conservation Department)	Provide policy steer and technical support to ensure objectives of the MPA are obtained.
Environmental Protection Agency (EPA)	Regulatory and enforcement authority. Non-compliance with the MPA regulation is reported to and dealt with by the EPA. Issue permits related to research and monitoring.
Maldives Police Service and Coast Guard	Can assist enforcement of MPA regulations.
Other – e.g., dive operators and NGO's	Can support monitoring, research and outreach activities.

7.1.1. Key Stakeholders

In addition to the key organisations that are responsible for the management of Farikede Area (Table 2) the following are key stakeholders of the site:

Stakeholders who directly use the site:

- Fuvahmulah fishing community small-scale fishing
- Fuvahmulah based dive operators dive trips and research
- Dive liveaboards dive trips
- NGOs undertaking research and education
- Transport services e.g., ferries

Other stakeholders:

 Fuvahmulah Community – Over 9000 people live in Fuvahmulah (2022 Census) all of which indirectly benefit from the MPA. Some members of the community financially benefit from the MPA due to the tourism and fisheries it provides e.g., guest houses, gift shops and

restaurants. Whilst others may use the MPA for recreational, educational or wellbeing purposes.

· Other NGOs not directly involved in the MPA.

8. Boundary and Permitted Activities

Farikede Area covers an area of 636.75 hectares/ 6.37km². The boundary runs along the southwest shoreline of Fuvahmulah and out to sea, covering the reef plateau. The boundaries' furthest point from land is 2.98km.

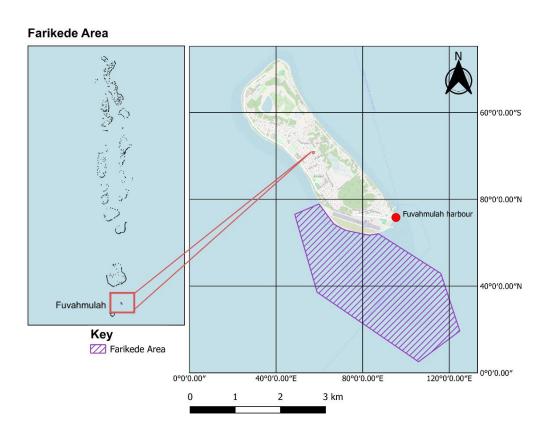


Figure 2 Map of Farikede Area boundary

Farikede is a multi-use MPA meaning some human activities that do not negatively impact the objectives of the MPA are allowed. This includes activities such as scuba diving and low impact fishing methods. The following list outlines activities that are prohibited in the MPA:

Actions prohibited in Farikede Area:

1. Dropping anchor in any situation other than an emergency in which a person's life is in

danger.

- 2. Capturing, taking, and killing birds from this area.
- 3. Removing or taking of rocks, sand, and coral rubble.
- 4. Dumping any type of waste in the area.
- 5. Any action of aquaculture/ mariculture.
- 6. Introducing any species of living thing.
- 7. Dredging and reclamation.
- 8. Lightpooling (using any kind of lights to attract fish).

Actions allowed with special permission under an established guideline:

- 1. Civillians/tourists visiting the MPA⁴
- 2. Research

Any research in the MPA must be approved prior to commencement by the EPA and the relevant permits provided. Guidance on the application process can be viewed on the <u>OneGov website</u>. If seeking to use drones in the MPA, permission from the Civil Aviation Authority and Maldives National Defence Force is required due to the MPA's proximity to Fuvahmulah airport.

Guidelines for wildlife interactions:

Under the Protected Species Regulation several guidelines for snorkel and dive interactions with protected species apply to the MPA to minimise human disturbance. Guidelines exist for:

- Whale sharks
- Manta rays
- Sea turtles

Additionally, guidelines are also in place for interactions with birds.

Voluntary guidelines for shark diving interactions have also been developed in collaboration with dive operators in Fuvahmulah alongside government. When diving in the MPA all divers should adhere to these <u>quidelines</u> which include specific codes of conduct for diving with thresher sharks and general guidance for diving with predatory sharks.

9. Vision

The vision for Farikede Area is for:

A thriving ecosystem within Farikede Area that supports sustainable activities.

⁴ There is currently no visitation system in place, this wording originates from the Farikede Announcement. It will be up to Management Authorities to decide if a visitation permit system is pursued in the future.

10. Management Principles

Management of Farikede Area will be guided by the national PCA management principles (Table 3). The seven principles will aid decision-making, support sustainable development and collaboration between the management authorities and local communities and promote the incorporation of climate change considerations into management. To learn more about these principles please refer to Maldives National Framework for Management of Protected and Conserved Areas 2024-2029.

Table 3 National management principles for protected and conserved areas in the Maldives

Theme Management Principle

	management i interpre
Overarching	Climate change aware management actions will consider monitoring and research to identify the predicted impacts of climate change on the values of the MPA to inform the development of adaptation strategies as part of an adaptive management framework.
Ecological	Ecosystem approach will be applied by ensuring management considers the ecological, social, cultural and economic values of the MPA, balancing the use of natural resources to maintain a functioning ecosystem as well as supporting the local community.
	Adaptive and evidence-based – management decisions will use best available information and knowledge gaps will be addressed through monitoring. Every 5 years a PAME evaluation will be undertaken to assess progress over time and to adapt management accordingly.
	Precautionary principle – where evidence is inconclusive the management authority will make best efforts to fill evidence gaps wiles also applying practical and proportionate precaution.
Social	Sustainable development – any activities within Farikede Area must have minimal impact on the marine environment and associated biodiversity, and must bring positive social, cultural and economic benefits.
	Collaborative – The management authority will work openly with stakeholders to foster a collaborative approach to the management of Farikede Area.
	Equitable – Inclusion and the equitable distribution of knowledge and resources is imperative to the management of Farikede Area. Effective communication with all stakeholders and the local community including women, youth and disadvantaged groups will support equal voices and opportunities during any decision-making processes.

11. Management Objectives and Actions

The management objectives and the actions described in this section provide an overview of the activities that will be undertaken over the next ten years to achieve the long-term vision of Farikede Area.

The objectives have been developed based on the key purposes for the establishment of the MPA as outlined in the announcement and stakeholder input to ensure that they are relevant to the MPA and the local community. By the end of this Conservation Action Plan in 2036, all objectives should have been achieved. Details on how the objectives can be achieved are set out in the action plan in section 11.2.

11.1. Objectives

- 1. The population sizes of the endangered and threatened shark and ray species that are known to regularly use the MPA are maintained at current levels or have increased.
- 2. The status of the coral reef is maintained at current levels or improved, to continue the supporting role it provides to the shark populations of the MPA and the local community.
- 3. Social and economic benefits provided by the MPA are reviewed, and recommendations around sustainable management will have been identified.
- 4. The appropriate strategies and resource requirements have been identified, and will be in the process of being implemented, to support the equitable, inclusive and effective governance and management of the MPA.
- 5. Understanding of the MPA is improved at a local and national scale to support engagement with the local community and visitors to Maldives.

11.2. Management Actions

The following tables outline management actions that are required to deliver each management objective and mitigate threats to the MPA (Section 6.1). Actions have been prioritised (high, medium, low) and given completion targets and outcome indicators to measure success. FCC are responsible for overseeing and co-ordinating efforts to achieve each action, with support from partner organisations as outlined in Table 2, Section 7.

Actions are based on the outputs of a management effectiveness evaluation using the METT-4 that the OCPP undertook with the MOTE and Fuvahmulah Nature Park staff and stakeholder input through online surveys, meetings and workshops in 2024 and 2025.

Table 4 Management actions to achieve objective one for Farikede Area

Objective 1. The population sizes of the endangered and threatened shark and ray species that are known to regularly use the MPA are maintained at current levels or have increased.

increased.		
Management Action	Priority	Year
1.1. Continue the phased implementation of shark diving codes of conduct.	High	1
1.2. Improve awareness of vessel speed transiting the MPA and the potential impacts of speeding on marine life.	High	2-3
1.3. Develop and implement a formalised citizen science sightings monitoring programme to collect absence/presence data for sharks and rays in the MPA. Ensuring a collaborative approach with stakeholders and external scientists.	High	3-10
1.4. Ensure that all data collected from monitoring activities is utilised, reported and used to inform adaptive management.	High	3-10
1.5. Develop and implement a permit system to allow data to be collected on the number of visitors using the MPA per month.	High	3
1.6. Investigate potential shark bycatch rates within the MPA and raise awareness of safe release best practices.	High	4
1.7. Use local knowledge via interviews with fishers and the dive community to undertake proxy assessments of historical population numbers of threatened shark species in the MPA.	Medium	4
1.8. Investigate opportunities with NGOs, dive operators and researchers to establish population studies focused on whale sharks and oceanic manta rays and explore suitable methodologies to build understanding of population dynamics and spatial use.	Medium	7
1.9. Undertake a carrying capacity study to understand sustainable dive limits for the MPA and incorporate into management.	Medium	8
Indicators of Success		gets
 Population sizes of key shark and ray species that regularly use the MPA Level of understanding of key shark and ray species in the MPA 		ain or ase ase

Table 5 Management actions to achieve objective two for Farikede Area

Objective 2. The status of the coral reef is maintained at current levels or improved, to continue the supporting role it provides to the shark populations of the MPA and the local community

Management Action	Priority	Year
2.1. Raise awareness of sand extraction guidelines amongst the local community and continue ongoing enforcement efforts.	Medium	1

2.2. Raise awareness of the prohibition on anchoring within the MPA and the impacts anchoring has on corals with vessel users.	High	2
2.3. Undertake a baseline condition assessment of Farikede focusing on the entire marine ecosystem, using standardised methods comparable to the rapid assessment undertaken in 2017/18 by IUCN and the Ministry of Environment.	High	2-3
2.4. Raise awareness of responsible waste management amongst Liveaboards and the local community including the effects of littering on the marine life of the MPA	Low	2
2.5. Ensure that all data collected from monitoring activities is utilised, reported and used to inform adaptive management.	High	3-10
2.6. Undertake annual monitoring of the coral reef using a standardised method in collaboration with local dive operators and NGOs.	High	4-10
2.7. Install SmartBuoys in the MPA to collect environmental data on oceanographic conditions e.g., sea temperatures	Medium	8-10
2.8. Undertake a reef resilience study of the coral reef to gain a greater understanding of the reef's resilience or vulnerability to climate change.	Medium	8-10
2.9. Review MPA boundary using species and habitat monitoring data to confirm whether it is suitable to meet its objectives	Low	10
Indicators of Success	Target	S
 Level of understanding of the coral reef Coral reef condition: extent and diversity 		rease intain or rease

Table 6 Management actions to achieve objective three for Farikede Area

Objective 3. Social and economic benefits provided by the MPA are reviewed, and recommendations around sustainable management will have been identified.

recommendations around sustainable management win have been decirined.		
Management Action	Priority	Year
3.1. Implement a socio-economic study to assess community benefits from the MPA, including the direct annual economic value to the community and wider benefits, identifying opportunities to further benefits. Repeat survey every three years to assess change over time.	High	3, 6, 9
3.2. Undertake a review of current diving at the MPA and develop and implement recommendations to improve dive safety.	Medium	4
3.3. Assess visitor satisfaction through implementation of long-term surveys with outgoing visitors to identify gaps in visitor needs. Explore options for improving the quality of visitor services based on survey results.	Medium	4-10
3.4 . Explore options for income diversification based on the results of the socio-economic study (action 3.1).	High	5-10

Objective 3. Social and economic benefits provided by the MPA are reviewed, and recommendations around sustainable management will have been identified.			
Management Action	Priority	Year	
3.5. Trial shark deterrents to be used when fishing in the MPA to reduce the impact of shark depredation on fish catch, and reduce the risk of shark bycatch	Medium	6-7	
3.6. Develop and implement basic fisheries assessment protocols to collect data on fishing effort in the MPA to help understand and support the socio-economic benefits of the MPA.	High	3-10	
Indicators of Success	Та	rgets	
 Understanding of socio-economic benefits provided by the MPA to the local community Level of visitor satisfaction 	• Increase		

Table 7 Management actions to achieve objective four for Farikede Area

Objective 4. The appropriate strategies and resource requirements have been identified, and will be in the process of being implemented, to support the equitable, inclusive and effective governance and management of Farikede Area.

Management Action	Priority	Year
4.1. Update legal framework needed for the Farikede Area	High	1
4.2. Allocate staff to implement the management of the MPA	High	1
4.3. Develop an annual budget and secure funding to deliver MPA management	High	1-10
4.4. Develop an annual operational plan to effectively implement the MPA management plan actions	High	1-10
4.5. Once staff in place undertake regular staff training needs assessment and facilitate training as required	High	1-10
4.6. Procure essential equipment to undertake management e.g., boat, health & safety seagoing equipment	High	2-3
4.7. Explore sustainable financing mechanisms to support the implementation of management and monitoring in the future	High	2-4
4.8. Ensure management actions are regularly reviewed by the Fuvahmulah Biosphere Reserve Advisory Committee to make sure they are fit for purpose	High	2-10
4.9. Develop and implement a system to support the enforcement and compliance of MPA regulations	High	3-10
4.10. Provide training to local law enforcement officers on the legislation and regulations of the MPA. Undertake refresher training as required.	High	3

Objective 4. The appropriate strategies and resource requirements have been identified, and will be in the process of being implemented, to support the equitable, inclusive and effective governance and management of Farikede Area.

Management Action	Priority	Year
4.11. Undertake regular reviews of the MPA management plan (every 5 years using the METT-4) to support adaptive management and ensure that objectives are being met.	High	5,10
4.12. Explore use of remote technology to support compliance and enforcement	Medium	8
4.13. Develop a central database to host all data linked to the MPA which is accessible to all.	Low	9-10
Indicators of Success		gets
 Adoption and implementation of Farikede Conservation Action Plan Capacity of Management Authority 		rease

Table 8 Management actions to achieve objective five for Farikede Area

Objective 5. Understanding of the MPA is improved at a local and national scale to support engagement; amongst the local community and visitors to Maldives **Priority** Year **Management Action 5.1.** Hold regular consultation sessions with the local community to update 1-10 High them on MPA management actions and monitoring outcomes. **5.2.** Undertake a survey to establish a baseline of the local communities' awareness of Farikede Area and repeat survey every 4 years to measure 2, 6, 10 High any changes in awareness. **5.3.** Add information about the MPA to the Visit Fuvahmulah website and link to the national PCA website to improve accessibility and awareness of Medium 2 information related to the MPA **5.4.** Undertake local campaign to raise awareness of Fuvahmulah's Biosphere Reserve status and how Farikede is a core zone of the High 3 Biosphere Reserve (e.g., what does this mean for the local community and what are its benefits) **5.5.** Provide local sea users with a pocket-sized map to use at sea which Medium 4 provides information on the MPA boundary and rules. **5.6.** Develop and establish an information board at an appropriate location High 5 near the MPA to provide information about the site. **5.7.** Develop a business plan to support the development of a research centre based on Fuvahmulah that will provide educational outreach, visitor Medium 5-6 facilities and research opportunities. **5.8.** Collaborate with users of the MPA to raise awareness of the marine High 5-10 environment amongst the local community and visitors e.g., work with dive

Objective 5. Understanding of the MPA is improved at a local and natio support engagement; amongst the local community and visitors to Ma			
Management Action	Priority	Year	
operators to include information about Farikede Area on their websites; hold MPA focused educational seminar with school children etc			
5.9. Build on existing programmes to integrate additional shark education and general marine environmental science related to the MPA into the local curriculum.	Medium	8-10	
5.10. Explore the viability and benefits of hosting a Shark festival to raise awareness of the importance of shark species at the MPA and across Fuvahmulah	Low	10	
Indicators of Success		Targets	
 Level of awareness of the MPA and Biosphere Reserve status amongst the local community and visitors Level of stakeholder engagement and satisfaction with management processes 	• Incr	ease	

12. Compliance and Enforcement

Holder – this section will signpost to the regulation for details on compliance and enforcement.

13. Monitoring and Evaluation

13.1. Monitoring

Monitoring is required to track the status and condition of the MPA's key values over time, and to help assess whether the management objectives are being met. As the MPA is a core area of Fuvahmulah UNESCO Biosphere Reserve, monitoring will also inform UNESCO's periodic reviews and contribute to wider national reporting on the status of Maldives' PCA network.

Several management actions listed in section 11.2 focus on the development of research and monitoring activities to collect data on the MPA's values. Currently, no active, regular monitoring of the reef takes place. A rapid assessment using a roaming methodology was undertaken in 2017/18 at 'Thresher Point', the limestone plateau within the MPA, but this provided limited data on the status of the coral reef across the whole site. The initial step for any monitoring programme is to conduct an ecological baseline assessment. This data collection exercise provides the initial data upon which the status of the various ecological features is assessed. Subsequent monitoring (generally seasonally or annually depending on the species or habitat) is then conducted to acquire data from which any change in status, and thus the effectiveness of any implemented management actions, can be evaluated.

There are multiple active monitoring and research programmes that collect sightings and behavioural data for several species present in the MPA. Some local dive operators manage their own sightings databases to record species encountered during dive trips. Presence data for whale shark and oceanic manta ray encounters is also submitted to national research and monitoring projects run by Maldives Whale Shark Research Programme (MWSRP) and the Maldives Manta Conservation Programme, Manta Trust. Both organisations undertake annual field trips to Fuvahmulah, of 4-6 weeks duration, to survey oceanic manta ray and whale shark populations during peak season, including within Farikede Area. This data is not currently used to inform the management of the MPA but going forward should be utilised to help measure the 'Indicators of Success' associated with each objective in section 11.2.

Monitoring of the MPA should be undertaken collaboratively between:

Fuvahmulah City Council/ Biosphere Reserve who will oversee the coordination of monitoring efforts, lead day-to-day monitoring tasks, and monitoring efforts related to social and economic aspects.

EPA and MOTE who will support ecological surveys of the reef

Local Dive Operators and NGOs based on voluntary participation can support ecological surveys and sightings data collection for threatened shark and ray species.

'Appendix 2 – Basic Monitoring Plan' provides an overview of monitoring methods, metrics and the associated outcome indicators that they support.

13.2. Research

In addition to monitoring programmes that help to track progress towards achieving the management objectives of Farikede Area, focused research projects allow for a greater depth of understanding on the values of the MPA and how they interact and connect with the wider marine environment. At the time of writing the following organisations were actively undertaking research in Farikede Area:

- Fuvahmulah Dive School
- Maldives Manta Conservation Programme
- Maldives Whale Shark Research Programme (MWSRP)
- Miyaru
- Pelagic Divers Fuvahmulah

Table 9 presents identified research needs and ideas to address knowledge gaps for the values of the MPA. Priority topics are included as management actions in section 11.2. Future research projects should refer to this table and review ongoing research to help inform research priorities and avoid duplication of effort. All research within the MPA requires a permit from the EPA before it can commence (refer to section 8).

Table 9 Research ideas to address gaps in understanding to support the objectives of Farikede Area

Theme	Research topics
Coral reef	Collect environmental data on oceanographic conditions using SmartBuoys (action 2.7) Undertake a reef resilience study of the coral reef to gain a greater understanding of the reef's resilience or vulnerability to climate change (action 2.8)
Threatened sharks & rays	Investigate potential shark bycatch rates within the MPA and raise awareness of safe release best practices (action 1.6) Investigate potential shark bycatch rates within the MPA and raise awareness of safe release best practices (action 1.6) Use local knowledge via interviews with fishers and the dive community to undertake proxy assessments of historical population numbers of threatened shark species in the MPA (action 1.7) Population studies for whale sharks to build understanding of population dynamics and spatial use (action 1.8) Population studies for oceanic manta rays to build understanding of population dynamics and spatial use (action 1.8) Build upon Zerr et al., 2024 research through multiyear telemetry studies to understand migratory behaviours of reef and pelagic shark species, identify potential mechanisms behind aggregations and peak sightings and identify additional species that may not have been present during the period analysed by Zerr at al.
Socioeconomic	Undertake a carrying capacity study to understand sustainable dive
	limits for the MPA and incorporate into management (1.9)

Theme	Research topics
	Implement a socio-economic study to assess community benefits from the MPA and identify opportunities to further benefits (action 3.1)
	Trial shark deterrents to be used when fishing in the MPA to reduce the impact of shark_predation on fish catch and reduce the risk of shark bycatch (action 3.5)

13.3. Management Effectiveness Evaluation

Evaluation of the Farikede Area CAP will determine whether management actions are achieving the desired outcomes, addressing priority management needs, and meeting the objectives of the MPA. Annual reviews, conducted by Fuvahmulah Biosphere Reserve staff in collaboration with key stakeholders, will determine whether activities have occurred as planned and will identify any issues affecting implementation and resource allocation.

The CAP will undergo a comprehensive Protected Area Management Effectiveness (PAME) review every five years using the Management Effectiveness Tracking Tool (METT) to evaluate management effectiveness. The evaluation will be completed through a consultation process with stakeholders and other interested parties. It will consider new evidence from scientific research and long-term monitoring and will assess the extent to which management actions have achieved the MPA objectives over the five-year period. The evaluation will review management actions completed, revise strategies and activities accordingly and, as appropriate, add new strategies and activities based on priority management needs and any new threats identified.

13.4. IUCN Green Listing Indicators Assessment

The CAP will undergo a comprehensive assessment of IUCN Greenlisting indicators every five years, together with the Management Effectiveness Tracking Tool (METT) to evaluate the site readiness for IUCN Greenlisting. The evaluation will be completed through a consultation process with stakeholders and other interested parties. It will consider new evidence from scientific research and long-term monitoring and will assess the extent to which management actions have achieved the MPA objectives over the five-year period. The evaluation will review management actions completed, revise strategies and activities accordingly and, as appropriate, add new strategies and activities based on priority management needs and any new threats identified.

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14.1. Appendix 1 – Species List

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14.2. Appendix 2 – Basic Monitoring Plan

Table 10 Summary of monitoring methods and metrics to collect to measure progress towards reaching targets and indicators of success associated to the objectives of Farikede Area.

rent levels or have increased. Indicators of Success	Target	Method	Metrics
Level of understanding of the coral reef	Increase	National coral reef monitoring framework:	Coral diversity% cover
Coral reef condition: extent and diversity	Maintain/ increase	Marine Seabed Sedentary Life Forms Method	Health /Coral bleaching
bjective 2. The status of the coral reef is maintaine	d at current le	evels or improved, to continue the	ne supporting role it provides to the shark
opulations of the MPA and the local community			
Indicators of Success	Target	Method	Metrics
 Population sizes of key shark and ray species that regularly use the MPA 	Maintain/ increase	Photo id of encounters added to Sharkwatch	 No. of individuals (adult/juvenile/male/female) No. of observed behaviour types e.g., courtship, feeding, travelling
 Level of understanding of key shark and ray species in the MPA 	Increase	Observation from patrols Online permit system	 No. observations of human pressures e.g., vessels using the MPA, anchoring infractions
lentified. Indicators of Success	Target	Method	Metrics
Understanding of socio-economic benefits	Increase	Questionnaire and socio-	No. of studies/reports completed
provided by the MPA to the local community	indicate in	economic study	1 No. of studies/reports completed
		economic study Online feedback form	% of visitors satisfied with the service and quality of their experience
 provided by the MPA to the local community Level of awareness of visitor satisfaction 		Online feedback form	% of visitors satisfied with the service and
 provided by the MPA to the local community Level of awareness of visitor satisfaction bjective 5. Understanding of the MPA is improved a 		Online feedback form	% of visitors satisfied with the service and quality of their experience