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Minister of Fisheries and Ocean Resources Ahmed Shiyam
Velaanaage Building, 7th Floor
Ameer Ahmed Magu
Male', Maldives

cc: Ministry of Climate Change, Environment and Energy
The President's Office

11th June 2024

Dear Minister Shiyam,

As a coalition of ocean-focused NGOs based or working in the Maldives, we are writing to you in response to recent media articles suggesting that the Ministry of Fisheries & Ocean Resources is considering the possibility of lifting the shark fishing ban in the Maldives.

While we appreciate that media articles can often be misleading, or misrepresent the facts, we would nevertheless like to take this opportunity to engage with the Ministry and offer whatever support and assistance that might be appropriate regarding sharks in Maldives.

Impacts of Shark Fishing:

We acknowledge that a handful of businessmen, and some fishers, are motivated to reopen shark fishing, perhaps because of perceived economic gain, negative perceptions of sharks by some in the general public, and losses of line-caught reef fish to sharks in parts of the country[1]. However, we believe these factors should be weighed against other important considerations. Sharks have many economic and ecological benefits that have built up due to their protected status, and which would decline rapidly as a consequence of fishing.

As we are sure you are already aware, sharks are highly vulnerable to overfishing and depletion, due to their large body size, late maturity, and low reproductive

[1] Robinson et al. 2022. Fisher–shark interactions: A loss of support for the Maldives shark sanctuary from reef fishers whose livelihoods are affected by shark depredation. Conservation Letters. 2022; 15:e12912; doi.org/10.1111/conl.12912

output[2]. Their vulnerability is clearly evidenced from multiple locations across the world and is manifested in two ways: the outright loss of the most vulnerable species from many places in the world, and the severe depletion (>90% decline) of multiple species in countries where shark fishing is permitted[3]. Because of past and present overfishing, sharks are among the most endangered of all marine species globally. It is estimated that since 1970, oceanic shark and ray populations worldwide have declined by 71% and ⅓ of all shark species are now threatened by extinction[4]. With many critically endangered shark species inhabiting the waters of the Maldives, the Maldives Shark Sanctuary plays a crucial role in safeguarding the future of these animals.

Reef associated sharks have experienced exceptional losses. The most comprehensive study to date, taking in 15,000 surveys of 371 reefs in 58 nations, found no sharks at all on almost 20% of the surveyed reefs[5]. Reef sharks were almost completely absent from reefs in several nations and depletion was strongly related to indicators of proximity and intensity of exploitation. An estimated 59% of all coral reef associated sharks and rays are threatened with extinction[6].

Shark Tourism and Improving Regulations:

Against this backdrop of widespread global decline and loss, the Maldives is a shining example of conservation success, with the recent designation of Important Shark and Ray Areas being a noteworthy achievement. The sustained recovery of sharks following the implementation of the shark fishing ban in 2009-2010 is also rightly applauded internationally. Their renewed abundance is a major factor attracting scuba diving tourists to the country, particularly given the scarcity of places globally that have healthy shark populations today.

The direct revenue from such tourism in the Maldives is estimated at US$14.4 million, with an additional US$51.4 million generated for local businesses, clearly demonstrating that the value of living sharks is many times greater than those caught

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[2] Ferretti et al. 2010. Patterns and ecosystem consequences of shark declines in the ocean. Ecology Letters (2010) 13: 1055–1071; doi: 10.1111/j.1461-0248.2010.01489.x
[3] Roff et al. 2022. The Ecological Role of Sharks on Coral Reefs. Trends in Ecology and Evolution 31: 395-407; doi.org/10.1016/j.tree.2016.02.014
[4] Pacoureau et al. 2021. Half a century of global decline in oceanic sharks and rays. Nature 589: 567; doi.org/10.1038/s41586-020-03173-9
[5] MacNeill et al. 2020. Global status and conservation potential of reef sharks. Nature 583: 801; doi.org/10.1038/s41586-020-2519-y
[6] Sherman et al. 2022. Half a century of rising extinction risk of coral reef sharks and rays. Nature Communications 14: 15; doi.org/10.1038/s41467-022-35091-x

for their meat and fins[7]. In Maldives, sharks have been estimated to increase demand for diving tourism by 15%; bad publicity from lifting the ban could have significant and lasting economic impacts[8]. Alongside upholding the ban on shark fishing, there is also an increasing need to better regulate harmful practices such as shark feeding which can alter the behavioral patterns of sharks. This, as we have seen, can lead to injuries and fatalities that can best be addressed through enforcing responsible shark tourism. This requires active regulation, implementation of minimum standards, and adequate safety training. We are happy to provide assistance with the development of such regulations and training programmes.

Global Perceptions and Economic Impacts:

Furthermore, we are concerned that allowing shark fishing will also taint the brand image of Maldives' tuna fisheries, which at the moment is celebrated worldwide because of the highly selective methods of one-by-one fishing, and the perception of Maldives as an eco-friendly large ocean state.

While the role of sharks in coral reef ecosystem health is unclear and still being debated by the scientific community[9], there are grounds to think that reefs are healthier with recovered shark populations[10]. Given the enormous importance of coral reefs to the livelihoods and wellbeing of Maldivians, avoiding activities that might compromise reef health is an urgent economic imperative for the country.

Reopening the shark fishery would certainly lead to a reversal of shark recoveries. Sustainable shark fishing has proven to be highly elusive because of the inherent vulnerability of sharks to even very low levels of fishing pressure[11] and challenges for implementing an effective management regime. In fact, it is hard to find any concrete example of long-term sustainability in shark fishery[12]. Even small-scale, artisanal

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[7] Zimmerhackel et al. 2019. Evidence of increased economic benefits from shark-diving tourism in the Maldives. Marine Policy 100; 21-26; doi.org/10.1016/j.marpol.2018.11.004
69 (2018) 263–271; doi.org/10.1016/j.tourman.2018.06.009

[8] Zimmerhackel et al. 2018. How shark conservation in the Maldives affects demand for dive tourism. Tourism Management 69 (2018) 263–271; doi.org/10.1016/j.tourman.2018.06.009

[9] Roff et al. 2022 op cit., Desbiens et al. 2021. Revisiting the paradigm of shark-driven trophic cascades in coral reef ecosystems. Ecology, 102(4), 2021, e03303; doi.org/10.1002/ecy.3303

[10] Ferretti et al. 2010 op cit.

[11] Ferretti et al. 2010 op. cit.

[12] Worm et al. 2024. Global shark fishing mortality still rising despite widespread regulatory change. Science 383: 225-230; DOI: 10.1126/science.adf8984. Such shark sanctuaries also amplify the benefits of smaller protected areas – Goetz et al. 2024. Directed conservation of the world's reef sharks and rays. Nature Ecology and Evolution; doi.org/10.1038/s41559-024-02386-9

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fisheries are major contributors to shark decline and loss[13]. The only management measure found to decrease shark mortality in a recent study of various measures in use, was outright bans on shark fishing, like that in the Maldives[14]. It is therefore a foregone conclusion that renewal of shark fishing in the Maldives will lead to rapid population declines. The economic benefit of shark fishing will therefore be very short-lived, while the costs will build, in the form of losses to tourism revenue, and potentially much worse, the undermining of coral and reef ecosystem functioning.

The importance of protecting and sustaining intact thriving populations of sharks is immense, taking into account the tourism revenues generated by sharks, the losses from negative publicity surrounding possible recommencement of the shark fishing, and the potential importance of sharks to reef health and therefore national wellbeing. These values dwarf the economic returns from renewed exploitation which would be short-term and rapidly declining as shark populations collapse under fishing pressure.

If indeed the Fisheries Ministry is considering reopening shark fishing, we would very much welcome the opportunity to meet with you to further press our case. In recent years, due to the negative media coverage and the alleged proposals to reopen shark fisheries, much damage has been done to Maldives' tourism and our reputation of an eco-friendly country, even when these media stories turned out to be untrue.

We thank you in advance for your consideration of our views on protecting sharks, and the immense value that they bring to the economy and ecology of the Maldives. Should you wish to continue these discussions, please feel free to reach us at contact@maldivesocean.org.

Sincerely,

Maldives Coral Institute

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[13] E.g. Temple et al. 2023. Linking extinction risk to the economic and nutritional value of sharks in small-scale fisheries. Conservation Biology 2024;e14292.; doi.org/10.1111/cobi.14292
[14] Worm et al. 2024 op cit.

Coralive Maldives

Miyaru Programme

Kuramathi

Banyan Tree Vabbinfaru

Angsana Velavaru

Dhawa Ihuru

Maldives Whale Shark Research

Reefscapers

Soneva Foundation Coral Restoration Programme

Save the Beach Maldives

Maldives Manta Conservation Programme

Maldives Resilient Reefs