Marine Mammal Protection Act Import Provisions Comparability Finding Application Final Report

Pakistan

Summary

SUMMARY: Based on Pakistan's initial application, its responses to the clarification questions, and the information described below, NMFS has determined that all of Pakistan's exempt and export fisheries are comparable in effectiveness to the U.S. regulatory program.

Pakistan has a prohibition on the intentional killing of marine mammals within commercial fisheries, licenses fishing vessels, and recently implemented a marine mammal bycatch monitoring and reporting program that includes an observer program (50% coverage), fishermen interviews (25% coverage), and vessel logbooks (25% coverage). Pakistan prohibits large-scale driftnet gear. In the tuna pelagic/set gillnet and demersal trawl fishery (Fishery ID[1] 2138), starting in 2014, fishermen voluntarily shifted to subsurface gillnet fishing, which has resulted in a substantial decrease in dolphin entanglement in its tuna gillnet fishery.

The bycatch monitoring and reporting program is relatively new, which has resulted in the receipt of a relatively small amount of bycatch data to-date; however, as Pakistan's export fisheries include gears with a high-risk of interaction with marine mammals, the effectiveness of the bycatch regulatory program, including data collection and mitigation, will become increasingly important.

Comparability Finding Analysis

1. Does the nation have a prohibition on the intentional killing or serious injury of marine mammals in the course of commercial fishing operations? OR Does the nation have procedures to reliably certify that fish and fish products were not caught in association with the intentional killing or serious injury of marine mammals in the course of commercial fishing operations?

Response: Yes, Pakistan has regulations that prohibit the intentional killing of marine mammals within commercial fisheries. *Notification No. MFD/DDFT/MMPA-2024/150-164*, issued by the Government of Pakistan in January 2025, states under Article 1(a) that "No person, vessel, or entity shall engage in the "take" of marine mammals, which includes hunting, capturing, harassing, injuring, or killing any species of marine mammal within the EEZ of Pakistan, either intentionally or as bycatch." All of Pakistan's export and exempt fisheries operate within its EEZ. *Notification No. 5(3)SO(FISH)/L&F/16*, issued by the

[1] The Fishery ID number is NOAA's internal reference number from our IAICRS database and has no other independent meaning.

Government of Sindh in May 2016 prohibits the taking of marine and freshwater cetaceans throughout the year.

2. Does the nation have a Marine Mammal Bycatch Reduction Program? A bycatch reduction program, for purposes of compliance with the import provisions, is defined as having the following components:

a. The ability to control/monitor its fishing operations that may take marine mammals (e.g., authorizations, permits, licenses, and/or registrations for vessels)

Response: Yes. Licensing is required at national and local levels for individual vessels, fisheries, gear, location, and type of fishery. The 2021 amendment to *the Exclusive Fishery Zone (Regulation of Fishing) Act, 1975*, Article 3 requires a license to operate a fishing craft. "Article 3 License to operate a fishing craft (1) Any person operating or intending to operate a fishing craft in the Zone shall make an application in form "A" to the licensing authority for the grant of license."

b. A program to monitor its fisheries for incidences of marine mammal mortality and serious injury in the course of commercial fishing operations

Response: Yes, Pakistan, in collaboration with partners, has recently implemented a program to monitor marine mammal mortality and injury although the robustness of the program has yet to be demonstrated. Pakistan's marine mammal monitoring and reporting program includes vessel logbooks (25% coverage), fishermen interviews (25% coverage), and observer programs (50% coverage). Pakistan provided three reporting forms: a logbook for reporting bycatch and incidental injury mortality, a qualitative survey questionnaire, and a marine mammal inspector form. However, Pakistan only reported very limited spinner dolphin bycatch in its fisheries; thus the bycatch of other marine mammals in its fishery is unknown.

Table 1. Pakistan Export Fisheries

Fishery ID[2]	Target species (partial list)	Gear	Area of Operation	Monitoring program
2138	Barracudas nei*, Dolphinfishes nei, Indo-Pacific sailfish, Mackerels nei, Marlins nei, Marlins, sailfishes, etc. nei, Pelagic fishes nei, Swordfish, Tunas nei, Various sharks nei	Set gillnet (demersal), Gillnet (pelagic), Trawl (demersal)	EEZ, (FAO:51 Indian Ocean Western), 51.4	Observer Program (50% coverage) Fishermen Interviews (25% coverage) Vessel logbooks (25% coverage)
2141	Giant tiger prawn, Green tiger prawn, Indian white prawn,	Cast nets (demersal), Trawl (demersal), Set gillnets/set nets	EEZ, (FAO:51 Indian Ocean Western), 51.4, Sindh coast,	Observer Program (50% coverage)

[2] The Fishery ID number is NOAA's internal reference number from our IAICRS database and has no other independent meaning.

	Kiddi shrimp, marine shrimps nei	(anchored, bottom)	Arabian Sea (FAO area 51)	Fishermen Interviews (25% coverage) Vessel logbooks (25% coverage)
2122	Cuttlefishes nei, Spiny lobsters nei, Various squids nei	Set gillnet (demersal), Trawl (demersal)	EEZ, (FAO:51 Indian Ocean Western), 51.4	Observer Program (50% coverage) Fishermen Interviews (25% coverage) Vessel logbooks (25% coverage)
2123	Butterfishes nei, Croakers/drums nei, Demersal fishes nei, Flatfishes nei, Groupers nei, Mullets nei, Silver pomfret, Snappers nei, Soles nei, Whitefishes nei	Set gillnets (demersal), Trawl (demersal)	EEZ, (FAO:51 Indian Ocean Western), 51.4	Observer Program (50% coverage) Fishermen Interviews (25% coverage) Vessel logbooks (25% coverage)
2117	Savalai hairtail	Set gillnet (demersal), Trawl net (demersal)	EEZ, (FAO:51 Indian Ocean Western), 51.4, Arabian Sea (FAO area 51)	Observer Program (50% coverage) Fishermen Interviews (25% coverage) Vessel logbooks (25% coverage)
2140	Anchovies nei, Marine fishes nei, Sardinellas nei	Gillnet (pelagic)	EEZ, (FAO:51 Indian Ocean Western), 51.4	Observer Program (50% coverage) Fishermen Interviews (25% coverage) Vessel logbooks (25% coverage)

*Not elsewhere included (nei) - when the product is not specifically provided for in the Harmonized Trade System, the description covering such product is generally considered to be a "residual provision" by use of the phrase "not elsewhere included".

c. A requirement to report all marine mammal mortality and serious injury in the course of commercial fishing operations

Response: Yes, Pakistan has requirements concerning marine mammal bycatch reporting although it does not specifically require reporting all marine mammal mortality and serious injury. Under *Notification No. MFD/DDFT/MMPA-2024/150-164* (January 2025):

2. Compliance with the Marine Mammal Protection Act (MMPA):

(a) All fishing and other maritime activities within the EEZ shall comply with the principles of the MMPA to ensure the sustainability and protection of marine mammal populations. (b) Activities that may result in incidental interactions with marine mammals must adopt mitigation measures, including the use of marine mammal observers, and modifications in fishing gear or practices as deemed necessary.

4. Monitoring and Enforcement:
(a) The Director General, Marine Fisheries Department shall designate Marine Mammals Protection Committee to ensure compliance with this notification.

d. Prioritization of fisheries for mitigation of unsustainable marine mammal bycatch as described in 16 U.S.C. § 1387(f)(3) (in particular those over the bycatch limit, of small population size, or declining rapidly, based on available financial resources) in response to reported bycatch occurring in fishing operations. Prioritization of fisheries should be similar to U.S. take reduction teams and development of take reduction plans and including an evaluation of whether the nation has provided a bycatch limit and whether that bycatch limit is exceeded for any 16 U.S.C. § 1387(f)(3) stock(s), and whether any mitigation is effective or reconsidered if not effective.

Response: Pakistan provided abundance estimates and bycatch limits for marine mammal stocks (designated as "unknown") from a 2024 marine mammal stock assessment that was not submitted as part of its application: baleen whale, unspecified; Bryde's whale; common bottlenose dolphin; humpback whale; Indo-Pacific humpback dolphin; spinner dolphin; and striped dolphin. However, Pakistan only provided bycatch numbers for spinner dolphins suggesting the data monitoring programs may not yet be generating reliable estimates of bycatch, including marine mammal mortality and serious injury in its fisheries. In particular, certain 16 U.S.C. § 1387(f)(3) stocks, including the Arabian Sea stock of humpback whale may be present and interact with the gillnet fisheries and it is unknown if the bycatch limit for this humpback whale stock has been exceeded.

Despite the lack of bycatch data, Pakistan has demonstrated progress in reducing overall marine mammal bycatch in the tuna gillnet fishery (Fishery ID 1238). Scientific literature estimated small cetacean mortality in tuna gillnets in Pakistan around 10,000 to 12,000 individuals/year in 2013 and 2014 (Anderson et al. 2020).[3] Since 2014, voluntarily shifting to subsurface gillnet fishing has resulted in a substantial decrease in dolphin entanglement in Pakistan.[4] This practice is also now included under Indian Ocean Tuna Commission (IOTC) *Resolution 21/01*, which requires setting gillnets at 2m depth from the surface in gillnet fisheries to mitigate ecological impacts of gillnets (see response to Question 4). However, it is unclear since this practice was adopted by IOTC, if this measure is now required in the Pakistan drift gillnet fishery. Other mitigation measures include two-month voluntary closures (June-July), marine mammal identification guides, fishermen education programs, and captain and crew training. In the future, Pakistan seeks to implement a demonstration project for gear conversion to transition gillnet vessels into handline fishing methods.

[3] Anderson, R.C. et al. 2020. Cetacean bycatch in Indian Ocean tuna gillnet fisheries. Endangered Species Research 41: 39-53.

[4] Moazzam, M. Subsurface gillnetting: What motivated fishermen to change. IOTC-2021-WPEB17(AS)-20.

3. Does the nation ban the use of large-scale high seas drift gillnet gear or other gear prohibited for use by U.S. fishermen?

Response: Yes, Pakistan prohibits the use of large-scale high seas driftnet gear. Under the *Statutory Notifications, 26th July 2021, the Exclusive Fishery Zone (Regulation of Fishing) Rules, 1990*, was amended and state that the "length of the gillnet used by a license for fishing shall not be greater than 2.5 kilometers with mesh size not less than thirty millimeters and not more than three hundred millimeters".

Of note, Pakistan objected to IOTC *Resolution 17/07 On the prohibition to use large-scale driftnets in the IOTC area*, which prohibits the use of large-scale driftnets on the high seas within the IOTC area of competence.[5] As a result, *Resolution 17/07* does not apply to Pakistan and Pakistan could use large scale driftnets in its EEZ as allowed per the prior *Resolution 12/12 To prohibit the use of large-scale driftnets on the high seas in the IOTC area*. However, as Pakistan's amended regulation limiting the length of gillnet was adopted more recently than Pakistan's objection to Resolution 17/07, NMFS assumes that the requirement to restrict gillnet length to less than 2.5 kilometers is in effect in Pakistan's EEZ as well as the high seas.

4. Does the nation implement marine mammal bycatch reduction measures in fisheries regulated under a regional fishery management organization (RFMO), which are required for U.S. fishermen by that RFMO?

Response: Pakistan and the United States are not members of the same RFMOs. Pakistan is a member of IOTC, which has a range of requirements for gear restrictions, observer coverage, and bycatch reporting that could benefit marine mammals. IOTC *Resolution 23/06*, which does not apply to artisanal vessels only operating in its EEZ, requires reporting marine mammal bycatch by observers or in logbooks and taking all reasonable steps to ensure the safe release of any entangled cetaceans. It also prohibits the intentional encirclement of cetaceans in purse seine fisheries. *Resolution 17/07* prohibits the use of large-scale driftnets on the high seas of the IOTC (see discussion under Question 3). Under *Resolution 21/01*, member nations shall set gillnets at 2m depth from the surface in gillnet fisheries to mitigate ecological impacts of gillnets. *Resolution 21/01* also encourages phasing out or converting gillnet fishing vessels to other gears and increasing observer coverage or field sampling in gillnet fisheries by ten percent.

5. In cases where a U.S. Take Reduction Team has implemented marine mammal bycatch reduction measures for transboundary stocks shared with the United States, are the nation's measures similar or comparable in effectiveness? (Include in the response if the nation has provided a bycatch limit and if the bycatch limit is exceeded for any 16 U.S.C. § 1387(f)(3) stocks, either in one fishery or cumulatively over a number of fisheries)

Response: Not applicable. Pakistan and the United States have no transboundary stocks.

6. For marine mammal stocks that are not transboundary but are considered at high risk of extinction, does the nation implement mitigation/risk reduction measures comparable to what is or would be required in the United States? (Include in the response if the nation

[5] IOTC. 2023. Summary Report on the level of compliance. IOTC-2023-CoC20-03[E]. Prepared by IOTC Secretariat, 14 April, 2023.

has provided a bycatch limit and if the bycatch limit is exceeded for any 16 U.S.C. § 1387(f)(3) stocks, either in one fishery or cumulatively over a number of fisheries)

Response: Pakistan does not report having any marine mammal stocks considered at a high risk of extinction. The Arabian Sea stock of humpback whale may be present and interact with the gillnet fisheries and it is unknown if the bycatch limit for this humpback whale stock has been exceeded.

Additional Considerations

In reviewing a nation's fisheries and marine mammals stocks, how do they compare to:

1. **U.S. implementation of its regulatory program for similar marine mammal stocks and similar fisheries (e.g., considering gear or target species), including transboundary stocks governed by regulations implementing a take reduction plan (50 CFR § 229.2), and any other relevant information received during consultations**

Response: Not applicable.

2. **The extent to which the harvesting nation has successfully implemented measures in the export fishery to reduce the incidental mortality and serious injury of marine mammals caused by the harvesting nation's export fisheries to levels below the bycatch limit**

Response: Not applicable.

3. **Whether the measures adopted by the harvesting nation for its export fishery have reduced or will likely reduce the cumulative incidental mortality and serious injury of each marine mammal stock below the bycatch limit, and the progress of the regulatory program toward achieving its objectives**

Response: Not applicable.

4. **Other relevant facts and circumstances, which may include the history and nature of interactions with marine mammals in this export fishery, whether the level of incidental mortality and serious injury resulting from the fishery or fisheries exceeds the bycatch limit for a marine mammal stock, the population size and trend of the marine mammal stock, and the population level impacts of the incidental mortality or serious injury of marine mammals in a harvesting nation's export fisheries and the conservation status of those marine mammal stocks where available**

Response: Not applicable.

5. **The record of consultations under 50 CFR § 216.24(h)(5) of this section with the harvesting nation, results of these consultations, and actions taken by the harvesting nation and under any applicable intergovernmental agreement or regional fishery management organization to reduce the incidental mortality and serious injury of marine mammals in its export fisheries**

Response: NMFS and Pakistan held a technical consultation on November 16, 2021.

6. Information gathered during onsite inspection by U.S. government officials of a fishery's operations

Response: Not applicable.

7. For export fisheries operating on the high seas under an applicable intergovernmental agreement or regional fishery management organization to which the United States is a party, the harvesting nation's record of implementation of, or compliance with, measures adopted by that regional fishery management organization or intergovernmental agreement for data collection, incidental mortality and serious injury mitigation or the conservation and management of marine mammals; whether the harvesting nation is a party or cooperating non-party to such intergovernmental agreement or regional fishery management organization; the record of United States implementation of such measures; and whether the United States has imposed additional measures on its fleet not required by an intergovernmental agreement or regional fishery management organization

Response: Not applicable.

8. For export fisheries operating on the high seas under an applicable intergovernmental agreement or regional fisheries management organization to which the United States is not a party, the harvesting nation's implementation of and compliance with measures, adopted by that regional fisheries management organization or intergovernmental agreement, and any additional measures implemented by the harvesting nation for data collection, incidental mortality and serious injury mitigation or the conservation and management of marine mammals and the extent to which such measures are comparable in effectiveness to the U.S. regulatory program for similar fisheries

Response: See response to Question 4.

Overall Summary for Additional Considerations

The additional considerations were not pertinent to determining whether the nation's marine mammal bycatch reduction program is comparable in effectiveness to the U.S. regulatory program.

Engagement History

NMFS engaged in one technical consultation as well as some email exchanges of information with Pakistan. Although Pakistan was not responsive to emailed questions sent in September and October 2022, it updated its application in 2025.