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An overview of shark fishing in Pakistan: Interaction with tuna fisheries

Umair Shahid
NIO Tuna Fisheries Officer

WWF - Pakistan



History of tuna fishing in Pakistan

- Tuna fishing is one of Pakistan's oldest fisheries
 - Most of the larger boats (<30 m) were engaged in tuna fishing using gillnets
 - Fishermen used to undertake long fishing trips to catch large pelagics in Omani (Marisa) and Somali waters
 - Tuna used to be salted dried for export to Sri Lanka
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Current tuna fishing in Pakistan

- Dominated catch of tuna include yellow fin, long tail and skipjack
 - High incidence of bycatch
 - Undesirable fishing practice – gillnets (locally called Boola, gujjo and Kutro)
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Fishing gear

Gillnet Fishing

Surface/drift gillnet

- Mesh size (13-17 cm stretched)
 - Length
 - 5-10 km (Coastal)
 - 7-20 km (High seas)
 - Breadth 14 m
 - Net hauler
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Major species

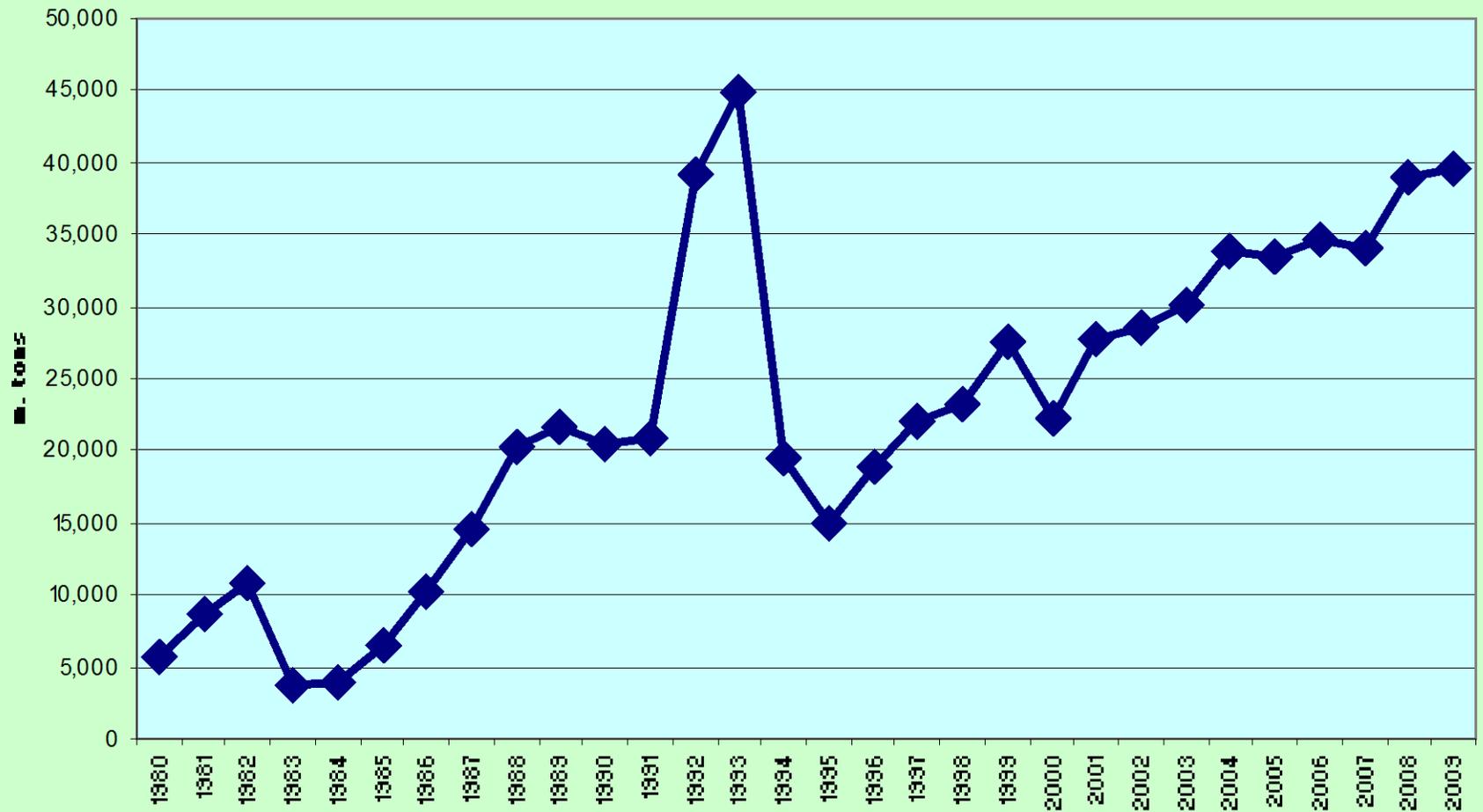
Coastal tuna

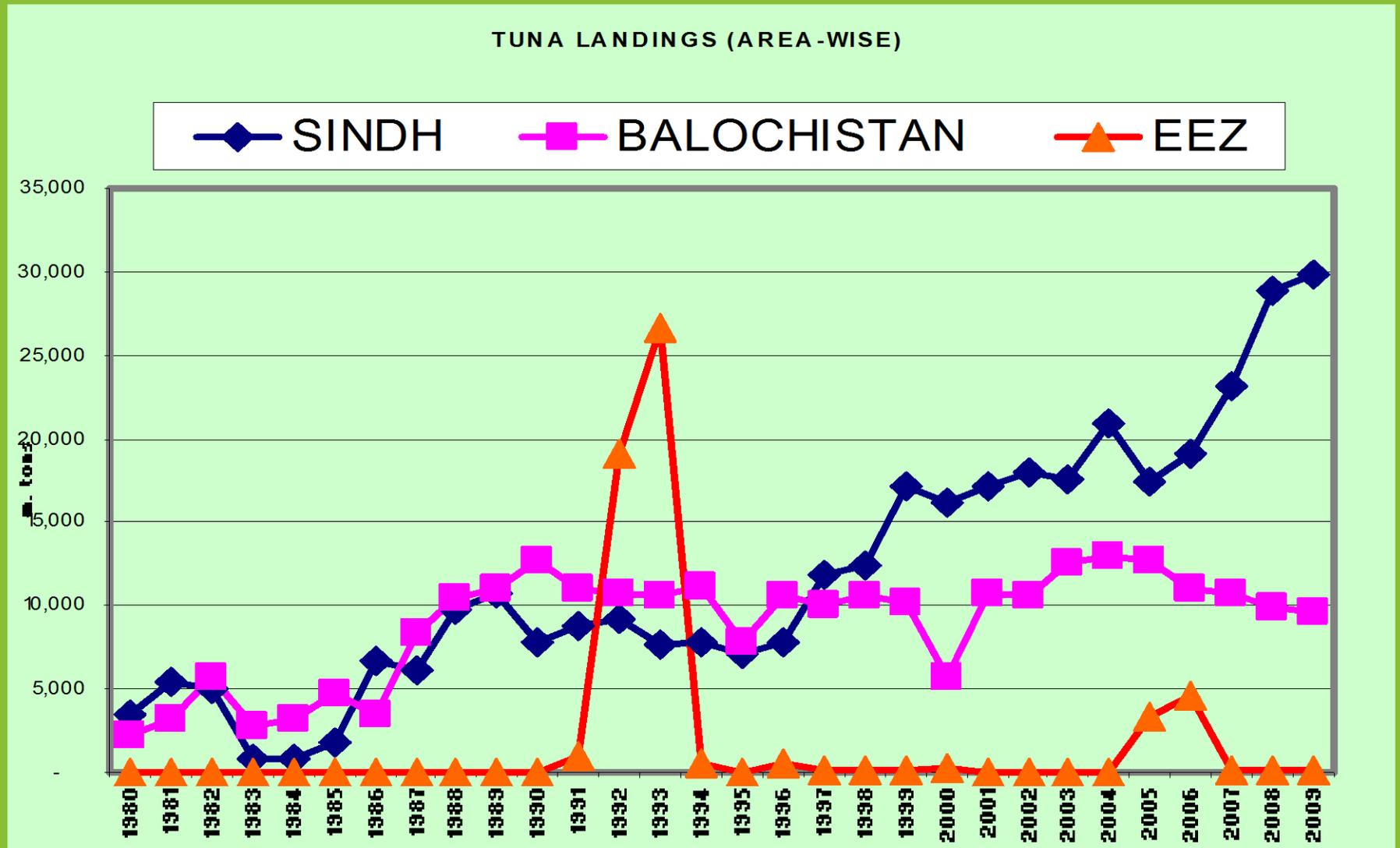
- Frigate Tuna
- Bullet Tuna
- Kawakawa
- Longtail Tuna
- Stripped Bonitos

Oceanic tuna

- Skipjack Tuna
 - Yellowfin Tuna
 - Bigeye Tuna
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TUNA LANDINGS IN PAKISTAN







Bycatch species

- Juvenile tunas
 - Dolphins and whales
 - Turtles
 - Seabirds
 - Sharks, including whale sharks
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Shark diversity in Pakistan

ORDERS:

- **SQUALIFORMES** (Dogfish sharks)
- **PRISTIOPHORIFORMES** (Saw sharks)
- **HETERODONTIFORMES** (Bullhead sharks)
- **ORECTOLOBIFORMES** (Carpet Sharks)
- **LAMNIFORMES** (Mackerel Sharks)
- **CARCHARHINIFORMES** (Ground Sharks)
- **PRISTIFORMES** (Sawfishes)

Species of Elasmobranch = 134 (Sharks: 69 species)

Order Lamniformes

Family Alopiidae (Thresher Sharks)

Family Laminidae (Mackerel Sharks, Makos)

One of the important tuna bycatch groups



Mako shark

Order Carcharhiniformes

Family Scyliorhinidae (Cat Sharks)

Family Triakidae (Houndsharks)

Family Hemigaleidae (Weasel sharks)

Family Hemigaleidae (Weasel sharks)

Family Sphyrnidae (Hammerhead sharks)



Milk shark



Shark overview

Sharks are caught as part of by-catch in tuna gillnet operations

A number of species inhabit pelagic ecosystem

It is estimated that 55% of the total shark landings originate from tuna gillnet boats

All sharks land at the harbour with their fins attached

Shark overview

Catch of sharks is seasonal

**Shark handline, longline fishing
gillnet –bottom set gill-net**

**The dominant landings of sharks
include Blacktip sharks,
Silvertip, Whitetip and Mako
sharks**

Nothing goes to waste



Shark landings at KFH (2001)



Shark landings at KFH (2011)



Shark chunks for local market





Shark landings at GWADER

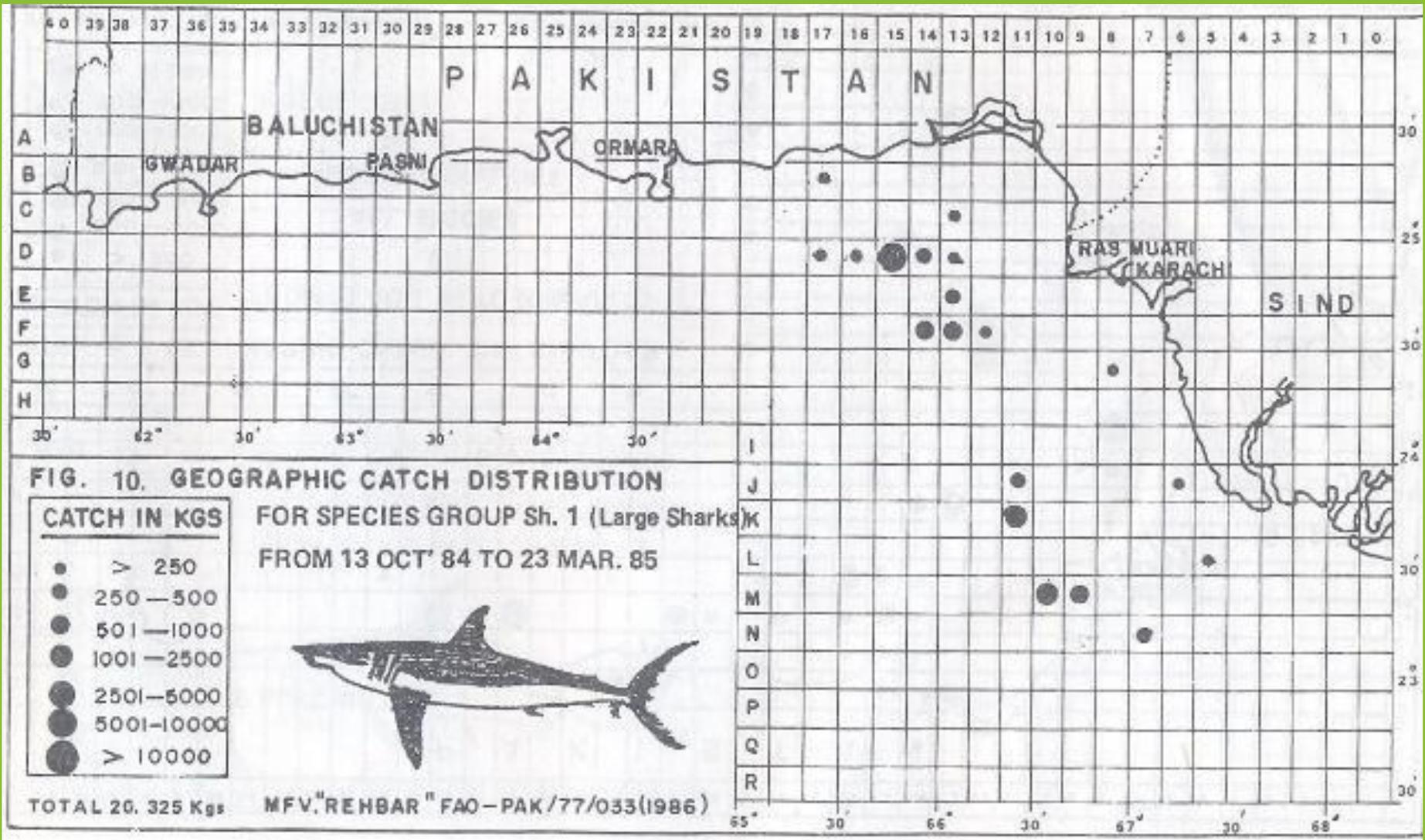


Shark transportation at GWADER

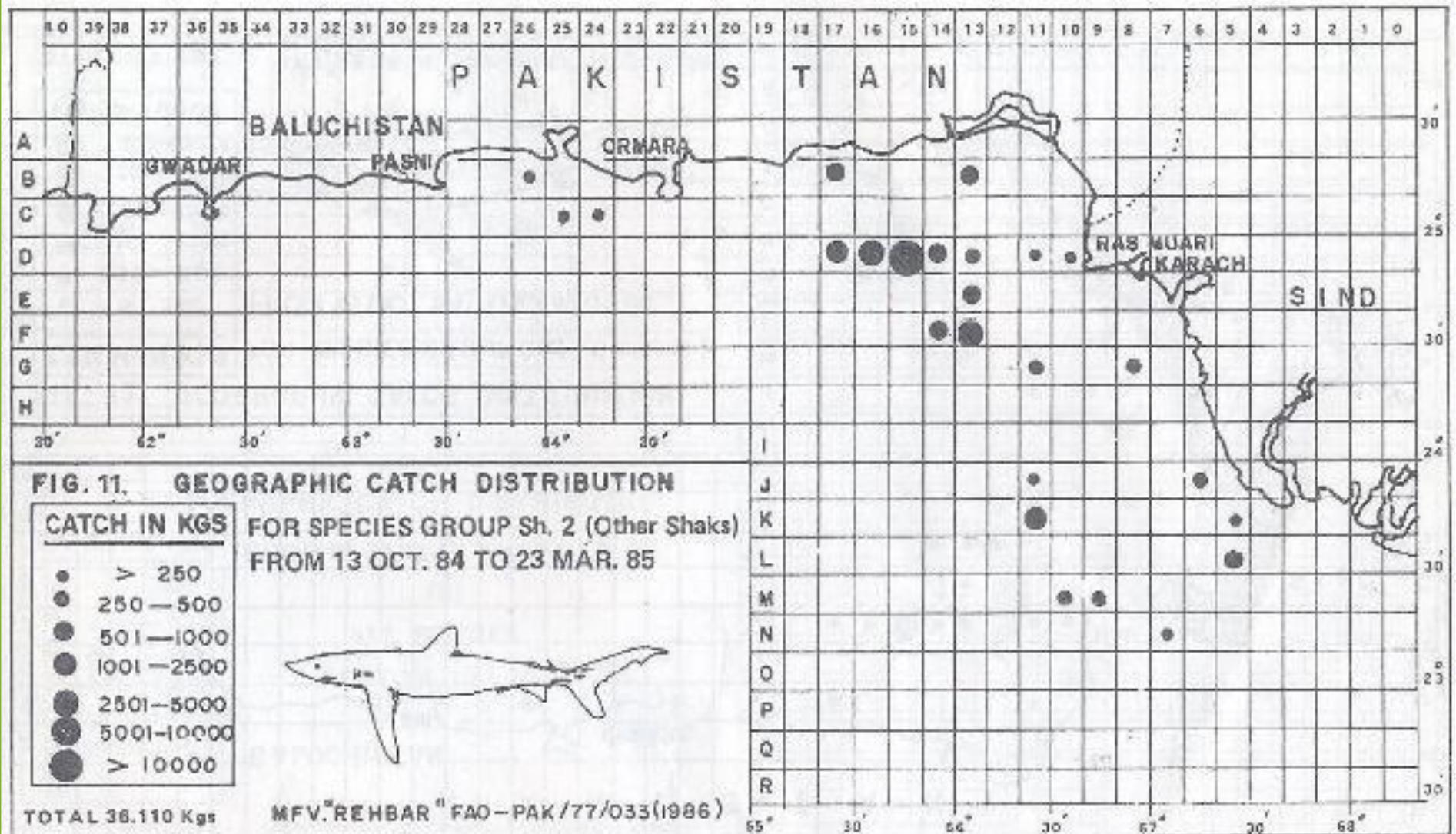
Shark at curing yard in GWADER

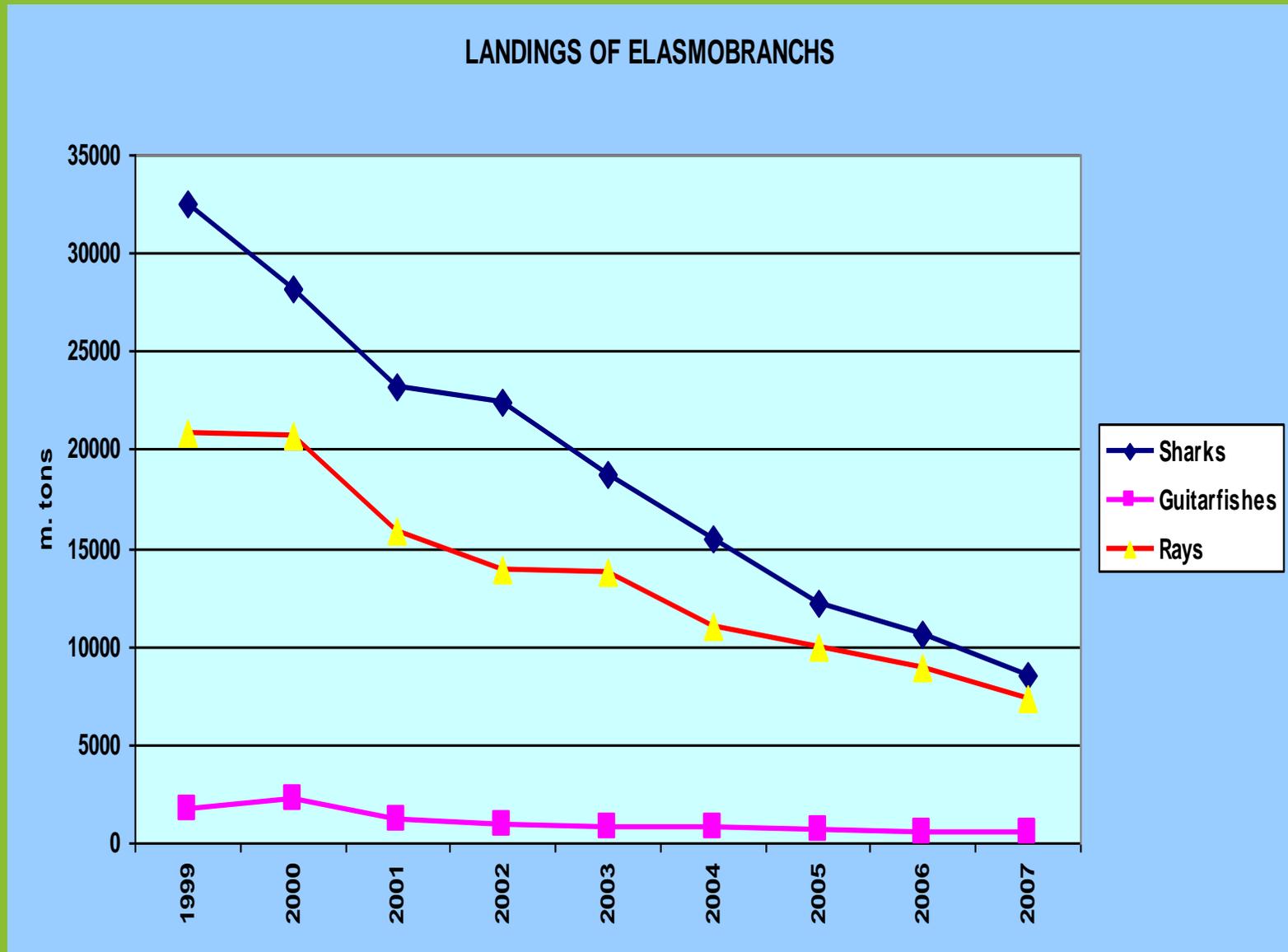


Shark fishing grounds



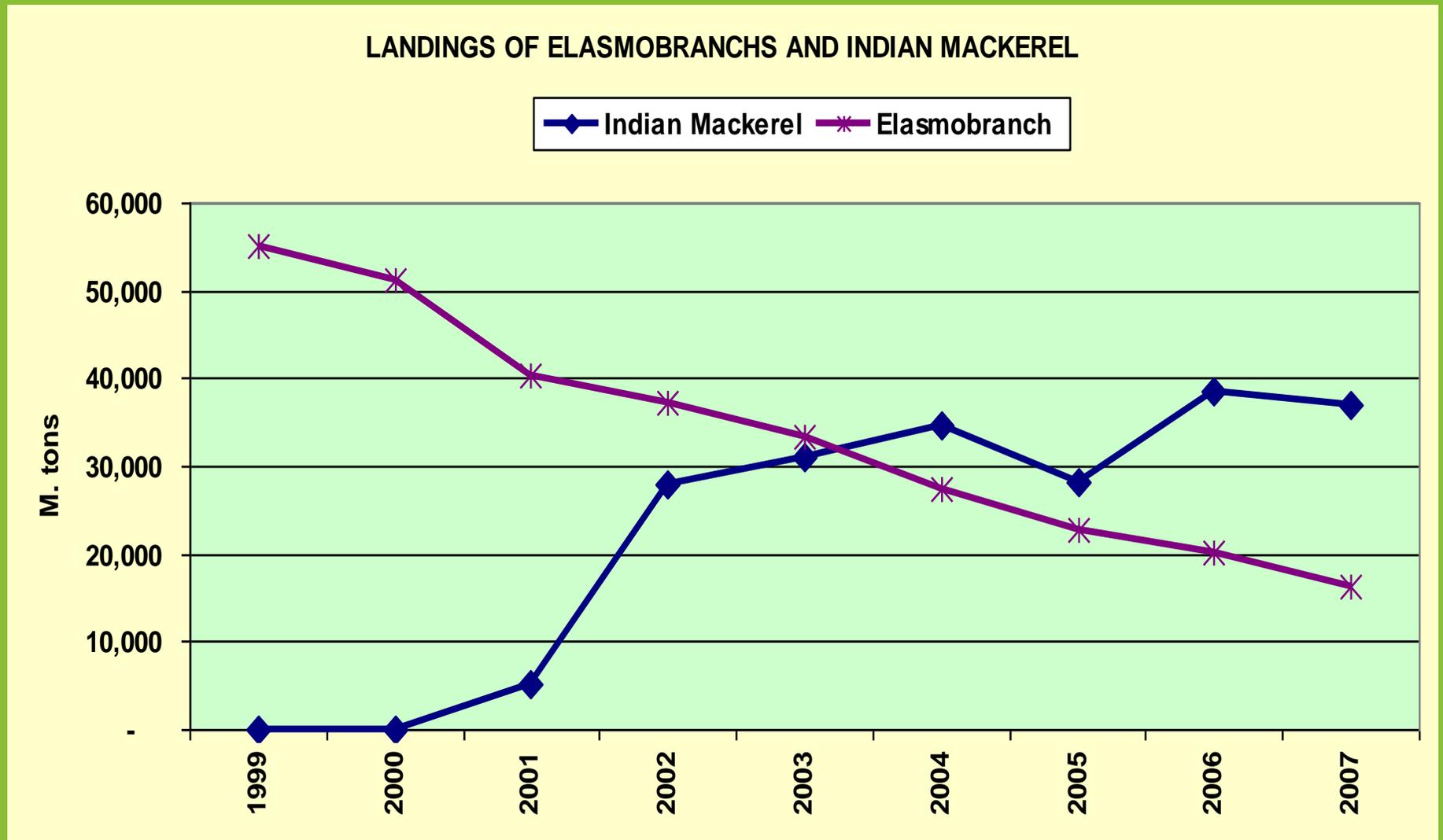
Shark fishing grounds







Removal of apex predators





Fisheries legislation

The exclusive fishery zone (regulation of fishing) act, 1975

Sindh fisheries ordinance, 1980

Baluchistan sea fisheries ordinance, 1971

- No protection for species specific sharks, however WWF is encouraging the government to their improve shark conservation and management.
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Thank you

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