

# Status, Challenges and Best Practices in Harnessing Potential of Marine Fisheries



**Directorate of Fisheries,  
Government of Goa**

# OVERVIEW

- Fish curry rice is Goa's staple meal for more than 90% of the population of Goa.
- One of the chief occupation and source of livelihood of the people living in the coastal areas
- Besides actual fishing, many ancillary and subsidiary activities like marketing, drying, processing and small scale vending has also create livelihood
- Government of Goa through this Department has made continuous efforts for the growth of the fishing Industry
- Department has been providing financial assistance for various needs of the fishermen in Goa, along with keeping a pace with their welfare measures.

## OBJECTIVE OF THE DEPARTMENT

- *To sustainably harvest Marine Fisheries resources, provide infrastructure, promote aquaculture and improve the Socio-economic conditions of the Fishermen and generate employment and food security in a holistic way.*

## VISION OF THE DEPARTMENT

- *Sustainable and responsible increase in fish production in the State while contributing towards social and economic growth of the Fisher's and Fish Farmers and ensuing nutritional security of the State.*

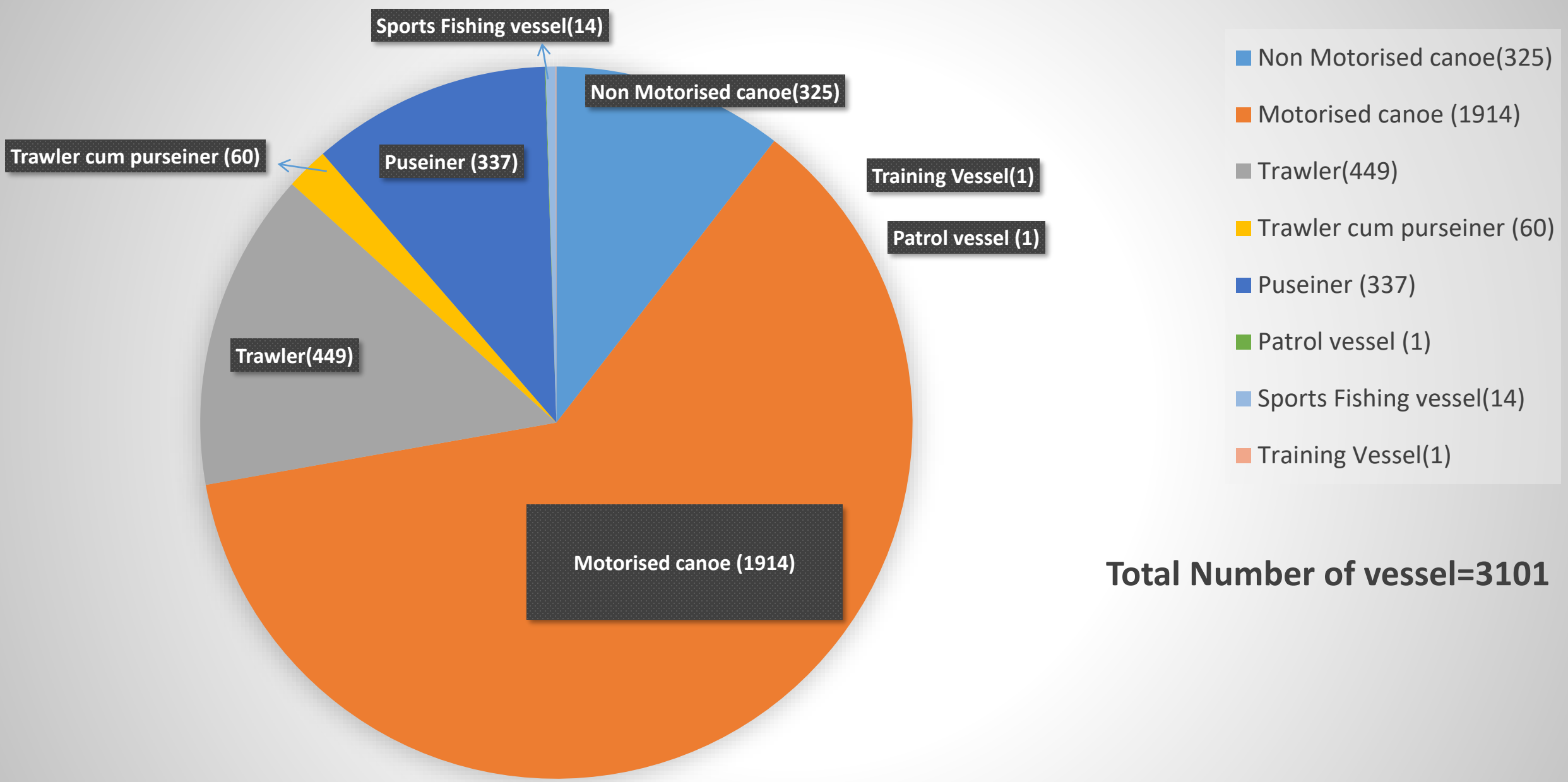
# GOA FISHERIES AT A GLANCE

<b>State Profile Resources</b>		
1	Coastal length	104 kms
2	Continental Shelf	10,000
<b>Infrastructure</b>		
1	Fishing landing centers (Major Jetties)	7
2	Fishing landing centers ramps	28
3	Ice plants	25
4	Cold Storages	2
5	Processing Units	14

<b>Inland profile Resources</b>		
S.N.	Resources	WSA
1	Reservoirs	3448 ha
2	Rivers	338.5 km
3	Canal	240 km
4	Tanks & Ponds	101
5	Brackish water	198.86
7	No. of farm registered	44

<b>Fisherman's profile</b>		
1	Fishing villages	41
2	Fisheries societies	43
3	Fisher Folk Population	12651
4	Fisherman population(Active)	2758

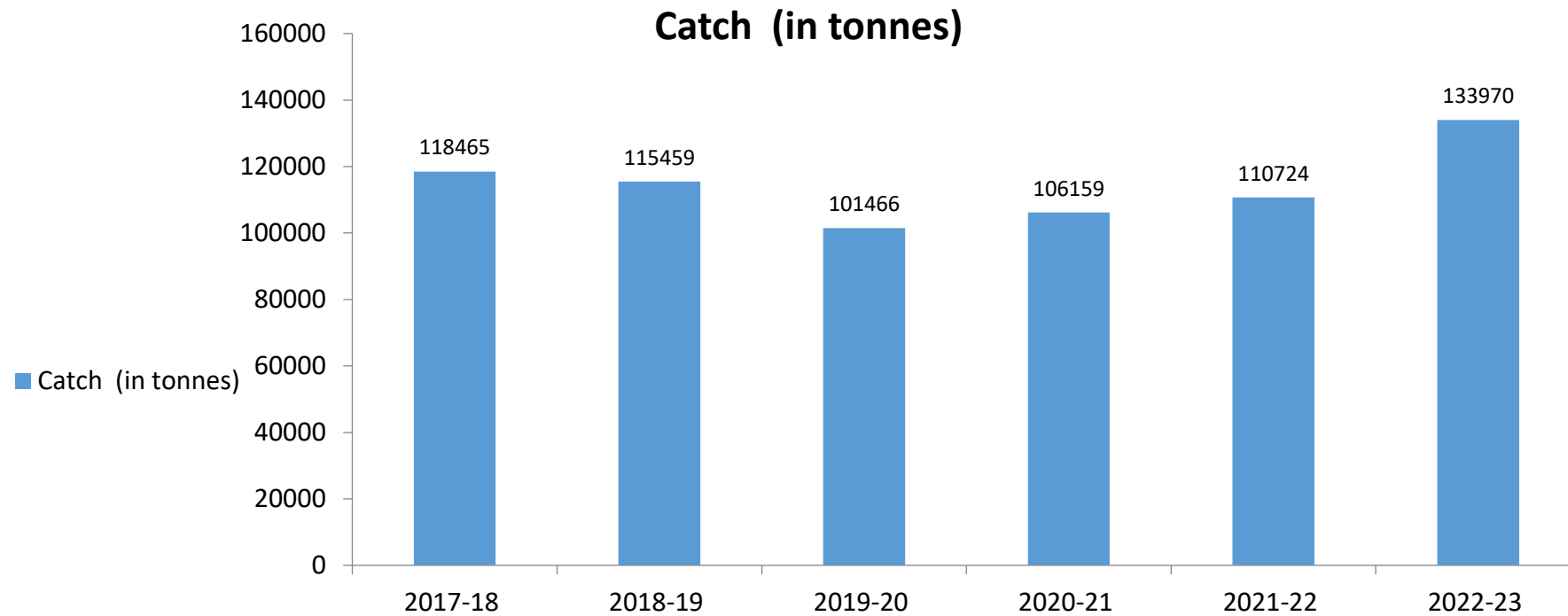
# Registered Fishing Vessels as per Merchant Shipping Act, 1958



**Total Number of vessel=3101**

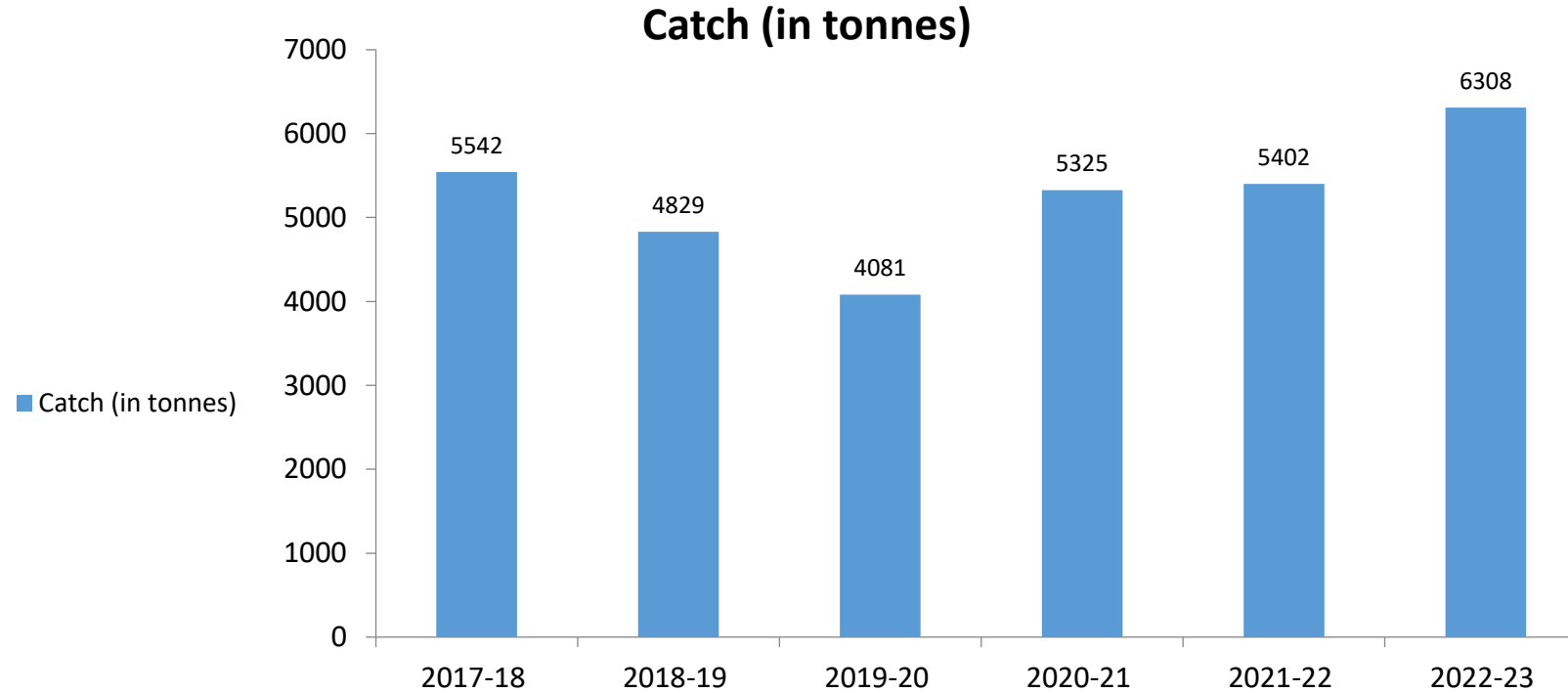
# Marine Fish Production for the period from 2017-18 to 2022-23

(in tonnes)



Year	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Catch (in tonnes)	118465	115459	101466	106159	110724	133970

# Inland Fish Production for the period from 2017-18 to 2022-23 (in tonnes)



Year	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Catch (in tonnes)	5542	4829	4081	5325	5402	6308

**Status on Harnessing Fisheries Potential  
in a Sustainable, Responsible, Inclusive and  
Equitable Manners**



# Acts and Rules implemented by the Department

- The Merchant Shipping Act, 1958
- The Merchant Shipping Rules(Indian Fishing Boats Inspection), 1988
- The Merchant Shipping Rules(Registration of Indian Fishing Boats), 1988
- The Goa Marine Fishing Regulation Act, 1980, Amendment 1<sup>st</sup> in 1989,2<sup>nd</sup> in 2019
- The Goa Marine Fishing Regulation Rules, 1982. Amendment 1<sup>st</sup> in 2001,2<sup>nd</sup> in 2003,3<sup>rd</sup> in 2012,4<sup>th</sup> in 2014,5<sup>th</sup> in 2014,6<sup>th</sup> in 2021 and 7<sup>th</sup> in 2022

# REGULATORY MEASURES

- Restriction of number of fishing boats
- Restriction of no. of fishing gears which exploit juveniles
- Mesh size regulation
- Minimum legal length for capture
- Seasonal ban on fishing
- Use of TEDs
- Restriction of fishing areas
- Ban on use of LED
- Prohibition on use of explosives

# CONSTRUCTION OF NEW FISHING VESSELS (Trawler/Purse-Seiner)

## ❑ Mechanized Sector (Trawler/ Purse –seiner)

- No permission granted to new vessels since year 2001
- Only construction allowed on replacement of old cancelled vessels
- This does not add to the fishing fleet and the size of the fishing fleet remains the same
- Length of mechanized Fishing vessel is restricted up to 23mtrs



## ❑ Mechanized Sector (Trawler/ Purse –seiner)

- Permission is granted to construct new fishing vessel (canoe) to a maximum 100 nos. per year for the State of Goa.
- Fishing Canoes of overall length(OAL) upto 38ft(11.58mt) are allowed
- All registered under M S Act 1958










# Registration of Fishing Nets, Mesh size regulation and its operations

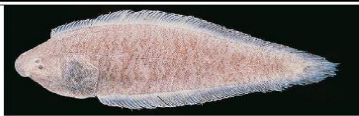



- Objective is to conserve the spawning stocks and increase the long term sustainable yield
- Registration and licensing of Fishing Net is done under Goa Marine Fishing Regulation (Amendment) Act, 2019
- Mesh size not less than 24 mm for catching fish and 20 mm for catching prawns
- Type of Gears and its area of operations has been ammended





# Implementation of minimum legal size (MLS) in fisheries for the state of

- Notified **Minimum Legal Size (MLS)** for 20 number fish species in order to avoid juvenile fishing in the State of Goa under clause (c) of sub-section (1) of section 4 of Goa Marine Fishing regulation (Amendment) Act, 2019
- If more than 50% of the catch sample is composed of fishes at or below the prescribed MLS that catch is considered as violation.

Sr. no.	Species Name	Common Name	Local Name	MLS (cm)
(1)	(2)	(3)	(4)	(5)
				
1.	<i>Sardinella longiceps</i>	Indian oil sardine	Tarlo (तार्लो)	10TL
				
2.	<i>Rastrelliger kanagurta</i>	Indian mackerel	Bangdo (बांगडो)	14TL
				
3.	<i>Trichinurus lepturus</i>	Ribbon fish	Balle (बाल्लो)	46TL

				
4.	<i>Scomberomorus commerson</i>	King seer	Wiswan (विस्वान)	50FL
				
5.	<i>Stolephorus indicus</i>	Indian anchovy	Motivale (मोतिवले)	7.0TL
				
6.	<i>Parastromateus niger</i>	Black pomfret	Somgul (सोमगुल)	17TL
				

				
12.	<i>Cynoglossus macrostomus</i>	Sole fish	Lepo (लेपो)	9TL
				
13.	<i>Pampus argenteus</i>	Silver pomfret	Paplet (पापलेट)	13TL
				
14.	<i>Epinephelus diacanthus</i>	Groupers	Gobro (गोब्रो)	18TL
				
15.	<i>Johnius spp.</i>	Sciaenid	Dhodiaro (धोदियारो)	15TL

				
16.	<i>Oolithes spp.</i>	Croaker	Dhodiaro (धोदियारो)	17TL
				
17.	<i>Uroteuthis photololigodivauceli</i>	Indian Squid	Manki (मंकी)	8DML
				
18.	<i>Fortunus anguinolentus</i>	Spotted crab	Kullis (कुल्लिस)	7CW
				
19.	<i>Farapanaeopsis stylifera</i>	Kiddi prawn	Sungat (सुंगट)	7TL

# MONSOON FISHING BAN

- Having regard to the need to conserve fish, hereby prohibits fishing by fishing vessels fitted with mechanical means of propulsion and by means of trawl-net and purse-seine net along the sea coast of the State of Goa and the territorial waters of the State of Goa, with effect from **1<sup>st</sup> June till 31<sup>st</sup> July** every year for a period of 61 days.
- Except fishing by registered motorized canoes using gill nets only, and fitted with outboard or inboard motors, of upto 10 HP capacity, as a means of propulsion



# Turtle Excluder Devices (TEDs)

- Provision is being made in the Goa Marine Fishing Regulation Rules 2021, (6<sup>th</sup> Amendment) for protection and management of sea turtles by installing of Turtle Excluder Devices (TEDs) in trawl net.



Sea turtle escaping from Trawl Net

# Prohibition and Monitor to curb illegal Fishing

## ➤ **Prohibition on use of explosives**

- Under section 18 A of Goa Marine Fishing Regulation Act, 2019 (amendment) provision is made to prohibit destruction of fish by explosives in inland waters and on coast.

## ➤ **Ban on use of led (light emitting diodes) in territorial waters of Goa and exclusive economic zone**

## ➤ **Monitoring mechanism**

- Control Room 24x7 for receiving weather alert from IMD, communications from security agencies and also to receive complaints on illegal fishing activities in territorial waters of Goa.
- Conduct regular patrolling at sea and also attends patrolling duties on urgent calls.
- In case of violations being noticed, fishing vessels and other equipments are being impounded.
- After inquiry, necessary cases are being filled before the Adjudicating Officer and penalties are being imposed as per the provisions under GMFR Act.



# Good Management Practises And Initiatives

# Artificial Reefs- Approach towards habitat Conservation and restoration

- Under PMMSY, Department of Fisheries, Government of India has approved to install the artificial reefs at 14 villages for the State at total cost amounting to Rs. 434 lakh with Central share of Rs, 260.40 and has released the 1<sup>st</sup> installment amounting to Rs.65.00 lakh
- Department in coordination with CMFRI has already conducted awareness programme with stakeholders



# Goa State Mariculture Policy 2020

- The Department has notified the “**GOA STATE MARICULTURE POLICY 2020**” for implementing cage fish farming to ensure maximum economic returns to the State from Aquaculture., The said policy is notified in the Official Gazette, Series 1 No, 21 dated 20<sup>th</sup> August, 2020.

## **Objectives of the policy:**

- To encourage responsible offshore aquaculture
- To introduce systematic management strategies both for conservation and sustained fish production
- To increase per capita fish protein availability
- To introduce advanced technologies in addition to traditional methods.
- To develop skill among fisher community and organizational strengthening among self help groups.



# Setting up of Shrimp & Fin Fish Hatchery

- It is to state that the Department has a property at Benaulim, Salcete Goa which was an existing hatchery and now it is non-functional.
- The Department has proposed to set up “**SHRIMP & FIN FISH HATCHERY**” at Benaulim through Public Private Partnership (the “PPP”) on Design, Build, Finance, Operate and Transfer (the "DBFOT") basis.
- The CMFRI has forwarded the proposal toward the Technical services for pre-operational activities of a proposed multi-species fish hatchery at Benaulim Goa through CMFRI amounting to Rs.7,58,211/-

# Challenges

# Challenges: Marine Fisheries

- Management of fishing fleet, gear, efforts and methods to reduce fishing pressure
- Adoption of Technology and Skill Development
- Juvenile Fishing, LED Fishing, Pair Trawling, Destructive Fishing Methods.
- Inter-State conflicts of Fishing vessel entering territorial waters for fishing
- Livelihood concerns for traditional fishers due to declining catch
- Safety and Security of Fishermen at Sea
- High fuel cost and Labour issues
- Lack of infrastructure-Fishing jetties & patrol vessel
- Marine pollution

# Challenges: Aquaculture

- Availability of lands for Aquaculture
- Losses due to increase in sea level rise during monsoon, resulting flooding of farms
- Losses due to Disease outbreak
- Lack of availability of various input
- Adoption of Technology and Skill Development
- Lack of access to institutional credit and insurance
- Marketing linkages and Value addition

# Thank you

