Completion report

Impact Study on Proposed Vadhavan Port on Coastal Fisheries

CLIENT

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CONTENTS

List of Tables

List of Figures

List of Acronyms and Abbreviations

CMFRI- Central Marine Fisheries Research Institute

ICAR- Indian Council of Agricultural Research

MPEDA- Marine Products Export Development Authority

MoA&FW -Ministry of Agriculture & Farmers Welfare

MoFAH&D -Ministry of Fisheries, Animal Husbandry and Dairying

MoEF&CC -The Ministry of Environment, Forest and Climate Change

JNPT- Jawaharlal Nehru Port Trust

MMB-Maharashtra Maritime Board

EIA-Environmental Impact Assessment

SEETTD - Socio-Economic Evaluation and Technology Transfer Division

SBN- Set Bag Net

GIS- Geographic Information System

ReALCraft -Registration and Licensing of Fishing Craft

APL- Above Poverty Line

BPL- Below Poverty Line

Executive Summary

Jawaharlal Nehru Port Trust (JNPT) and Maharashtra Maritime Board (MMB) have planned to develop a new multi-purpose port at Vadhavan near Dahanu in Palghar Dist. of Maharashtra. The proposed port area and the waters around the navigational channel are partly including the historic fishing areas of fishers of Palghar district, which are likely to be affected by the development of the port. During the present study, most of the fishermen in the project affected area and villages were non-cooperative for real-time information sharing and experimental fishing surveys were blocked by angry mobs which are needed for the completion of the impact study. This report is therefore based on observations made during visits to the proposed port area and nearby villages from June 2017 to February 2019. In addition to surveys by ICAR-CMFRI, the published information collected from different government agencies etc were also used for the preparation of the report. The actual project period proposed during the beginning of the project was from June 2017 to May 2018. To get any additional information or to carry out the surveys which were earlier blocked by the coastal community the project was further extended up to February 2019. The resistance continued. The present report documents the demography and socio-economic status of the fishers, besides fishing practices, boats, and fishery resources and economics that are likely to be influenced by the proposed port and suggests benchmarks for improving the livelihood and possible impacts.

Considering the port location in Vadhavan village, 16 coastal fishing villages namely, Agar, Narpad, Dahanu, Dhakti-Dahanu, Gungwada, Tarapur, Varor, Dandepada, Chinchani, Ghivali, Kambode, Tadiyale, Dhumket, Abram, Asangaon and Matgaon falling within 10 km radius of the proposed Vadhavan Port site were identified for this study. The villages namely Agar, Narpad, Asangaon were included for study, even though they are outside 10 km radius of the Vadhavan port project proposed site, as the fishing boats from these villages, are mostly registered in Dahanu Fishermen Co-operative Society at Dahanu and operate from Dahanu beach landing centre. The total fishermen population residing in the identified 16 fishing villages is around 20,809 in 5,333 households. The fisheries infrastructure facilities in these 16 villages were found to be insufficient. Six fisher societies are registered in the area, one each in Varor, Chinchani, Ghivali, Gungwada, Dhakti-Dahanu and Dahanu village. The total number of villages within 10

km radius of the proposed Vadhavan port site is 25 including landward side villages, only 16 coastal villages were considered in the study.

Fishing is the main occupation of people in the 16 coastal villages as mentioned above. Fishing is carried out by motorized, mechanized and non-mechanized fishing boats. The common marine fishing practices in the region are by Set bagnets (SBN) calledas '*dol*' net and by gillnets. In SBN nets are attached to poles fixed to the sea bottom called '*sus*' while the gillnets are operated anywhere at the surface, column or bottom in the fishing area. The smaller bag nets locally called '*bokshi*' are operated in the creeksand shallow waters throughout the year and they do not change the operation locations seasonally. Approximately 42 sq. km. of *dol* net fishing area and 30 sq. km. of gillnet fishing area will be treated as the no-fishing zone during the construction and operationof the port with the current plan. The area outside the harbour of the port *viz.* the area outside the breakwater of the port (≈58 sq. km. approx.) may be available for fishing subject to regulation by the port authority and security. Bagnet fishing structures in the sea (822) were shared by fishers in which 265 structures are within port limit. The annual profit of the single- day dol net (SBN) and multiday gillnet in these regions was estimated as Rs.5,00,907/- and Rs.4,60,403/- respectively after considering all the fixed and operational costs. The fishers residing in the southern part of port limit, and not included in the study raised concerns about the possible current change and impact on fisheries and their livelihood.

The fishery in the area is supported by a variety of fin-fishes and shellfishes. From June 2017 to May 2018, a good diversity of fishes (126 species) including 86 species of teleost, 4 shark, 20 crustaceans and 13 molluscs were observed in the fish landings. Most of the fish species collected during June and July were juveniles, smaller than the size at maturity. However, in different months, maturity, size and catch composition of fishes differed in different fishing gears. The area under study cannot be conclusively suggested as a breeding ground. No endemic or protected fishes were recorded in the proposed port area or in the fishery. Fishing and its post-harvesting such as the sun-drying of *Bombil* is a family affair and most of the fisher families depend on fisheries for livelihood. Analysis of fishery data (2013 to 2018) collected from theDepartment of Fisheries, Government of Maharashtra showed that mechanized sector was the major contributor to the fishery with diverse groups of commercially important fishes landed by mechanized gillnetters and *dol* netters. Fishery analysis shows that *dol* nets were the major gear contributing more than 80 percent fishery followed by gillnets <15 percent. The estimated catch of fishery resources showed variations across the years and landings of most of the fish

resources have declined significantly in recent years. Over the years the catch has decreased by >70 percent from 2013-14 to 2018-19. Common and commercially important fish varieties caught were Bombay duck, non- penaeid prawns, catfishes, anchovies, pomfrets, seerfish, lobsters, etc.

Considering the possible impact on livelihood and expected loss of fishing areas, it is suggested that the fishers likely to be affected may be supported for improved livelihood options. Necessary steps may be taken to mitigate the economic impacts. In this regard, few possible additional livelihood options are suggested in this report and ICAR-CMFRI had given training on open-sea cage culture to 20 fishers from the affected villages. A detailed further study to estimate their loss and compensatory mechanisms such as up-gradation of fishing crafts, better post-harvesting techniques, improving marketing support, branding and exploration of marketing channels are suggested

Chapter 1 – Background

The *Sagarmala* initiative of the Government of India is one of the most important strategic imperatives to realize India's ocean-related economic aspirations. The overall objective of the project is to evolve a model of port-led development, whereby ports become a major contributor to the country's GDP. The *Sagarmala* project envisages transforming existing ports into modern world-class ports and developing new top-notch ports based on the country's requirements. It also aspires to efficiently integrate ports withindustrial clusters, the hinterland, and the distribution systems, through road, rail, inland, and coastal waterways. This would enable ports to drive economic activity in coastal areas. Further, *Sagarmala* aims to develop coastal and inland shipping as a majormode of transport for the carriage of goods along with the coastal and major riverside economic centres.

Maharashtra has two major ports i.e. Mumbai Port and Jawaharlal Nehru Port (JNPT) which cater to the hinterland of Maharashtra, and other major industrial areas across India including Delhi NCR, Punjab, Rajasthan, Madhya Pradesh, and Uttar Pradesh. Out of these two ports, the Mumbai port has massive constraints indisembarkation and distribution of cargo due to the development of the city around it causing delays in the distribution of cargo by rail and road. Besides limited depth in the present harbor hindering the berthing of large size vessels. Consequently, Jawaharlal Nehru Port (JNPT) was developed initially as a satellite port of Mumbai port and has since grown well to become the largest container port of the country. The development of the 4th container terminal which has been started and after its full development JNPT has almost no scope of further expansion given its geographical, waterfront, and onshore limitations. Further, JNPT cannot be deepened further economically to handle the future generation of mega container ships (>15000 TEU) or more. With the projected demand for maritime trade and cargo transshipment, it is necessary to locate a new mega port sitethat can cater to the increased requirement of the country's import and export trade and also could be developed to handle the future deep draft, large-sized ships. Consideringthe above, it has been decided by JNPT and the Government of Maharashtra to develop a port at Vadhavan which will meet the future economic and trade demands of the country. Owing to deep draft and no need for dredging in the navigational channel or port, Vadhavan is identified as the most suitable site. However, around Vadhavan there are several fishing-dependent villages/hamlets which are likely to be affected by the proposed development. Therefore, the present report has been prepared to assess the impact of fisheries and fishermen's

livelihood and to suggest measuresto minimize the adverse impact on them.

Vadhavan Port Project :

The JNPT is one of the major ports in India which is also the biggest container port of the country. JNPT and Maharashtra Maritime Board (MMB) are jointly proposing a new multi-purpose port at Vadhavan near Dahanu (Palghar Dist.) in Maharashtra to cater to the maritime export-import trade. The port will meet the increasing requirement of international trade and enhanced capacity in cargo handling. The proposed port has immense potential in contributing to the economy of the nation as well as the state. The development of a multi-purpose port at Vadhavan would help to import and export cargo that can be transported from and into the country to sustain economic growth. It will also help in the development of the socio-economic status of the region by creating direct and indirect employment opportunities.

The site in the village Vadhavan and its coast near Dahanu has been selected for Port from the logistic and operation angle such as deep draught, very near to the coastline, vast hinterland of north and northwest of India, easy rail and road access to the hinterland and suitability of the site to develop a Port between Gujarat Ports and Mumbai and Jawaharlal Nehru Port.

Indian Council of Agricultural Research-Central Marine Fisheries Research Institute (ICAR-CMFRI) is a nodal agency identified by the Government of Maharashtra and Maharashtra Maritime Board to study the impact of any developmental activities in the coastal and marine areas of the state or related to marine fisheries. JNPT approached ICAR - CMFRI for assessing the possible impacts of the proposed Vadhavan Port on the coastal fisheries in general an did entify breeding grounds, endemic fishes as a part of the Environmental Impact Assessment (EIA) report. With the experience to assess such impacts on coastal fisheries, ICAR-CMFRI agreed to work on the project in consultancy mod e vide the series of meetings con ducted with JNPT officials.

Terms of References (ToR) of the present study:

The proposed Vadhavan port area is located in the intertidal zone and nearshore areas of Vadhavan village. The zone is rocky and at places, rocky prominences are visible during the low tide period. Rocky patch areas along the northern Maharashtra coastline extend from Dahanu to Vasai and Madh island near Mumbai. The rock crevices provide shelter and habitat for the crawling organisms like lobsters and protect the coast. Studies conducted by other agencies revealed that the mud in that area is a source of Calcium Carbonate clay (lime mud). A large number of fishermen families depend exclusively on fishing for their livelihood in the region. The developmental activities in this area may affect the fishing activity and thus livelihood.

The Terms of Reference (ToR) of the present study are as follows:

a. Extent of fishing areas and the fishing villages around the proposed port.
b. Number of fishing vessels operating in inshore, near-shore and offshore fishing area.
c. Number of fishermen families likely to be partly and fully affected.
d. Economics of various fishing activities around the port and likely loss of fishing area and livelihood of the dependent population.
e. Existing facilities like fishing jetty/harbour, cold storage etc. in the region, number of fisheries societies in the region, and accordingly suggestion of measures to strengthen the fishing activities.
f. Suggestion of alternate livelihood activities for fishing and allied activities.
g. Information on fish breeding grounds and endemic fish species likely to be affected.
h. Any other information in connection with fishing activities to be decided after mutual consent.

Chapter 2 – Methodology of the study

Baseline data related to social and economic aspects of fishers and coastal communities, fishery and allied activities, fish diversity, breeding and spawning ground of the fishes were collected from primary as well as secondary sources.

Selection of villages:

As per the guidelines of the Ministry of Environment, Forests and Climate Change (MoEF & CC), Government of India for Ports & Harbours, the villages within area of 10 km radius from the boundaries of the proposed port area has been selected for the study. This additionally, included a few villages outside a 10 km radius as the fishermen of these identified villages use Dahanu as a base for their fishing activities.

Socio-economic analysis:

A socio-economic survey in the selected 16 fishing villages was conducted based on a structured questionnaire prepared by the Socio-Economic Evaluation and Technology Transfer Division (SEETTD) of ICAR-CMFRI. However, some of the fishermen Co-operative society leaders, fisher's representatives and fishers of the selected villages refused to conduct household socio-economic surveys and share information. Two villages namely Varor and Dandepada complied with the survey and handed over the filled-in questionnaires to ICAR-CMFRI. Similar surveys in villages namely Narpad, Agar & Dahanu fishing villages were completed but the Fishermen Co-operative society of Dahanu refused to hand over the filled-in questionnaires. Nine villages namely Dhumket, Abhram, Tadiyale, Asangaon, Matgaon, Ghivali, Kambode, Tarapur and Chinchani partially completed the survey, however, due to the influence of *Vadhavan Bundar Sangharsh Samiti* (a group opposing the construction of port) members and the local fisher community leaders, the surveys remained incomplete. Fishers and their representatives from two villages viz. Dhakti-Dahanu and Gungwada were completely non-cooperative for conducting fishery and socio-economic surveys from the beginning. Several letters were sent to all the Fishermen Co-operative societies in the region, State Fisheries Department, Maharashtra and Maharashtra Maritime Board seeking their support in gathering the information in the survey forms of the villages (Letters attached in the Annexure). Due to this non-cooperation in sharing information or conducting onboard surveys, the information on the socio-economic status of the fishers from the 16 villages has been collected and compiled from already existing information available with ICAR-CMFRI up to 2016 and the information available from the Department of Fisheries, Govt. of Maharashtra.

In this report, ICAR-CMFRI compiled and analysed the demographic population, number of households, infrastructure facilities, educational status, fishing and allied activities, income and expenditure patterns of fishers etc. The information about the operation of fishing crafts and gears in the possibly affecting area was gathered by inquiry and by conducting personal interviews with the fishers from the identified villages.

In addition to this, the cost-benefit analysis for commercially operating crafts and gears *viz*., *dol* nets and gillnets etc. were estimated using fixed cost, operating cost, price structure details, and revenue from the fish landing centres. The catch and price structure were collected from the Fish Production Reports (2013-2018) of the State Fisheries Department, Maharashtra. The earnings of each fishing craft were estimated by collecting information about fixed costs and operating costs through enquiry and structured questionnaires. With all the available economic data the net profit of the major gears has been computed and summarized in this report.

Study of fish diversity and fishery

It was planned to conduct exploratory surveys to understand the fishery resources, their diversity, and abundance in the coastal area where the construction of the proposed port may have impacts. Unfortunately, the fishers refused to provide any fishing boat on a contract basis or rent to conduct the experimental survey. ICAR-CMFRI approached the State Fisheries Department, Maharashtra to provide their patrolling boat for the fishery survey, and agreed to provide a vessel. However, due to agitation from the fishers, the experimental survey team was unable to board the boat or conduct the survey. Pending threats on life and property no experimental surveys were conducted in the proposed port area. However, an unsorted catch of fishes from the fishers who operate their *dol* nets, gillnets, and shore seines in the proposed port area was collected from June 2017 to May 2018. The fishing locations were also collected from the fishers during the collection of samples. The samples were taken to ICAR-CMFRI Mumbai Regional Station Laboratory for detailed taxonomic identification up to species level and biological analysis on sex and maturity. The total number of fishes in samples and the weight of each species/group were recorded.

The detailed data on fishery and other information collected from the Fish production report, Department of Fisheries, Maharashtra for the past years (2013-2018) and during ICAR-CMFRI surveys were analysed for the present report.

Chapter 3 – Results

Extent of fishing areas and the fishing villages around the proposed port

1. Fishing villages around the proposed fishing area

The proposed Vadhavan Port is planned almost at the northern side of coastal Maharashtra (Fig.1), very near to the Dahanu creek, Palghar. Fishing and allied works are the major livelihood activities for the majority of the population in the selected 16 fishing villages within 10 km radius of the proposed Vadhavan port area. The fisher population, in general, and the fishing crafts and gears in particular, operating from villages near to the proposed site are likely to be affected by the port construction and activities. As per the guidelines of environmental impact studies, an area of 10 km radius and the villages falling in this area from the boundaries of the proposed port area have been identified. As explained earlier, a few villages beyond the radius of 10 km are also included in the survey as the fishing boats from these villages utilising the landing, operating facilities in the identified coastal villages within 10 km range.

The boundaries of the proposed port were collected from JNPT as 19°55'59.85"N 72°39'42.36"E (Fig.2). Based on this location, ICAR-CMFRI identified 16 villages, which come under 10 km radius (Fig.3) from the proposed Vadhavan Port location as thepossibly affected villages. The proposed port and the port facilities will be in the reclaimed area on the intertidal zone near Vadhavan village taking advantage of the large intertidal area of the location and the port will need a minimum land acquisition as per the information from JNPT which is mainly for the rail, road connectivity, and other necessary infrastructures. The list of coastal villages identified by ICAR-CMFRI which arelikely to be impacted by the development of the port development are given in Table 1 and Fig. 3. The villages within the port limit can be considered as the most affected villages due their proximity (Tadiyale, Gunguwada, Dakti Dahanu,Vadhavan and Varore).

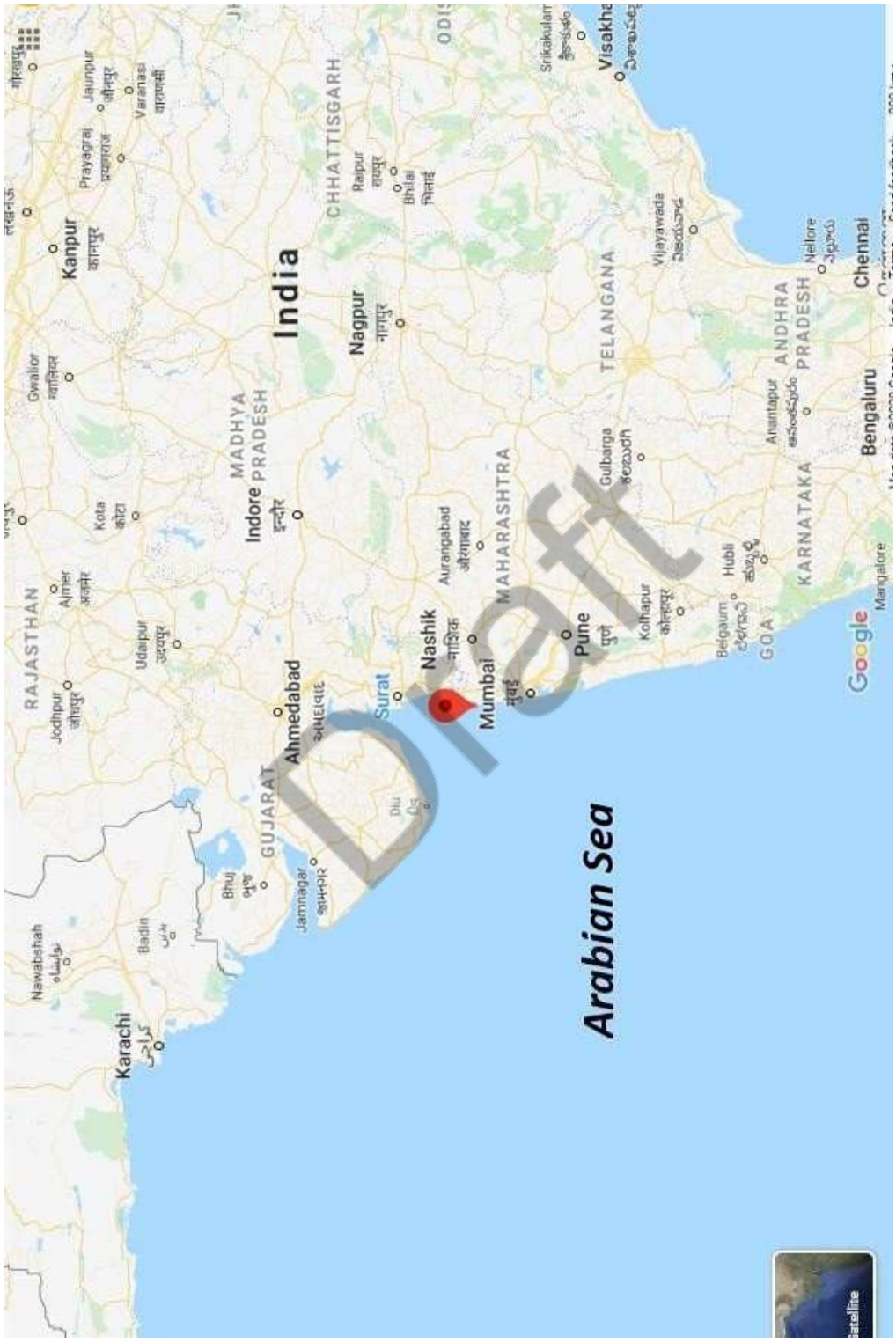

Figure 1. Proposed port location Vadhavan, Maharashtra (marked in red)

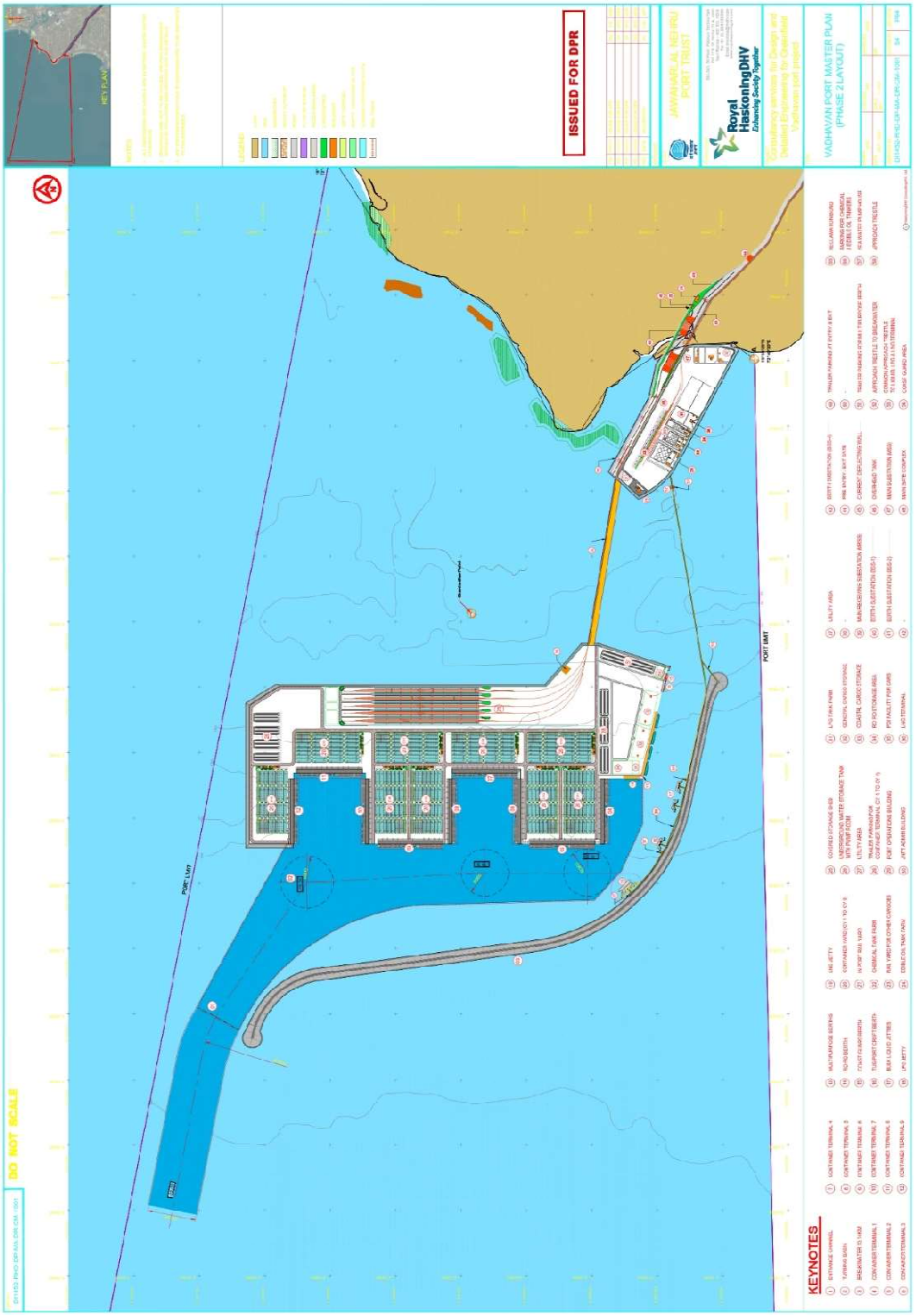

Figure 2. Proposed Vadhavan Port layout

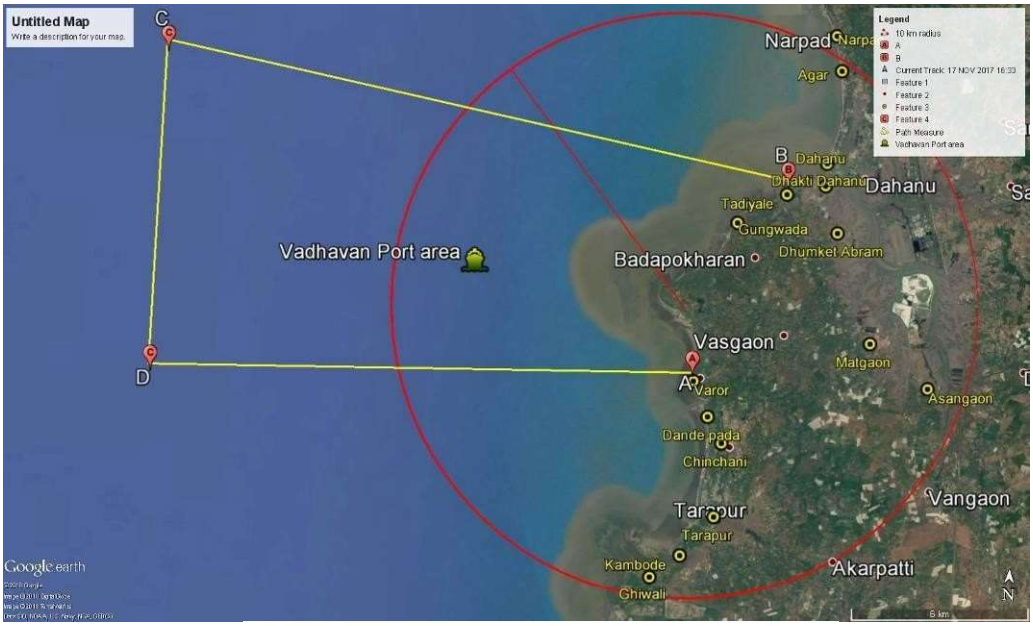

Figure 3. Area of study within 10 km radius from proposed Vadhavan Port site

Table 1. List of marine fishing villages within 10 km radius of the study area

Sr. No.	**Name of village**	**Sr. No.**	**Name of village**
1	Ghivali	9.	Gungwada
2.	Kambode	10.	Matgaon
3.	Tarapur	11.	Asangaon[a]
4.	Chinchani[b]	12.	Agar[a]
5.	Tadiyale	13.	Narpad[a]
6.	Varor	14.	Dandepada[b]
7.	Dhakti-Dahanu	15.	Dhumket
8.	Dahanu	16.	Abram

[a]Narpad, Agar &Asangaon are not exactly coming under 10 km radius of the project area, but the majority of fishers from these villages are members of Dahanu Fishermen Co-operative Society and they operate boats from Dahanu landing centre, conduct fishing in the near-shore waters. Therefore, CMFRI has included these fishing villages for the study.

[b]Dandepada and a part of Chinchani revenue village is a hamlet in Govt.documents, but it is a separate fishing village as per Marine Fisheries Census 2010.

2. Fishing area and extent of different gear operation around Vadhavan Project:

The Vadhavan port area is proposed between rocky shore south of Dahanu creek and Ghivali village in the north. The proposed port area is full of rocky patches with dunes near to the shoreline. The seaward area of the proposed port has sandy and muddy bottom interspersed with underwater rocky crevices. The intertidal zone is a highly undulating rocky area. The nearshore and offshore area is a productive fishing zone supporting the livelihood of many marginal fishers. The fishing practices in this area are diverse, with a variety of fishing gears viz., Set bag net (*Dol* nets and *Bokshi*,), drift gillnets, bottom set gillnets, shore seining, cast net, crab traps and handpicking of bivalves. The multi-gear fishing activity is attributed to diverse fishery resources available in the coastal waters around the proposed project area. The extent of fishing area (Fig. 4) and the methods of fishing are given below.

The main shipping and port operation will take place within the harbour area enclosed by the breakwater wall. This area is approximately 175 sq. km. Fishing by any boat and gear will not be possible or limited in this area when the port is established. The area outside the harbour within the port limit is 58 sq. km. In this area, fishing will be subjected to regulations by the port authority but may be permitted when the ships are not plying. The area beyond will be marked for the anchorage and navigational channel. Since the shipping channel of this port as per plan is relatively small which is within the port limit only, it will not largely affect the movements of fishing boats and activities.

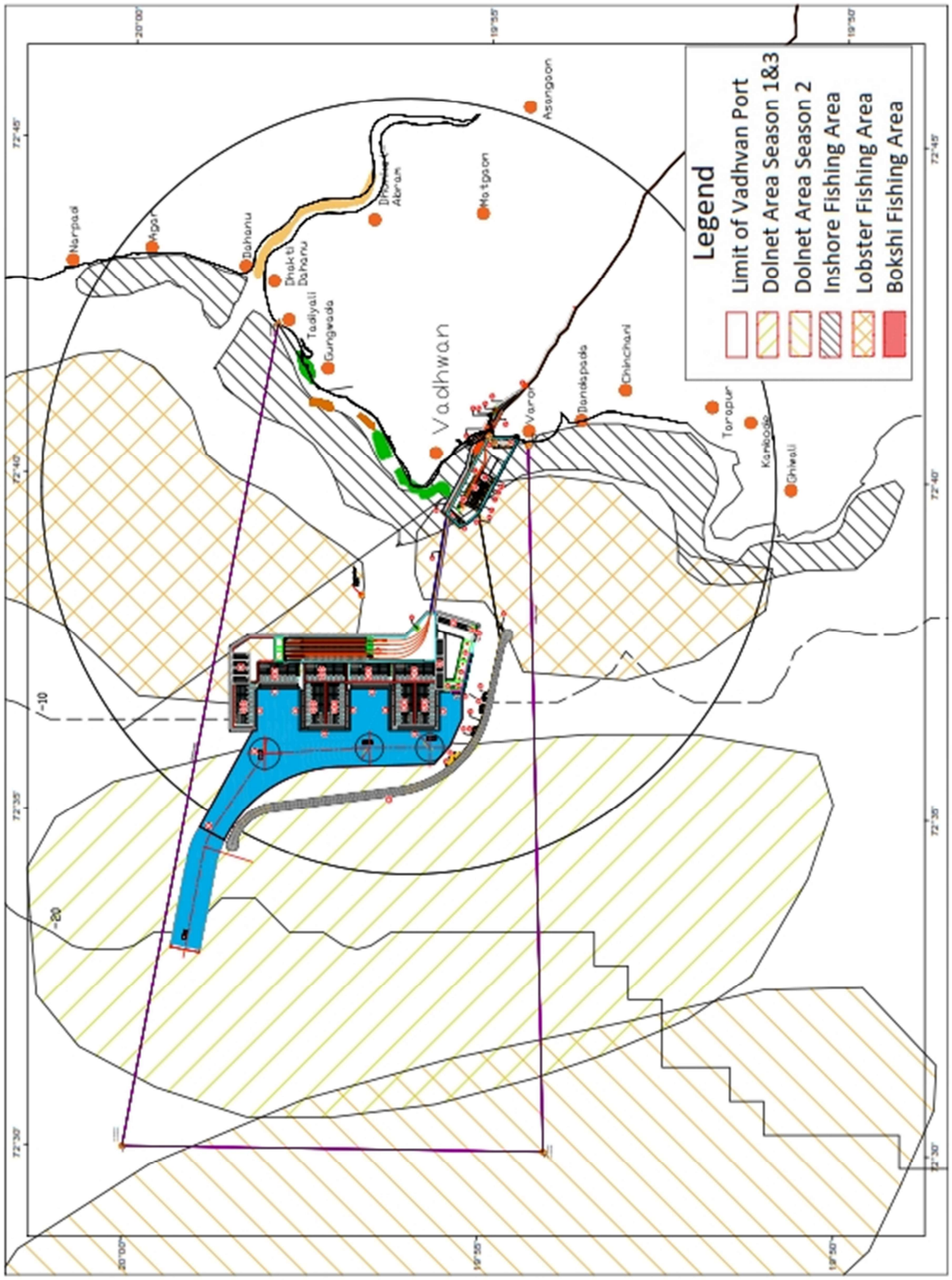

Figure 4. The extent of fishing area* in the proposed Vadhavan port area with port limits

* - As the fishermen were not cooperative and unwilling to share their actual fishing location (*sus*), only the fishing area as known and shared is shown in map.

Set Bag Net Fishery (Dol net and Bokshi):

Set Bag net is a major fishing gear in the coastal waters of the proposed project area (Table 1). In this area, bag nets are of two type viz., *Dol* net and *Bokshi jal*. *Dol* net are elongated bag like nets operated in nearshore and offshore waters while *Bokshi jal* operation is restricted to inshore and mouth of Dahanu creek. These nets are attached to poles inserted into the sea bottom, in a series multiple nets will be operated. The offshore *Dol* net fishers use two variants of the net for fishing (locally called as *Bombil* net/'*Kav*' fishing) and *Karli dol* fishing. The '*Kav*' net fishing mainly targets Bombay duck, golden anchovy, clupeids, ribbon fishes and non-penaeids prawns etc., while *Karli dol* fishing targets the silver pomfret, polynemids, croakers, carangids, Hilsa spp., and seer fishes. These bag nets are kept horizontal by flooding and ebbing tidal currents which are strong during the new moon and full lunar phases. The fishers carry out fishing when spring tides prevail and the currents are strong enough to sustain the net from 11^{th} to $4^{th}/5^{th}$ lunar calendar days (from *Ekadashi* to *Chathurthi/Panchami*). However, during neap tides, as the tidal currents are weak, the operations are suspended by fishers from 5^{th} to 10^{th} lunar days (*Panchami* to *Dashmi*). The effective fishing period for bag net fishing in the villages lasts for 16-20 days in a month.

Parts of the proposed port area are highly favorable for the *dol* net operation owing to sandy-muddy bottom and strong tidal currents and it is carried out at a depth ranging from 10 to 30 m depending on the season. The first season starts from September to November when *dol* nets are operated in the shallow water of 10 to 18 m targeting mainly Bombay duck, pomfrets, Golden anchovy. In the second season (December to March), *dol* netters move outwards in deeper waters up to 30 m depth. Subsequently, in the third season (April-June), the nets are set again in shallow water targeting mostly '*Kardi*' (Non-Penaeid prawns). Small bag nets ('*Bokshi*' nets) are operated in the mouth of the creek throughout the year but they do not change the location with the season. Once the port is established an area of approximately 42 sq. km.area will not have enough tidal currents to operate *dol* nets. The fixed *sus* in the area would become redundant and will have to be removed even during the construction phase of the port.

During the extended period of the project, ICAR-CMFRI tried to collect the fishing/spike location from the fishers. Shared location of the *'sus'* around the proposed project area was plotted. While plotting on GIS platform it was observed that there are several bagnet stakes *'sus'* in the project area and adjacent regions (Fig. 5) There may be chances of more *'sus'* in and around the proposed site, but due to opposition from the leaders, CMFRI couldn't venture in to sea for verificatin of the details shared. During the construction phase and

the operational phase, all the *'sus'* in this area are likely to be removed permanently. A total of 903 fishing structure locations were shared by fishers from Dhakti Dahanu, Gungwada and Dahanu of which 265 fall in port limits (Fig. 5)

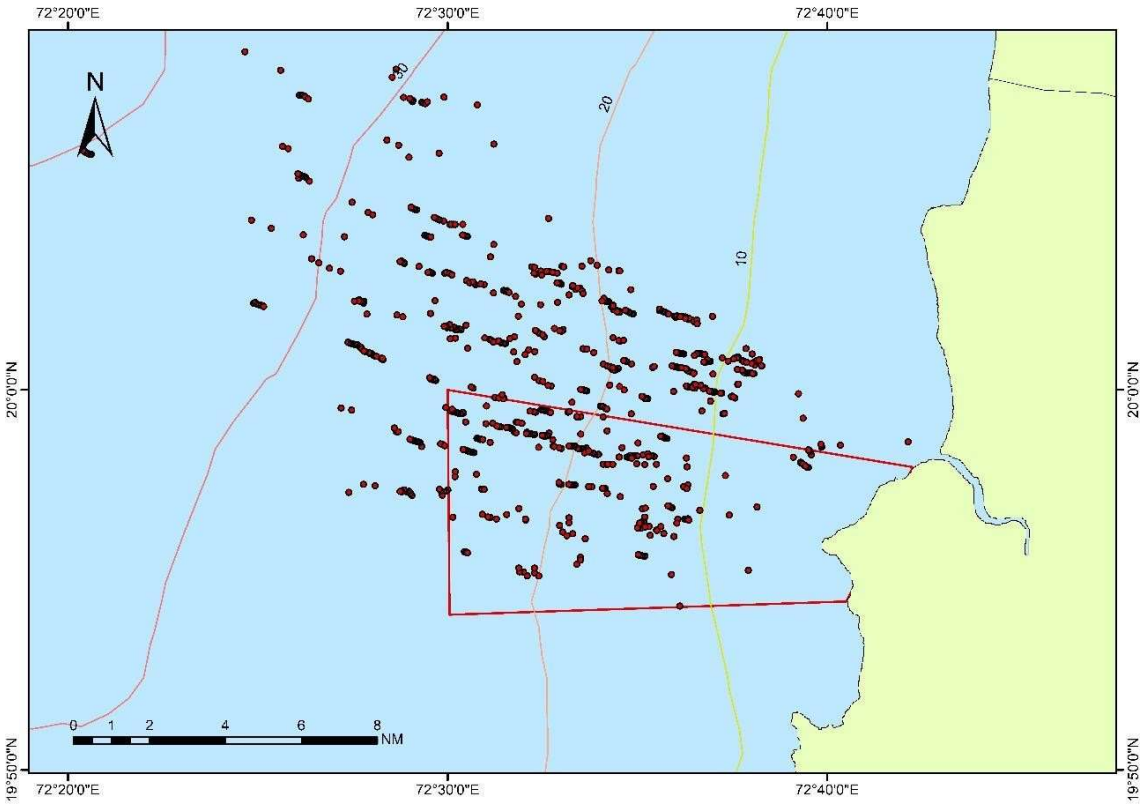

Figure 5. Set bagnet fishing operation location (shared by fishers), similarly several SBN may be in the project site and around.

Gillnet fishery

Gillnets form an important fishery targeting high-value fishes in the nearshore and offshore fishing areas as well. Gillnetting is a selective type of fishing method in which fish are caught by entangling and enmeshing. Depending upon the targeted species, the design and buoyancy gillnets are adjusted to set near the surface, midwater and bottom. Fishers in these areas use three different types of gillnet *viz*. drift gillnet ('*Tarti*'), bottom set gillnet ('*Budi*') and small gillnet ('*Vavri*'). Since the port site has rocky structures parallel to the coast extending up to 8-10 meter depth, it is an important area for lobster fishery. Fishers operate bottom set gillnet *Budi* around this rocky area to target lobster, which fetches high value in the market. Fishers operate drift gillnet '*Tarti*' to target high- value fishes such as polynemids (*Rawas* and *Daldha*), *ghol*, *koth*, seerfish and pomfret.

The fishing is carried out beyond 20-25 m water depth. The fishers also operate small gillnets '*Vavri*' near to shore up to 5-8 m water depth. It is a single day fishing operation

and fish catch consists of mullets, clupeids, sharks and juveniles of commercial import species. Once the port is established, an area of approximately 30 sq. km., will be affecting gillnet fishing completely. Besides fishers in the shadow zone of the port have to travel additional distances to reach their fishing locations, incurring additional operating costs and diminishing returns.

Other fishing methods

Several fishers in the area are small-scale/marginal fishers who operate shore seines, crab traps and bivalve collection along the shore and inside the creek in intertidal areas during low tides.

Out of the 16 villages selected 7 villages like Ghivali, Kambode, Chinchini, Matgaon, Gungwada, Asangaon and Abhram have bivalve, seaweed and ornamental seed collectors as per the data collected by ICAR-CMFRI in 2016. A total of 826 people involved in this activity. Most of these activities are seasonal and mainly females involved in the activities. The details are attached as annexures.

Village	Occupation	Number (Male)	Number (Female)	Total Number
Ghivali	Bivalve Collector	**0**	**626**	**626**
Kambode	Bivalve Collector	**20**	**27**	**47**
	Shell Collector	**5**	**6**	**11**
	Seaweed Collector	**2**	**1**	**3**
	Ornamental seed Collector	**0**	**1**	**1**
Chinchani	Bivalve Collector	**0**	**107**	**107**
	Shell Collector	**0**	**22**	**22**
Matgaon	Bivalve Collector	**0**	**3**	**3**
Gungwada	Bivalve Collector	**0**	**4**	**4**
Asangaon	Bivalve Collector	**0**	**1**	**1**
Abhram	Bivalve Collector	**1**	**0**	**1**
	TOTAL	**28**	**798**	**826**

The *shore seine* operation is carried out along the beaches and inside creek with small-sized gillnets which are operated by 2-3 persons in chest-deep waters by dragging the net towards the shore. The crab collectors use circular traps called '*Pagoli*' to catch crab in the mangrove area inside the creek. A small number of fishers engaged in crab collection. These crabs fetch a good price in the local market. A large number of women in these villages are involved in the molluscs, collection on the intertidal rocky area and intertidal areas of the creek to handpick slugs, bivalves and oysters.

Demographic Features

ICAR-CMFRI tried to undertake socio-economic surveys in 16 selected fishing villages around the 10 km radius of the proposed port limit based on a structured questionnaire prepared by the Socio-Economic Evaluation and Technology Transfer Division (SEETTD) of ICAR-CMFRI. Two villages namely Varor and Dandepada completed the survey and handed over the questionnaire to ICAR-CMFRI. Villages namely Narpad, Agar & Dahanu fishing villages completed the survey but due to the opposition from Dahanu Fishermen Co-operative society members, they refused to hand over the filled socio-economic questionnaires. Nine villages namely Dhumket, Abhram, Tadiyale, Asangaon, Matgaon, Ghivali, Kambode, Tarapur and Chinchani partially completed the survey but did not hand over the questionnaire due to the influence of *Vadhavan Bundar Sangharsh Samiti* members, local fisher leaders and other non- fishery related stakeholders. So, CMFRI was unable to execute any direct household survey. Fishers and their representatives from two villages *viz.,* Dhakti-Dahanu and Gungwada were non-cooperative for the socio-economic surveys. As a result, the requiredinformation and data were gathered from the information already available with ICAR- CMFRI collected in 2016 and information available from the Department of Fisheries, Government of Maharashtra. A total of 16 fishing villages fall within 10 km radius of the proposed Vadhavan Port site. The fisher population of these fishing villages is 20,809 residing in 5,333 households (Table 2).

Table 2. Demographic details of villages within and around the proposed port area

Sl. No.	Village	Fishermen Households	Total Population	Male	Female
1	Agar	116	514	261	253
2	Narpad	45	180	96	84
3	Dahanu	465	1927	989	938
4	Dhakti-Dahanu	1110	4370	2207	2163
5	Gungwada	537	1788	904	884
6	Tadiyale	229	869	456	413
7	Varor	299	1269	631	638
8	Dandepada	219	925	487	438
9	Chinchani	416	1816	924	892
10	Tarapur	154	605	293	312
11	Kambode	135	487	271	216
12	Ghivali	611	1814	901	913
13	Dhumket	345	1569	767	802
14	Abhram	157	684	314	370
15	Matgaon	300	1257	613	644
16	Asangaon	195	735	361	374
	TOTAL	**5333**	**20809**	**10475**	**10334**

It is seen from the table that out of 5,333 fisher households, 91.2% are pucca houses while 470 households (8.8%) are kutcha houses. Of the total, 3,582 (67.2%) fisher households are above the poverty line (APL) and 1,751 households (32.8%) are below the poverty line (BPL).

Most of the fisher population seems to be congregated in Dhakti-Dahanu village (21.0%) followed by Dahanu (9.3%), Chinchani (8.7%), Ghivali (8.7%), Gungwada (8.6%), Dhumket (7.5%). The remaining 7,525 fisher population (36.2%) resides in the remaining 10 villages. The sex ratio was 1:0.99 in the 16 villages (Table 2).

Table 3. Population of villages within the port vicinity

Sl. No.	Village	Adults	Infant (Below 5 year)	Children (Year 5 to 18)
1	Agar	397	36	81
2	Narpad	143	7	30
3	Dahanu	1510	125	292
4	Dhakti-Dahanu	3306	179	885
5	Gungwada	1425	115	248
6	Tadiyale	643	59	167
7	Varor	960	84	225
8	Dandepada	749	57	119
9	Chinchani	1438	148	230
10	Tarapur	479	30	96
11	Kambode	402	21	64
12	Ghivali	1536	82	196
13	Dhumket	1105	155	309
14	Abhram	459	48	177
15	Matgaon	845	115	297
16	Asangaon	543	77	115
	TOTAL	**15940**	**1338**	**3531**

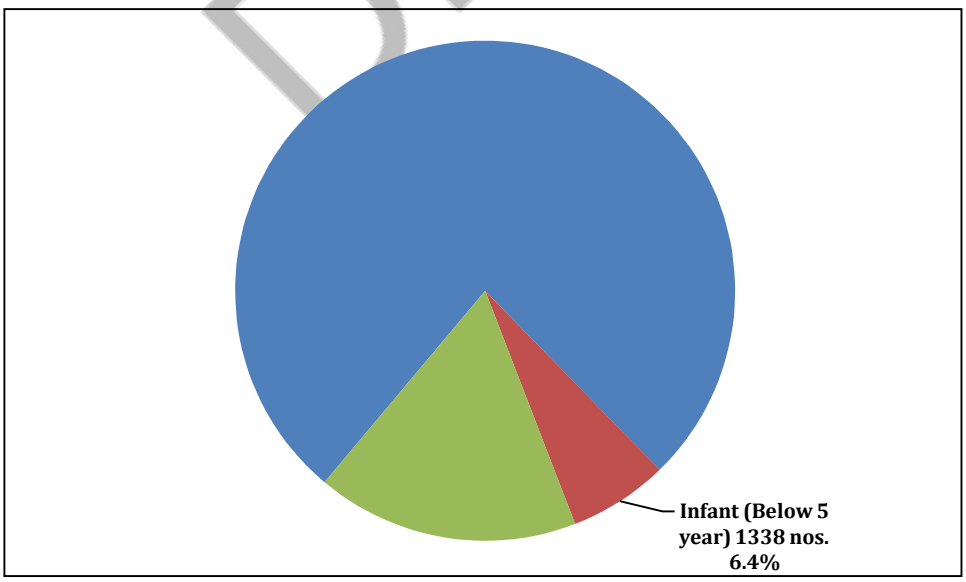

Figure 6. Pooled percentage composition of age group status among fisher families

The analysis revealed (Table 3 & Fig. 6) that among fisher population, adults age group dominated 15,940 individuals (76.6%) followed by 3,531 children (17.0%) and infants 1,338 (6.4%).

Data analysis (Table 4 & Fig. 7) showed that 17,486 individuals (89.8%) of the fisher population were literates and the remaining 1,985 individuals (10.2%) were illiterates. It was observed that out of 19,471 adult population most of them (41%) have studied up to higher secondary level, followed by primary level 7,565 (38.9%), those above higher secondary level 1,408 (7.2%) and graduation & above 528 (2.7%).

Table 4. Literacy level of fishers in the proposed port area

Sl. No.	Village	Primary	Higher Secondary	Above Higher Secondary	Graduation & above
1	Agar	63	218	77	63
2	Narpad	60	88	14	10
3	Dahanu	699	948	113	23
4	Dhakti-Dahanu	1354	1505	426	67
5	Gungwada	890	601	149	13
6	Tadiyale	155	465	41	7
7	Varor	329	700	125	34
8	Dandepada	183	527	115	58
9	Chinchani	1171	343	61	153
10	Tarapur	167	281	68	39
11	Kambode	306	132	26	15
12	Ghivali	873	686	156	45
13	Dhumket	321	707	7	1
14	Abhram	436	61	2	0
15	Matgaon	138	677	13	0
16	Asangaon	420	46	15	0
	TOTAL	**7565**	**7985**	**1408**	**528**

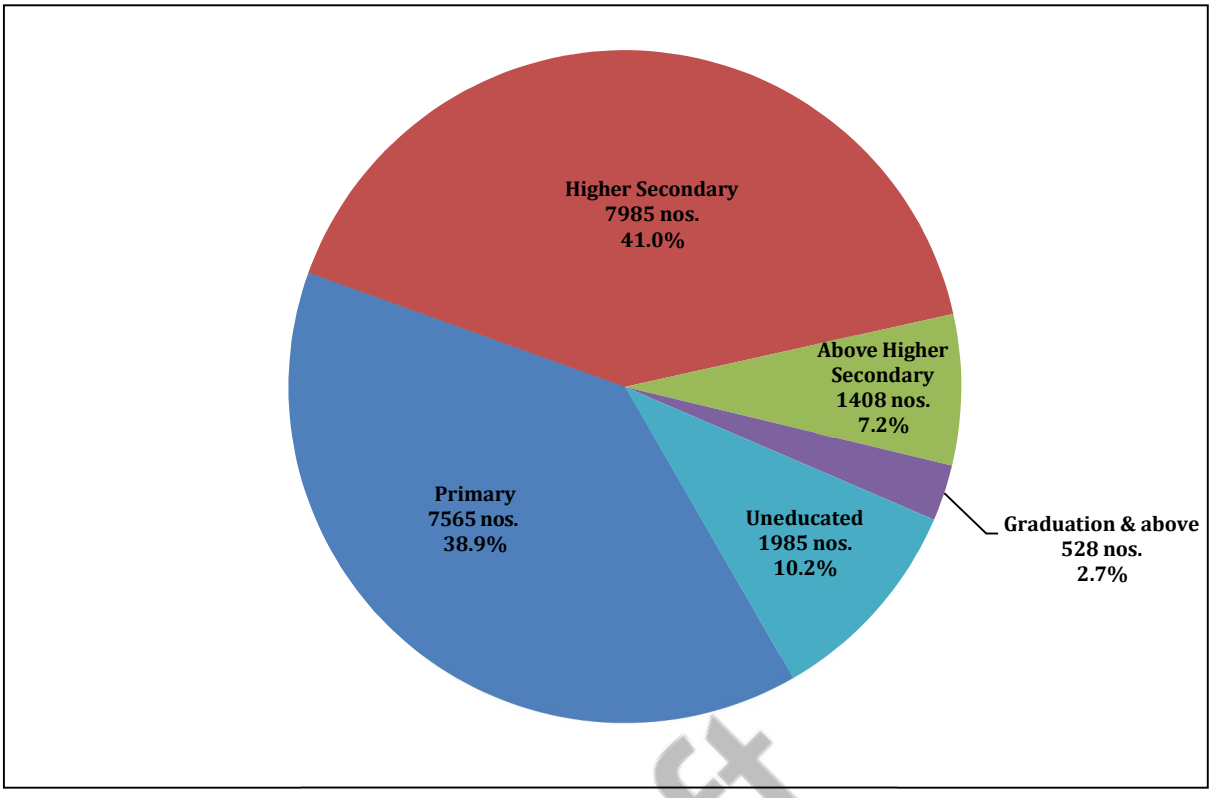

Figure 7. Literacy level of fishermen

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Dhakti-Dahanu fishing village has maximum number of 3,352 individual's educated accounting for 19.2% followed by Dahanu 1,783 (10.2%), Ghivali 1,760 (10.1%), Chinchani 1,728 (9.9%) and Gungwada 1,653 (9.5%).

Table 5. Village-wise fisher population involved in fishing and fishing associated activities

Sl. No	Village	Members Involved in Actual Fishing		Number of members involved in Fishing associated activities (Male + Female)					
		Full Time	Part Time	Marketing of Fish	Making / Repairing net	Curing / Processing	Peeling / Cutting	Labourer	Others
1	Agar	99	0	0	1	57	0	52	3
2	Narpad	24	1	1	0	45	0	12	0
3	Dahanu	171	67	107	14	455	1	274	0
4	Dhakti-Dahanu	887	172	850	6	738	0	75	2
5	Gungwada	79	406	63	10	344	0	37	11
6	Tadiyale	74	126	65	14	134	2	8	0
7	Varor	60	162	248	51	0	0	0	125
8	Dandepada	19	146	141	14	0	0	1	64
9	Chinchani	3	0	409	15	87	128	47	226
10	Tarapur	6	132	127	22	0	0	1	124
11	Kambode	0	1	16	1	0	0	0	173
12	Ghivali	0	0	0	0	0	10	197	513
13	Dhumket	176	178	167	81	222	2	191	0
14	Abhram	39	64	36	28	121	1	104	2
15	Matgaon	66	211	204	27	3	8	52	6
16	Asangaon	31	137	158	21	6	0	18	1
	TOTAL	**1734**	**1803**	**2592**	**305**	**2212**	**152**	**1069**	**1250**

The fishers who spend at least 90% of the fishing time (excluding closed season) in a year for the source of income in were considered as "Full-time fishers" whereas fishers those who spend less than 90% of the fishing time in a calendar year were considered as "Part-time fishers". The study revealed that 3,537 (17%) of the total fisher population is involved in actual fishing activities. Among them 1,734 fishers (49.0%) are engaged full time and the remaining 1,803 fishers (51.0%) have part-time involvement in fishery-related activities. A total of 7,580 fishers are engaged in fishing associated activities viz. marketing of fish, making/repairing of nets, curing / processing, peeling/cutting, labourer and other activities such as the collection of bivalves, seaweeds, collection of ornamental fishes, etc. (Table 5).

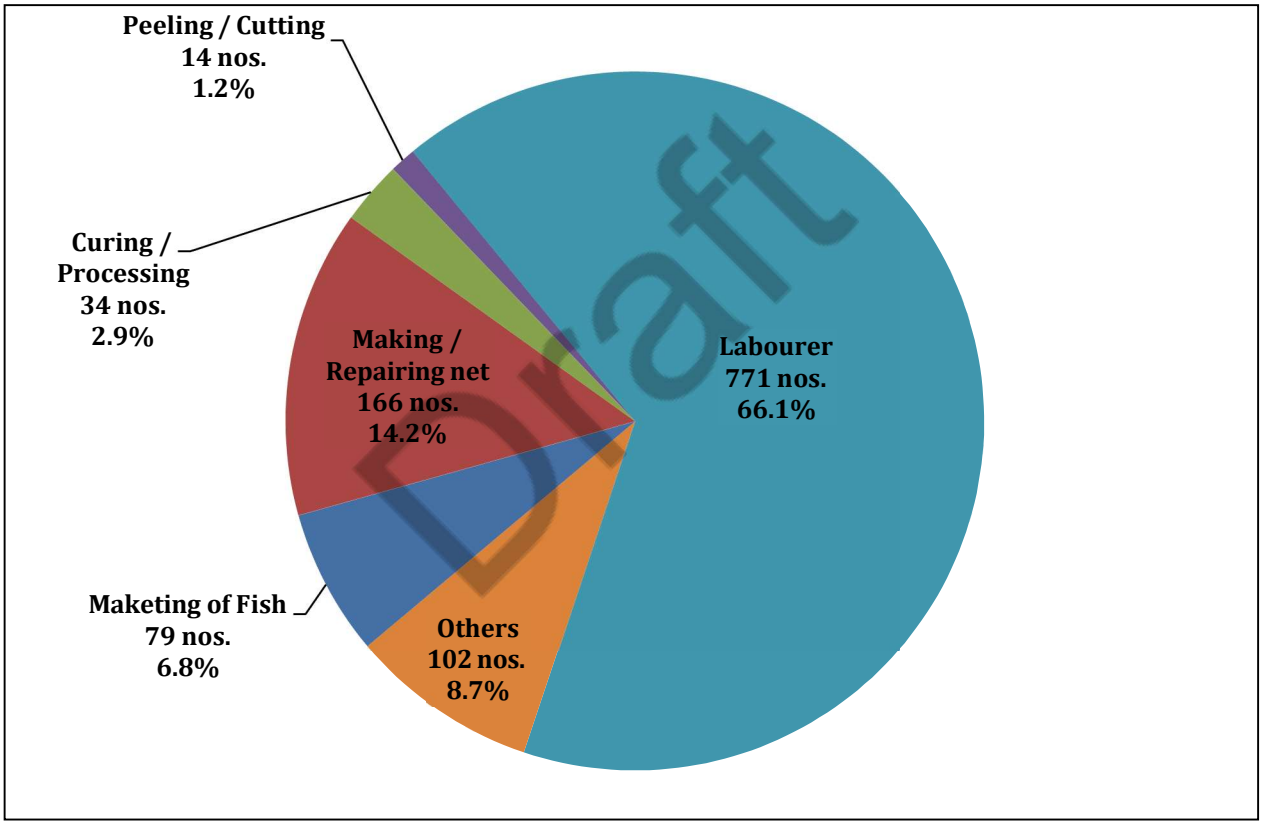


Figure 8. Fishermen involved in fishing associated activities (%)

It is seen from the Fig. 8, that, a substantial number of fishermen (771 individuals) work as labourers (66.1%) including hired fishing crew members followed by 166 fishermen involved in net mending/repairing (14.2%) and 79 individuals marketing of fish (6.8%). Most of the labourers working as crew members on board the fishing boats come from Dhumket, Abhram, Matgaon and Asangaon villages which do not have direct access to the sea coast.

Unlike male fisher population, 4,691 fisherwomen (73.2%) are involved in post-harvest management of fish. These activities are the marketing of fish and curing/processing of the fish catch (Fig. 9). Main post-harvest activity undertaken in these villages is fish drying of Bombay duck (*Bombil*), golden anchovy (*Mandeli*), non-penaeid prawns (*Jawala*, *Kardi*, *Ambadi*/*Bhobi*), lesser sardines (*Kati*), ribbon fishes (*Wakati*), solefish (*Lep*) and sciaenids (*Dhoma*) etc. Remaining 1,723 fisherwomen (26.9%) are engaged in making / repairing of net, peeling/cutting, labour activities and other activities (Fig. 9).

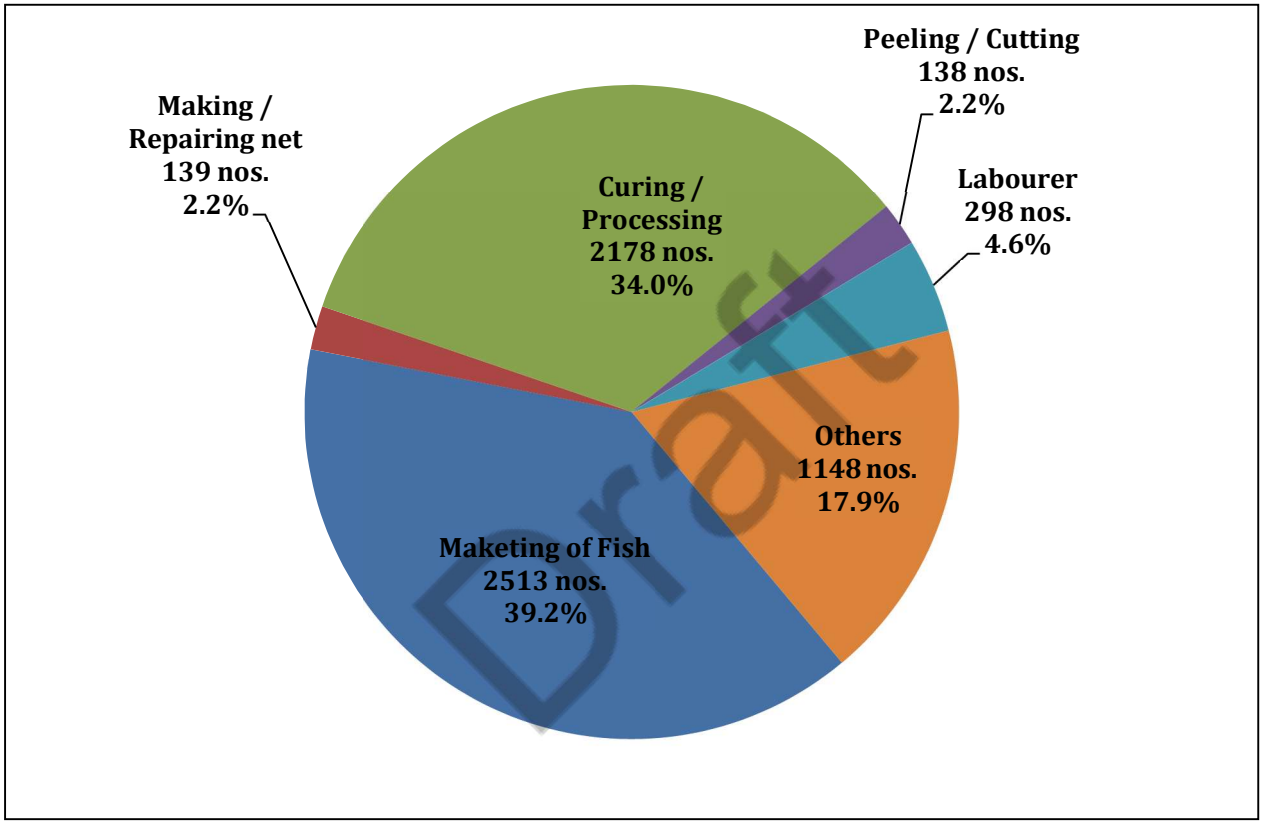


Figure 9. Fisherwomen involved in fishing associated activities (%)

A large number of coastal communities, mostly women are involved in fish drying for consumption purpose and trade along the open, common spaces in the village and beach areas. This provides income and economic security to women.

Number of fishing vessels operating in near-shore and offshore fishing areas

An inventory of registers maintained by the State Fisheries Offices at Palghar and Dahanu and digital platform (ReALCraft) maintained by the department shows that only 11 villages Ghivali, Kambode, Tarapur, Dahanu, Narpad, Agar, Dhakti-Dahanu, Gungwada, Tadiyale, Chinchani and Varor have fishing boats. Altogether there are 470 fishing boats registered in the online site (ReALCraft) of the Fisheries Department, Govt. of Maharashtra, but it was found that at present only 337 boats are having fishing licenses. (Table 6).

Table 6. Village wise details of operational fishing crafts in the study area

Sl no.	Name of the village	ReALCraft registered vessels		Licensed fishing boat	
		Mechanised	Non mechanised	Mechanised	Non mechanised
1	Ghivali	20	01	08	00
2	Kambode	01	00	01	00
3	Tarapore	05	00	05	00
4	Dahanu	171	07	115	00
5	Narpad	08	00	01	00
6	Agar	12	00	08	00
7	Dhakti-Dahanu	190	01	154	00
8	Gungwada	06	00	06	00
9	Tadiyale	07	00	04	00
10	Chinchani	17	03	06	00
11	Varor	29	00	29	00
TOTAL		470	12	337	00

(Source: Department of fisheries, Maharashtra state, Year 2018)

Existing fisheries infrastructure & facilities in the region

The fisheries infrastructure in the region are limited (Table 7). Ice factory/cold storage facility is available only in Dahanu village among the villages. Other villagespurchase ice from the Dahanu ice factory which needs up-gradation. Six registered fishermen co-operative societies from the study area are located in Ghivali, Varor, Chinchani, Gungwada, Dhakti-Dahanu and Dahanu fishing village. The diesel storage facility is available only in Gungwada and Dhakti-Dahanu. The villages lack proper fishlanding facilities like jetty or harbour. Most of the fish landings are taking place in thebeach. As the fishers are against the proposed port, during the study it was informed that they do not want any infrastructure facilities with the help of JNPT.

Table 7. Fisheries related infrastructure in the selected villages

Sr. No.	Name of village	Fisher societies	Ice factory/ cold storage	Diesel storage facility
1.	Ghivali	1	-	-
2.	Kambode	-	-	-
3.	Tarapur	-	-	-
4.	Chinchani	1	-	-
5.	Dandepada	-	-	-
6.	Varor	1	-	-
7.	Gungwada	1	-	1
8.	Tadiyale	-	-	-
9.	Dhakti-Dahanu	1	-	1
10.	Dhumket	-	-	-
11.	Abhram	-	-	-
12.	Matgaon	-	-	-
13.	Asangaon	-	-	-
14.	Dahanu	1	1	-
15.	Agar	-	-	-
16.	Narpad	-	-	-
	TOTAL	**6**	**1**	**2**

Suggestion of alternate (additional) livelihood activities for fishing and allied activities

Livelihood comprises capabilities, assets (including both material and social resources) and activities required for a means of living. Livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain its capabilities and assets both now and in the future, while not undermining the natural resource base (Chambers & Conway 1991).

Fisheries and fishery-related activities are important sources of livelihood in the coastal areas. Fishing is a highly specialized and skilled occupation. It requires a deep understanding of tools and techniques employed in fishing and post-harvest activities, inherent seaworthiness, understanding of navigational skills for exact location and fixing of *sus* (stake) at the appropriate place for tidal flux and oscillation of coastal tidal currents, indigenous knowledge of the behaviour of fish species, fishing grounds and searching fish using reasonably appropriate nets. Such skills and knowledge are passed on traditionally generation to generation. Owing to such skills anything beyond fishing at sea or related activities are unacceptable to the community.

The term "livelihoods" can have different meanings whether they are "enhanced" livelihoods, "diversified or supplemental" livelihoods, or "alternative" livelihoods.

Enhanced livelihoods primarily focus on adding value to ongoing traditional or historical activities. Supplemental and diversified livelihoods are somewhat different, intended to reduce household dependence on a single livelihood for income and food (e.g., fishing). A diversification strategy sometimes includes elements of enhancing existing livelihoods and adopting "supplemental" strategies (making current practices more sustainable). Alternative livelihoods require considerable extension support to set up and sustain often involving financial, technical, and material input from government, communities, and the business sector.

As per SEIA (Socio-Economic Impact Assessment) report, a total of 21 villages are coming under the alignment of rail and road. It is stated that the farmers might be influenced due to proposed road-rail line and tribal groups are vulnerable. However, the impact study of the present project on coastal fisheries as per MoEF & CC guidelines was conducted in 16 coastal villages. Based on the assessment, several options can be suggested for the livelihoods of vulnerable villages /families whose livelihood depends on fishing and related income-generating activities; these include (a) improving the existing

facilities, (b) diversifying or supplementing livelihoods, and (c) adopting alternative livelihood strategies. It should be noted that where the opportunities exist these communities can operate diversified livelihood systems. The fishing activities in these selected villages are seasonal and they carry out fishing as per the availability of the fishery resources which involves different levels of participation (Table 10).

Table 10. Livelihood groups in fishing villages under study (multiple tasks are undertaken by several people)

	Livelihood groups
Producer	• Fishing crew
	• Boat owners (Gillnetter, *Dol* netter & Small crafts)
	• Beach-seine (*Yendi* Jal) owners
	• Cast net fishers
	• Trap Net (Crab trap)
	• Shellfish collectors
	• Crab/lobster fishers
	• Aqua farmers
	• Aquaculture workers
	• Seed collectors
Traditional fish processors	• Shrimp peelers and graders
	• Fish dryers
Distributors/traders	• Head-load traders(women)
	• Fish vendors (bicycle)
	• Commission agents
	• Independent trader
Others	• Carriers and head-loader
	• Auctioneers and assistants
	Miscellaneous workers - Transport owners - Supplier of ice - Net menders (women & old people) - Engine mechanics

Suggested additional livelihoods or Non-fishing livelihood will be based on surrounding availability of the resources (boat repairs and some forms of aquaculture

including seed production and rearing of commercially important aquatic animals). Some of the possible non-fishing livelihoods options are enlisted below by considering the suggestions from the Department of Fisheries, Government of Maharashtra.

1. Pond based aquaculture (Shrimp/finfish farming)
2. Prawn and crab hatchery
3. Molluscan (Mussels and Clams) culture
4. Mud Crab culture
5. Nursery units/seed rearing centre
6. Open sea cage culture
7. Dry fish small units

Suggested extractive additional livelihood including fish processing like drying, curing, value addition and aquaculture based on wild fish seed supply etc. Some of extractive alternative livelihood options are enlisted below.

1. Construction & deployment of artificial reefs (developing line fishing)
2. Capture Based Aquaculture (lobsters)
3. Development of value-added products
4. Net making
5. Boatbuilding/repairing yards
6. Handicraft manufacturing

To develop alternate livelihoods sustainably, an assessment of resources, identification of the basic needs and opportunities, education and capacity development of the target group, creation of livelihood option plan, livelihood implementation considering social, technical, environment & marketing feasibility, supportinginfrastructure and policy etc. principle components should be taken into consideration.

In this connection, 20 fishers from the selected villages (Please refer Table 1) were trained for open sea cage culture of fishes at Mumbai and Karwar Research Centres of ICAR-CMFRI. Their response was very positive and encouraging. For land-based culture activities, leasing of land available with Government agencies and other organizations may be explored.

Information of fishes, fish breeding grounds and endemic fish species

The fishery is an important area of concern and whenever there is a development happens in the sea or in the marine/coastal ecosystems because of their economic, recreational, aesthetic and ecological roles. The abundance of the fishery resources is an indicator used by the public to discern the health of a waterbody because they are relatively sensitive to most habitat disturbances. Being mobile, sensitive fish species may avoid stressful environments. Fish are important in the linkage between benthic and pelagic food webs. As many of them are long-lived, they are good indicators of long-term effects. To understand the impact of the proposed port on the abundance and health of the fishery ICAR-CMFRI decided to conduct experimental fishing in the actual port site with the mechanised fishing vessel operating in that area and to collect representative samples from the fishing boats operating in the proposed area to study the fish diversity. The fishers from 10 km radius around the proposed port were non-cooperative to providethe boat for the fishing survey and restricted others who were willing to share fishing vessels for surveys and even created community-based issues within the society for supporting surveys. ICAR-CMFRI approached the Department of Fisheries, Maharashtra for their patrolling boat to conduct the survey, which was also could not materialise due to the agitation of fishers and ICAR-CMFRI officials could not board. In this regard, ICAR-CMFRI collected representative samples that were landed by fishing boats at Dahanu, Dhakti-Dahanu, Kambode, Varor and Ghivali and operated in the nearshore waters of the proposed port area during the period of study.

Fish species occurring in the study area:

The fishery resources in the study area are typical northern Arabian Sea fishes comprising a diverse fauna, including elasmobranchs (sharks, rays and skates), pelagic and demersal fin fishes, crustaceans comprising of prawns, lobsters and crabs, and cephalopods consisting of squids, cuttlefishes and octopus. The fisheries sector has played an important role in the economy of the region.

The fish diversity was revealed by observation of fisheries and from analysing the samples collected through 38 fishing samples from shore seine, gillnet, *dol* net and *bokshi* net samples from Dahanu, Dhakti-Dahanu, Kambode, Varor and Ghivali during June to May 2018. As June- July is a closed season for mechanised fishing, gillnet and *bokshi*

net samples were from the creek and the shore seine sample was from nearshore area and less than 5 m depth. Mechanised fishing (including motorised) small fishing boats operate in near-shore waters for mostly single day fishing. List of 126 species of fishes observed in the near-shore waters in June-May 2018 provided in Table 8 include 86 teleost's, 4 shark, 20 crustaceans and 13 molluscan species.

Diversity and catch of fishes in the areas during the period in near-shore was assessed based onshore seines (operated <5 m) and mechanised/motorised vessels (>10 m). The analysis of the fish samples shows that the study area provides the nursery for most of the commercially important species, most of the fishes observed were juveniles during June and July and dominantly mature/ripe fishes were observed in November – May. Ghivali and Kambode are hub of the bivalve fishery (*Paphia malabarica* and *Meretrix* sp.) in northern Maharashtra. None of the collected fish samples are endemic to the area.

Table 8. List of fishes observed in the area during June 2017 – May 2018

Group	Family	Species name	English common name	Local name
Mollusc	Muricidae	*Murex tribulus*	Rock snail	
	Babyloniidae	*Babylonia spirata*	Whelk	
	Onchididae	*Onchidium* spp.	Sea slug	
	Rostellariidae	*Tibia curta*	Indian tibia	
	Naticidae	*Natica picta*	Moon snail	
	Ostreidae	*Saccostrea cucullata*	Hooded oyster	
	Veneridae	*Meretrix meretrix*	Asiatic hard clam	
		Meretrix casta	Backwater hard clam	
		Paphia malabarica	Short neck clam	
	Loliginidae	*Loliolus (Loliolus) hardwickei*		
		Uroteuthis (Photololigo) duvaucelii	Indian squid	
	Sepiidae	*Sepiella inermis*	Spineless cuttlefish	Gotimakul
		Sepia pharaonis	Cuttlefish	
Crustacean	Solenoceridae	*Solenocera crassicornis*	Coastal mud shrimp	Goynar
	Lysmatidae	*Exhippolysmata ensirostris*		
	Palaemonidae	*Exopalaemon styliferus*	Roshma prawn	Kolambi
		Nematopalaemon tenuipes	Roshna prawn	
	Penaeidae	*Penaeus*spp.	Prawn	Kolambi
		Penaeus merguiensis	Banana prawn	Safetkolambi
		Penaeus monodon	Giant tiger prawn	Tiger zinga
		Parapenaeopsis hardwickii		
		Parapenaeopsis sculptilis	Rainbow prawn	Pateri
		Parapenaeopsis stylifera	Kiddi prawn	Tiny
		Metapenaeus brevicornis	Yellow prawn	Pollen
		Metapenaeus monoceros	Speckled prawn	Kapshi
	Portunidae	*Scylla tranquebarica*	Mud crab	Khekra
		Scylla serrata	Mud crab	Khekra
		Charybdis callianassa		Khekda
		Charybdis feriatus	crucifix crab	

		Portunus sanguinolentus	three spot swimming crab	
	Squillidae	*Harpiosquilla harpax*	Squilla	Khatvi
		Miyakella nepa	Squilla	Khatvi
	Palinuridae	*Panulirus polyphagus*	Rock lobster	Shevandi
Chondrichthyes	Carcharhinidae	*Scoliodon laticaudus*	Spadenose shark	Mushi
		Rhizoprionodon oligolinx	Sharpnose shark	golden mushi
		Carcharhinus brevipinna	Spinner shark	
		Lamiopsis temminckii	broadfin shark	
	Hemiscyllidae	*Chiloscyllium arabicum*	Arabian bamboo shark	
	Dasyatidae	*Brevitrygon imbricata*	Stingray	Pakat
		Pastinachus sephen		
Teleostei				
	Clupeidae		Chacundaguizzard	
		Anodontostoma chacunda	shad	
		Escualosa thoracata	White sardine	Bhiljee
		Sardinella longiceps	Indian Oil sardine	Tarli/Haid
		Nematalosa nasus	Gizzard shad	
		Tenualosa toli	shad	
		Tenualosa ilisha	hilsa shad	
	Engraulidae	*Coilia dussumieri*	Goldspotted grenadier anchovy	Mandeli
		Thryssa dayi	Day's thryssa	Kati
		Thryssa dussumieri	Dussumier'sthryssa	Kati
		Thryssa mystax	Moustached thryssa	Kati
		Thryssa setirestris	Longjawthryssa	Kati
	Chirocentridae	*Chirocentrus nudus*	Wolf herring	
	Pristigasteridae	*Pellona ditchela*	Indian pellona	Kati
		Ilisha megaloptera	Bigeye ilisha	Kati
		Ilisha filigera	Ilisha	Kati
	Ariidae	*Arius maculatus*	Spotted catfish	Shingala
		Mystus sp.	Catfish	Shingala
		Arius caelatus	Catfish	Shingala
		Netuma thalassina	Giant seacatfish	Shingala
		Plicofollis tenuispinis	Thin spine sea catfish	Shingala
		Osteogeneiosu smilitaris	Soldier catfish	Shingala
	Synodontidae	*Harpadon nehereus*	Bombay duck	Bombil
		Saurida tumbil	Lizard fish	ChorBombil
	Bregmacerotidae	*Bregmaceros mcclellandi*	Unicorn cod	Dandi/Tengli
	Antennariidae	*Antennarius striatus*	Frogfish	
	Belonidae	*Ablennes hians*	Flat needle fish	
		Strongylura strongylura	Spottail needlefish	Tol
	Hemiramphidae	*Hemiramphus sp.*	Half beak	Tol / toki
		Hyporhamphus sp.	Half beak	Tol / toki
	Latidae	*Lates calcarifer*	Barramundi	Jitada
	Serranidae	*Epinephelus diacanthus*	Spinycheek grouper	Hekru/Gobra
		Epinephelus coioides	Orange spotted grouper	Hekru/Gobra
	Terapontidae	*Terapon jarbua*	Jarbuaterapon	Navirihajam
	Sillaginidae	*Sillago sihama*	Silver sillago	Murdi
	Lactariidae	*Lactarius lactarius*	Whitefish	
	Rachycentridae	*Rachycentron canadum*	Cobia	
	Carangidae	*Alepesdjedaba*	Shrimp scad	Katbangada
		Alepesklenii	Razorbellyscad	Kala bangada
		Megalaspiscordyla	Torpedo scad	Bangada
		Trachinotus sp.	Pompano	American paplet
		Parastromateus niger	Blackpomfret	
		Scomberoides commersonnianus	Queen fish	
		Scomberoides tol	Needlescales queen fish	
	Sparidae	*Acanthopagrus arabicus*	Arabian Yellowfin seabream	Kali kishi/KhadakPalu

	Crenidens crenidens	Karanteen seabream	Karkara
Stromatidae	*Pampus candidus*	Silver Pomfret	Pamplet
	Pampus chinensis	Chinese pomfret	paplet
Gobiidae	*Aulopareia ocellata*	Fat taileyed goby	Nivati
	Boleophthalmus boddarti	Mudskipper	Nivati
	Glossogobius giuris	Tank goby	Nivati
	Boleophthalmus dussumieri	Dussumier's mudskipper	Nivati
	Trypauchen vagina	Pink worm goby	Nivati
Muraenidae	*Congresox talabonoides*	Indian pike conger	Wam
Ophichthidae	*Pisodonophis boro*	Rice-paddy eel	Wam
Polynemidae	*Eleutheronema tetradactylum*	Four finger threadfin	Dara
	Leptomelanosoma indicum	Indian threadfin	Rawas
	Polydactylus mullani	Arabian blackspot threadfin	Rawas
Trichiuridae	*Eupleurogrammus muticus*	Smallheadhairtail	Vakati
	Lepturacanthus savala	Savalaihairtail	Bala/Vakati
	Trichiurus lepturus	LargeheadhairtailBala	
Gerreidae	*Gerres filamentosus*	Whipfin silver-biddy	Shetak
Sciaenidae	*Johnius belangerii*	Belanger's croaker	Dhoma
	Johnius borneensis	Sharpnose hammer croaker	Dhoma
	Johnius dussumieri	Sin croaker	Dhoma
	Johnius elongatus	Spindle croaker	Dhoma
	Johnius glaucus	Pale spot fin croaker	Dhoma
	Johnius macrorhynus	Bigsnout croaker	Dhoma
	Protonibea diacantha	Spotted croaker	Ghol
	Otolithoides biauritus	Bronze croaker	Koth
Leiognathidae	*Karalla daura*	Goldenstripeponyfish	Kap
Tetraodontidae	*Lagocephalus guentheri*	Diamondback puffer	Kend
	Lagocephalus inermis	Smooth blaasop	Kend
	Lagocephalus spadiceus	Half-smooth golden pufferfish	Kend
	Takifugu oblongus	Lattice blaasop	Kend
	Dichotomyctere fluviatilis	Green spotted puffer	Kend
Lutjanidae	*Lutjanus argentimaculatus*	Mangrove red snapper	Tamb/Tamboshi
	Lutjanus johni	John's snapper	Tamb
Mugilidae	*Mugil cephalus*	Flathead grey mullet	Boi
	Liza subviridis	Greenback mullet	Boi
	Liza spp.	Mullet	Boi
Psettodidae	*Psettodes erumei*	Indian spiny turbot	Bhakas
Cynoglossidae	*Cynoglossus arel*	Sole fish	Lep
Scatophagidae	*Scatophagus argus*	Spotted scat	Chaba
Batrachoididae	*Colletteichthys dussumieri*	Flat toadfish	
Scombridae	*Rastrelliger kanagurta*	Indian mackerel	Bangda
	Scomberomorus guttatus	Indo-Pacific king mackerel	Surumai

Information about the breeding ground

The occurrence of fishes and the juveniles in the intertidal area was similar to the other intertidal areas of the state. During the period of sampling, the occurrence of fully matured fishes was analyzed. Adult lobsters were observed but mature lobsters with ripe eggs are not observed from the location. Published pieces of information show that the lobster spawns in deeper water and the juveniles come to the intertidal area to grow. The rocky intertidal area provides shelter for lobster larvae as they prefer to attach on the

rough surface. The occurrence of juveniles was high in certain pockets of the project area may be due to the presence of mangroves in those areas.

Marine Fish Production

Maharashtra with a coastline of 720 km and 1.12 lakh km² continental shelf area supported major marine fishery in the country. During 2018 annual landings was 2.95 lakh tonnes recording an decrease of 22.5% over the previous year (3.81 tonnes). The pelagic resource contributed major share with 38%, followed by demersal resources (28.7%), crustaceans (25%) and molluscs. The major fishing gears that supported the fishery were trawl net (55%), bag net (22.7%), purse seine (15.2%), and gillnet (7%). Palghar district (formerly part of Thane) contributed a major share in Maharashtra fishery (ICAR-CMFRI, 2018).

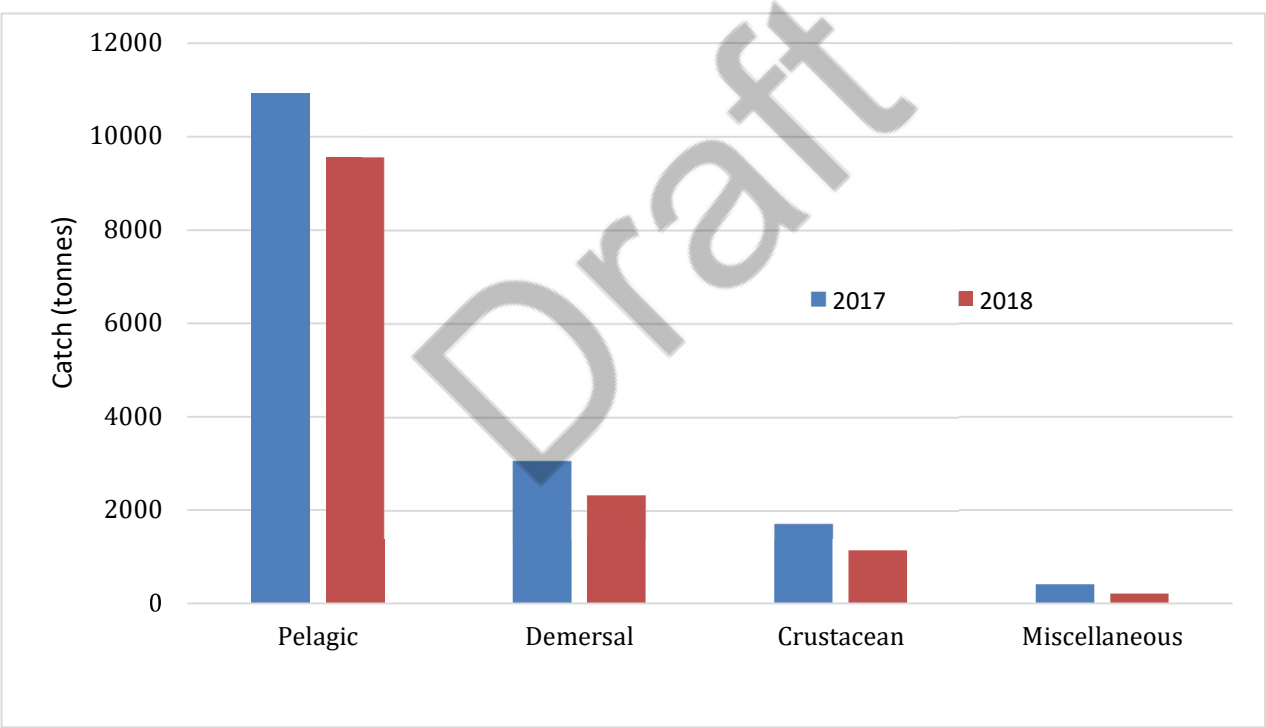


Figure 10. Contribution of different groups in fish landings of Dahanu and Pophran Dandi zone during the year 2017

Fish catch details of 9 villages namely Dahanu, Narpad, Agar, Dhakti-Dahanu, Gungwada, Kambode, Ghivali, Varor and Dandepada were available from fishing reports published by Fisheries Department, Govt. of Maharashtra. Since, nine out of 10 villages were covered it is presumed that the fish catch represents the entire project area (from here onwards mentioned as Dahanu Zone and a portion of Pophran Dandi Zone). The marine fish production of Dahanu Zone was 8046 tonnes in the year 2015 and was dominated by pelagic fishes. Catch increased subsequently due to innovations in sector. In 2017 the estimated catch from the zone was 7371 tonnes decreased (Fig. 11).

There are differences in the species composition of gears operated. Over the six years the catch has decreased by 80% from 2013-14 to 2018-19. Mechanised sector wasthe major contributor to the fishery, contributing more than 90% in 2013-15. Adiverse group of commercially important fishes were landed by mechanised gillnetters and *dol* netters (Table 9 & 10).

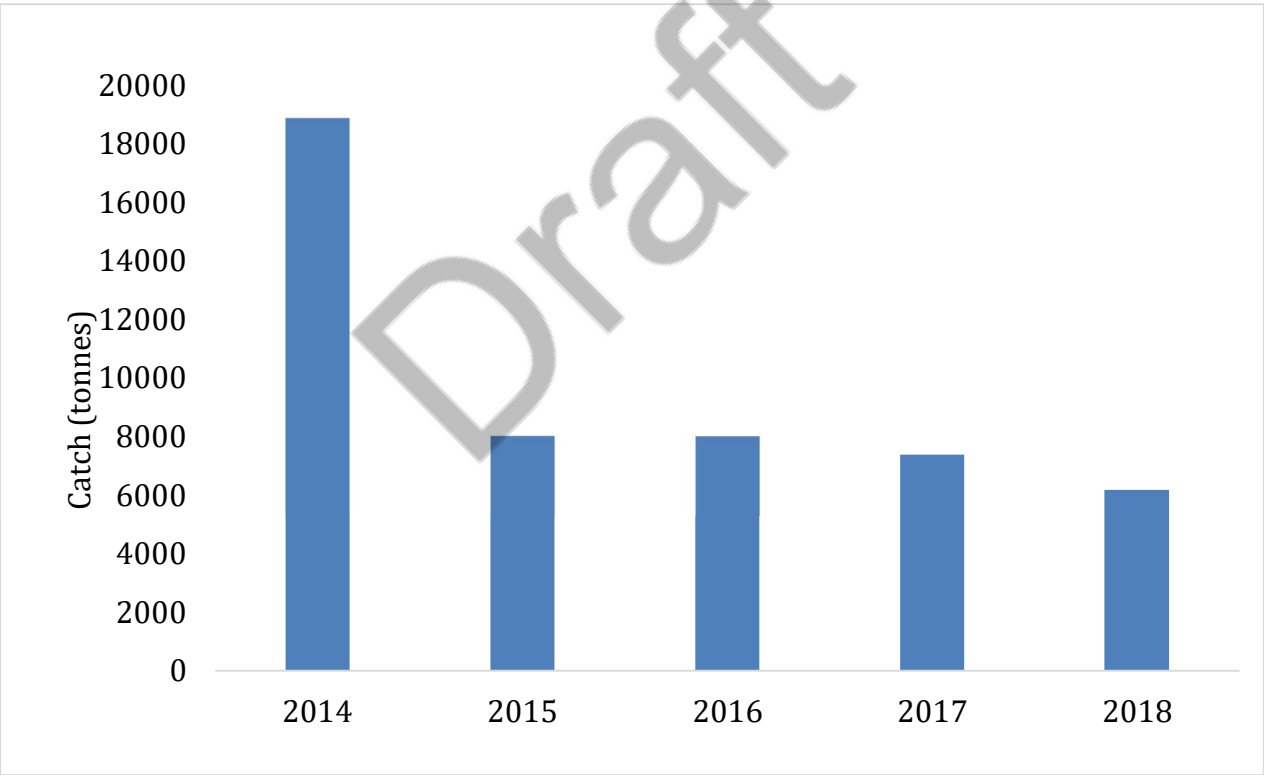


Figure 11. Catch trend of marine fishery resource's in the Dahanu Zone of project area

Table 9 a. Fishery resources landed in Dahanu Zone during 2013-14 to 2018-19 (catch in tonnes) (State Dept.)

	DAHANU ZONE						
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	% change from 2013
Elasmobranchs	131	771	112	74	53	36	-72.5
Eels	596	53	5	64	15	0	-100.0
Catfishes	163	1456	108	117	155	64	-60.7
Chirocentrus spp.	16	19	0	0	1	6	-62.5
Hilsa Ilisha	174	265	22	83	116	270	55.2
Anchovies	2041	777	244	183	257	254	-87.6
Thrissocles	96	265	49	106	83	87	-9.4
Other Clupeids	2	2	1	0	0	0	-100.0
Harpadon nehereus	20815	6801	5778	5971	4242	2225	-89.3
Polynemidae	69	1523	104	136	252	332	381.2
Scieanids	411	2137	275	158	269	227	-44.8
Otolithoides species	579	176	12	2	0	0	-100.0
Trichiuridae (Ribbonfishes)	785	837	99	109	179	215	-72.6
Caranx	49	0	1	0	0	0	-100.0
Pomfrets	994	1424	203	376	631	1253	26.1
Mackerels	5	6	0	41	228	89	1680.0
Seerfishes	21	3	27	83	150	535	2447.6
Tunnies	0	0	0	3	1	0	
Bregmaceros mclellandi	0	0	1	12	0	0	
Penaeid Prawns	1080	398	132	139	197	156	-85.6
Non-Penaeid Prawns	3580	1581	741	143	216	259	-92.8
Lobsters	105	97	10	0	153	0	-100.0
Loligo duvauceli	0	0	0	11	0	0	
Miscellaneous	411	308	122	219	173	169	-58.9
TOTAL	**32123**	**18899**	**8046**	**8030**	**7371**	**6177**	**-80.8**

Table 9 b. Price structure of fishery resources landed in Dahanu Zone during 2017-2019 (catch in tonnes)

	Average fish price (per ton)		Total fish Price (Rs)	
	2017-18	2018-19	2017-18	2018-19
Elasmobranchs	101019	116048	5354007	4177728
Eels	251563	280895	3773445	0
Catfishes	86257	83678	13369835	5355392
Chirocentrus spp.	97798	115092	97798	690552
Hilsa Ilisha	252861	226585	29331876	61177950
Anchovies	54535	62087	14015495	15770098
Thrissocles	90902	96381	7544866	8385147
Other Clupeids	49930	70000	0	0
Harpadon nehereus	66287	88766	281189454	197504350
Polynemidae	467193	510637	117732636	169531484
Scieanids	386085	460556	103856865	104546212
Otolithoides species	65333	58952	0	0
Trichiuridae (Ribbonfishes)	72171	73877	12918609	15883555
Caranx	70000	0	0	0
Pomfrets	698403	677865	440692293	849364845
Mackerels	127861	117266	29152308	10436674
Seerfishes	378490	423992	56773500	226835720
Tunnies	75417	75000	75417	0
Bregmaceros mclellandi		0	0	0
Penaeid Prawns	255019	233789	50238743	36471084
Non-Penaeid Prawns	67300	74635	14536800	19330465
Lobsters	1105694	867021	169171182	0
Loligo duvauceli (Cephalopoda)	157906	136569	0	0
Miscellaneous	54748	89525	9416656	15129725
TOTAL			1359241785	1740590981

Table 10 a. Fishery resources landed in Popharan Dandi Zone during 2013-14 to2018-19 (catch in tonnes)

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	% change from 2013
Elasmobranchs	176	646	55	10	89	55	-69
Eels	0	23	0	0	0	0	
Catfishes	308	860	116	18	425	67	-78
Chirocentrus spp.	94	1	0	0	62	18	-81
Hilsa Ilisha	82	159	0	8	179	5	-94
Anchovies	588	507	185	167	388	1013	72
Thrissocles	116	117	32	28	116	52	-55
Other Clupeids	15	0	0	0	0	0	-100
Harpadon nehereus	5578	4654	2713	5651	4353	4740	-15
Polynemidae	28	127	28	0	265	52	86
Scieanids	270	840	197	3	239	31	-89
Otolithoides species	134	11	0	0	0	6	-96
Trichiuridae (Ribbonfishes)	86	545	26	29	231	21	-76
Pomfrets	709	144	18	158	677	215	-70
Seerfishes	28	12	8	2	313	30	7
Penaeid Prawns	156	278	165	208	898	327	110
Non-Penaeid Prawns	526	938	965	953	261	359	-32
Lobster	5	17	0	9	0	34	580
Miscellaneous	80	186	69	31	262	46	-43
TOTAL	8979	10065	4577	7275	8758	7071	-21

Table 10 b. Price structure of fishery resources landed in Dahanu Zone during2017-2019 (catch in tonnes)

	Average fish price		Total Fish Price (Rupees)	
	2017-18	2018-19	2017-18	2018-19
Elasmobranchs	101019	116048	8990691	6382640
Eels	251563	280895	0	0
Catfishes	86257	83678	36659225	5606426
Chirocentrus spp.	97798	115092	6063476	2071656
Hilsa Ilisha	252861	226585	45262119	1132925
Anchovies	54535	62087	21159580	62894131
Thrissocles	90902	96381	10544632	5011812
Other Clupeids	49930	70000	0	0
Harpadon nehereus	66287	88766	288547311	420750840
Polynemidae	467193	510637	123806145	26553124
Scieanids	386085	460556	92274315	14277236
Otolithoides species	65333	58952	0	353712
Trichiuridae (Ribbonfishes)	72171	73877	16671501	1551417
Pomfrets	698403	677865	472818831	145740975
Seerfishes	378490	423992	118467370	12719760
Penaeid Prawns	255019	233789	229007062	76449003
Non-Penaeid Prawns	67300	74635	17565300	26793965
Lobsters	1105694	867021	0	29478714
Miscellaneous	54748	89525	12975276	4028625
TOTAL			1503263610	841871961

Table 11 a. Bagnet and gillnet landings of Dahanu and Pophran Dandi Zone 2016

DISTRICT & ZONE-WISE PROMINENT VARIETIES OF MARINE FISH PRODUCTION BY BAGNET IN THANE DISTRICT 2016-17		
	Dahanu Zone	Popharan Dandi Zone
Sardine	0	0
Anchovies	183	167
Harpadon nehereus	5806	5651
Pomfrets	114	105
Penaeid Prawns	139	208
Non-penaeid Prawns	143	953
Others	436	106
Total	**6821**	**7190**
DISTRICT & ZONE-WISE PROMINENT VARIETIES OF MARINE FISH PRODUCTION BY GILLNET IN THANE DISTRICT 2016-17		
	Dahanu Zone	Popharan Dandi Zone
Elasmobranchs	50	0
Catfishes	22	5
Polynemidae	136	0
Sciaenids	158	3
Otolithes spp.	0	0
Pomfret	262	53
Black Pomfret	0	0
Mackerel	0	0
Seerfishes	124	0
Others	457	16
Total	**1209**	**77**

Table 11 b. Bagnet and gillnet landings of Dahanu and Pophran Dandi Zone 2017

DISTRICT & ZONE-WISE PROMINENT VARIETIES OF MARINE FISH PRODUCTION BY BAGNET IN THANE DISTRICT 2017-18		
	Dahanu Zone	Popharan Dandi Zone
Sardine	0	0
Anchovies	248	388
Harpadon nehereus	3877	4328
Pomfrets	73	165
Penaeid Prawns	189	898
Non-penaeid Prawns	205	261
Others	835	1076
Total	**5427**	**7116**
DISTRICT & ZONE-WISE PROMINENT VARIETIES OF MARINE FISH PRODUCTION BY GILLNET IN THANE DISTRICT 2017-18		
	Dahanu Zone	Popharan Dandi Zone
Elasmobranchs	39	37
Catfishes	53	15
Polynemidae	252	263
Sciaenids	269	239
Otolithoides spp.	0	0
Pomfret	558	512
Black Pomfret	0	0
Mackerel	0	0
Seerfishes	378	308
Others	693	268
Total	**2242**	**1642**

Table 11 c. Bagnet and gillnet landings of Dahanu and Pophran Dandi Zone 2018

DISTRICT & ZONE-WISE PROMINENT VARIETIES OF MARINE FISH PRODUCTION BY BAGNET IN THANE DISTRICT 2018-19		
	Dahanu Zone	Popharan Dandi Zone
Sardine	0	0
Anchovies	254	1013
Harpadon nehereus	2225	4740
Pomfrets	130	77
Penaeid Prawns	156	327
Non-penaeid Prawns	259	359
Others	367	100
Total	**3391**	**6616**
DISTRICT & ZONE-WISE PROMINENT VARIETIES OF MARINE FISH PRODUCTION BY GILLNET IN THANE DISTRICT 2018-19		
	Dahanu Zone	Popharan Dandi Zone
Elasmobranchs	33	44
Catfishes	15	48
Polynemidae	329	52
Sciaenids	227	31
Otolithoides spp.	0	6
Pomfret	1123	99
Black Pomfret	0	0
Mackerel	0	0
Seerfishes	595	30
Others	464	64
Total	**2786**	**374**

In the study June 2017 - May 2018 period top 15 species observed in the fishery are *Harpadon nehereus, Nematopalaemon tenuipes, Coilia dussumieri, Liza subviridis, Exhippolysmata ensirostris, Lepturacanthus savala, Ilisha filigera, Thryssa malabarica, Scoliodon laticaudus*. In dol nets *Harpadon nehereus* was the dominant species forming >50% catch followed by *Nematopalaemon tenuipes* (Fig. 12 a& b) in gillnets shark *Scoliodon laticaudus* dominated with >70% followed by *Ilisha* sp. (Fig. 13 a & b) in the shore seines *Liza subviridis* dominated catch (Fig. 14). In the lobster gillnet fishery, lobsters contributed more than 90 per cent catch, which is the high-income in subsistence fishery.

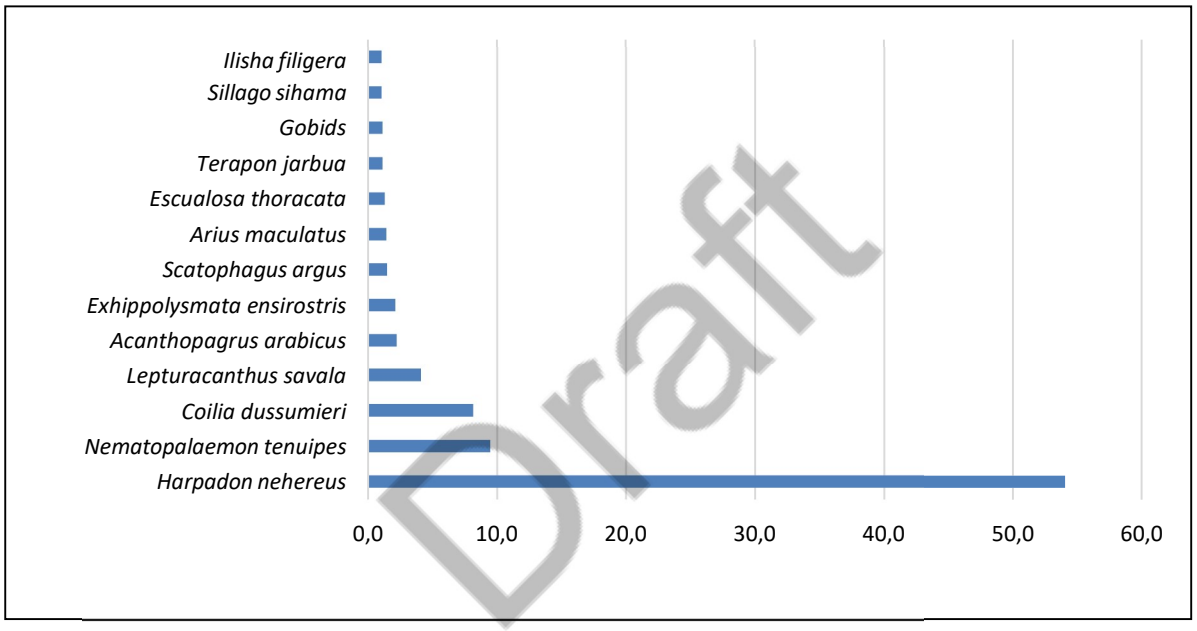


Figure 12 a. Catch composition of *Dol* net fishery during 2017

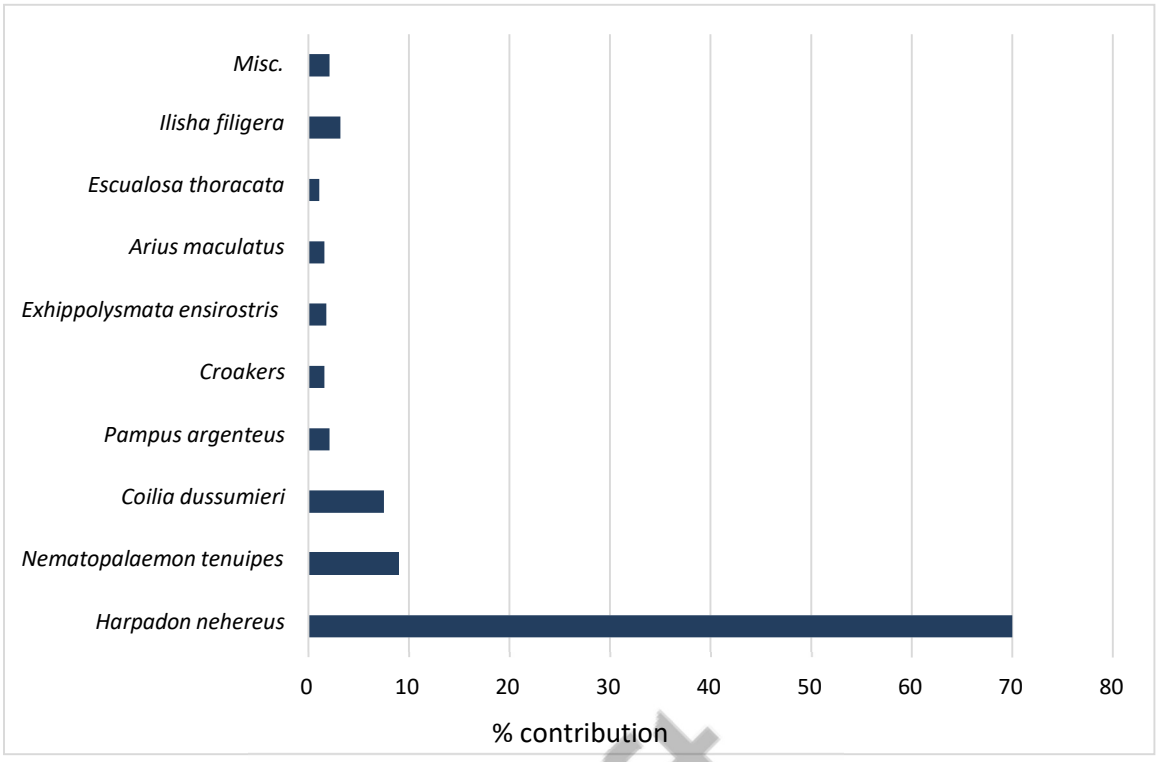


Figure 12 b. Catch composition of *Dol* net fishery during 2018

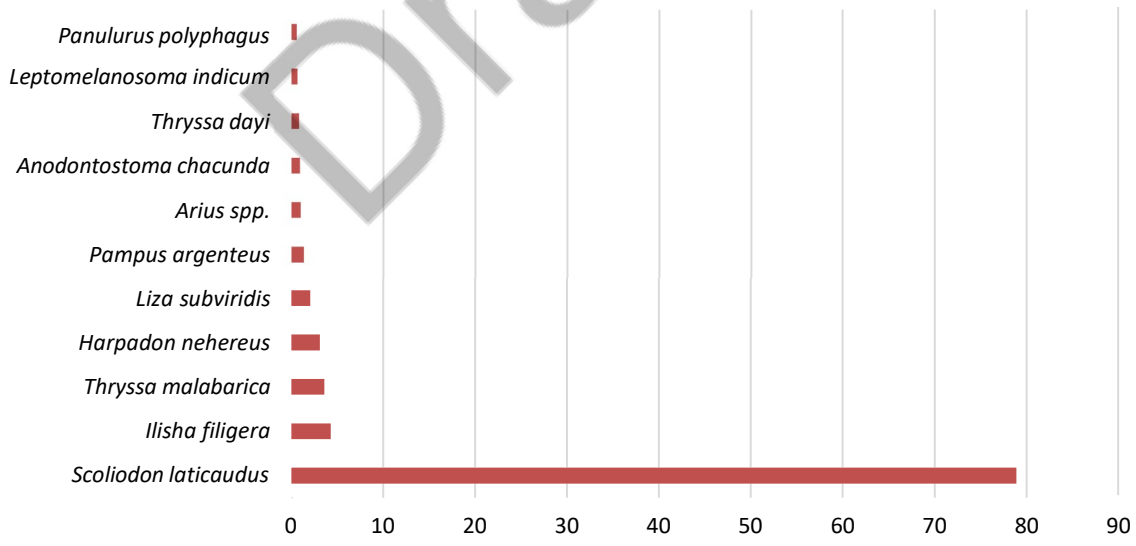


Figure 13 a. Catch composition of gillnet (drift) fishery during 2017

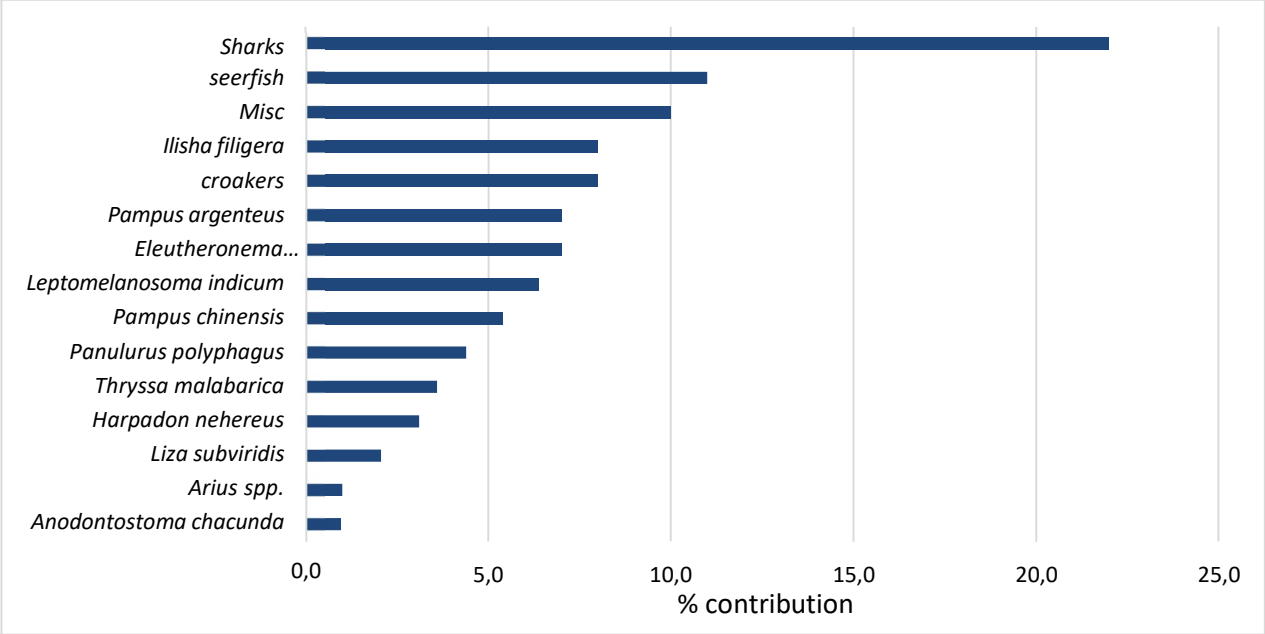


Figure 13 b. Catch composition of gillnet (drift) fishery during 2018

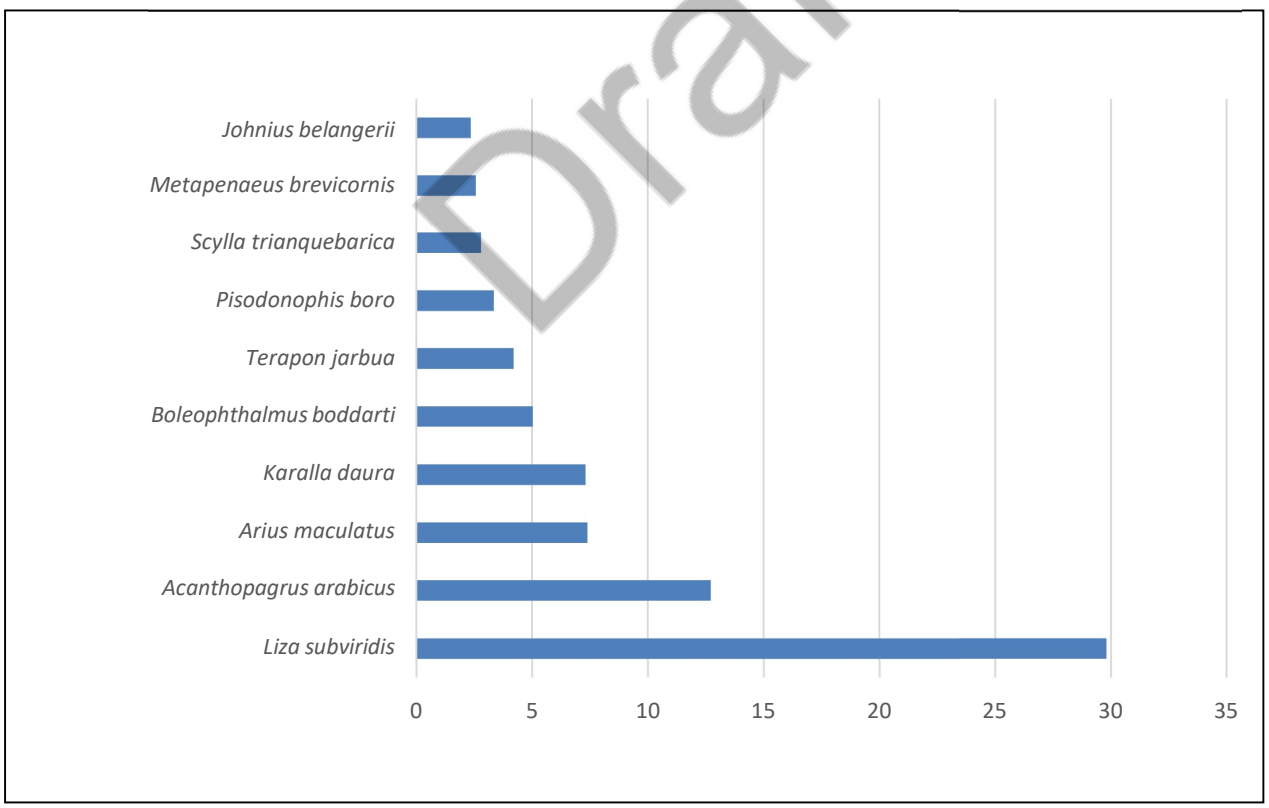


Figure 14. Catch composition of shore seine fishery during 2017

Though different non-mechanised crafts and local gears are operated in the region their catch is very low which is dominated by catfishes, polynemids, prawns and pomfrets. Proposed port area partly includes a good fishing area with several fishing activities. This area is known for the one of the major grounds of lobster and Bombay duck fishery. During the period of survey, finfish or shell fish of all maturity stages were observed dominantly juveniles, but not restricted to any particular groups or species. In this situation, it can considered that the proposed port area and surroundings do not act as a breeding or spawning ground of the commercially important fishes but can act as nursery ground of several commercially important fishes like any other near shore/coastal areas of north eastern Arabian Sea. Due to the productivity of that region and presence of creeks, juveniles and adult fishes are seasonally abundant in near shore waters. No endemic or protected fish species has been identified during the surveys.

Lobster catch from gillnet

Bombay duck catch for sale from dol nets

Fisherwomen engaged in sorting the dol net catch in the shore/beach landing

Sun drying of Bombay duck in the seashore. Done by fisherwomen

A morning market and women fish vendors

Fishery analyses of fish catch from proposed port area in CMFRI wet lab

Fishermen involved in net mending

Fishers engaged in gillnet setting before fishing trip

Fishermen back from sea, sorting the gillnet catch

Economics of major fishing gears operating around the proposed port area

Fishing is the oldest and the most important profession for the coastal communities. Along the northern coastal stretch of Maharashtra major marine fisheries are with Bag net (*Bokshi*, *dol* net), drift gillnet (*Disco*, *Tarti, Daldi*), bottom set gillnet (*Waghara*, *Budi*) and mid water set gillnets (*Ghagara*, *Magar* jal). Most of the fishery in the region can be categorised as small scale/artisanal fishery, which involve relatively small amount of capital and energy with relatively small fishing vessels (<16 m OAL) which undertake short fishing trips focusing on near-shore fishing grounds (up to 40 m depth). The fishes caught are mainly utilized for local consumption and domestic trade either in fresh or dried form. Few fishing methods in the region are with limited ecological impacts (eg. Gillnetting) in comparison to high juvenile harvesting fisheries (Set Bagnet). However, fisheries in the region are more labour intensive compared tolarge scale mechanized fishing activities, the small-scale artisanal fishery activities optimize human power and contribute greatly to the employment.

Though dominantly small scale, the fishing activities in the study area involve capital investments for craft (wooden or fibre), inboard engine, fishing nets (gill and dol nets), *sus* (a fixed structure required for the operation of a *dol* net), fishers supplemented by GPS for locating fishing grounds, *sus* (stake) locations and their positions in the sea. Operating costs include expenditure on fuel, crew wages or salary, craft and gear maintenance, engine oils, ration, etc.

To study the economics of fishing operations from the fishing villages falling in the proposed port area, a structured questionnaire was prepared by the Socio-Economic Evaluation and Technology Transfer Division (SEETTD) of ICAR-CMFRI. But due to non-cooperation of local fishers, fishermen co-operative society, board members and fishermen leaders/representatives to share data, the economics of fishing operations was analysed based on the data collected through personal interactions with fishers/crew and data reported in Marine Fish Production Reports of Maharashtra State Fisheries. The State fisheries marine fish production data were analyzed and economic parameters like catch per trip, fish catch price per kilogram, were worked out.

1. Set bag net fishery *(Dol* net fishing):

Capital investment for *dol* net fishing involved costs of craft, engine, fishing gear, *sus* (stake) and GPS device. Most of the fishing crafts operated in the area are 5 to 15 years old and were either built locally using second-hand engines or bought second hand from other fishers. Capital investment required for operational fishing crafts was estimated at Rs. 8.0 lakhs for the craft and engine, Rs. 2.00 lakhs for the gear (5 *dol* nets @ Rs. 40,000/- for each net), Rs. 2.0 lakhs for the *sus* installation (at 20 m depth and at 18 – 32 m depth) and Rs. 25,000/- for an onboard G. P. S. device. Depreciation for the capital investment was calculated at 10% for craft, engine and G. P. S. device; 33.3% for the gear and 33.3% for *sus*. The annual depreciation amount calculated per craft was Rs. 1,12,831/- while interest on fixed cost was calculated as Rs. 1,47,000/-.

A major portion of operating cost (61.5%) goes in wages for crew members. This is due to the profit-sharing system existing between boat owner and the crew members. Mostly five crew members including boat driver (*Tandel*) are involved in *dol* net fishing activities in the area. Net revenue (operating cost expenditure per trip is deducted from gross revenue i. e. value of total fish caught during the trip) is divided in eight equal shares. Five shares are distributed among five crew members (62.5% of net revenue) and the remaining three shares are given to boat owners (37.5%) which includes the share of boat owner, share for craft and the share of gear. Therefore, crew wages account for 61.5% whereas fuel accounts for 21.8% of the operating expenditure. Rest 16.7% of the operating cost includes expenditure incurred on food, engine oil, maintenance of craft and engine, insurance, jetty fees and fishing licence fees. Operating cost expenses are borne by boat owner before the fishing trip (Table 12).

Dol netters operating in the area annually attempt 200 fishing trips approximately. The estimated total catch during 2015-2016 was 6,870 tonnes by 306 mechanized dol netters at the catch rate of 102.0 kg/trip and the revenue per trip of a traditional dol net was Rs. 8,670/- . The value of the total catch landed by dol nets during year 2015-2016 was Rs. 51.21 crores. Annual earnings of a *dol* netters estimated at Rs. 19,07,400/- (Table 12).

Table 12. Economics of single day *dol* net fishing activities

A.	**Fixed Cost**		**Amount (Rs.)**
	Cost of Craft	:	600000
	Cost of engine	:	200000
	Cost of gear	:	200000
	Cost of sus owned by a fisher	:	200000
	G. P. S.	:	25000
	Interest + Depreciation		259831
	Insurance charges	:	1700.0
	License fees @ Rs. 200 for three years	:	66.7
	Jetty fees	:	100.0
	Annual Fixed Cost		**261698**
B.	**Operating Cost**		
1	Fuel Cost @ Rs. 93/l for 5000 lit annually	:	465000.0
2	Food charges @ Rs. 1500/day	:	300000.0
3	Engine oil charges 20 l @ Rs. 300/l	:	6000.0
4	Crew shares @ 62.5%	:	1309908.3
5	Annual maintenance	:	50000.0
	Craft & engine	:	40000.0
	Gear	:	10000.0
6	**Total Operational Cost**	:	2130908.3
	Total Cost (OC+FC)		2392606
C.	**Annual Revenue / Earning**	**:**	**2918720**
1	Average fish price in dol net (Rs.)	:	112
2	Average per day dol net landing (kg)	:	130.3
D	**Profit / ~~Loss~~ (annual)**	**:**	**526114**
E	**Subsidy on Diesel @ Rs. 9.65 per litre**	**:**	**48250**
F	**Income Relief Fund (for 2 months)**	**:**	**3000**
G	**Annual Earning (D+E+F)**	**:**	**577364**
Assumptions:			
No. of days of fishing in a year: 200			
No. of crew members onboard: 5 (crew members earn 5 shares out of 8)			
Operating cost including fuel, license, maintenance, food charges are borne by boat owner. 3 shares out of 8 earned by boat owner.			

Fishers operating single day dol nets in the area also undertake gillnet fishing in near-shore waters using (*Disco/ Tarti / Shevand* nets). These gillnets operations are generally based on, availability of pelagic, demersal fishes and lobsters as reported in their dol net fishing areas. Mostly these fishers opt gillnet operations during the seasons of low catch in the *dol* nets. Hence, in the present report separate economics for singleday gillnet fishing is not shown. Moreover, these fishers are registered for *dol* net as the gear of operation. However, the economics for multiday gillnet fishing is given the report.

2. Gillnet fishing:

Gillnet is a major fishing gear in Indian waters and recognized as an efficient selective gear. It can be operated by artisanal and mechanized vessels in the sea. Gillnetting being a low-cost fishing method is of special interest for artisanal fisheries dueto the minimum input cost on nets and can be operated from inboard motorized crafts with lower power and comparatively few crew members compared to other mechanized fishing methods. Small-scale fishers from study area employ gillnet fishing targeting high-value fishes like pomfrets, seer fishes, shark, rays, hilsa, eel, polynemids, lobster, etc. Two types of gillnet fishing are widely practiced in the study area viz. Single-day gillnet fishing and multi-day gillnet fishing.

2.1. Multi-day gillnet (*Waghara/Magar/Ghagara*) fishing:

Major investment for multi-day gillnet (*Waghara*/*Magar*/*Ghagara*) fishing is for boat, engine and the nets. The fixed cost (capital investment) for craft and engine has been estimated at Rs. 6.0 lakhs for the boat and Rs. 2.0 lakhs for the engine. Gillnet cost is estimated at Rs. 2.0 lakhs for nets (65 pieces of gillnet @ Rs. 2,000 per piece and 50 pieces of gillnet @ Rs. 1,400 per piece). These net pieces are mostly manufactured by using monofilament twines. Monofilament gillnets bear less economic life compared to traditional dol nets operated in the area and therefore, depreciation @ 100% was considered for nets (nets can be operated for one fishing season). Interest on the fixed amount was calculated as Rs. 1,23,000/-. Depreciation (Rs. 2,82,500/-) for the fixed costs has been computed at 10% for the boat engine and G. P. S. device.

In the case of multi-day gillnet fishing, a gillnetter boat undertakes 4 days fishing trip in the sea and mostly undertake 50 fishing trips annually. After each trip, the fishers take off for two days for the maintenance of the gear and craft. The net is expensive and requires constant repair and maintenance. Five crew members are employed on a gillnet. The crew members are paid on daily wage basis for each fishing trip at the average rate of Rs. 750 per person per trip. A crew member earns about Rs. 2,50,000 during a fishing season of 10 months. The estimated total catch landed by mechanised gillnets during 2015-2016 was 306 tonnes by 114 gillnetters in the area. The average catch per boat per trip works out 96 kg and per trip revenue of a multi-day gillnet is Rs. 54,240/-. The boat owner earns an annual profit of Rs. 6,06,508/- lakhs after deducting the total cost of Rs. 21,80,867/-. (Table 13).

Bagnet fishing Boat

Table 13. Economics of multi-day gillnet fishing activities

A.	**Fixed Cost**		**Amount (Rs.)**
	Cost of Craft	:	600000
	Cost of engine	:	200000
	Cost of gear	:	200000
	G. P. S.	:	25000
	Interest + Depreciation		405500
	Insurance charges	:	1700
	Licence fees @ Rs. 200 for three years	:	66.67
	Jetty fees	:	100
	Annual Fixed cost (FC)		407367
B.	**Operating Cost**		
1	Fuel Cost @ Rs. 93/l (150 lit per trip)	:	697500
2	Food charges @ Rs. 5000/trip	:	250000
3	Engine oil charges 20 l @ Rs. 300/l	:	6000
4	Crew salary @ Rs. 300 /day/person	:	750000
5	Annual maintenance	:	35000
	Craft & engine	:	30000
	Gear	:	5000
	Total Operational Cost (OC)		1738500
	TOTAL cost (OC+FC)	**:**	**2145867**
C.	**Annual Revenue / Earning**	**:**	**2712000**
1	Average fish price in gillnet (Rs.)	:	565
2	Average per trip gillnet landing (kg)	:	96
D	**Profit / Loss (annual)**	**:**	**566133**
E	**Subsidy on Diesel @ Rs. 9.65 per litre**	**:**	**72375**
F	**Income Relief Fund (for 2 months)**	**:**	**3000**
G	**Annual Earning (D + E+F)**	**:**	**641508**

Chapter 4 – Conclusions

The Vadhavan port is proposed in the intertidal and seaward side of Vadhavan village, Palghar (Maharashtra). The shore region of Vadhavan is mostly rocky. According to the port plan, the port is proposed to be constructed in the intertidal/seaward area only. Sixteen fishing villages within 10 km from the project site were identified for the impact study considering that they may be affected in the port development and operational phase. As the port will be constructed in the intertidal/seaward area, port construction and operation, including reclamations and fillings may have multiple impacts on the aquatic environment, local fish resources, coastal community, and fishing-based livelihoods.

Fishing is the major livelihood activity in the identified and nearest coastal villages and most of the fishers are marginal. The total fishermen population residing in the identified fishing villages is around 20,809 in 5333 households. The infrastructure facilities in fisheries are found to be limited and insufficient. Ice factory/cold storage facility is found operational only in Dahanu which needs up-gradation in capacity so that it can provide more support to the fishers of other villages around. Coastal roads in these villages are in bad shape without regular public transport systems and connectivity may be improved. The port may bring improved opportunities like better connectivity and improved networks to the coastal area which may increase the faster distribution of fish and fishery products to destinations, increasing the quality and price and increased income to the coastal community.

Several meetings and consultations were undertaken with stakeholders for assessing their views on possible impacts on the resources and their livelihood. Fishers opposed the construction of port in all meetings and claimed it will affect their livelihood. The fishermen and coastal community were non-cooperative in providing primary information and did not allow ICAR-CMFRI to undertake surveys in the sea, even withthe continuous stakeholder meetings or support of the Fisheries Department, Government of Maharashtra. There has been multiple instances of agitation against officials and mobbed occasionally on visits to these villages and threats for conducting the necessary surveys.

a) Predicted impacts

Our land-based monitoring surveys and analysis show that the proposed port is likely to affect the fishing and coastal community directly or indirectly during the construction and operation phase. Many of the impacts are irreversible and permanent.

1. Environmental impacts on fish resources: Port construction and operation can affect the marine ecology and environment which supports the fish and fisheries of the nearshore waters and port area. The longer breakwater and huge reclamation may affect the currents, geomorphology of the coasts. Dredging during the construction phase will increase the suspended materials, increasing turbidity. A high level of sedimentation/particle sinking could affect benthic quality, productivity and fishes. Drilling processes and increased navigations cause disturbances causing fish/juveniles to avoid the region.
2. Loss of common spaces: The coastal common spaces (shores) in the port plan area are historically used for livelihood (fishing/shell/oyster/slug collection), fish sorting, net mending, fish drying, berthing, repair of boats and recreation. Acess to these will be limited and restriction zone for security purposes will make it inaccessible to the coastal communities or the public.
3. Several marginal and subsistence fishers in and around the proposed port area are likely to lose their regular fishing grounds. Besides, there is a possibility of access restrictions, additional navigation and increased operational expense affecting income.
4. Multiple historical data sets with CMFRI and observations of various fishing methods during the visits in 2017-18, identified diverse fishing methods like gillnet, dol net, cast net, shore seines in the proposed port/channel area of the identified villages. Coastal communities also depend on allied activities, boat/net repair, sales, marketing, distribution, dry fish units, etc. for livelihood.
5. Loss of fishing area: Fishers operating from and around the proposed project are likely to be affected as they will be losing access to a portion of the near-shore and offshore fishing area. There will be a complete loss of fishing area in the port limit, additional restricted zones in shipping channels, berthing areas. Safe distance precautions during increased vessel traffic will further reduce available area for fishing and affect fisher livelihood. This is a permanent impact and irreversible. However, access to other parts of the sea is not restricted by any regulations as of now and reduces livelihood impacts. Approximately 42 sq. km. of 'dol' net fishing area and 30 sq. km. of gillnet fishing area will be treated as the

no-fishing zone during the construction and operation of the port according to the plan accessed. The area outside the port (≈58 sq. km.) will be available for fishing subject to regulation by the port. Fisheries Department, Government of Maharashtra data shows that 337 licensed fishing boats operate in and around the proposed port area.

6. Details of these boats and locations of their operation area, which may or may not be operating in the proposed channel /port area couldn't be collected/identifiedor confirmed due to the non-cooperation of the fishermen. Therefore, we are unable to come to a definite conclusion on the number affected gears/vessels by the construction of the port. There were few people shared the information of the location og Dol net operation which is falling within and outside the port limit was not verified due to the non-availability of survey boat. Any compensatory measure in future should be subject to the identification and verification of all potentially and directly affected stakeholders.
7. All fishers operating in the proposed area will be affected however 'dol' net fishing (SBN), will be affected the most, as their fishing structures (sus) had to be removed permanently. Though other fishing methods in the region are assumed to be affected such as longline, gillnet, shore seine etc. they have manoeuvring ability and capacity to move to other fishing grounds. However additional operational cost is expected. Increase the fuel expense to reach even to the closest fishing area, fishers have to circumnavigate the security zones and the port limits. Operational periods and waiting periods vessels anchor outside port limits increasing further loss of fishable area and income.
8. Loss/displacement of fishing structures: In *dol*' net fishing (set bagnet fishing practice), the net is attached to the spikes (called '*sus*') is driven into the seabed almost temporary (few years life) in the sea. The '*sus*' position is fixed in the sea bed where the water current is appropriate for sustaining the '*dol*' net in horizontal position. The net is fixed to the '*sus*' and the boat visits the same location for setting the nets, fishing, hauling and. The '*dol*' net fishing is, therefore, location-specific. Similarly, bottom set gillnetting for lobsters ('*Shevand*' net) is practiced only in rocky areas where the net is spread on the rocky bottom for entangling the lobsters, and therefore this method is also location-specific. The fishing structures/ operations of '*dol*' net are mostly family- specific and are transferred/sold/leased/inherited according to local customs.

9. In the present report, the places wherever '*dol*' and other fixed nets are operated as claimed by the fishers could not be ascertained with geo-positions thoughBagnet fishing structures in the sea (822) were shared by fishers in which 265 structures are within port limit. CMFRI could not undertake the observation surveys and estimate the number of fishers regularly operating in the vicinity of the proposed project area. Since such fishing areas are location specific for the tidal currents and the resources available therein, shifting them to the nearby areas will be extremely difficult given a large number of fishers along the coastlineand high density of fishing structures '*sus*' along the northern Maharashtra. However, they may be offered to switch to alternative fishing methods or move their fishing structures to any suitable area with adequate compensation if appeared to be affected by the project.
10. Shell collection (handpicking) areas will be completely lost (sedimentation/pollution), which is mostly undertaken by women. However, there is no regular income dependence as it is completely seasonal and depend upon abundance of resource.
11. Disruption of fishing operations – in the construction phase and the operation phase due to the increased vessel traffic those fishing vessels operating in the area can be disturbed. The proposed plan is in the navigational route of fishing vessels.

b) Predicted Indirect impacts

1. Loss of fish and productivity of the area due to increased turbidity during the construction and operational phase of the proposed port. Increased rate of turbidity (TSS) affects the light penetration which impacts the primary productivity, water quality, disturbance to marine life affecting total biological productivity causing fishery decline, which will in turn lead to fishing location changes and affecting income per trip. However, the nearshore waters are highly turbid due to sandy bottoms and strong tide and coastal currents.

2. In the operational phase the deterioration of water quality in and around port facility in expected, which in turn increases the stress on marine organisms, people. In additional it wil also affect the quality of open-air fish drying.

3. Reduced fishing area, crowding and conflicts -may lead to increased pressure in the available fishing locations and sectoral conflicts due to crowding effect increase the competition for fishing space in the other nearshore waters.

4. There is a visible loss of fishable areas, which will be further enhanced if any restriction on activities is further related to development/security. Larger development plans and security concerns can further create access restriction.

5. Destruction of the rocky bottom and sedimentation/siltation and reclamation will affect the bottom set gillnet fishery targeting lobsters.

6. Any possible change in currents due to the construction of large breakwater will affect the fixed fishing gear operators beyond the port limit. If any such concerns are raised, they may be compensated adequately.

7. Reduced fishing time -With the increased vessel traffic in the nearshore waters fishing time will be reduced highly and higher chances of operation disruption causing increased risk to fishers.

8. Another impact includes, increase in traffic, affecting fisher accidents, high waves which necessitates exclusion zones. The vessels operate in the region are smaller, which makes it difficult to observe, besides, these vessels don't have AIS or VMS systems.

9. The impact on the resources may also impact the value chain, from harvest to endpoint consumer. It will affect the income to fish drying units, women vendors.

10. The long breakwater in the north side between the coastal Increase in operational cost and loss in total fishing time due to the blockade created by break wall, they have to travel additional distance during construction and the post-construction phase. As mentioned, fishing is the primary source of livelihood and will be affected. 11.2 km-long breakwater, whose tail would rest near the shore, while the head would be in the sea at a depth of 18 meters, which will increase the navigation route fishers of immediate south of the port

11. Decrease in fisheries participations- Due to expected new opportunities, moving out from sector is expected and also due to income change, till finding advantages of situations

12. During the construction phase, a lot of equipment, construction material, etc. transportation between the site is expected through sea and land, these changes and or pollution, which may create behavioural and health issues in the coastal community.

In summary, the possible impacts within the port limits (which can impact the coastal community)

1. Loss of common area.
2. Loss of fishing area.
3. Loss of historical fishing ground for the gillnetters, dol nets, hand pickers and other inshore fishing activities.
4. Loss and displacement of fishing structures, fishing stakes ('*sus*') and nets from the port area, navigational channel, berthing areas permanently.
5. May affect fish abundance and productivity of the area.
6. Loss of income and livelihood.
7. With the decreased fishing areas, there will be chances of increasing conflicts over fishing space.
8. Loss of fishing time and increased operating cost (fuel) to reach fishing grounds and return.
9. Additional income opportunity to coastal community.

Recommendations:

1. Identify the fishers, and coastal community who will be affected and provide compensation to minimize the economic impact/livelihood impact.
2. All the direct impacts, livelihood impacts to be adequately compensated and mitigated to maximum.
3. Compensation to those, whose fishing structures has to be removed and displaced.
4. There is no adequate medical facility in the proposed port area. To address the possible behavioural change and health issues created among the coastal community during the construction and operational phase of port, there is an urgent need to create adequate medical facility in the region.
5. With the adequate qualifications/skills specified, coastal community may be given preferential consideration for employment in the port jobs.
6. Any loss to the fixed assets in the lands of the coastal community to be compensated.

7. Interconnectivity between the coastal villages should not be restricted due to the port construction.

8. Mandatory navigational aid in the port premises and channels or any restricted areas. Timely communication to stakeholders on all important matters needing attention.

9. Many of the villages doesn't have proper landing centres and are mostly beach-based. Adequate arrangement has to be made to land the fish (facilities like jetty or harbour). Proper access to this landing area and fishing area from the jetty or operational base should be ensured. Adequate depth should be provided to the boats for the navigation if in case there are siltation chances, navigation issues during the construction or post-construction phase.

10. There are legal and institutional constraints in assessing damage to *Dol* fishery. The fixed structures (sus) in the sea are not exclusively included in fisheries legislation. Only fishing boats are registered. There is no information on the fishing structures in the sea with any agencies. The Government of Maharashtra orits bodies may come up with policies such as, mandatory registration of fishing structures in the sea and any eligibility assessment should be based on that registered with the government agency. The *sus* locations if in case shared by fishers should be verified by sea surveys.

11. Support in fishing vessels to equip all with have transponders/ AIS or VMS systems to identify this by other vessels in the ocean and reduce chances of accidents.

12. Installation of the artificial reef :– Based on the availability suitable types of artificial reefs can be deployed to increase productivity and support lobster fisheries.

13. Provision on value addition and branding of seafood products: Better income for fishers comes from better value for their harvest. Marketing and storage facilities appear to be major limitations in the region. Adequate Infrastructure should be developed for better marketing, improved income, and fresh fish for all.

14. Compensation or loans to likely affected fishermen (boat owners, crew, subsistence and marginal fishers) and persons involved in other fishery-related allied activities in the project area to continue their avocation of fishing.

15. Capital expenditure for switching to alternative livelihoods options like cage culture, crab fattening, pond culture and shrimp farming.

16. Skill development or (Capacity building) of the marginal fishermen has to be taken care by shifting them to other than fishing activity.

17. Ice factory and cold storage facility at multiple locations should also be considered.

18. Support in improved navigation aid and up-gradation of fishing vessels.

19. Seawater quality in the port area/ port limit should be strictly maintained and monitored so that it should not cause adverse impacts on fishing and the environment.

20. Continuous fisheries monitoring programs on the effectiveness of the mitigation measures or additional impacts if any during the construction and operation of the project. Pollution is a major threat in these coastal regions, reducing marine pollution in coastal waters, seawater quality in the nearshore waters should be monitored regularly and pollution should not cause adverse impacts on fishing and the environment.

21. Transformation of the coastal areas will have an impact, how and what extent, and what magnitude cannot be predictable at the current state of extreme events and climate change. However, a recommendation for regular monitoring program during the construction phase and audit after post construction phase to verify the status of the predictions about fisheries impact study and to detected and unpredicted/unforeseen impacts. Evaluate the effectiveness of mitigation plans implemented by JNPT (navigation, fishing restriction, operation issues, etc.) during post construction phase.

22. A social impact study must be conducted if the port is to establish the actual impact if any shift in the fishing area/impact on fishing-based livelihoods.

23. Better income for fishers comes from better value for their harvest. Marketing and storage facilities appear to be major issues in the region. Adequate Infrastructure should be developed for better marketing, improved income, and fresh fish for all.

24. Proper access to the landing area and fishing area from the jetty. Adequate depth should be provided to the boats for the navigation if in case there are siltation chances, navigation issues during the construction or post-construction phase.

Annexure I

FISHING METHODS

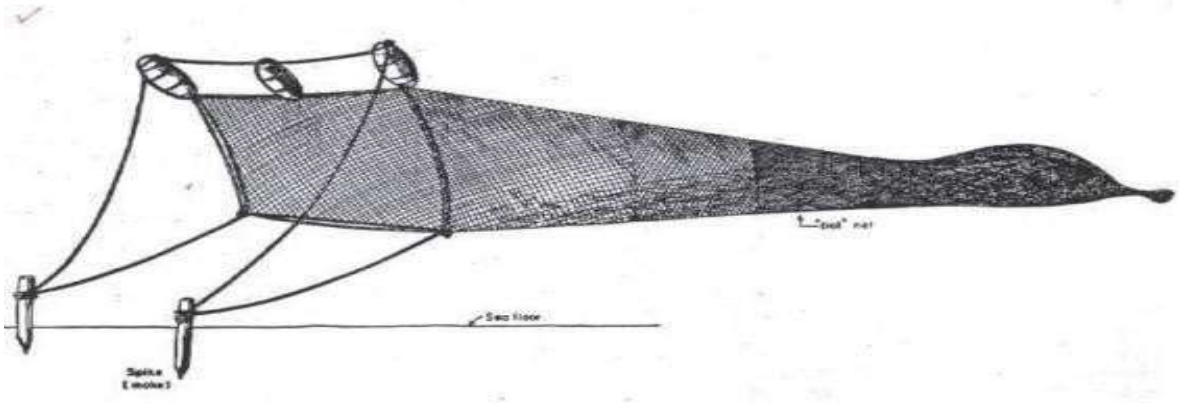
Bag net fishing:

It is a passive fishing method. The fish is caught while seawater filters through a bag-like stationary net owing to tidal currents. Therefore, the net is operated in waters where tidal current is strong. The boat is merely used to set and haul the bag net and to bring the catch to the landing centre. The areas in the coastal waters with strong tidal currents are identified by the fishers through indigenous knowledge. In such areas, the fishers use a frame of ropes anchored in the muddy or sandy sea bottom with the help of wooden pylons, spikes or heaps of stones. The frame with a floating indicator buoy attached by means ropes is called 'sus'. The fishing area and the 'sus' are traditionally owned by the fisher families, community and villages for fishing rights.

The bag nets are of two types, and accordingly, the fishing methods are locally called '*dol*' net and '*bokshi*' net methods. The '*dol*' net is larger in dimension and operated in the open sea while '*bokshi*' net is a smaller version used in the inshore and nearshore waters; accordingly, the species composition of fishes caught by the two nets is somewhat different. The bag nets are kept horizontal by the flooding and ebbing tidal currents which are strong during the new moon andfull moon phases. The tides around these phases are called spring tides (*Udhan*) while those between the phases are called neap (*Bhang*) tides. The fishing is carried out when spring tides prevail and the currents are strong enough to sustain the net from 11th to 4th lunar calendar days (from *Ekadashi* to *Chaturthi*). However, during neap tides as the tidal currents are weak the operations are suspended from 5th to 10th lunar days (*Panchami* to *Dashmi*). The effective period for bag net fishing, therefore, last for 16-22 days in a month. However, in monsoon when land runoff is high, bag net fishing may continue throughout the month depending on fair weather conditions.

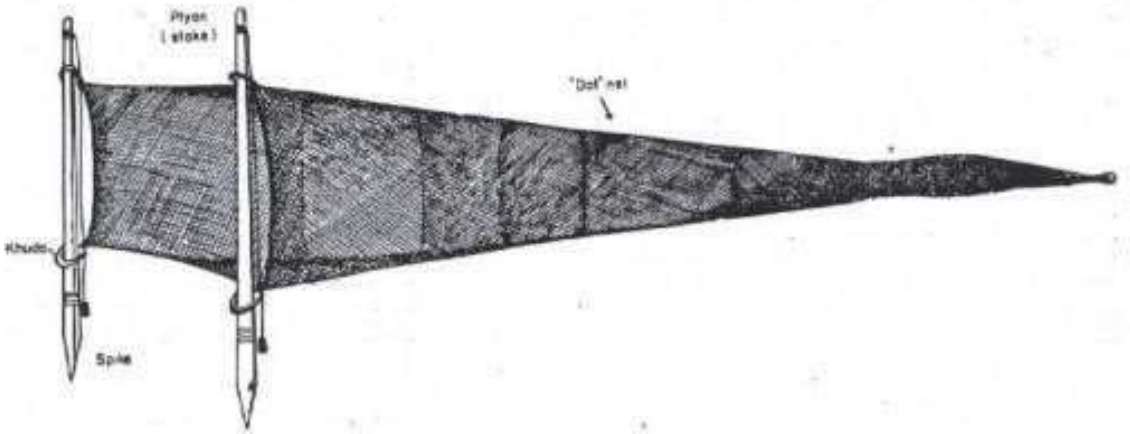
To tide over the fallow period during neap tides(from *Panchami* to *Dashmi*), some '*do*l' net boats carries gillnets to undertake gillnet fishing in the area. The fishing season in the zone commences generally after Ganesh festival in late August or early September and continues till end of May. However, quite a few 'dol' netters in the zone carry out fishing in monsoon as the sea

is very rough and due to the closed season.



'Dol' net

Operation of Dol net in Sea and its catch

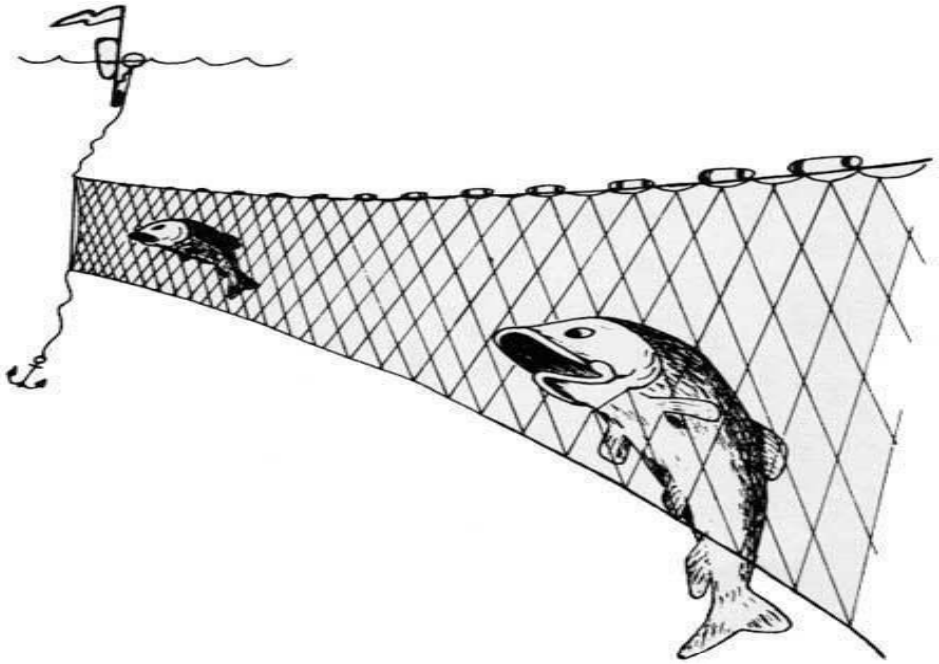


Bokshi' net

Operation of Bokshi net in creek and its catch

Gillnet fishing:

Gillnetting is a selective fishing method in which fish of desired size is caught by gills while swimming at the surface, column or bottom of the sea. Because of its selective nature, gillnetting is one of the most suitable fishing methods from a conservation and stock regulation point of view. It is a passive method and the gear can be operated from even the most primitive craft. Quality fishes like seer fish, tuna, pomfret, Hilsa, sardine, mackerel, etc. are caught by this method. Depending on the mesh size and the twine used for the nets the gillnet fishing methods have local names. In the area under study, three-gillnet fishing methods in vogue are 'Waghra', 'Disco' and 'Shevand' which employ plank built wooden crafts or fiberglass boats with inboard engines. The most important gillnetting method in the proposed port area is 'Shevand'. The 'Shevand' net is exclusively practiced for entangling lobsters, but other fishes such as croakers, catfishes, perches and carangids also get caught. The net generally consists of old monofilament nylon webbing with mesh size of 40 mm which is set at the bottom in the rocky areas.



Gillnet fishing.

Operation of gillnet

Barrier nets fishing:

Fishing by barrier nets, locally called 'Dharan Jal', is mainly artisanal. The net is fixed at low tide in very shallow waters on the muddy bottom by bamboo stakes and laid in about 1.5-2 m depth along the shore of the creek thereby creating a barrier. During high tide, water spreads along the shore and fishes and prawns which come close to the shore get enclosed by the barrier net. The boats are non-mechanised dugout canoes in which entire net is hauled. The catch consists of

mullets, catfishes, small perches, prawns and crabs. Since force of the tidal current is high during spring tides, the nets are operated only for 4-5 days before and after the new moon and full moon days. Therefore, the fishery is functional for 14-16 days in a month. The barrier net fishery continues almost throughout the year.

Barrier nets along the shore of the creek.

Dragnet fishing:

Dragnet, locally called 'Yendi', is used in shallow waters along shores and in the creeks. The gear consists of a short netting of small mesh size attached to two bamboo poles, which are dragged manually by two men or a man and a woman to catch mullets, small catfishes, perches, prawns and crabs.

Operation of shore seine

Crab traps:

The crab trap locally called 'Pagoli' consists of conical netting attached to an iron ring. Bait is placed at the centre of the cone to attract crabs. A small non-mechanised dugout canoe sets about 20-30 traps in the shallow creek at high tide and a fisherman lifts the gear frequently to haul the trapped crabs.

Crab traps

Hand picking of clams

Annexure II

Laboratory analysis of experimental fish catch

Annexure III

Meeting with various fishermen societies and stakeholder consultations

Annexure IV

"प्रस्तावित कोस्टल रोड प्रकल्पामुळे सागरी मासेमारीवर होणा-या प्रभावांचा अभ्यास"
प्राथमिक माहिती

1.	नाव	:	
2.	पत्ता	:	
3	मोबाईल नंबर	:	
4.	मुख्य व्यवसाय पर्यायी / इतर व्यवसाय	:	
5.	एकूण उत्पन्न (वार्षिक / मासिक)	:	
6.	वय शिक्षण	: :	 अशिक्षित / प्राथमिक / माध्यमिक / उच्च माध्यमिक, डिप्लोमा, पदवीधर, पदव्युत्तर
7.	मुलांची संख्या (18 वर्षांखाली) पुरूषांची संख्या (18 वर्षांवर) स्त्रियांची संख्या (18 वर्षांवर)	:	
8.	कुटुंबाची स्थिती	:	एकत्र / विभक्त
9.	आर्थिक स्थिती	:	दारिद्र्यरेषे खाली / दारिद्र्यरेषेवर
9 अ	कुटूंबाचे महिन्याचे सरासरी उत्पन्न (रूपये) मच्छिमारी मच्छिमारी व्यतिरिक्त	:	
9 ब	कुटुंबातील मासेमारीच्या कार्यामध्ये गुंतलेल्या सदस्यांची एकूण संख्या पुरूषांची संख्या स्त्रियांची संख्या		
9 क	मासेमारीशी संबंधित कार्यां-मध्ये महिलांचा सहभाग आणि कामाचे ठिकाण		
9 ख	मासेमारीच्या ठिकाणाची माहिती (डोल जाळ्यासाठी मारलेल्या सस ची ठिकाणे) किंवा इतर संबंधित क्रिया		

10.	जमीन	:	घरा सहित / घर आणि जमिनीसहित अ) मालकीची जमीन ब) बिगर मालकीची जमीन क) सरकारी मालकीची जमीन जमिनीचे क्षेत्र .....हेक्टर / एकर / गुंठा / स्क्वेअर फूट / स्क्वेअर मीटर (अ) 1-3 (ब) 4-5 (क) 6-10 (ख) 10 पेक्षा जास्त
11.	घर	:	1) स्वत:चे 2) भाड्याचे
12.	घराचा प्रकार	:	1. कच्चा 2. अर्ध पक्के 3. पक्के
13.	संपत्ती	:	रेडियो / टि.व्ही. / दोन चाकी / चार चाकी / फ्रिज / वॉशिंग मशिन / ग्राइंडर / मिक्सर / इतर
14.	वर्तमान पत्र	:	होय / नाही
15.	साप्ताहिक / मासिक पत्रिका	:	होय / नाही
16.	दुरध्वनी	:	मोबाईल / लँडलाईन / यापैकी काही नाही
17.	संपर्क, संशोधन संस्था / महाराष्ट्र राज्य मच्छिमार विभाग / इतर संस्था	:	
18.	स्थानिक स्वराज्य संस्था	:	ग्राम पंचायत / महानगरपालिका / कार्यकर्ता

आर्थिक माहिती

स्थायी खर्च आणि मासेमारीचा प्रकार

1.	मासेमारी नौकेचा प्रकार	:	इंजिन व विंच / फक्त इंजिन / बिगर इंजिन मुख्य जाळी : इतर जाळी :
2.	नौकेचा नोंदणी क्रमांक	:	
3.	मासळी उतरण्याचे ठिकाण	:	
4.	स्थान / ठिकाण	:	तालुका : जिल्हा : पालघर राज्य : महाराष्ट्र

5. नौकेच्या मालकीची माहिती:

1.	नौकेच्या मालकीचा प्रकार	:	स्वत / भागीदारी / कुटुंब / इतर
2.	आर्थिक स्त्रोत	:	स्वत / बैंक / सहकारी सोसायटी / खाजगी स्त्रोत / इतर किंमत (रू.): अनुदान असल्यास (रू.):
3.	नौका खरेदीचे वर्ष	:	
4.	नौका नविन / वापरलेली	:	
5.	वापरलेली विकत घेत असताना नौकेचे आयुष्य	:	

6. नौकेची तांत्रिक माहिती**:**

अ. क्र.	घटक	वर्णन			
1	नाळ	लांबी(फूट/मीटर)	लाकडी / फायबर	रूंदी (फूट/मीटर)	खोली(फूट/मीटर)
2	इंजिन	कंपनीचे नाव :		अश्वशक्ती :	इंधन (लि. प्रति तास):
3	जाळयांची एकूण संख्या :		जाळयांची एकूण लांबी (मीटर):		डोल जाळयाच्या खोल्याचा आस:
4	मासे साठविण्याची क्षमता (टनांमध्ये) :				

7. मासेमारीची माहिती

हंगाम	पावसाळयापूर्वी (फेब्रुवारी ते मे)	पावसाळयादरम्यान (जून ते सप्टेंबर)	पावसाळयानंतर (ऑक्टोबर ते जानेवारी)
कालावधीचा उल्लेख			
मासेमारीचा प्रकार: एकदिवसीय / अनेक दिवसीय			
मासेमारी बोटींच्या फे-यांची संख्या			
मासेमारीचे दिवस / आठवडे			
मासेमारीचे तास / प्रति फेरी			
मासेमारी सुट्टयांचे दिवस			
मासेमारी बंदीचा कालावधी			
दुरूस्ती आणि देखभाल करण्यासाठी लागणारे दिवस			
मुख्य मासेमारीची जागा (अक्षांश / रेखांश)			

गुंतवणुकीचे तपशिल (रूपये):

अ. क्र.	घटक	तपशील	खरेदीची किमंत	खरेदीचे वर्ष	आर्थिक आयुष्य	अनुदान
1	नौका					
2	फायबर कोटिंगची किंमत					
3	इंजिन					
4	बर्फाची पेटी					
5	भिलजी (19 – 22)					
6	तरती / बोय (36 – 46)					
7	शहेनशहा (46 – 52)					
8	दालदी / बुडीची (63 – 81)					
9	शेवंड / पापलेट (87 – 114)					
10	कलेट / कारगिल (150 – 200)					
11	वाघरा (187 – 220)					
12	डोल (खोल्याचा आस)					
13	इतर जाळी					
14	इतर जाळी					
15	दोरी					
16.	वायरलेस सेट					
17.	जी. पी. एस. सेट					
18.	बैटरी					
19.	बोया / फ्लोट					
20.	नांगर					
21.	सिंकर / शिसे					
22.	पंखा					
23.	इतर उपकरण अ) लाईफ जॅकेट					
	ब) रिंग बोया					
	एकून					

टिप : - वरील घटकांपैकी जे लागू असतील ते रकान्यात भरणे.

9. इतर स्थायी खर्च असलेले घटक

अ) विम्याचा हप्ता रूपयांमध्ये (वार्षिक)

आ) कर (असेल तर)

इ) इतर (मासेमारीच्या परवान्याची किंमत)

10. मासेमारीशी निगडीत कोणत्या कार्यांमध्ये गुंतलेले असल्यास त्याची माहिती ?

आर्थिक माहिती
2. किरकोळ मासळी विक्रेत्यांकरिता

१. विक्रेत्याचे नाव:

२. कुटुंबप्रमुखासोबतचे नाते:

३. मोबाईल नंबर:

४. बाजाराचे ठिकाण:

५. बाजाराची नोंदणी (होय / नाही).

६. बाजाराचे शुल्क रूपयांमध्ये (असेल तर):

७. मासळी उतरण्याचे ठिकाण (विकत घेण्याचे):

८. वाहतुकीचा खर्च:

९. बाजाराचे वार्षिक दिवस:

१०. सरासरी महिन्याचे बाजाराचे दिवस:

११. मासेमारीशी निगडीत कार्यांसाठी दिला जाणारा सरासरी वेळ (दिवसातील एकूण तास)?

१२. केल्या जाणा-या कामाची सरासरी किंमत / मजूरी (रूपये प्रति दिवस)?

१३. सुकी / ताजी मासळी:

१४. बाजारातील माश्यांच्या प्रमुख जाती:

१५. मासळीची किंमत (५ प्रमुख जाती):

१६. मासळी विक्रीतून मिळणारे उत्पन्न (रूपयामध्ये): रोज..... मासिक ..... वार्षिक .....

१७. मासळीचा साठा करण्याची सोय:

१८. बाजारात उपलब्ध असलेल्या सुविधा : पाणी / खळे / बर्फ

१९. बाजाराची वेळ: सकाळ / दुपार / संध्याकाळ

आर्थिक माहिती

पारंपारिक मासेमारांसाठी (पाग / पगोळ्या (खेकड्यांसाठी) / गरवली / शिवल्या, कालवं काढणारे / घोळवा)

१. मासेमारी करणा-यांचे नाव:

२. कुटुंबप्रमुखासोबतचे नाते:

३. मोबाईल नंबर:

४. मासेमारीचा प्रकार: (पाग / पगोळ्या (खेकड्यांसाठी) / गरवली / शिवल्या, कालवं काढणारे / घोळवा)

५. जाळ्यांची संख्या आणि किंमत :

६. बोटीची / नौकेची किंमत (असेल तर):

७. मासेमारी करण्याचे ठिकाण:

८. मासेमारीचे एकूण दिवस (वार्षिक):

९. मासेमारीशी निगडीत कार्यांसाठी दिला जाणारा सरासरी वेळ (दिवसातील एकूण तास)?

१०. केल्या जाणा-या कामाची सरासरी किंमत / मजूरी (रूपये प्रति दिवस)?

११. पकडल्या जाणा-या माशांच्या प्रमुख जाती:

१२. मासळीचा साठा करण्याची सोय:

१३. मासळी विकण्याचे ठिकाण:

१४. बाजारात उपलब्ध असलेल्या सुविधा: नळ / खळे / बर्फ

१५. बाजाराची वेळ: सकाळ / दुपार / संध्याकाळ

१६. मासेमारीचे उत्पन्न :वार्षिक..... मासिक..... प्रति दिवस.....

आर्थिक माहिती

मासळी सुकविणा-यांसाठी

१. मासळी सुकविणा-याचे नाव:

२. कुटुंबप्रमुखासोबतचे नाते:

३. मोबाईल नंबर:

४. मासळी विकत घेण्याचे ठिकाण:

५. वर्षातील मासळी सुकविण्याचे एकूण दिवस:

६. मासेमारीशी निगडीत कार्यांसाठी दिला जाणारा सरासरी वेळ (दिवसातील एकूण तास)?

७. केल्या जाणा-या कामाची सरासरी किंमत / मजूरी (रूपये प्रति दिवस)?

८. सुकविल्या जाणा-या माशांच्या प्रमुख जाती:

९. मासळीचा साठा करण्याची सोय:

१०. मासळी विकण्याचे ठिकाण:

११. बाजाराची वेळ: सकाळ / दुपार / संध्याकाळ

१२. मासळी सुकविण्यातून मिळणारे उत्पन्न :वार्षिक..... मासिक..... प्रति दिवस.....

- मत्स्यपालन / सागरी मत्स्य संवर्धन प्रकल्पाचा अवलंब केला आहे काय ? होय / नाही.

असल्यास मत्स्यपालन / मत्स्य संवर्धनाचा तपशील:

	तपशील	गोड्या पाणी	निमखारे पाणी	सागरी / समुद्री
1	मत्स्य तलाव (क्षेत्रफळ आणि संख्या)			
2	संवर्धन केले जाणाऱ्या मत्स्य प्रजाती			
3	मत्स्य संचयक (संख्या)			
4	उत्पादकता (कि.ग्रा. / हेक्टर)			
5	सरासरी मासिक उत्पन्न			

सवषण मत

तवतवण कलतल कपन आहकय ऋ ^ नह .

तवत वण द कपलच तमच मत:

क्रमांक	फायदे	तोटे
1.		
2.		
3.		
4.		

तवत द कपय वर उपशमनसाठी कणत उपय यजल पहजे ?

(अ) सहकारी सं मदत

(ब) सरकारी मदत

(क) इतर पर्याय जचे उपल

(ख) करतल सदयच आ

इतर कणत पय ज उपल अस शकत ? असयस तपशल. जर म बदल आत

नुस नभाई असल त तो ककत य नकल?

Annexure V

Title of the request letters given to the Fishermen societies, Panchayat office and Maharashtra Maritime Board for the co-operation and help to conduct socio-economicsurvey and fishing survey

1. Conducting a socio-economic survey for an impact study on the proposed Vadhavan port on coastal fisheries (Page 87-97).

2. Request for support in information collection on dol net "sus" location of Palghar and Thane Dist. fishers given to MMB (Page 98).

3. Request for support in dol net operation and collection of sus / Khuta GPS location for Impact study on proposed Vadhavan port on coastal fisheries (Page 99-104).

4. Acknowledgment letter received from the different fishermen societies against the letter send through post regarding the closing of the survey (Page 105-108).

भा. कृ. अनु. प- केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केन्द्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एंव शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४०००६१

ICAR-MUMBAI RESEARCH CENTRE OF
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
(*Indian Council of Agricultural Research*)
[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
2nd Floor, Old C.I.F.E. Campus, Fisheries University Road, Seven Bungalows, Versova, Mumbai-400 061, Maharashtra, India
Phone: 022-26392795, 26320824 ,Telefax: 022-26320824, E-mail.cmfrimumbai@gmail.com, Web: www.cmfri.org.in

मिसिल संख्या / F. No. 3-24/2017 दिनांक /Dated: 11.12.2017

प्रती/ To,
मा. सरपंच,
धाकटी डहाणु ग्रामपंचायत,
ता. डहाणु. जि. पालघर

विषय/ Sub: सागरी मासेमारीवर प्रस्तावित वाढवण बंदरामुळे होणा-या प्रभावाचा अभ्यास करण्यासाठी मच्छिमारांचे सामाजिक-आर्थिक सर्वेक्षण करणे बाबत / Conducting socio-economic survey for impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

आपल्याला असे सूचित करण्यात येते की, प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्याचे कार्य जवाहरलाल नेहरु पोर्ट ट्रस्ट आणि महाराष्ट्र मॅरीटाईम बोर्ड यांनी केंद्रिय सागरी मत्स्य संशोधन संस्थे कडे दिले आहे. प्रस्तावित वाढवण बंदराच्या १० कि.मी. परिघामधे येणा-या मासेमार गावांतील मच्छिमार कुटूंबांचे सामाजिक-आर्थिक सर्वेक्षण करणे हे या अभ्यासाचा भाग आहे. मच्छिमारांची सामाजिक व आर्थिक परीस्थिती जाणुन घेण्यासाठी सदरचे सर्वेक्षण करणे आवश्यक आहे. सदरचे सर्वेक्षण करण्यासाठी तुमच्या गावातील सुशिक्षित तरुणांची (२ ते ३) प्रगणक म्हणुन आवश्यकता आहे. संबंधित प्रगणकांना सर्वेक्षण करण्यासाठी प्रशिक्षण आणि केलेल्या सर्वेक्षणासाठी या कार्यालयाकडून पैसे दिले जातील.

आपणास विनंती करण्यात येते की सदरच्या सर्वेक्षणास सहकार्य करावे तसेच यासंबंधीचा निर्णय या कार्यालयास 3 दिवसांत कळविण्यात यावा.

This is to inform you that "Impact Study of Vadhavan Port on Coastal fisheries is given to the ICAR-Central Marine Fisheries Research Institute (CMFRI) by Jawaharlal Nehru Port Trust and Maharashtra Maritime Board. Socio-economic survey of fisher families in the villages coming under 10 km radius of the proposed port is a part of the project work. This is essential for assessing the social and economic status of fishers. Educated youths (2-3) from your village will be required for enumeration purpose. The training for enumeration and enumeration charges will be paid by this office to the concerned enumerators.

You are therefore requested to co-operate in conducting the survey and communicate the decision in this regard within 3 days to this office.

पोच
१२/१२/१७
सरपंच
ग्रामपंचायत धाकटी डहाणु

कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

वी. वी. सिंह

डॉ. वीरेंद्र वीर सिंह/ Dr. Veerendra Veer Singh,
प्रभारी वैज्ञानिक / Scientist-in-Charge

भा. कृ. अनु. प- केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केन्द्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एंव शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४०००६१

ICAR-MUMBAI RESEARCH CENTRE OF
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
(*Indian Council of Agricultural Research*)
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Phone: 022-26392795, 26320824 ,Telefax: 022-26320824, E-mail.cmfrimumbai@gmail.com, Web: www.cmfri.org.in

मिसिल संख्या / F. No. 3-24/2017 दिनांक /Dated: 11.12.2017

प्रती/ To,
मा. ग्रामसेवक / प्रशासक
धुमकेत व अन्य.
ता. डहाणु. जि. पालघर

विषय/ Sub: सागरी मासेमारीवर प्रस्तावित वाढवण बंदरामुळे होणा-या प्रभावाचा अभ्यास करण्यासाठी मच्छिमारांचे सामाजिक-आर्थिक सर्वेक्षण करणे बाबत / Conducting socio-economic survey for impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

आपल्याला असे सूचित करण्यात येते की, प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्याचे कार्य जवाहरलाल नेहरु पोर्ट ट्रस्ट आणि महाराष्ट्र मॅरीटाईम बोर्ड यांनी केंद्रिय सागरी मत्स्य संशोधन संस्थे कडे दिले आहे. प्रस्तावित वाढवण बंदराच्या १० कि.मी. परिघामधे येणा-या मासेमार गावांतील मच्छिमार कुटूंबांचे सामाजिक-आर्थिक सर्वेक्षण करणे हे या अभ्यासाचा भाग आहे. मच्छिमारांची सामाजिक व आर्थिक परीस्थिती जाणुन घेण्यासाठी सदरचे सर्वेक्षण करणे आवश्यक आहे. सदरचे सर्वेक्षण करण्यासाठी तुमच्या गावातील सुशिक्षित तरुणांची (२ ते ३) प्रगणक म्हणुन आवश्यकता आहे. संबंधित प्रगणकांना सर्वेक्षण करण्यासाठी प्रशिक्षण आणि केलेल्या सर्वेक्षणासाठी या कार्यालयाकडून पैसे दिले जातील.

आपणास विनंती करण्यात येते की सदरच्या सर्वेक्षणास सहकार्य करावे तसेच यासंबंधीचा निर्णय या कार्यालयास 3 दिवसांत कळविण्यात यावा.

This is to inform you that "Impact Study of Vadhavan Port on Coastal fisheries is given to the ICAR-Central Marine Fisheries Research Institute (CMFRI) by Jawaharlal Nehru Port Trust and Maharashtra Maritime Board. Socio-economic survey of fisher families in the villages coming under 10 km radius of the proposed port is a part of the project work. This is essential for assessing the social and economic status of fishers. Educated youths (2-3) from your village will be required for enumeration purpose. The training for enumeration and enumeration charges will be paid by this office to the concerned enumerators.

You are therefore requested to co-operate in conducting the survey and communicate the decision in this regard within 3 days to this office.

कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

डॉ. वीरेंद्र वीर सिंह/ Dr. Veerendra Veer Singh,
प्रभारी वैज्ञानिक / Scientist-in-Charge

12/12/17
लिपिक
ग्रा.से. धुमकेत / अन्य.

भा. कृ. अनु. प- केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केन्द्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एंव शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४०००६१

ICAR-MUMBAI RESEARCH CENTRE OF
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[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
2nd Floor, Old C.I.F.E. Campus, Fisheries University Road, Seven Bungalows, Versova, Mumbai-400 061, Maharashtra, India
Phone: 022-26392795, 26320824 ,Telefax: 022-26320824, E-mail.cmfrimumbai@gmail.com, Web: www.cmfri.org.in

मिसिल संख्या / F. No. 3-24/2017 दिनांक /Dated: 11.12.2017

प्रती/ To,

मा. चेअरमन,
डहाणू मच्छीमार विविध कार्यकारी सहकारी
सोसायटी लि.
मु.पो. डहाणू, जि. पालघर

डहाणू, नरपड व आगार

विषय/ Sub: सागरी मासेमारीवर प्रस्तावित वाढवण बंदरामुळे होणा-या प्रभावाचा अभ्यास करण्यासाठी मच्छिमारांचे सामाजिक-आर्थिक सर्वेक्षण करणे बाबत / Conducting socio-economic survey for impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

आपल्याला असे सूचित करण्यात येते की, प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्याचे कार्य जवाहरलाल नेहरु पोर्ट ट्रस्ट आणि महाराष्ट्र मॅरीटाईम बोर्ड यांनी केंद्रिय सागरी मत्स्य संशोधन संस्थे कडे दिले आहे. प्रस्तावित वाढवण बंदराच्या १० कि.मी. परिघामधे येणा-या मासेमार गावांतील मच्छिमार कुटूंबांचे सामाजिक-आर्थिक सर्वेक्षण करणे हे या अभ्यासाचा भाग आहे. मच्छिमारांची सामाजिक व आर्थिक परीस्थिती जाणुन घेण्यासाठी सदरचे सर्वेक्षण करणे आवश्यक आहे. सदरचे सर्वेक्षण करण्यासाठी तुमच्या गावातील सुशिक्षित तरुणांची (२ ते ३) प्रगणक म्हणुन आवश्यकता आहे. संबंधित प्रगणकांना सर्वेक्षण करण्यासाठी प्रशिक्षण आणि केलेल्या सर्वेक्षणासाठी या कार्यालयाकडून पैसे दिले जातील.

आपणास विनंती करण्यात येते की सदरच्या सर्वेक्षणास सहकार्य करावे तसेच यासंबंधीचा निर्णय या कार्यालयास 3 दिवसांत कळविण्यात यावा.

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You are therefore requested to co-operate in conducting the survey and communicate the decision in this regard within 3 days to this office.

कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

वी.वी.सिंह

डॉ. वीरेंद्र वीर सिंह/ Dr. Veerendra Veer Singh,
प्रभारी वैज्ञानिक / Scientist-in-Charge

BM 12.12.2017
पावतीचा प्रतिनिधी चामरे

भा. कृ. अनु. प- केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केंन्द्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एंव शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४०००६१

ICAR-MUMBAI RESEARCH CENTRE OF
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Phone: 022-26392795, 26320824, Telefax: 022-26320824, E-mail.cmfrimumbai@gmail.com, Web: www.cmfri.org.in

मिसिल संख्या / F. No. 3-24/2017

दिनांक / Dated: 11.12.2017

प्रती/ To,
मा० अध्यक्ष
धाकटी डहाणू मच्छिमार वि० का० स० सो० लि०
ता० डहाणू
जि० पालघर,

विषय/ Sub: सागरी मासेमारीवर प्रस्तावित वाढवण बंदरामुळे होणा-या प्रभावाचा अभ्यास करण्यासाठी मच्छिमारांचे सामाजिक-आर्थिक सर्वेक्षण करणे बाबत / Conducting socio-economic survey for impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

आपल्याला असे सूचित करण्यात येते की, प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्याचे कार्य जवाहरलाल नेहरु पोर्ट ट्रस्ट आणि महाराष्ट्र मॅरीटाईम बोर्ड यांनी केंद्रिय सागरी मत्स्य संशोधन संस्थे कडे दिले आहे. प्रस्तावित वाढवण बंदराच्या १० कि.मी. परिघामधे येणा-या मासेमार गावांतील मच्छिमार कुटूंबांचे सामाजिक-आर्थिक सर्वेक्षण करणे हे या अभ्यासाचा भाग आहे. मच्छिमारांची सामाजिक व आर्थिक परीस्थिती जाणुन घेण्यासाठी सदरचे सर्वेक्षण करणे आवश्यक आहे. सदरचे सर्वेक्षण करण्यासाठी तुमच्या गावातील सुशिक्षित तरुणांची (२ ते ३) प्रगणक म्हणुन आवश्यकता आहे. संबंधित प्रगणकांना सर्वेक्षण करण्यासाठी प्रशिक्षण आणि केलेल्या सर्वेक्षणासाठी या कार्यालयाकडून पैसे दिले जातील.

आपणास विनंती करण्यात येते की सदरच्या सर्वेक्षणास सहकार्य करावे तसेच यासंबंधीचा निर्णय या कार्यालयास 3 दिवसांत कळविण्यात यावा.

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कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

डॉ. वीरेंद्र वीर सिंह/ Dr. Veerendra Veer Singh,
प्रभारी वैज्ञानिक / Scientist-in-Charge

धाकटी डहाणू मच्छिमार वि. का. सह. सो. लि.
दिनाक: १४/१२/२०१७
आवक क्रमांक: १८४
शेरा:
धाकटी डहाणू मच्छिमार वि. का. सह. सो. लि.

भा. कृ. अनु. प- केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केन्द्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एंव शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४०००६१
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मिसिल संख्या / F. No. 3-24/2017 दिनांक /Dated: 11.12.2017

प्रती/ To,
मा० सरपंच,
आसन गाव ग्राम पंचायत.
ता. डहाणु, जि. पालघर
(आसनगाव आणि माटगाव)

विषय/ Sub: सागरी मासेमारीवर प्रस्तावित वाढवण बंदरामुळे होणा-या प्रभावाचा अभ्यास करण्यासाठी मच्छिमारांचे सामाजिक-आर्थिक सर्वेक्षण करणे बाबत / Conducting socio-economic survey for impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

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आपला विश्वासू/ Yours faithfully,

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प्रभारी वैज्ञानिक / Scientist-in-Charge

भा. कृ. अनु. प- केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केंन्द्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एंव शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४०००६१

IGAR-MUMBAI RESEARCH CENTRE OF
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मिसिल संख्या / F. No. 3-24/2017 दिनांक / Dated: 11.12.2017

प्रती/ To, माननीय
उपसरपंच साहेब,
अंगणवाडा मच्छिमार वि० का० स० सोसायटी मर्यादित,
ता० डहाणू
जि० पालघर.

विषय/ Sub: सागरी मासेमारीवर प्रस्तावित वाढवण बंदरामुळे होणा-या प्रभावाचा अभ्यास करण्यासाठी मच्छिमारांचे सामाजिक-आर्थिक सर्वेक्षण करणे बाबत / Conducting socio-economic survey for impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

आपल्याला असे सूचित करण्यात येते की, प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्याचे कार्य जवाहरलाल नेहरु पोर्ट ट्रस्ट आणि महाराष्ट्र मॅरीटाईम बोर्ड यांनी केंद्रिय सागरी मत्स्य संशोधन संस्थे कडे दिले आहे. प्रस्तावित वाढवण बंदराच्या १० कि.मी. परिघामधे येणा-या मासेमार गावांतील मच्छिमार कुटूंबांचे सामाजिक-आर्थिक सर्वेक्षण करणे हे या अभ्यासाचा भाग आहे. मच्छिमारांची सामाजिक व आर्थिक परीस्थिती जाणुन घेण्यासाठी सदरचे सर्वेक्षण करणे आवश्यक आहे. सदरचे सर्वेक्षण करण्यासाठी तुमच्या गावातील सुशिक्षित तरुणांची (२ ते ३) प्रगणक म्हणुन आवश्यकता आहे. संबंधित प्रगणकांना सर्वेक्षण करण्यासाठी प्रशिक्षण आणि केलेल्या सर्वेक्षणासाठी या कार्यालयाकडून पैसे दिले जातील.

आपणास विनंती करण्यात येते की सदरच्या सर्वेक्षणास सहकार्य करावे तसेच यासंबंधीचा निर्णय या कार्यालयास 3 दिवसांत कळविण्यात यावा.

This is to inform you that "Impact Study of Vadhavan Port on Coastal fisheries is given to the ICAR-Central Marine Fisheries Research Institute (CMFRI) by Jawaharlal Nehru Port Trust and Maharashtra Maritime Board. Socio-economic survey of fisher families in the villages coming under 10 km radius of the proposed port is a part of the project work. This is essential for assessing the social and economic status of fishers. Educated youths (2-3) from your village will be required for enumeration purpose. The training for enumeration and enumeration charges will be paid by this office to the concerned enumerators.

You are therefore requested to co-operate in conducting the survey and communicate the decision in this regard within 3 days to this office.

कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

वी. वी. सिंह

डॉ. वीरेंद्र वीर सिंह/ Dr. Veerendra Veer Singh,
प्रभारी वैज्ञानिक / Scientist-in-Charge

भा. कृ. अनु. प- केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केन्द्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एंव शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४०००६१
ICAR-MUMBAI RESEARCH CENTRE OF
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
(*Indian Council of Agricultural Research*)
[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
2nd Floor, Old C.I.F.E. Campus, Fisheries University Road, Seven Bungalows, Versova, Mumbai-400 061, Maharashtra, India
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मिसिल संख्या / F. No. 3-24/2017 दिनांक /Dated: 11.12.2017

प्रती/ To,

मा. मॅनेजिंग डायरेक्टर,
चिंचणी मच्छिमार विविध कार्यकारी सहकारी
सोसायटी लि.
चिंचणी, ता. डहाणु, जि. पालघर

विषय/ Sub: सागरी मासेमारीवर प्रस्तावित वाढवण बंदरामुळे होणा-या प्रभावाचा अभ्यास करण्यासाठी मच्छिमारांचे सामाजिक-आर्थिक सर्वेक्षण करणे बाबत / Conducting socio-economic survey for impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

आपल्याला असे सूचित करण्यात येते की, प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्याचे कार्य जवाहरलाल नेहरु पोर्ट ट्रस्ट आणि महाराष्ट्र मॅरीटाईम बोर्ड यांनी केंद्रिय सागरी मत्स्य संशोधन संस्थे कडे दिले आहे. प्रस्तावित वाढवण बंदराच्या १० कि.मी. परिघामधे येणा-या मासेमार गावांतील मच्छिमार कुटूंबांचे सामाजिक-आर्थिक सर्वेक्षण करणे हे या अभ्यासाचा भाग आहे. मच्छिमारांची सामाजिक व आर्थिक परीस्थिती जाणुन घेण्यासाठी सदरचे सर्वेक्षण करणे आवश्यक आहे. सदरचे सर्वेक्षण करण्यासाठी तुमच्या गावातील सुशिक्षित तरुणांची (२ ते ३) प्रगणक म्हणुन आवश्यकता आहे. संबंधित प्रगणकांना सर्वेक्षण करण्यासाठी प्रशिक्षण आणि केलेल्या सर्वेक्षणासाठी या कार्यालयाकडून पैसे दिले जातील.

आपणास विनंती करण्यात येते की सदरच्या सर्वेक्षणास सहकार्य करावे तसेच यासंबंधीचा निर्णय या कार्यालयास 3 दिवसांत कळविण्यात यावा.

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You are therefore requested to co-operate in conducting the survey and communicate the decision in this regard within 3 days to this office.

कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

वी.वी.सिंह

डॉ. वीरेंद्र वीर सिंह/ Dr. Veerendra Veer Singh,
प्रभारी वैज्ञानिक / Scientist-in-Charge

मॅनेजींग डायरेक्टर
चिंचणी मच्छिमार स.सोसा.

भा. कृ. अनु. प- केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केन्द्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एवं शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४०००६१
ICAR-MUMBAI RESEARCH CENTRE OF
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
(*Indian Council of Agricultural Research*)
[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
2nd Floor, Old C.I.F.E. Campus, Fisheries University Road, Seven Bungalows, Versova, Mumbai-400 061, Maharashtra, India
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मिसिल संख्या / F. No. 3-24/2017 दिनांक /Dated: 11.12.2017

प्रती/ To,

मा. सरपंच,
तडियाळे ग्राम पंचायत,
ता. डहाणु, जि. पालघर.

विषय/ Sub: सागरी मासेमारीवर प्रस्तावित वाढवण बंदरामुळे होणा-या प्रभावाचा अभ्यास करण्यासाठी मच्छिमारांचे सामाजिक-आर्थिक सर्वेक्षण करणे बाबत / Conducting socio-economic survey for impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

आपल्याला असे सूचित करण्यात येते की, प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्याचे कार्य जवाहरलाल नेहरु पोर्ट ट्रस्ट आणि महाराष्ट्र मॅरीटाईम बोर्ड यांनी केंद्रिय सागरी मत्स्य संशोधन संस्थे कडे दिले आहे. प्रस्तावित वाढवण बंदराच्या १० कि.मी. परिघामधे येणा-या मासेमार गावांतील मच्छिमार कुटूंबांचे सामाजिक-आर्थिक सर्वेक्षण करणे हे या अभ्यासाचा भाग आहे. मच्छिमारांची सामाजिक व आर्थिक परीस्थिती जाणुन घेण्यासाठी सदरचे सर्वेक्षण करणे आवश्यक आहे. सदरचे सर्वेक्षण करण्यासाठी तुमच्या गावातील सुशिक्षित तरुणांची (२ ते ३) प्रगणक म्हणुन आवश्यकता आहे. संबंधित प्रगणकांना सर्वेक्षण करण्यासाठी प्रशिक्षण आणि केलेल्या सर्वेक्षणासाठी या कार्यालयाकडून पैसे दिले जातील.

आपणास विनंती करण्यात येते की सदरच्या सर्वेक्षणास सहकार्य करावे तसेच यासंबंधीचा निर्णय या कार्यालयास 3 दिवसांत कळविण्यात यावा.

This is to inform you that "Impact Study of Vadhavan Port on Coastal fisheries is given to the ICAR-Central Marine Fisheries Research Institute (CMFRI) by Jawaharlal Nehru Port Trust and Maharashtra Maritime Board. Socio-economic survey of fisher families in the villages coming under 10 km radius of the proposed port is a part of the project work. This is essential for assessing the social and economic status of fishers. Educated youths (2-3) from your village will be required for enumeration purpose. The training for enumeration and enumeration charges will be paid by this office to the concerned enumerators.

You are therefore requested to co-operate in conducting the survey and communicate the decision in this regard within 3 days to this office.

कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

12/12/2017
ग्रामसेवक
ग्रा. तडियाळे
ता. डहाणु, जि. पालघर

वी.वी.सिंह

डॉ. वीरेंद्र वीर सिंह/ Dr. Veerendra Veer Singh,
प्रभारी वैज्ञानिक / Scientist-in-Charge

भा. कृ. अनु. प- केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केन्द्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एंव शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४०००६१
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[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
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मिसिल संख्या / F. No. 3-24/2017 दिनांक / Dated: 11.12.2017

प्रती/ To,

मा. चेअरमन,
वरोर मच्छिमार सहकारी संस्था मर्यादित.
वरोर, ता. डहाणू, जि. पालघर

विषय/ Sub: सागरी मासेमारीवर प्रस्तावित वाढवण बंदरामुळे होणा-या प्रभावाचा अभ्यास करण्यासाठी मच्छिमारांचे सामाजिक-आर्थिक सर्वेक्षण करणे बाबत / Conducting socio-economic survey for impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

आपल्याला असे सूचित करण्यात येते की, प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्याचे कार्य जवाहरलाल नेहरु पोर्ट ट्रस्ट आणि महाराष्ट्र मॅरीटाईम बोर्ड यांनी केंद्रिय सागरी मत्स्य संशोधन संस्थे कडे दिले आहे. प्रस्तावित वाढवण बंदराच्या १० कि.मी. परिघामधे येणा-या मासेमार गावांतील मच्छिमार कुटूंबांचे सामाजिक-आर्थिक सर्वेक्षण करणे हे या अभ्यासाचा भाग आहे. मच्छिमारांची सामाजिक व आर्थिक परीस्थिती जाणुन घेण्यासाठी सदरचे सर्वेक्षण करणे आवश्यक आहे. सदरचे सर्वेक्षण करण्यासाठी तुमच्या गावातील सुशिक्षित तरुणांची (२ ते ३) प्रगणक म्हणुन आवश्यकता आहे. संबंधित प्रगणकांना सर्वेक्षण करण्यासाठी प्रशिक्षण आणि केलेल्या सर्वेक्षणासाठी या कार्यालयाकडून पैसे दिले जातील.

आपणास विनंती करण्यात येते की सदरच्या सर्वेक्षणास सहकार्य करावे तसेच यासंबंधीचा निर्णय या कार्यालयास 3 दिवसांत कळविण्यात यावा.

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You are therefore requested to co-operate in conducting the survey and communicate the decision in this regard within 3 days to this office.

वरोर मच्छिमार सह.
चेअरमन

कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

वी. वी. सिंह

डॉ. वीरेंद्र वीर सिंह/ Dr. Veerendra Veer Singh,
प्रभारी वैज्ञानिक / Scientist-in-Charge

भा. कृ. अनु. प- केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केंद्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एंव शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४०००६१
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(Indian Council of Agricultural Research)
[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
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मिसिल संख्या / F. No. 3-24/2017 दिनांक /Dated: 11.12.2017

प्रती/ To, मा० सचिव
दिवली मच्छिमार विकास संस्था, मर्यादित,
मु०पो० दिवली:
ता० जि० पालघर.

विषय/ Sub: सागरी मासेमारीवर प्रस्तावित वाढवण बंदरामुळे होणा-या प्रभावाचा अभ्यास करण्यासाठी मच्छिमारांचे सामाजिक-आर्थिक सर्वेक्षण करणे बाबत / Conducting socio-economic survey for impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

आपल्याला असे सूचित करण्यात येते की, प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्याचे कार्य जवाहरलाल नेहरु पोर्ट ट्रस्ट आणि महाराष्ट्र मॅरीटाईम बोर्ड यांनी केंद्रिय सागरी मत्स्य संशोधन संस्थे कडे दिले आहे. प्रस्तावित वाढवण बंदराच्या १० कि.मी. परिघामधे येणा-या मासेमार गावांतील मच्छिमार कुटूंबांचे सामाजिक-आर्थिक सर्वेक्षण करणे हे या अभ्यासाचा भाग आहे. मच्छिमारांची सामाजिक व आर्थिक परीस्थिती जाणुन घेण्यासाठी सदरचे सर्वेक्षण करणे आवश्यक आहे. सदरचे सर्वेक्षण करण्यासाठी तुमच्या गावातील सुशिक्षित तरुणांची (२ ते ३) प्रगणक म्हणुन आवश्यकता आहे. संबंधित प्रगणकांना सर्वेक्षण करण्यासाठी प्रशिक्षण आणि केलेल्या सर्वेक्षणासाठी या कार्यालयाकडून पैसे दिले जातील.

आपणास विनंती करण्यात येते की सदरच्या सर्वेक्षणास सहकार्य करावे तसेच यासंबंधीचा निर्णय या कार्यालयास 3 दिवसांत कळविण्यात यावा.

This is to inform you that "Impact Study of Vadhavan Port on Coastal fisheries is given to the ICAR-Central Marine Fisheries Research Institute (CMFRI) by Jawaharlal Nehru Port Trust and Maharashtra Maritime Board. Socio-economic survey of fisher families in the villages coming under 10 km radius of the proposed port is a part of the project work. This is essential for assessing the social and economic status of fishers. Educated youths (2-3) from your village will be required for enumeration purpose. The training for enumeration and enumeration charges will be paid by this office to the concerned enumerators.

You are therefore requested to co-operate in conducting the survey and communicate the decision in this regard within 3 days to this office.

कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

वी० वी० सिंह

डॉ. वीरेंद्र वीर सिंह/ Dr. Veerendra Veer Singh,
प्रभारी वैज्ञानिक / Scientist-in-Charge

मधुकर देवनाथ केणी
सेक्रेटरी
दिवली मच्छिमार विकास संस्था मर्या-
दि. 13/12/2017
दिवली, कांबोडा, पालघर

भा. कृ. अनु. प- केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केंन्द्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एंव शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४०००६१
ICAR-MUMBAI RESEARCH CENTRE OF
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
(*Indian Council of Agricultural Research*)
[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
2nd Floor, Old C.I.F.E. Campus, Fisheries University Road, Seven Bungalows, Versova, Mumbai-400 061, Maharashtra, India
Phone: 022-26392795, 26320824 ,Telefax: 022-26320824, E-mail.cmfrimumbai@gmail.com, Web: www.cmfri.org.in

मिसिल संख्या / F. No. 3-24/2017

दिनांक /Dated: 11.12.2017

प्रती/ To,

मा० ग्रामसेवक/प्रशासक
गुंगवाडा ग्रामपंचायत,
ता. डहाणु, जि. पालघर

विषय/ Sub: सागरी मासेमारीवर प्रस्तावित वाढवण बंदरामुळे होणा-या प्रभावाचा अभ्यास करण्यासाठी मच्छिमारांचे सामाजिक-आर्थिक सर्वेक्षण करणे बाबत / Conducting socio-economic survey for impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

आपल्याला असे सूचित करण्यात येते की, प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्याचे कार्य जवाहरलाल नेहरु पोर्ट ट्रस्ट आणि महाराष्ट्र मॅरीटाईम बोर्ड यांनी केंद्रिय सागरी मत्स्य संशोधन संस्थे कडे दिले आहे. प्रस्तावित वाढवण बंदराच्या १० कि.मी. परिघामधे येणा-या मासेमार गावांतील मच्छिमार कुटूंबांचे सामाजिक-आर्थिक सर्वेक्षण करणे हे या अभ्यासाचा भाग आहे. मच्छिमारांची सामाजिक व आर्थिक परीस्थिती जाणुन घेण्यासाठी सदरचे सर्वेक्षण करणे आवश्यक आहे. सदरचे सर्वेक्षण करण्यासाठी तुमच्या गावातील सुशिक्षित तरुणांची (२ ते ३) प्रगणक म्हणुन आवश्यकता आहे. संबंधित प्रगणकांना सर्वेक्षण करण्यासाठी प्रशिक्षण आणि केलेल्या सर्वेक्षणासाठी या कार्यालयाकडून पैसे दिले जातील.

आपणास विनंती करण्यात येते की सदरच्या सर्वेक्षणास सहकार्य करावे तसेच यासंबंधीचा निर्णय या कार्यालयास 3 दिवसांत कळविण्यात यावा.

This is to inform you that "Impact Study of Vadhavan Port on Coastal fisheries is given to the ICAR-Central Marine Fisheries Research Institute (CMFRI) by Jawaharlal Nehru Port Trust and Maharashtra Maritime Board. Socio-economic survey of fisher families in the villages coming under 10 km radius of the proposed port is a part of the project work. This is essential for assessing the social and economic status of fishers. Educated youths (2-3) from your village will be required for enumeration purpose. The training for enumeration and enumeration charges will be paid by this office to the concerned enumerators.

You are therefore requested to co-operate in conducting the survey and communicate the decision in this regard within 3 days to this office.

कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

वी. वी. सिंह

डॉ. वीरेंद्र वीर सिंह/ Dr. Veerendra Veer Singh,
प्रभारी वैज्ञानिक / Scientist-in-Charge

अंभिरे
12/12/2017
पत्र मिळाले
श्री. वामन पांडुरंग अंभिरे
ग्रामपंचायत गुंगवाडा कर्मचारी

भा. कृ. अनु. प- केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केंन्द्र
(*भारतीय कृषि अनुसंधान परिषद*)
[कृषि अनुसंधान एवं शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार]
दुसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, ,मुंबई महाराष्ट्र -४०००६१

ICAR-MUMBAI RESEARCH CENTRE OF
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
(*Indian Council of Agricultural Research*)
[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
2nd Floor, Old C.I.F.E. Campus, Fisheries University Road, Seven Bunglows, Versova, Mumbai-400 061, Maharashtra, India
Phone: 022-26392795, 26393029, Telefax: 022-26320824, E-mail.cmfrimumbai@gmail.com, Web: www.cmfri.org.in

F. No. 3-24/17

Date : 12/12/2017

फैक्स के माध्यम से / BY FAX

To

मुख्य कार्यकारी अधिकारी / Chief Executive Officer,
महाराष्ट्र समुद्री मंडळ /Maharashtra Maritime Board
तीसरी मंजिल, इंडियन मर्कंटाईल चैंबर्स / 3rd Floor, Indian Mercantile Chambers,
रामजीभाई कामानी मार्ग, बॅलार्ड इस्टेट / Ramjibhai Kamani Marg, Ballard Estate,
मुंबई / Mumbai – 400 038

(प्रभारी वैज्ञानिक, के. स. मा. अनु. सं. का मुंबई अनुसंधान केन्द्र के माध्यम से / Through Scientist-In-Charge, Mumbai RC of CMFRI)

Sub: Request for the information of dolnet "*sus*" location at Palghar and Thane Dist. reg.
Ref: Meeting of JNPT project " Impact study of proposed Vadhavan port on coastal fisheries" being conducted regularly in presence of MMB representatives and others.

Sir,

This is to inform you that Mumbai Research centre of Central Marine Fisheries Research Institute (CMFRI) is presently handling a consultancy project referred as above at proposed Vadhavan port area, Palghar Dist., as this centre is identified as the nodal agency for such studies in the coastal areas of Maharashtra. In this regard we are in need of the *"sus"* information (GPS location) of the dolnets operating in Palghar and Thane Districts to identify and verify the fishing area in the proposed port area. This information will be helpful for the estimation of displacement of fishing area and the fishing gear from the proposed port site.

We request yourself kindly provide the information of the same of Palghar and Thane as early as possible for the actual fishing area estimation and support CMFRI in the above mentioned work.

Thanking you

Yours faithfully

(Anulekshmi Chellappan)

Copy to:

1. Port Inspector,
   Maharashtra Maritime Board,
   Near Tahasil Office
   Dahanu, Palghar Dist.

वी.वी.सिंह
डॉ. वीरेन्द्र वीर सिंह/Dr. Veerendra Veer Singh
प्रधान व प्रभारी वैज्ञानिक/P. S. & Scientist -in- Charge
भा.कृ.अनु.प.-के. स.मा.अनु. संस्थान का मुंबई अनुसंधान केन्द्र
Mumbai Research Centre of ICAR-CMFR Institute
के.म.शि.सं. का पुराना परिसर/CIFE Old Campus,
फिशरीज युनिवर्सिटी रोड/Fisheries University Road,
वर्सोवा/ Versova, मुंबई/Mumbai - 400 061.

भा. कृ. अनु. प- केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केन्द्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एंव शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४०००६१

ICAR-MUMBAI RESEARCH CENTRE OF
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(*Indian Council of Agricultural Research*)
[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
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Phone: 022-26392795, 26320824 ,Telefax: 022-26320824, E-mail.cmfrimumbai@gmail.com, Web: www.cmfri.org.in

मिसिल संख्या / F. No. 3-24/2017 दिनांक /Dated: 23.12.2017

प्रती/ To,
मा. चेअरमन,
वरोर मच्छीमार विविध कार्यकारी सहकारी सोसायटी.
वरोर, ता. डहाणु, जि. पालघर

विषय/ Sub: प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्यासाठी डोल जाळी वापरायच्या जागा / सस / खुटाचा जी.पी.एस. पॉईंट मिळवणे साठी सहकार्याची विनंती / Request for support in collection of Dol net operation/ sus/ Khuta G.P.S. point) for Impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

आपल्याला असे सूचित करण्यात येते की, प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्याचे कार्य सरकारी संस्थां कडुन भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला दिले आहे. भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्था प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर आणि मासेमारी संबंधी उपक्रमांवर होणा-या प्रभावाचा अभ्यास सर्वेक्षणाच्या माध्यमातुन करणार आहे. प्रस्तावित बंदरामुळे मासेमारी जाळी, मासेमारी क्षेत्र आणि मासेमारंचे होणा-या नुकसानाचा अंदाज घेणे हे महत्वाचे आहे. या संदर्भात आपल्याला अशी विनंती करण्यात येते की मासेमारी संस्थेकडे नोंदणी असलेल्या नौकांच्या सस ची माहिती (डोल जाळी लावण्याची जागा/ सस/ खुटा याचा जी.पी. एस. पॉईंट) या कार्यालयास देण्यात यावी.

आपल्याला अशी विनंती करण्यात येते की सदरच्या कार्यात सहकार्य करुन आवश्यक माहिती पुरवण्याची कृपा करावी.

ICAR-Central Marine Fisheries Research Institute (CMFRI), Mumbai is conducting "Impact Study of Vadhavan Port on Coastal fisheries" as being recognised by Government agencies. CMFRI will study the possible impact of proposed port on fisheries and fishing allied activities by surveys. Estimating loss of fishing gear, area and fishers affected due to proposed port is important. In this regard, you are requested to provide the sus information (Place of Dol net operation/ sus/ Khuta G.P.S. point) of boats registered with society.

You are therefore requested to co-operate and provide the necessary information.

वरोर मच्छीमार सह
चेअरमन
19-1-2018

कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

वी. वी. सिंह

डॉ. वीरेंद्र वीर सिंह/ Dr. Veerendra Veer Singh,
प्रभारी वैज्ञानिक / Scientist-in-Charge

भा. कृ. अनु. प- केंद्रीय समुद्री मत्स्यकी अनुसंधान संस्थान का
मुंबई अनुसंधान केन्द्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एंव शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरीज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४०००६१

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[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
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मिसिल संख्या / F. No. 3-24/2017 दिनांक / Dated: 23.12.2017

प्रती/ To,

मा. मॅनेजिंग डायरेक्टर,
चिंचणी मच्छिमार विविध कार्यकारी सहकारी सोसायटी लि.
चिंचणी, ता. डहाणु, जि. पालघर.

विषय/ Sub: प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्यासाठी डोल जाळी वापराच्या जागेचा / सस / खुटाचा जी.पी.एस. पॉईंट मिळवणे साठी सहकार्याची विनंती / Request for support in collection of Dol net operation/ sus/ Khuta G.P.S. point) for Impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

आपल्याला असे सूचित करण्यात येते की, प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्याचे कार्य सरकारी संस्थां कडुन भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला दिले आहे. भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्था प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर आणि मासेमारी संबंधी उपक्रमांवर होणा-या प्रभावाचा अभ्यास सर्वेक्षणाच्या माध्यमातुन करणार आहे. प्रस्तावित बंदरामुळे मासेमारी जाळी, मासेमारी क्षेत्र आणि मासेमारंचे होणा-या नुकसानाचा अंदाज घेणे हे महत्वाचे आहे. या संदर्भात आपल्याला अशी विनंती करण्यात येते की मासेमारी संस्थेकडे नोंदणी असलेल्या नौकांच्या सस ची माहिती (डोल जाळी लावण्याची जागा/ सस/ खुटा याचा जी.पी. एस. पॉईंट) या कार्यालयास देण्यात यावी.

आपल्याला अशी विनंती करण्यात येते की सदरच्या कार्यात सहकार्य करुन आवश्यक माहिती पुरवण्याची कृपा करावी.

ICAR-Central Marine Fisheries Research Institute (CMFRI), Mumbai is conducting "Impact Study of Vadhavan Port on Coastal fisheries" as being recognised by Government agencies. CMFRI will study the possible impact of proposed port on fisheries and fishing allied activities by surveys. Estimating loss of fishing gear, area and fishers affected due to proposed port is important. In this regard, you are requested to provide the sus information (Place of Dol net operation/ sus/ Khuta G.P.S. point) of boats registered with society.

You are therefore requested to co-operate and provide the necessary information.

कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

डॉ. वीरेंद्र वीर सिंह/ Dr. Veerendra Veer Singh,
प्रभारी वैज्ञानिक / Scientist-in-Charge

भा. कृ. अनु. प- केंद्रीय समुद्री मत्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केन्द्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एवं शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरीज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४०००६१
ICAR-MUMBAI RESEARCH CENTRE OF
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
(*Indian Council of Agricultural Research*)
[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
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मिसिल संख्या / F. No. 3-24/2017 दिनांक /Dated: 23.12.2017

प्रती/ To,

मा. मॅनेजिंग डायरेक्टर,
चिंचणी महिलामार विविध कार्यकारी सहकारी सोसायटी लि.
चिंचणी, ता. डहाणु, जि. पालघर.

विषय/ Sub: प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्यासाठी डोल जाळी वापराच्या जागेचा / सस / खुटाचा जी.पी.एस. पॉईंट मिळवणे साठी सहकार्याची विनंती / Request for support in collection of Dol net operation/ sus/ Khuta G.P.S. point) for Impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

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आपल्याला अशी विनंती करण्यात येते की सदरच्या कार्यात सहकार्य करुन आवश्यक माहिती पुरवण्याची कृपा करावी.

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You are therefore requested to co-operate and provide the necessary information.

कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

डॉ वीरेंद्र वीर सिंह/ Dr. Veerendra Veer Singh,
प्रभारी वैज्ञानिक / Scientist-in-Charge

भा. कृ. अनु. प- केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केन्द्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एवं शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४००६१
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मिसिल संख्या / F. No. 3-24/2017 दिनांक /Dated: 23.12.2017

प्रती/ To,

मा० चेअरमन,
गुंगवाडा मच्छिमार विविध बहुउद्देशीय सहकारी सोसायटी लि०,
धाकटी डहाणू, ता. डहाणू, जि. पालघर

विषय/ Sub: प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्यासाठी डोल जाळी वापरायच्या जागेचा / सस / खुटाचा जी.पी.एस. पॉईंट मिळवणे साठी सहकार्याची विनंती / Request for support in collection of Dol net operation/ sus/ Khuta G.P.S. point) for Impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

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You are therefore requested to co-operate and provide the necessary information.

कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

for मॅनेजर
गुंगवाडा मच्छिमार वि.का.स.स.मर्यादित
ता. डहाणू, जि. पालघर

वी० वी० सिंह

डॉ. वीरेंद्र वीर सिंह/ Dr. Veerendra Veer Singh,
प्रभारी वैज्ञानिक / Scientist-in-Charge

भा. कृ. अनु. प- केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केन्द्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एंव शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४०००६१

ICAR-MUMBAI RESEARCH CENTRE OF
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मिसिल संख्या / F. No. 3-24/2017 दिनांक /Dated: 23.12.2017

प्रती/ To,

मा० चेअरमन,
ढाकटी डहाणु मच्छिमार विकास कार्यकारी
सहकारी सोसायटी लि., ढाकटी डहाणु,
ता. डहाणु, जि. पालघर.

विषय/ Sub: प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्यासाठी डोल जाळी वापरायच्या जागेचा / सस / खुटाचा जी.पी.एस. पॉईंट मिळवणे साठी सहकार्याची विनंती / Request for support in collection of Dol net operation/ sus/ Khuta G.P.S. point) for Impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

आपल्याला असे सूचित करण्यात येते की, प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्याचे कार्य सरकारी संस्था कडुन भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला दिले आहे. भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्था प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर आणि मासेमारी संबंधी उपक्रमांवर होणा-या प्रभावाचा अभ्यास सर्वेक्षणाच्या माध्यमातुन करणार आहे. प्रस्तावित बंदरामुळे मासेमारी जाळी, मासेमारी क्षेत्र आणि मासेमारंचे होणा-या नुकसानाचा अंदाज घेणे हे महत्वाचे आहे. या संदर्भात आपल्याला अशी विनंती करण्यात येते की मासेमारी संस्थेकडे नोंदणी असलेल्या नौकांच्या सस ची माहिती (डोल जाळी लावण्याची जागा/ सस/ खुटा याचा जी.पी. एस पॉईंट) या कार्यालयास देण्यात यावी.

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You are therefore requested to co-operate and provide the necessary information.

कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

वी. वी. सिंह

डॉ. वीरेंद्र वीर सिंह/ Dr. Veerendra Veer Singh,
प्रभारी वैज्ञानिक / Scientist-in-Charge

ढाकटी डहाणु मच्छिमार वि. स. सह. सो. लि.
दिनांक: 26/12/2016
आवक क्रमांक: 969
शेरा:

भा. कृ. अनु. प- केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केंन्द्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एंव शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र - ४०००६१
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मिसिल संख्या / F. No. 3-24/2017 दिनांक /Dated: 23.12.2017

प्रती/ To,
मा० चेअरमन,
डहाणु मच्छिमार विविध कार्यकारी सहकारी सोसायटी ली.
डहाणु, जि. पालघर.

विषय/ Sub: प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्यासाठी डोल जाळी वापरायच्या जागेचा / सस / खुटाचा जी.पी.एस. पॉईंट मिळवणे साठी सहकार्याची विनंती / Request for support in collection of Dol net operation/ sus/ Khuta G.P.S. point) for Impact study of proposed Vadhavan port on coastal fisheries

महाशय / महोदया/ Sir/ Madam,

आपल्याला असे सूचित करण्यात येते की, प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्याचे कार्य सरकारी संस्थां कडुन भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला दिले आहे. भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्था प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर आणि मासेमारी संबंधी उपक्रमांवर होणा-या प्रभावाचा अभ्यास सर्वेक्षणाच्या माध्यमातुन करणार आहे. प्रस्तावित बंदरामुळे मासेमारी जाळी, मासेमारी क्षेत्र आणि मासेमारांचे होणा-या नुकसानाचा अंदाज घेणे हे महत्वाचे आहे. या संदर्भात आपल्याला अशी विनंती करण्यात येते की मासेमारी संस्थेकडे नोंदणी असलेल्या नौकांच्या सस ची माहिती (डोल जाळी लावण्याची जागा/ सस/ खुटा याचा जी.पी. एस. पॉईंट) या कार्यालयास देण्यात यावी.

आपल्याला अशी विनंती करण्यात येते की सदरच्या कार्यात सहकार्य करुन आवश्यक माहिती पुरवण्याची कृपा करावी.

ICAR-Central Marine Fisheries Research Institute (CMFRI), Mumbai is conducting "Impact Study of Vadhavan Port on Coastal fisheries" as being recognised by Government agencies. CMFRI will study the possible impact of proposed port on fisheries and fishing allied activities by surveys. Estimating loss of fishing gear, area and fishers affected due to proposed port is important. In this regard, you are requested to provide the sus information (Place of Dol net operation/ sus/ Khuta G.P.S. point) of boats registered with society.

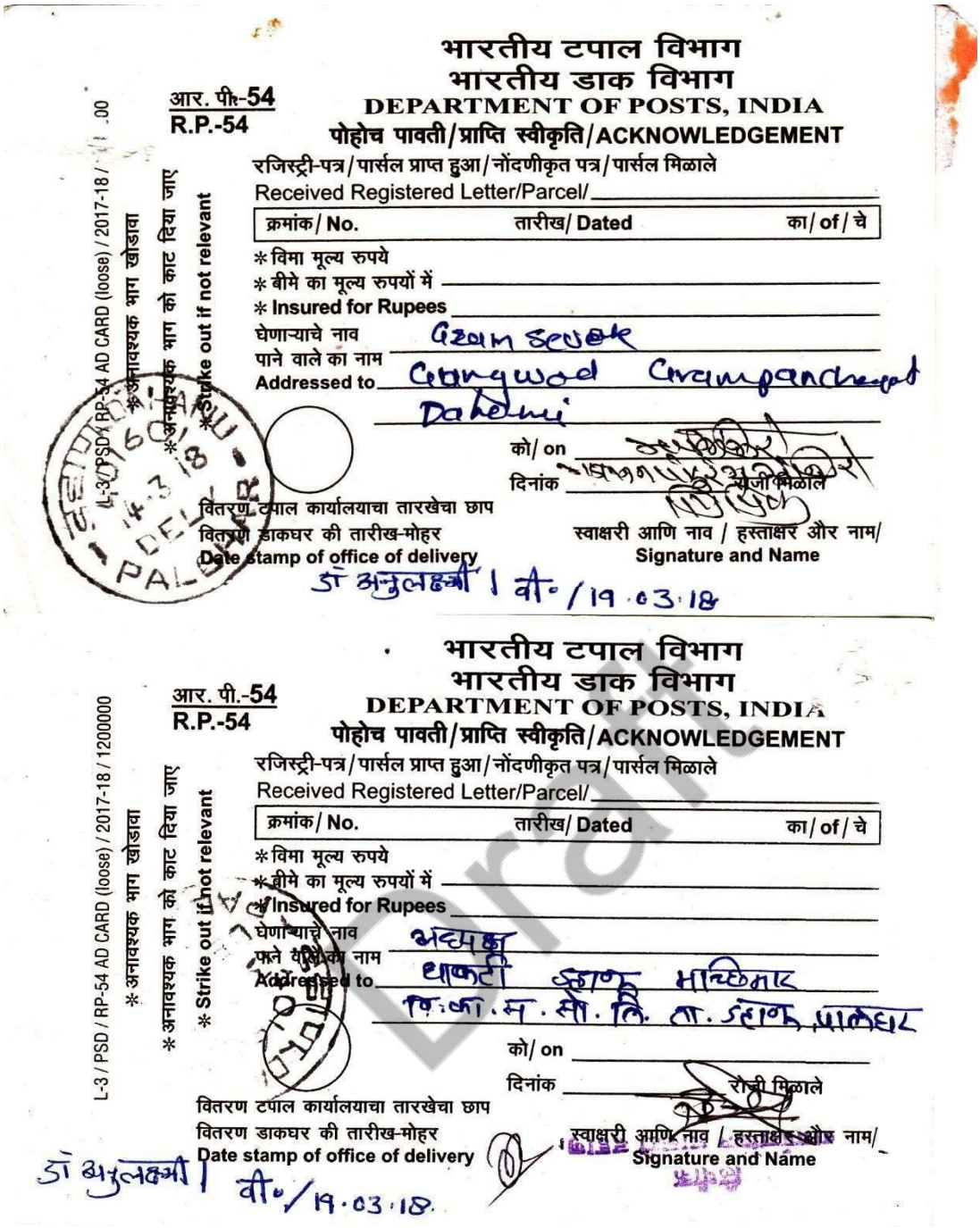
You are therefore requested to co-operate and provide the necessary information.

कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

वी. वी. सिंह

डॉ. वीरेंद्र वीर सिंह/ Dr. Veerendra Veer Singh,
प्रभारी वैज्ञानिक / Scientist-in-Charge



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आर. पी.-54
R.P.-54

रजिस्ट्री-पत्र/पार्सल प्राप्त हुआ/नोंदणीकृत पत्र/पार्सल मिळाले
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* बीमे का मूल्य रुपयों में
* Insured for Rupees
घेणाऱ्याचे नाव
पाने वाले का नाम
Addressed to

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दिनांक
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वितरण टपाल कार्यालयाचा तारखेचा छाप
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Signature and Name

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* अनावश्यक भाग खोडावा
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R.P.-54

रजिस्ट्री-पत्र/पार्सल प्राप्त हुआ/नोंदणीकृत पत्र/पार्सल मिळाले
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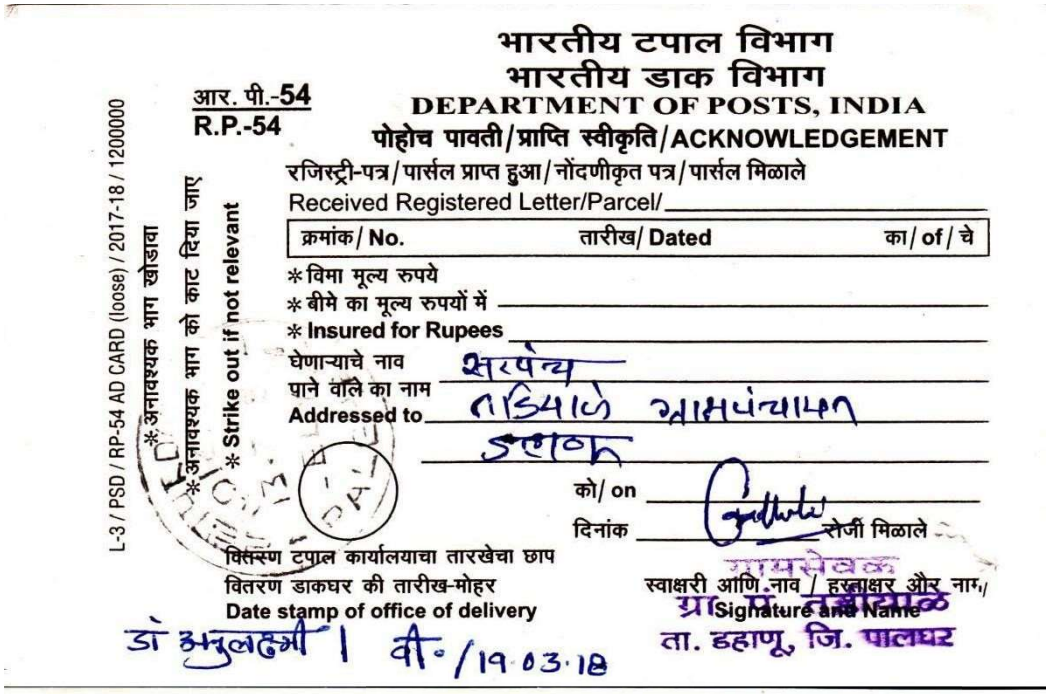

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भारतीय डाक विभाग
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आर. पी.-54
R.P.-54

रजिस्ट्री-पत्र/पार्सल प्राप्त हुआ/नोंदणीकृत पत्र/पार्सल मिळाले
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Addressed to डहाणू ग्रामपंचायत
को/ on
दिनांक रोजी मिळाले

वितरण टपाल कार्यालयाचा तारखेचा छाप
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डो अनुलक्ष्मी । दि॰/19.03.18

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Signature and Name
ग्रा. प. नवापाळे
ता. डहाणू, जि. पालघर

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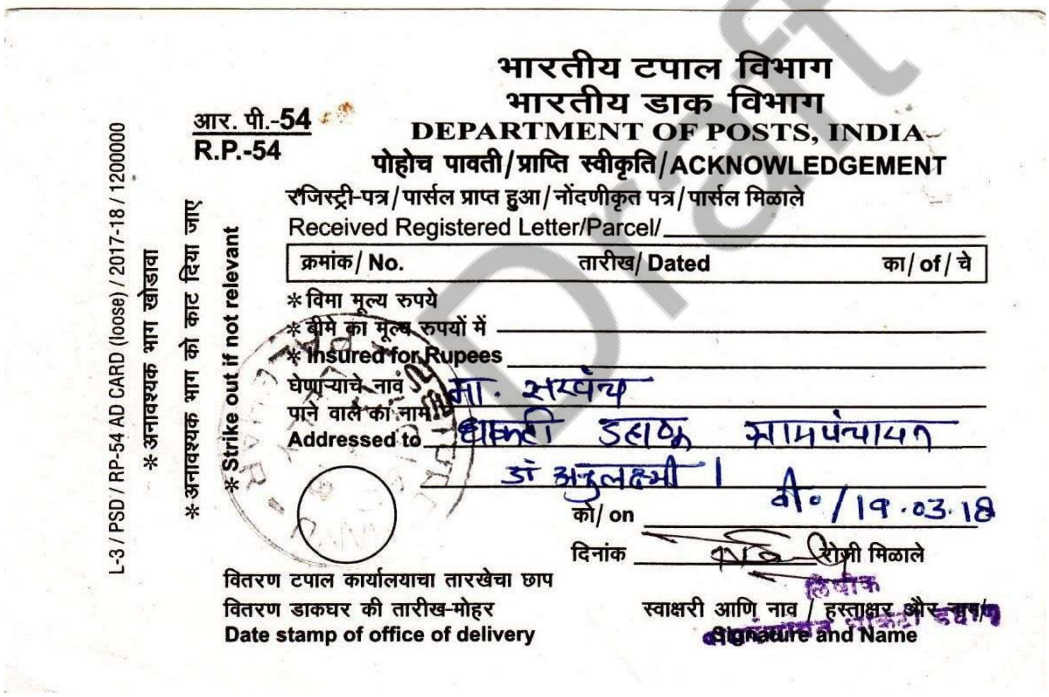

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R.P.-54

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डो अनुलक्ष्मी । दि॰/19.03.18
को/ on
दिनांक रोजी मिळाले

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Signature and Name
लिपीक

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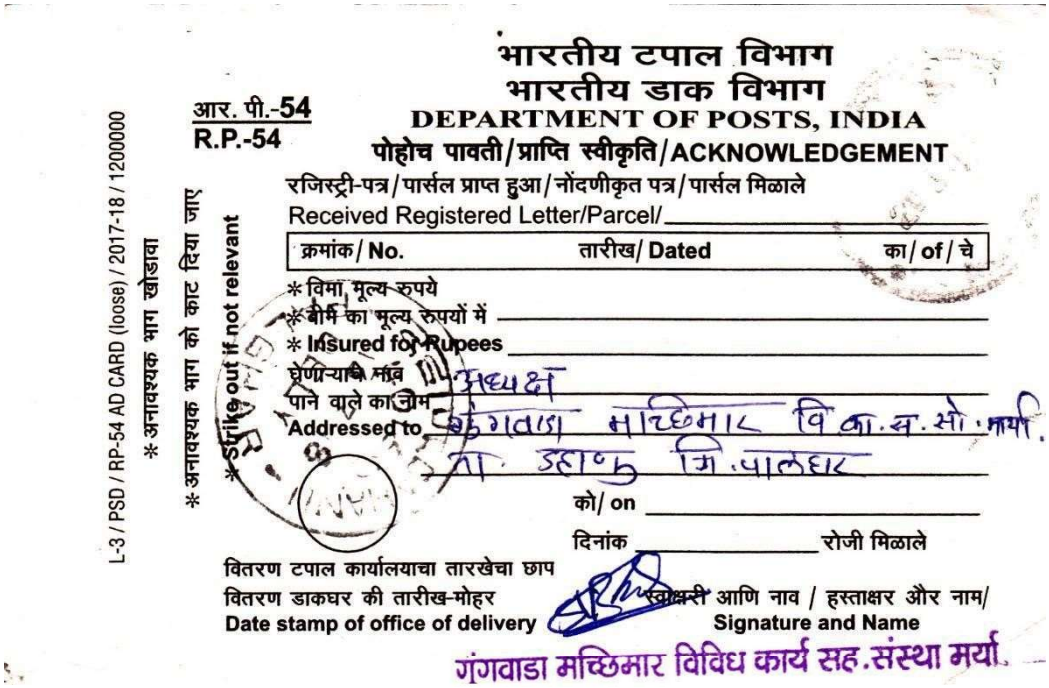

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DEPARTMENT OF POSTS, INDIA
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पाने वाले का नाम
Addressed to अध्यक्ष गंगवाडा मच्छिमार वि.का.स.सो.मर्या. ता. डहाणू जि.पालघर

को/ on
दिनांक रोजी मिळाले

वितरण टपाल कार्यालयाचा तारखेचा छाप
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Signature and Name

गंगवाडा मच्छिमार विविध कार्य सह.संस्था मर्या.

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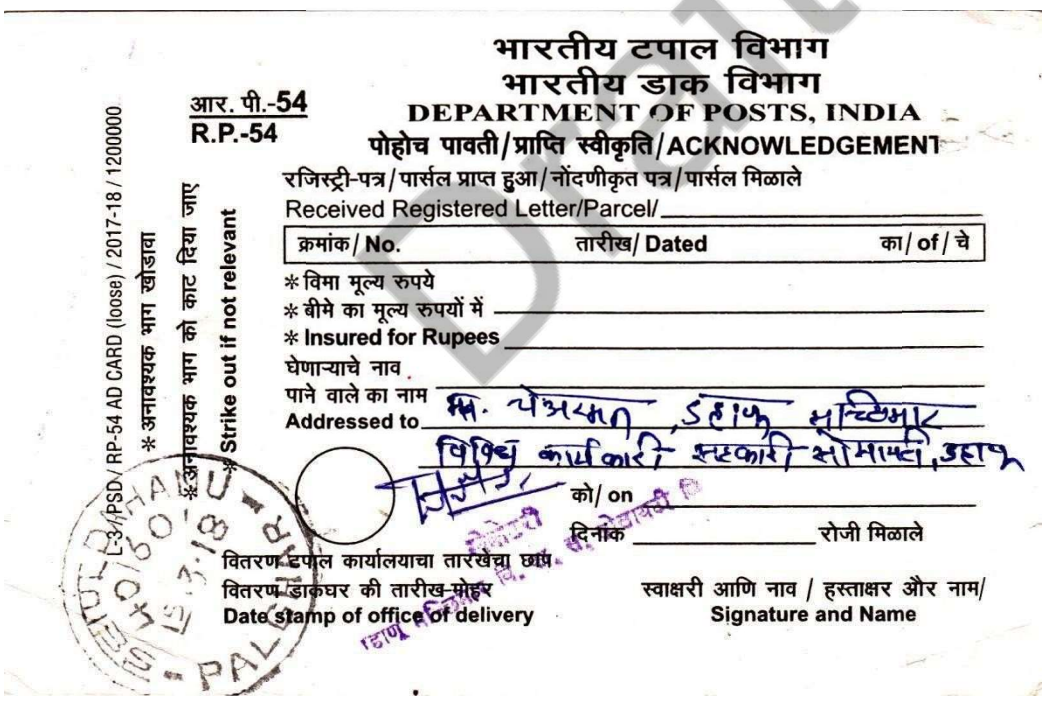

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पाने वाले का नाम
Addressed to म. चेअरमन, डहाणू मच्छिमार विविध कार्यकारी सहकारी सोसायटी, डहाणू

को/ on
दिनांक रोजी मिळाले

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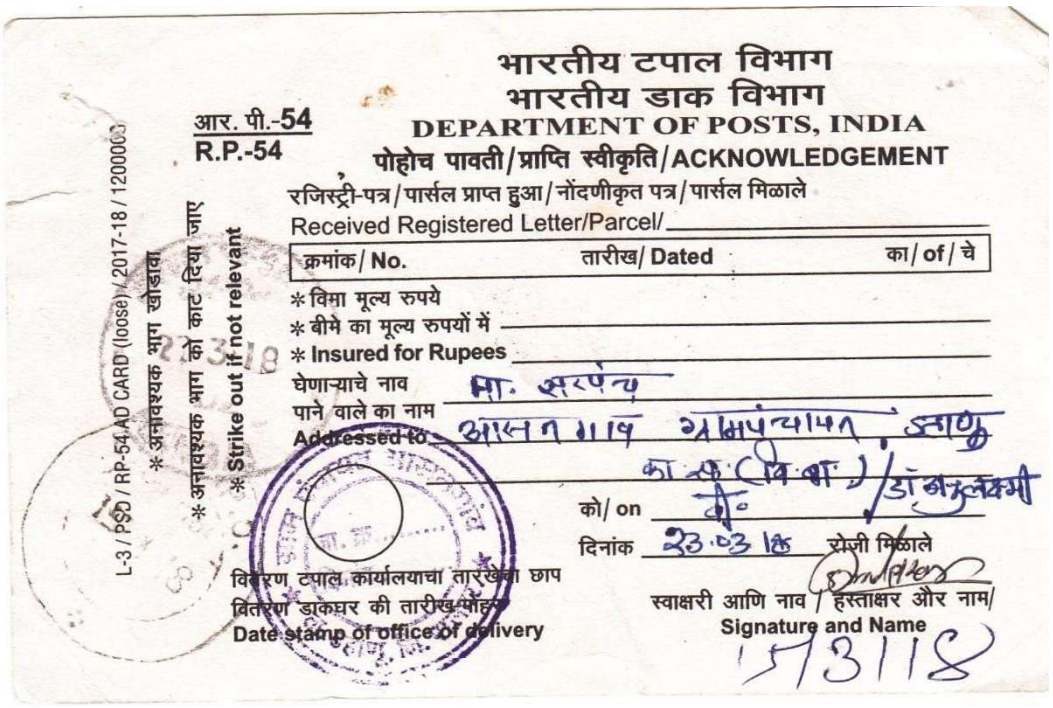

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पाने वाले का नाम
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वितरण टपाल कार्यालयाचा तारखेचा छाप
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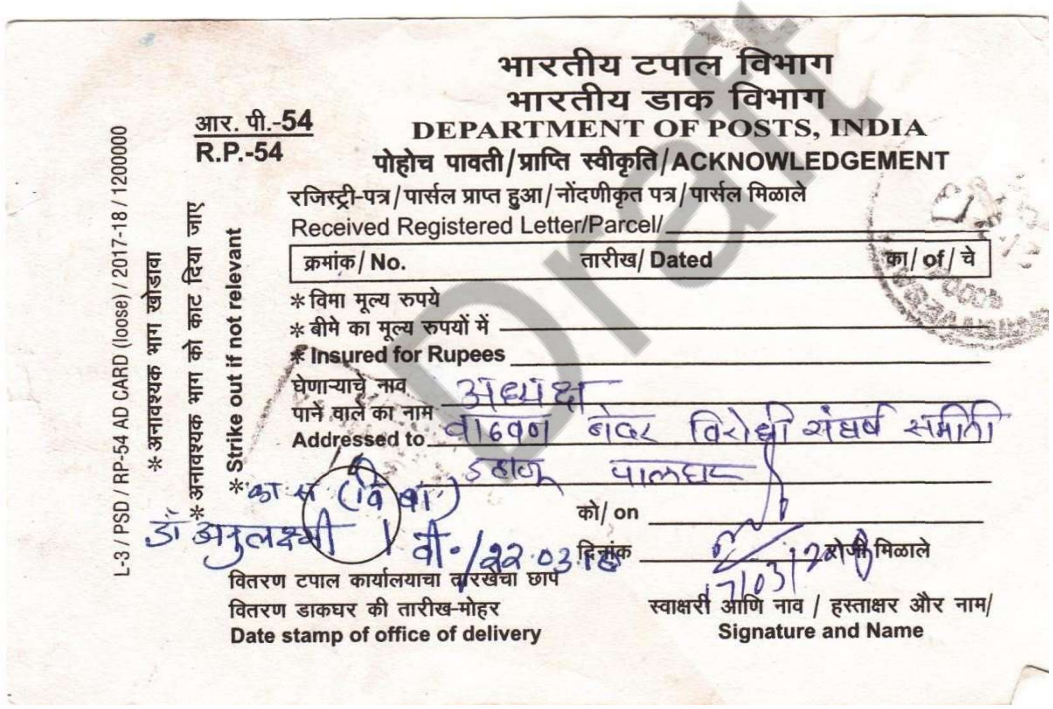

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भारतीय डाक विभाग
DEPARTMENT OF POSTS, INDIA
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भा.कृ.अनु.प.-केन्द्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केन्द्र
(भारतीयकृषिअनुसंधानपरिषद)
[कृषिअनुसंधानएवं शिक्षा विभाग,कृषि मंत्रालय,भारत सरकार].
दूसरीमंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरीज यूनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र- ४०००६१

भाकृअनुप ICAR

सी एम एफ आर आइ CMFRI

ICAR-MUMBAI RESEARCH CENTRE OF
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
(Indian Council of Agricultural Research)
[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
2nd Floor, Old C.I.F.E. Campus, Fisheries University Road, Seven Bongalows, Versova, Mumbai-400 061, Maharashtra, India
Phone: 022-26392795, 26320824, Telefax: 022-26320824, E-mail cmfrimumbai@gmail.com, Web: www.cmfri.org.in

मिसिलसंख्या/F. No. 3-24/2021 दिनांक/Dated: 15.11.2021

प्रती/To, मा. चेअरमन,
वरोर मच्छिमार विविध कार्यकारी सहकारी सोसायटी,
वरोर, ता. डहाणू, जि. पालघर,

विषय/ Sub:प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्यासाठी डोल जाळी वापरायच्या जागेचा / सस / खुटाचा जी.पी.एस. पॉईंट माहिती पुरवणे बाबत / Request for providing Dol net operation/ sus/ Khuta G.P.S. point of registered vessels from your society/ village.

Through Scientist-in-Charge, MRS ICAR-CMFRI

महाशय / महोदया/ Sir/ Madam,

भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर आणि मासेमारी संबंधी उपक्रमांवर होणा-या प्रभावाचा अभ्यासासाठी प्रस्तावितवाढवण बंदराच्या सभोवतालच्या मासेमारी क्षेत्राची/मासेमारी संरचनेची माहिती आवश्यक आहे. भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला इतर संस्थेकडील नोंदणीकृत नौका आणी त्यांची सस/ खुटा बांधण्याची जागेची माहिती (डोल जाळी लावण्याची जागा/ सस/ खुटा याचा जी.पी. एस. पॉईंट) प्राप्त झाली आहे. या संदर्भात आपल्याला अशी विनंती करण्यात येते की आपल्या संस्थेकडील नोंदणीकृत नौका आणी त्यांची सस/ खुटा बांधण्याची जागेची माहिती (डोल जाळी लावण्याची जागा/ सस/ खुटा याचा जी.पी. एस. पॉईंट) या कार्यालयास 15 दिवसांत कळवण्यात यावी जेणेकरुन सदर अभ्यासाचा अंतिम अहवाल लवकरात लवकर जमा करता येईल.

आपल्याला अशी विनंती करण्यात येते की सदरच्या कार्यातसहकार्य करुन आवश्यक माहिती आपल्या संस्थेच्या लेटरहेडवर पुरवण्यात यावी.

With regard to Vadhavan Port related project "Impact Study of Vadhavan Port on Coastal fisheries", ICAR-Central Marine Fisheries Research Institute (CMFRI), Mumbai is in need of information on the fishing area/fishing structure around the proposed Vadhavan Port. CMFRI have the details of registered vessels and their location of *sus*from other societies/ villages. I therefore again request you to provide the details of sus/Khuta GPS point of the fishing vessels registered with your society within 15 days from today so that the final report can be submitted as early as possible.

You are therefore requested to co-operate and provide the necessary information in your letter head.

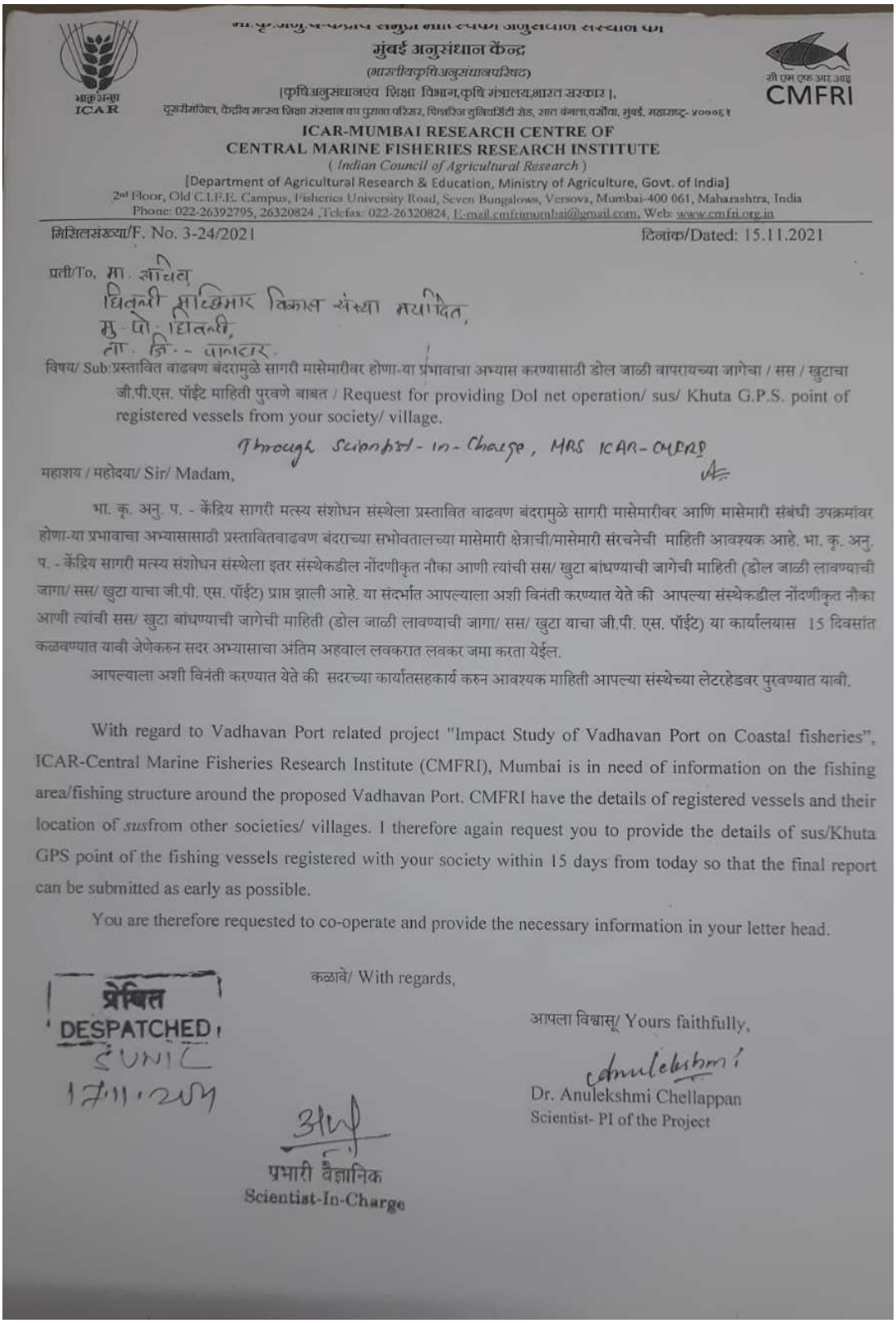
कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

Dr. Anulekshmi Chellappan
Scientist- PI of the Project

प्रभारी वैज्ञानिक
Scientist-In-Charge

प्रेषित
DESPATCHED
SUNIL
17.11.2021



मुंबई अनुसंधान केन्द्र
(भाकृअनुसंधानपरिषद)
[कृषिअनुसंधानएंव शिक्षा विभाग,कृषि मंत्रालय,भारत सरकार],
दूसरीमंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, विश्वविद्यालय रोड, सात बंगला,वर्सोवा, मुंबई, महाराष्ट्र- ४०००६१

ICAR-MUMBAI RESEARCH CENTRE OF
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
(Indian Council of Agricultural Research)
[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
2nd Floor, Old C.I.F.E. Campus, Fisheries University Road, Seven Bungalows, Versova, Mumbai-400 061, Maharashtra, India
Phone: 022-26392795, 26320824 ,Telefax: 022-26320824, E-mail:cmfrimumbai@gmail.com, Web: www.cmfri.org.in

मिसिलसंख्या/F. No. 3-24/2021 दिनांक/Dated: 15.11.2021

प्रती/To, मा. सचिव,
दिवली मच्छिमार विकास संस्था मर्यादित,
मु.पो. दिवली,
ता. जि. - पालघर.

विषय/ Sub:प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्यासाठी डोल जाळी वापरायच्या जागेचा / सस / खुटाचा जी.पी.एस. पॉईंट माहिती पुरवणे बाबत / Request for providing Dol net operation/ sus/ Khuta G.P.S. point of registered vessels from your society/ village.

Through Scientist-in-Charge, MRS ICAR-CMFRI

महाशय / महोदया/ Sir/ Madam,

भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर आणि मासेमारी संबंधी उपक्रमांवर होणा-या प्रभावाचा अभ्यासासाठी प्रस्तावितवाढवण बंदराच्या सभोवतालच्या मासेमारी क्षेत्राची/मासेमारी संरचनेची माहिती आवश्यक आहे. भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला इतर संस्थेकडील नोंदणीकृत नौका आणी त्यांची सस/ खुटा बांधण्याची जागेची माहिती (डोल जाळी लावण्याची जागा/ सस/ खुटा याचा जी.पी. एस. पॉईंट) प्राप्त झाली आहे. या संदर्भात आपल्याला अशी विनंती करण्यात येते की आपल्या संस्थेकडील नोंदणीकृत नौका आणी त्यांची सस/ खुटा बांधण्याची जागेची माहिती (डोल जाळी लावण्याची जागा/ सस/ खुटा याचा जी.पी. एस. पॉईंट) या कार्यालयास 15 दिवसांत कळवण्यात यावी जेणेकरुन सदर अभ्यासाचा अंतिम अहवाल लवकरात लवकर जमा करता येईल.

आपल्याला अशी विनंती करण्यात येते की सदरच्या कार्यातसहकार्य करुन आवश्यक माहिती आपल्या संस्थेच्या लेटरहेडवर पुरवण्यात यावी.

With regard to Vadhavan Port related project "Impact Study of Vadhavan Port on Coastal fisheries", ICAR-Central Marine Fisheries Research Institute (CMFRI), Mumbai is in need of information on the fishing area/fishing structure around the proposed Vadhavan Port. CMFRI have the details of registered vessels and their location of *sus*from other societies/ villages. I therefore again request you to provide the details of sus/Khuta GPS point of the fishing vessels registered with your society within 15 days from today so that the final report can be submitted as early as possible.

You are therefore requested to co-operate and provide the necessary information in your letter head.

प्रेषित
DESPATCHED
SUNIL
17.11.2021

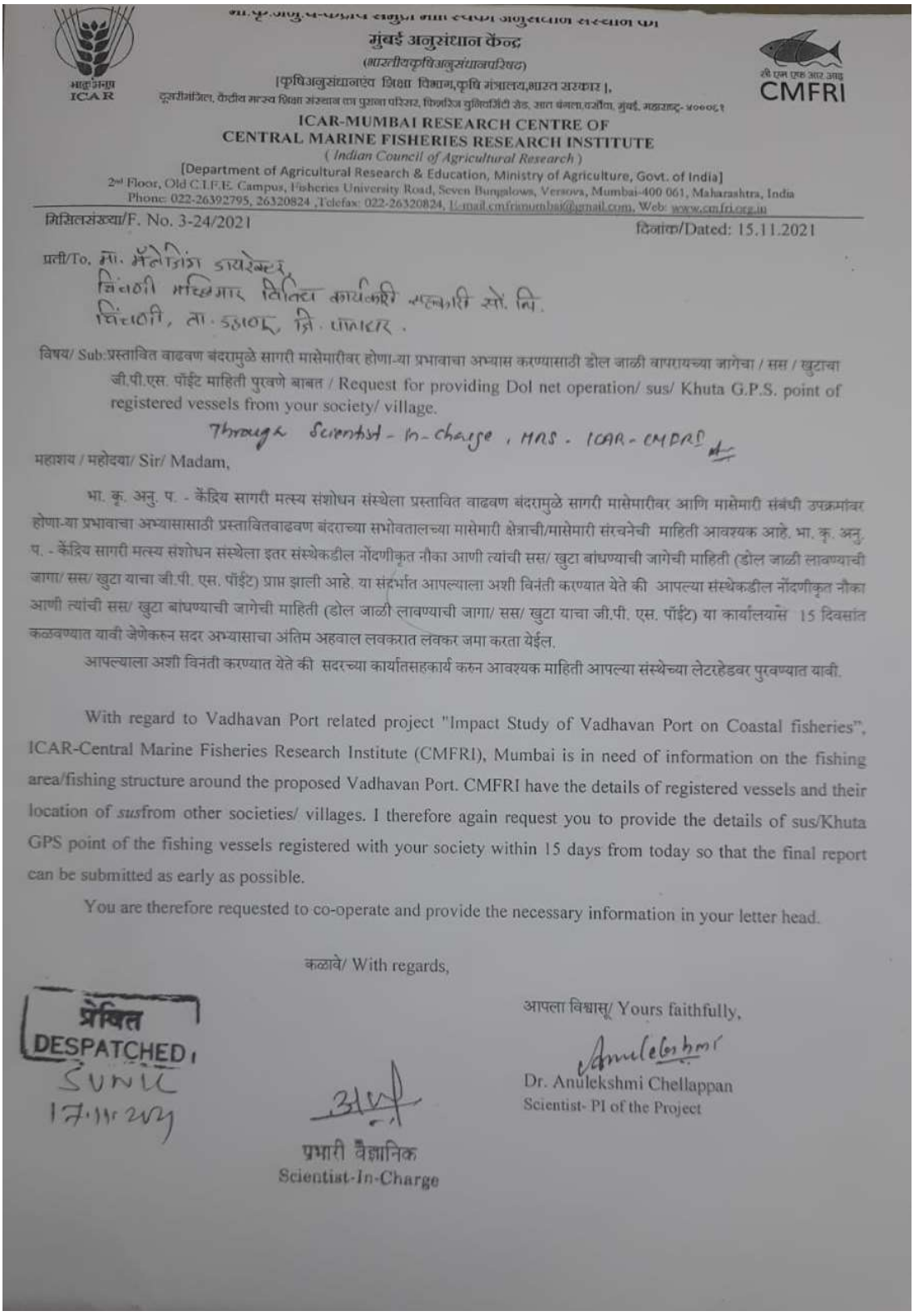
कळावे/ With regards,

आपला विश्वासू/ Yours faithfully,

Anulekshmi

Dr. Anulekshmi Chellappan
Scientist- PI of the Project

प्रभारी वैज्ञानिक
Scientist-In-Charge



मुंबई अनुसंधान केन्द्र
(भाकृअनुप-केन्द्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का)
(कृषिअनुसंधानएंव शिक्षा विभाग,कृषि मंत्रालय,भारत सरकार),
दूसरीमंजिल, केंद्रीय मात्स्य शिक्षा संस्थान एवं पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला,वर्सोवा, मुंबई, महाराष्ट्र- ४०००६१

ICAR-MUMBAI RESEARCH CENTRE OF
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(*Indian Council of Agricultural Research*)
[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
2nd Floor, Old C.I.F.E. Campus, Fisheries University Road, Seven Bungalows, Versova, Mumbai-400 061, Maharashtra, India
Phone: 022-26392795, 26320824 ,Telefax: 022-26320824, E-mail.cmfrimumbai@gmail.com, Web: www.cmfri.org.in

मिसिलसंख्या/F. No. 3-24/2021 दिनांक/Dated: 15.11.2021

प्रती/To. मा. मॅनेजिंग डायरेक्टर,
चिंचणी मच्छिमार विविध कार्यकारी सहकारी सो. लि.
चिंचणी, ता. डहाणू, जि. पालघर.

विषय/ Sub:प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्यासाठी डोल जाळी वापरायच्या जागेचा / सस / खुटाचा जी.पी.एस. पॉईंट माहिती पुरवणे बाबत / Request for providing Dol net operation/ sus/ Khuta G.P.S. point of registered vessels from your society/ village.

Through Scientist - In-charge, MRS - ICAR-CMFRI

महाशय / महोदया/ Sir/ Madam,

भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर आणि मासेमारी संबंधी उपक्रमांवर होणा-या प्रभावाचा अभ्यासासाठी प्रस्तावितवाढवण बंदराच्या सभोवतालच्या मासेमारी क्षेत्राची/मासेमारी संरचनेची माहिती आवश्यक आहे. भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला इतर संस्थेकडील नोंदणीकृत नौका आणी त्यांची सस/ खुटा बांधण्याची जागेची माहिती (डोल जाळी लावण्याची जागा/ सस/ खुटा याचा जी.पी. एस. पॉईंट) प्राप्त झाली आहे. या संदर्भात आपल्याला अशी विनंती करण्यात येते की आपल्या संस्थेकडील नोंदणीकृत नौका आणी त्यांची सस/ खुटा बांधण्याची जागेची माहिती (डोल जाळी लावण्याची जागा/ सस/ खुटा याचा जी.पी. एस. पॉईंट) या कार्यालयास 15 दिवसांत कळवण्यात यावी जेणेकरुन सदर अभ्यासाचा अंतिम अहवाल लवकरात लवकर जमा करता येईल.

आपल्याला अशी विनंती करण्यात येते की सदरच्या कार्यातसहकार्य करुन आवश्यक माहिती आपल्या संस्थेच्या लेटरहेडवर पुरवण्यात यावी.

With regard to Vadhavan Port related project "Impact Study of Vadhavan Port on Coastal fisheries", ICAR-Central Marine Fisheries Research Institute (CMFRI), Mumbai is in need of information on the fishing area/fishing structure around the proposed Vadhavan Port. CMFRI have the details of registered vessels and their location of *sus*from other societies/ villages. I therefore again request you to provide the details of sus/Khuta GPS point of the fishing vessels registered with your society within 15 days from today so that the final report can be submitted as early as possible.

You are therefore requested to co-operate and provide the necessary information in your letter head.

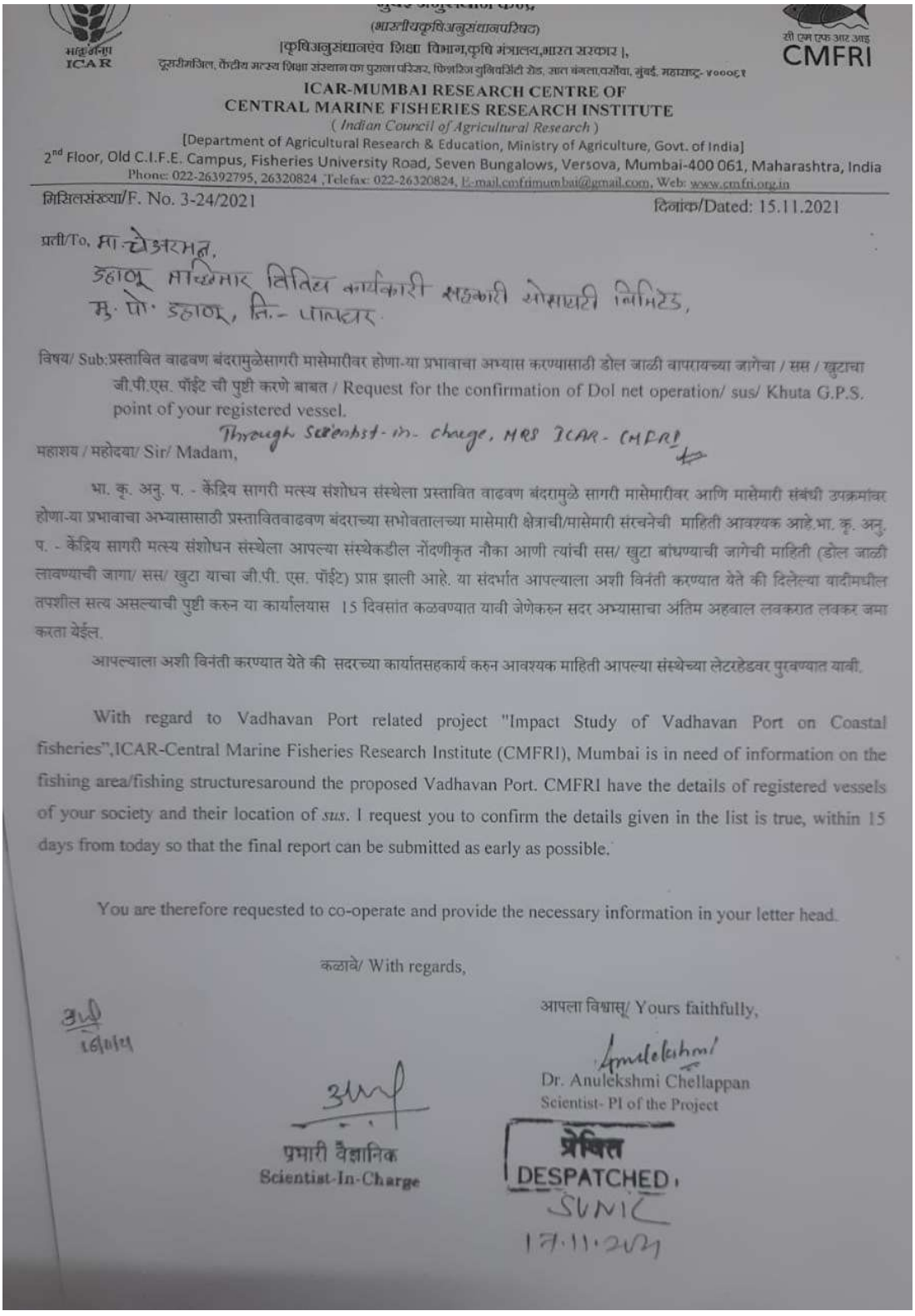
कळावे/ With regards,

प्रेषित
DESPATCHED
SUNIL
17.11.2021

आपला विश्वासू/ Yours faithfully,

Dr. Anulekshmi Chellappan
Scientist- PI of the Project

प्रभारी वैज्ञानिक
Scientist-In-Charge



(भाकृअनुप-केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरीज यूनिवर्सिटी रोड, जुहू बंगला,वर्सोवा, मुंबई, महाराष्ट्र- ४०००६१)

ICAR-MUMBAI RESEARCH CENTRE OF
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Phone: 022-26392795, 26320824 ,Telefax: 022-26320824, E-mail:cmfrimumbai@gmail.com, Web: www.cmfri.org.in

मिसिलसंख्या/F. No. 3-24/2021 दिनांक/Dated: 15.11.2021

प्रती/To, मा. चेअरमन,
डहाणू मच्छिमार विविध कार्यकारी सहकारी सोसायटी लिमिटेड,
मु. पो. डहाणू, ता.- पालघर.

विषय/ Sub:प्रस्तावित वाढवण बंदरामुळेसागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्यासाठी डोल जाळी वापरायच्या जागेचा / सस / खुटाचा जी.पी.एस. पॉईंट ची पुष्टी करणे बाबत / Request for the confirmation of Dol net operation/ sus/ Khuta G.P.S. point of your registered vessel.

Through Secretary-in-charge, MRS ICAR-CMFRI

महाशय / महोदया/ Sir/ Madam,

भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर आणि मासेमारी संबंधी उपक्रमांवर होणा-या प्रभावाचा अभ्यासासाठी प्रस्तावितवाढवण बंदराच्या सभोवतालच्या मासेमारी क्षेत्राची/मासेमारी संरचनेची माहिती आवश्यक आहे.भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला आपल्या संस्थेकडील नोंदणीकृत नौका आणी त्यांची सस/ खुटा बांधण्याची जागेची माहिती (डोल जाळी लावण्याची जागा/ सस/ खुटा याचा जी.पी. एस. पॉईंट) प्राप्त झाली आहे. या संदर्भात आपल्याला अशी विनंती करण्यात येते की दिलेल्या यादीमधील तपशील सत्य असल्याची पुष्टी करुन या कार्यालयास 15 दिवसांत कळवण्यात यावी जेणेकरुन सदर अभ्यासाचा अंतिम अहवाल लवकरात लवकर जमा करता येईल.

आपल्याला अशी विनंती करण्यात येते की सदरच्या कार्यातसहकार्य करुन आवश्यक माहिती आपल्या संस्थेच्या लेटरहेडवर पुरवण्यात यावी.

With regard to Vadhavan Port related project "Impact Study of Vadhavan Port on Coastal fisheries",ICAR-Central Marine Fisheries Research Institute (CMFRI), Mumbai is in need of information on the fishing area/fishing structuresaround the proposed Vadhavan Port. CMFRI have the details of registered vessels of your society and their location of *sus*. I request you to confirm the details given in the list is true, within 15 days from today so that the final report can be submitted as early as possible.

You are therefore requested to co-operate and provide the necessary information in your letter head.

कळावे/ With regards,

16/11/21

आपला विश्वासू/ Yours faithfully,

Dr. Anulekshmi Chellappan
Scientist- PI of the Project

प्रभारी वैज्ञानिक
Scientist-In-Charge

प्रेषित
DESPATCHED
SVNC
17.11.2021

भा.कृ.अनु.प-केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केंद्र
(भारतीयकृषिअनुसंधानपरिषद)
[कृषिअनुसंधानएवं शिक्षा विभाग,कृषि मंत्रालय,भारत सरकार].

ICAR-MUMBAI RESEARCH CENTRE OF
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
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मिसिलसंख्या/F. No. 3-24/2021 — दिनांक/Dated: 15.11.2021

प्रती/To, मा. अध्यक्ष,
मुगवाडा मच्छिमार वि. का. स. सोसायटी मर्यादित,
ता. - डहाणू,
जि. - पालघर

विषय/ Sub: प्रस्तावित वाढवण बंदरामुळेसागरी मासेमारीवर होणा-या प्रभावाचा अभ्यास करण्यासाठी डोल जाळी वापरायच्या जागेचा / सस / खुटाचा जी.पी.एस. पॉईंट ची पुष्टी करणे बाबत / Request for the confirmation of Dol net operation/ sus/ Khuta G.P.S. point of your registered vessel.

Through Scientist-in-charge, MRS ICAR-CMFRI

महाशय / महोदया/ Sir/ Madam,

भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर आणि मासेमारी संबंधी उपक्रमांवर होणा-या प्रभावाचा अभ्यासासाठी प्रस्तावितवाढवण बंदराच्या सभोवतालच्या मासेमारी क्षेत्राची/मासेमारी संरचनेची माहिती आवश्यक आहे.भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला आपल्या संस्थेकडील नोंदणीकृत नौका आणी त्यांची सस/ खुटा बांधण्याची जागेची माहिती (डोल जाळी लावण्याची जागा/ सस/ खुटा याचा जी.पी. एस. पॉईंट) प्राप्त झाली आहे. या संदर्भात आपल्याला अशी विनंती करण्यात येते की दिलेल्या यादीमधील तपशील सत्य असल्याची पुष्टी करुन या कार्यालयास 15 दिवसांत कळवण्यात यावी जेणेकरुन सदर अभ्यासाचा अंतिम अहवाल लवकरात लवकर जमा करता येईल.

आपल्याला अशी विनंती करण्यात येते की सदरच्या कार्यातसहकार्य करुन आवश्यक माहिती आपल्या संस्थेच्या लेटरहेडवर पुरवण्यात यावी.

With regard to Vadhavan Port related project "Impact Study of Vadhavan Port on Coastal fisheries",ICAR-Central Marine Fisheries Research Institute (CMFRI), Mumbai is in need of information on the fishing area/fishing structuresaround the proposed Vadhavan Port. CMFRI have the details of registered vessels of your society and their location of *sus*. I request you to confirm the details given in the list is true, within 15 days from today so that the final report can be submitted as early as possible.

You are therefore requested to co-operate and provide the necessary information in your letter head.

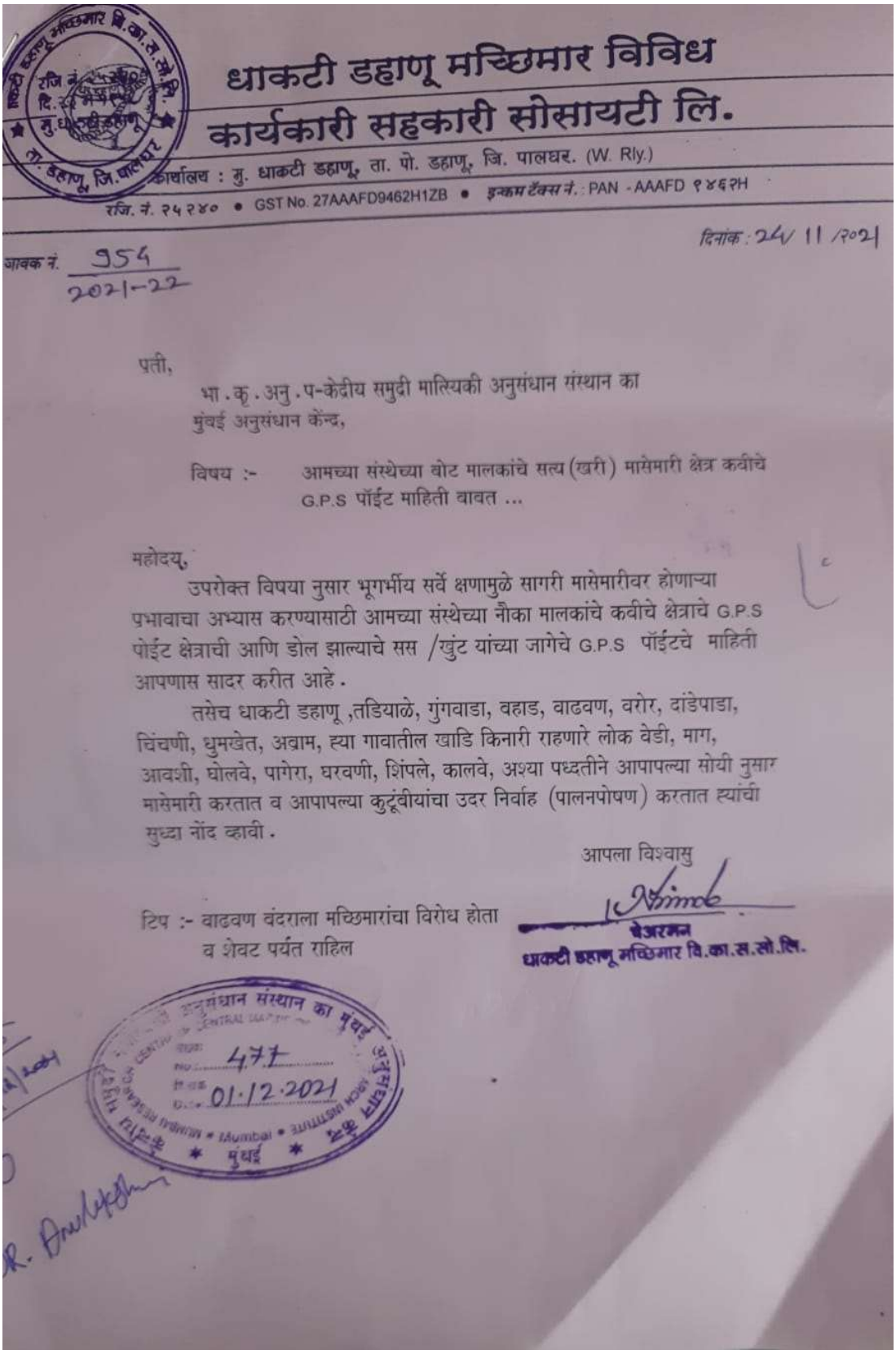
प्रेषित
DESPATCHED
SUNIL
17.11.2021

कळावे/ With regards,

प्रभारी वैज्ञानिक
Scientist-In-Charge

आपला विश्वासू/ Yours faithfully,

Dr. Anulekshmi Chellappan
Scientist- PI of the Project



धाकटी डहाणू मच्छिमार विविध
कार्यकारी सहकारी सोसायटी लि.

कार्यालय : मु. धाकटी डहाणू, ता. पो. डहाणू, जि. पालघर. (W. Rly.)

रजि. नं. २५२४० • GST No. 27AAAFD9462H1ZB • इनकम टॅक्स नं. : PAN - AAAFD ९४६२H

जावक नं. 954
2021-22

दिनांक : 24/ 11 /2021

पती,

भा.कृ.अनु.प-केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केन्द्र,

विषय :- आमच्या संस्थेच्या बोट मालकांचे सत्य (खरी) मासेमारी क्षेत्र कवीचे G.P.S पॉईट माहिती बाबत ...

महोदय,

उपरोक्त विषया नुसार भूगर्भीय सर्वे क्षणामुळे सागरी मासेमारीवर होणाऱ्या प्रभावाचा अभ्यास करण्यासाठी आमच्या संस्थेच्या नौका मालकांचे कवीचे क्षेत्राचे G.P.S पोईट क्षेत्राची आणि डोल झाल्याचे सस /खुंट यांच्या जागेचे G.P.S पॉईटचे माहिती आपणास सादर करीत आहे.

तसेच धाकटी डहाणू ,तडियाळे, गुंगवाडा, वहाड, वाढवण, वरोर, दांडेपाडा, चिंचणी, धुमखेत, अबाम, ह्या गावातील खाडि किनारी राहणारे लोक वेडी, माग, आवशी, घोलवे, पागेरा, घरवणी, शिंपले, कालवे, अश्या पध्दतीने आपापल्या सोयी नुसार मासेमारी करतात व आपापल्या कुटूंबीयांचा उदर निर्वाह (पालनपोषण) करतात त्यांची सुध्दा नोंद व्हावी.

आपला विश्वासु

चेअरमन
धाकटी डहाणू मच्छिमार वि.का.स.सो.लि.

टिप :- वाढवण बंदराला मच्छिमारांचा विरोध होता व शेवट पर्यंत राहिल

अनुसंधान संस्थान का मुंबई
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
No. 477
Dt. 01.12.2021
Mumbai • मुंबई

भा.कृ.अनु.प-केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केंद्र
(भारतीय कृषि अनुसंधान परिषद)
[कृषि अनुसंधान एवं शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार]
दूसरी मंजिल, केंद्रीय मात्स्यिकी शिक्षा संस्थान का पुराना परिसर, मात्स्यिकी विश्वविद्यालय रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र- ४०००६१

ICAR-MUMBAI RESEARCH CENTRE OF
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
(*Indian Council of Agricultural Research*)
[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
2nd Floor, Old C.I.F.E. Campus, Fisheries University Road, Seven Bungalows, Versova, Mumbai-400 061, Maharashtra, India
Phone: 022-26392795, 26320824, Telefax: 022-26320824, E-mail cmfrim.mbai@gmail.com, Web: www.cmfri.org.in

मिसिलसंख्या/F. No. 3-24/2021

दिनांक/Dated: 20.01.2022

प्रती To, मा. मॅनेजींग डायरेक्टर,
चिंचणी मच्छिमार विविध कार्यकारी सहकारी सोसायटी ली.
चिंचणी, ता. डहाणू, जि. पालघर

विषय/ Sub: आपल्याकडील नोंदाणीकृत नौकेच्या डोल जाळी वापरायच्या जागेचा / सस / खुटाचा जी.पी.एस. पॉईंट ची पुष्टी करणे बाबत / Request for the Dol net operation details- sus/ Khuta G.P.S. point of your registered vessel.
Through Scientist-in Charge, MRS, ICAR-CMFRI

महाशय / महोदया/ Sir/ Madam,

भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर आणि मासेमारी संबंधी उपक्रमांवर होणा-या प्रभावाचा अभ्यासासाठी प्रस्तावित वाढवण बंदराच्या सभोवतालच्या मासेमारी क्षेत्राची/मासेमारी संरचनेची माहिती आवश्यक आहे. या संदर्भात आपल्याला या कार्यालयाच्या दिनांक 15.11.2021 च्या पत्राद्वारे अशी विनंती करण्यात आलेली की दिलेल्या यादीमधील डोल जाळी लावण्याची जागा/ सस/ खुटा याचा जी.पी. एस. पॉईंट सत्य असल्याची पुष्टी करुन या कार्यालयास 15 दिवसात कळवण्यात यावी. परंतू आपल्या कडून आजपर्यंत अशी कोणतीही माहिती या कार्यालयास देण्यात आलेली नाही. याबाबत आपणास पुन्हा विनंती करण्यात येते की आपणास पुरवण्यात आलेली यादीमधील तपशील सत्य असल्याची पुष्टी करुन या कार्यालयास 15 दिवसांत कळवण्यात यावी जेणेकरुन सदर अभ्यासाचा अंतिम अहवाल लवकरात लवकर जमा करता येईल.

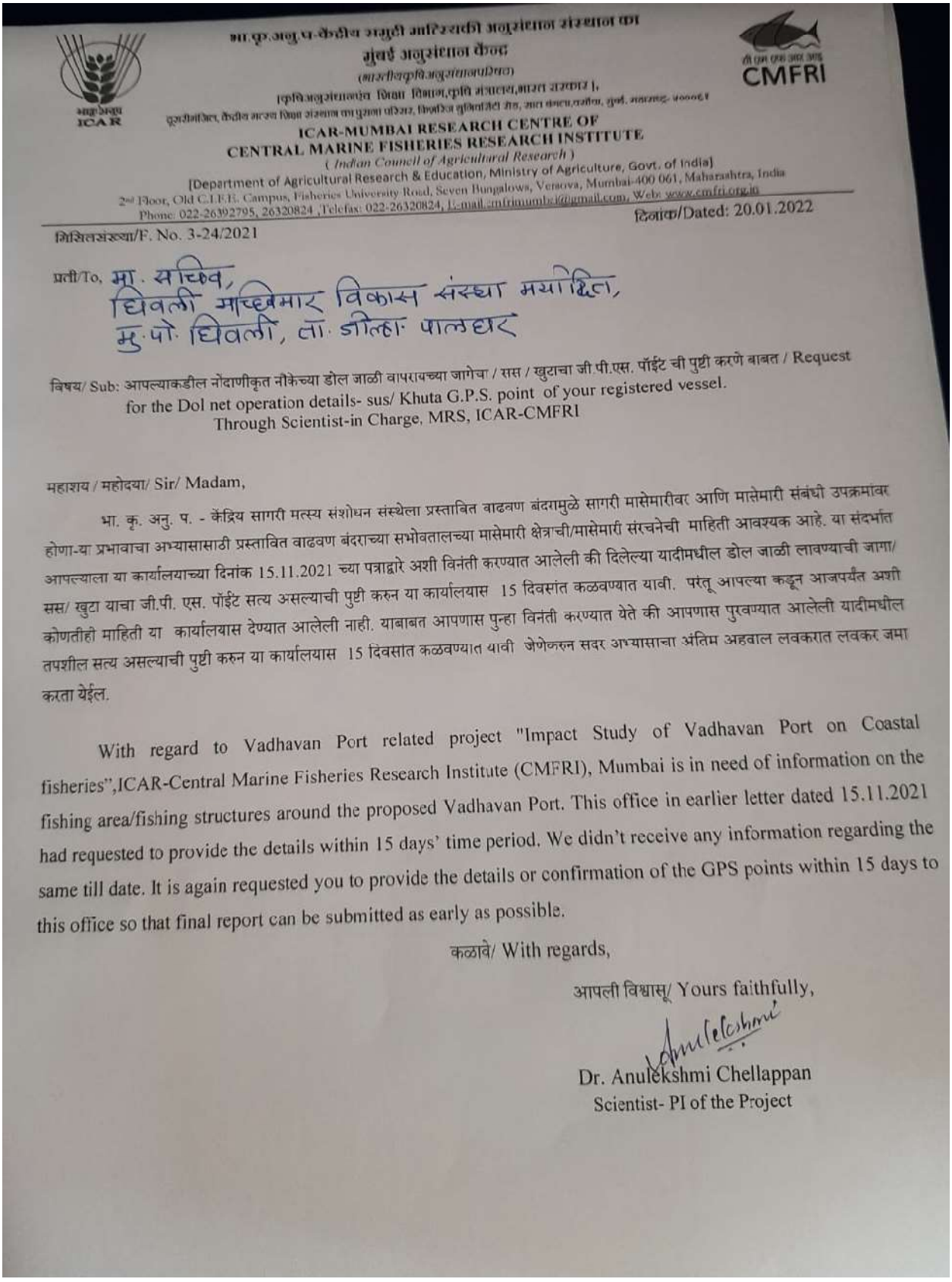
With regard to Vadhavan Port related project "Impact Study of Vadhavan Port on Coastal fisheries",ICAR-Central Marine Fisheries Research Institute (CMFRI), Mumbai is in need of information on the fishing area/fishing structures around the proposed Vadhavan Port. This office in earlier letter dated 15.11.2021 had requested to provide the details within 15 days' time period. We didn't receive any information regarding the same till date. It is again requested you to provide the details or confirmation of the GPS points within 15 days to this office so that final report can be submitted as early as possible.

कळावे/ With regards,

आपली विश्वासू/ Yours faithfully,

Anulekshmi

Dr. Anulekshmi Chellappan
Scientist- PI of the Project



भा.कृ.अनु.प-केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केन्द्र
(भाकृअनुप-केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का मुंबई अनुसंधान केन्द्र)
[कृषि अनुसंधान एवं शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार],
दूसरी मंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, विद्यापीठ यूनिवर्सिटी रोड, सात बंगला, वर्सोवा, मुंबई, महाराष्ट्र- ४०००६१

ICAR

CMFRI

ICAR-MUMBAI RESEARCH CENTRE OF
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
(*Indian Council of Agricultural Research*)
[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
2nd Floor, Old C.I.F.E. Campus, Fisheries University Road, Seven Bungalows, Versova, Mumbai-400 061, Maharashtra, India
Phone: 022-26392795, 26320824 ,Telefax: 022-26320824, E-mail: cmfrimumbai@gmail.com, Web: www.cmfri.org.in

फाईलसंख्या/F. No. 3-24/2021 दिनांक/Dated: 20.01.2022

प्रती/To, मा. सचिव,
घिवली मच्छिमार विकास संस्था मर्यादित,
मु.पो. घिवली, ता. जीला. पालघर

विषय/ Sub: आपल्याकडील नोंदाणीकृत नौकेच्या डोल जाळी वापरायच्या जागेचा / सस / खुटाचा जी.पी.एस. पॉईंट ची पुष्टी करणे बाबत / Request for the Dol net operation details- sus/ Khuta G.P.S. point of your registered vessel.
Through Scientist-in Charge, MRS, ICAR-CMFRI

महाशय / महोदया/ Sir/ Madam,

भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर आणि मासेमारी संबंधी उपक्रमांवर होणा-या प्रभावाचा अभ्यासासाठी प्रस्तावित वाढवण बंदराच्या सभोवतालच्या मासेमारी क्षेत्राची/मासेमारी संरचनेची माहिती आवश्यक आहे. या संदर्भात आपल्याला या कार्यालयाच्या दिनांक 15.11.2021 च्या पत्राद्वारे अशी विनंती करण्यात आलेली की दिलेल्या यादीमधील डोल जाळी लावण्याची जागा/ सस/ खुटा याचा जी.पी. एस. पॉईंट सत्य असल्याची पुष्टी करुन या कार्यालयास 15 दिवसांत कळवण्यात यावी. परंतू आपल्या कडून आजपर्यंत अशी कोणतीही माहिती या कार्यालयास देण्यात आलेली नाही. याबाबत आपणास पुन्हा विनंती करण्यात येते की आपणास पुरवण्यात आलेली यादीमधील तपशील सत्य असल्याची पुष्टी करुन या कार्यालयास 15 दिवसांत कळवण्यात यावी जेणेकरुन सदर अभ्यासाचा अंतिम अहवाल लवकरात लवकर जमा करता येईल.

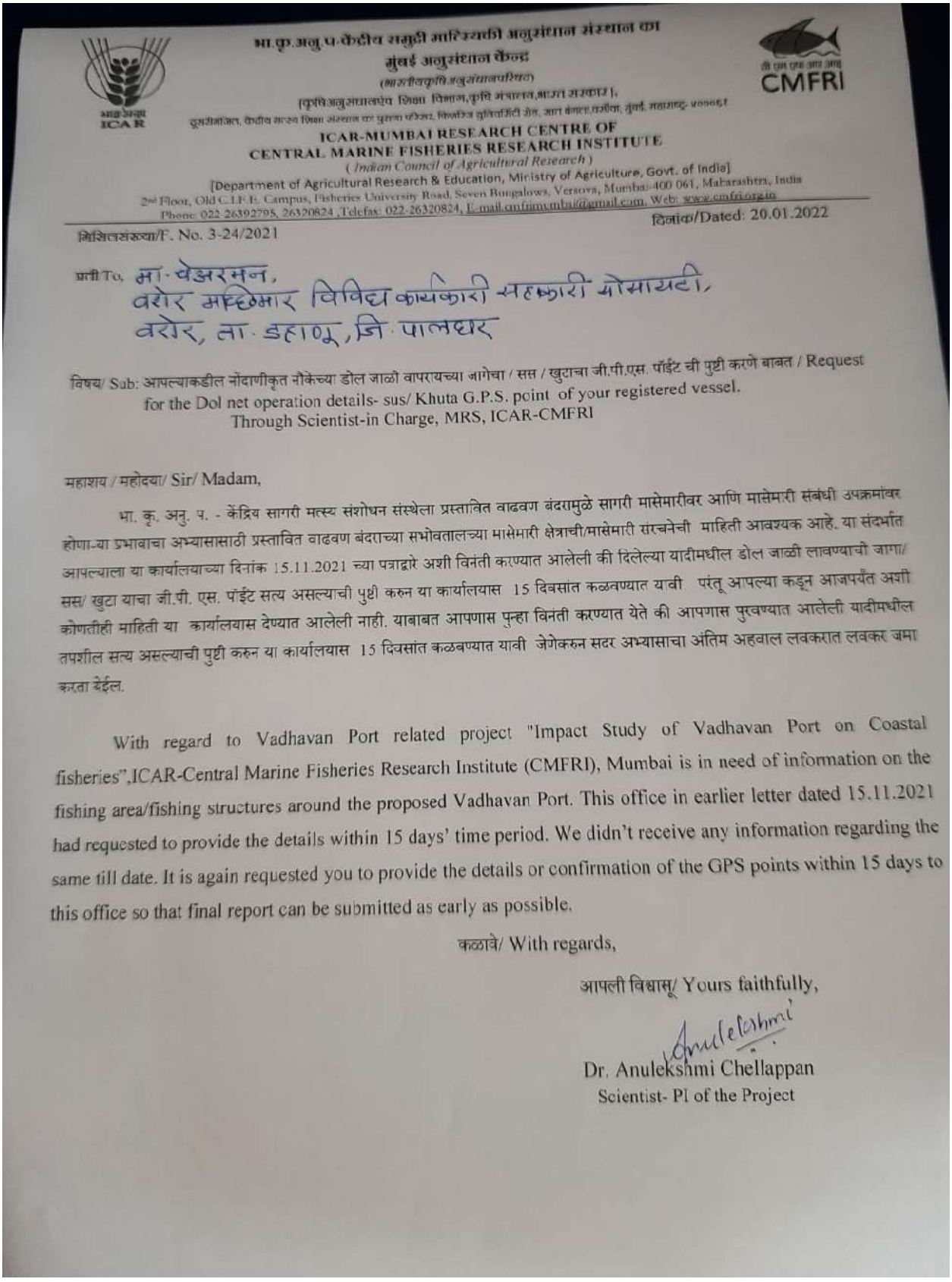
With regard to Vadhavan Port related project "Impact Study of Vadhavan Port on Coastal fisheries",ICAR-Central Marine Fisheries Research Institute (CMFRI), Mumbai is in need of information on the fishing area/fishing structures around the proposed Vadhavan Port. This office in earlier letter dated 15.11.2021 had requested to provide the details within 15 days' time period. We didn't receive any information regarding the same till date. It is again requested you to provide the details or confirmation of the GPS points within 15 days to this office so that final report can be submitted as early as possible.

कळावे/ With regards,

आपली विश्वासू/ Yours faithfully,

Anulekshmi

Dr. Anulekshmi Chellappan
Scientist- PI of the Project



भा.कृ.अनु.प-केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केन्द्र
(भारतीयकृषिअनुसंधानपरिषद)
[कृषिअनुसंधानएंव शिक्षा विभाग,कृषि मंत्रालय,भारत सरकार],
CMFRI
ICAR-MUMBAI RESEARCH CENTRE OF
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
(Indian Council of Agricultural Research)
[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
2nd Floor, Old C.I.F.E. Campus, Fisheries University Road, Seven Bungalows, Versova, Mumbai-400 061, Maharashtra, India
Phone: 022-26392795, 26320824 ,Telefax: 022-26320824, E-mail:cmfrimumbai@gmail.com, Web: www.cmfri.org.in

विनिक्षसंख्या/F. No. 3-24/2021 दिनांक/Dated: 20.01.2022

प्रती To, मा. चेअरमन,
वरोर मच्छिमार विविध कार्यकारी सहकारी सोसायटी,
वरोर, ता. डहाणू, जि. पालघर

विषय/ Sub: आपल्याकडील नोंदाणीकृत नौकेच्या डोल जाळी वापरायच्या जागेचा / सस / खुटाचा जी.पी.एस. पॉईंट ची पुष्टी करणे बाबत / Request for the Dol net operation details- sus/ Khuta G.P.S. point of your registered vessel.
Through Scientist-in Charge, MRS, ICAR-CMFRI

महाशय / महोदया/ Sir/ Madam,

भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर आणि मासेमारी संबंधी उपक्रमांवर होणा-या प्रभावाचा अभ्यासासाठी प्रस्तावित वाढवण बंदराच्या सभोवतालच्या मासेमारी क्षेत्राची/मासेमारी संरचनेची माहिती आवश्यक आहे. या संदर्भात आपल्याला या कार्यालयाच्या दिनांक 15.11.2021 च्या पत्राद्वारे अशी विनंती करण्यात आलेली की दिलेल्या यादीमधील डोल जाळी लावण्याची जागा/ सस/ खुटा याचा जी.पी. एस. पॉईंट सत्य असल्याची पुष्टी करुन या कार्यालयास 15 दिवसांत कळवण्यात यावी. परंतू आपल्या कडून आजपर्यंत अशी कोणतीही माहिती या कार्यालयास देण्यात आलेली नाही. याबाबत आपणास पुन्हा विनंती करण्यात येते की आपणास पुरवण्यात आलेली यादीमधील तपशील सत्य असल्याची पुष्टी करुन या कार्यालयास 15 दिवसांत कळवण्यात यावी जेणेकरुन सदर अभ्यासाचा अंतिम अहवाल लवकरात लवकर जमा करता येईल.

With regard to Vadhavan Port related project "Impact Study of Vadhavan Port on Coastal fisheries",ICAR-Central Marine Fisheries Research Institute (CMFRI), Mumbai is in need of information on the fishing area/fishing structures around the proposed Vadhavan Port. This office in earlier letter dated 15.11.2021 had requested to provide the details within 15 days' time period. We didn't receive any information regarding the same till date. It is again requested you to provide the details or confirmation of the GPS points within 15 days to this office so that final report can be submitted as early as possible.

कळावे/ With regards,

आपली विश्वासू/ Yours faithfully,

Anulekshmi

Dr. Anulekshmi Chellappan
Scientist- PI of the Project

भा.कृ.अनु.प.-केंद्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान का
मुंबई अनुसंधान केंन्द्र
(भारतीयकृषिअनुसंधानपरिषद)
[कृषिअनुसंधानएंव शिक्षा विभाग,कृषि मंत्रालय,भारत सरकार],
दूसरीमंजिल, केंद्रीय मत्स्य शिक्षा संस्थान का पुराना परिसर, फिशरिज युनिवर्सिटी रोड, सात बंगला,वर्सोवा, मुंबई, महाराष्ट्र- ४०००६१

भाकृअनुप ICAR

सी एम एफ आर आइ CMFRI

ICAR-MUMBAI RESEARCH CENTRE OF
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
(*Indian Council of Agricultural Research*)
[Department of Agricultural Research & Education, Ministry of Agriculture, Govt. of India]
2nd Floor, Old C.I.F.E. Campus, Fisheries University Road, Seven Bungalows, Versova, Mumbai-400 061, Maharashtra, India
Phone: 022-26392795, 26320824 ,Telefax: 022-26320824, E-mail.cmfrimumbai@gmail.com, Web: www.cmfri.org.in

मिसिलसंख्या/F. No. 3-24/2021

दिनांक/Dated: 20.01.2022

प्रती/To, मा. अध्यक्ष,
गुंगवाडा मच्छिमार विविध कार्यकारी सहकारी सोसायटी लि.,
ता. डहाणू, जि. पालघर

विषय/ Sub: आपल्याकडील नोंदाणीकृत नौकेच्या डोल जाळी वापरायच्या जागेचा / सस / खुटाचा जी.पी.एस. पॉईंट ची पुष्टी करणे बाबत / Request for the Dol net operation details- sus/ Khuta G.P.S. point of your registered vessel.
Through Scientist-in Charge, MRS, ICAR-CMFRI

महाशय / महोदया/ Sir/ Madam,

भा. कृ. अनु. प. - केंद्रिय सागरी मत्स्य संशोधन संस्थेला प्रस्तावित वाढवण बंदरामुळे सागरी मासेमारीवर आणि मासेमारी संबंधी उपक्रमांवर होणा-या प्रभावाचा अभ्यासासाठी प्रस्तावित वाढवण बंदराच्या सभोवतालच्या मासेमारी क्षेत्राची/मासेमारी संरचनेची माहिती आवश्यक आहे. या संदर्भात आपल्याला या कार्यालयाच्या दिनांक 15.11.2021 च्या पत्राद्वारे अशी विनंती करण्यात आलेली की दिलेल्या यादीमधील डोल जाळी लावण्याची जागा/ सस/ खुटा याचा जी.पी. एस. पॉईंट सत्य असल्याची पुष्टी करुन या कार्यालयास 15 दिवसांत कळवण्यात यावी. परंतू आपल्या कडून आजपर्यंत अशी कोणतीही माहिती या कार्यालयास देण्यात आलेली नाही. याबाबत आपणास पुन्हा विनंती करण्यात येते की आपणास पुरवण्यात आलेली यादीमधील तपशील सत्य असल्याची पुष्टी करुन या कार्यालयास 15 दिवसांत कळवण्यात यावी जेणेकरुन सदर अभ्यासाचा अंतिम अहवाल लवकरात लवकर जमा करता येईल.

With regard to Vadhavan Port related project "Impact Study of Vadhavan Port on Coastal fisheries",ICAR-Central Marine Fisheries Research Institute (CMFRI), Mumbai is in need of information on the fishing area/fishing structures around the proposed Vadhavan Port. This office in earlier letter dated 15.11.2021 had requested to provide the details within 15 days' time period. We didn't receive any information regarding the same till date. It is again requested you to provide the details or confirmation of the GPS points within 15 days to this office so that final report can be submitted as early as possible.

कळावे/ With regards,

आपली विश्वासू/ Yours faithfully,

Anulekshmi

Dr. Anulekshmi Chellappan
Scientist- PI of the Project

गुंगवाडा मच्छिमार विविध कार्यकारी सहकारी संस्था मर्यादित, था. डहाणू

कार्यालय : मु. धाकटी डहाणू, ता. पो. डहाणू, जि. पालघर.

रजि. नं. १५२४१, दि. २३ मे. १९५८ ● VAT TIN No. 27980233557 V ● CST TIN No. 27980233567 C

दिनांक २५ / ०२ /२०२२

जा. नं.

मा. सहायक आयुक्त मास्यव्यवसाय (तांत्रिक),
ठाणे (पालघर)
यांचे कार्यालय,

संदर्भ :- दि. १२/२/२०२१ मिसिल संख्या / F NO 3-37/2020 भूगर्भीय सर्वेक्षणामुळे सागरी मासेमारीवर होणाऱ्या प्रभावाचा अभ्यास करण्यासाठी मासेमारी क्षेत्राची आणि डोल झाल्याचे सस / खंट यांच्या जागेच्या माहिती बाबत....

विषय :- आमच्या संस्थेच्या बोट मालकांचे मासेमारी क्षेत्र कवीचे G.P.S पॉईंट माहिती बाबत

महोदय,

उपरोक्त संदर्भिय पत्रानुसार भूगर्भीय सर्वेक्षणामुळे सागरी मासेमारीवर होणाऱ्या प्रभावाचा अभ्यास करण्यासाठी आमच्या संस्थेच्या नौका मालकाचे कवीचे क्षेत्राचे G.P.S. पोइंट क्षेत्राची आणि डौल झाल्याचे सस / खंट यांच्या जागेचे G.P.S पॉईंटचे माहिती आपणास सादर करीत आहे.

तसेच धाकटी डहाणू, तडियाळे, गुंगवाडा, दहाड, वाढवण, वरोर, दांडेपाडा, चिंचणी, धुमखेत, अब्रम ह्या गावातील खाडि किनारी राहणारे लोक वेडी, माग, आवशी, घोलवे, पागेरा, घरवणी, शिंपले, कालवे अश्या पध्दतीने आपापल्या सोयीनुसार मासेमारी करतात व आपापल्या कुटुंबीयांचा उदरनिर्वाह (पालनपोषण) करतात ह्यांची मुद्धा नोंद व्हावी.

आपला विश्वासु

टिप :- वाढवण बंदराला मच्छिमारांचा विरोध होता व शेवट पर्यंत राहिल

चेअरमन
गुंगवाडा मच्छिमार वि. का. सह. संस्था मर्या.

गुंगवाडा मच्छिमार विविध कार्यकारी
सहकारी संस्था मर्यादित, धा. डहाणू
कार्यालय : मु. धाकटी डहाणू, ता. पो. डहाणू, जि. पालघर.
रजि. नं. २५२४१, दि. २३ मे. १९५८ ● VAT TIN No. 27980233557 V ● CST TIN No. 27980233567 C

Sr.No.	Survey No	Society	Owner Name	Boat Name	Boat Reg No.	Dot	Latitude	Longitude
1		Gungwada	Rajesh Bhima Vinde	Mahalaxmi mauli	IND-MH-2MM-2241	1	19°56.[illegible]	72°31.890
						2	19°56.718	72°31.555
						3	20°06.120	72°28.984
						4	20°06.044	72°09.140
2		Gungwada	Hareshwar Atamaram Marde	Vighnaharta	IND-MH-2MM-2252	1	20°08.438	72°28.645
						2	20°08.225	72°28.542
						3	20°01.395	72°31.769
						4	20°01.345	72°31.640
3		Gungwada	Narayan Raghunath Dawane	Ramprasad	IND-MH-2MM-3974	1	19°57.665	72°35.799
						2	19°56.211	72°33.295
						3	19°56.257	72°33.032
4		Gungwada	Ganesh Harishchandra Marde	Vishwamitra	IND-MH-2MM-2261	1	19°55.105	72°32.100
						2	19°55.205	72°32.000
5		Gungwada	Bhupesh Dattatray Marde	Tuljabhawani	IND-MH-2MM-2847	1	19°56.160	72°33.140
						2	19°56.081	72°33.028
						3	20°03.200	72°26.889
						4	20°03.122	72°27.180
6		Gungwada	Ganesh Sadashiv Tandel	Laxmi Prasad	IND-MH-2MM-2291	1	19°57.270	72°34.207
						2	19°57.188	72°34.547
						3	20°06.570	72°28.403
						4	20°06.436	72°28.709
7		Gungwada	Chetan Mohan Ambre	Kamala Prasad	IND-MH-2MM	1	19°55.180	72°32.295
						2	19°55.101	72°32.404
8		Gungwada	Anil Mahadev Vinde	Dhaneshwari	IND-MH-2MM-2274	1	19°55.210	72°31.900
						2	19°55.310	72°31.878
9		Gungwada	Kailash Dasharath Naik	Himalaya	IND-MH-2MM	1	20°01.448	72°26.421
						2	20°03.341	72°26.610
						3	19°56.643	72°31.123
						4	19°56.600	72°31.286
10		Gungwada	Dhananjay Chandrakant Tamore	Ruchira	IND-MH-2MM-0556	1	19°56.631	72°33.199
						2	19°56.652	72°31.068
11		Gungwada	Prakash Harishchandra Bari	ChaitanyaSai	IND-MH-2MM-5740	1	19°57.300	72°27.402
						2	19°55.306	72°32.291
						3	20°08.409	72°25.606
						4	20°06.223	72°29.776
12		Gungwada	Prabhakar Baburao Dhangakar	Vaishnavi	IND-MH-2MM-4875	1	19°59.970	72°33.665
						2	19°59.972	72°33.628
						3	19°59.993	72°33.602
						4	20°00.010	72°33.546
						5	20°00.012	72°33.506
13		Gungwada	Vikram Yashwant Marde	Dhanlaxmi	IND-MH-2MM-2360	1	20°03.135	72°34.513
						2	20°03.130	72°34.518
						3	20°03.129	72°34.523
						4	20°03.130	72°34.529
						5	20°03.127	72°34.535

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गुंगवाडा मच्छिमार विविध कार्यकारी सहकारी संस्था मर्यादित, था. डहाणू

कार्यालय : मु. धाकटी डहाणू, ता. पो. डहाणू, जि. पालघर.

रजि. नं. २५२४१, दि. २३ से. १९५८ ● VAT TIN No. 27980233537 V ● CST TIN No. 27980233567 C

Sr.No.	Survey No	Society	Owner Name	Boat Name	Boat Reg No.	Dot	Latitude	Longitude
14		Gungwada	Ajay Harishchandra Marde	Sainagar	IND-MH-2MM-2181	1	19°56.844	72°30.137
						2	19°56.724	72°30.917
						3	20°04.935	72°27.486
						4	20°04.029	72°27.282
15		Gungwada	Jijabai Kamlakar Ambhire	Kanyakumari	IND-MH-2MM-3991	1	20°02.550	72°31.210
						2	20°02.240	72°32.450
16		Gungwada	Bhagwandas Nathuram Ambire	Ekvira	IND-MH-2MM-3159	1	20°07.583	72°29.073
						2	20°07.563	72°29.320
						3	30°07.546	72°29.364
						4	20°07.530	72°29.414
						5	20°07.578	72°29.465
17		Gungwada	Chandrakant Kamalakar Arke	Nandini Sai	IND-MH-2MM-0032	1	19°57.844	72°30.200
						2	19°58.864	72°32.674
18		Gungwada	Minakshi Kashinath Paghdhare	Mahalaxmi	IND-MH-2MM-2244	1	19°55.738	72°30.444
						2	19°55.732	72°30.493
						3	19°55.709	72°30.524
						4	20°55.714	72°30.570
						5	20°55.739	72°30.398
19		Gungwada	Uksen Narendra Vinde	BhogyaPrabha	IND-MH-2MM	1	19°58.900	72°28.700
						2	19°58.995	72°28.600
						3	19°55.520	72°33.500
						4	19°55.410	72°33.400
20		Gungwada	Hareshwar Gajanan Tamore	Vaibhavlaxmi	IND-MH-2MM-2268	1	19°57.714	72°30.195
						2	19°57.775	72°30.763
						3	20°04.672	72°27.904
						4	20°04.608	72°28.027
21		Gungwada	Kishor Laxman Marde	AmbikaPrasad	IND-MH-2MM-2263	1	20°02.457	72°31.794
						2	19°58.477	72°34.595
22		Gungwada	Maniram Vithoba Tamore	Laxmi Prasad	IND-MH-2MM-2213	1	19°57.453	72°36.221
23		Gungwada	Chandrakant Roliidas Marde	Parvati	IND-MH-2MM-2294	1	19°58.833	73°33.509
24		Gungwada	Manohar Bhalchandra Tamore	Parvatiprasad	IND-MH-2MM-2339	1	19°58.682	73°32.770
25		Gungwada	Shivram Pandu Tandel	Jamanaprasad	IND-MH-2MM-4123	1	20°01.304	72°34.639
26		Gungwada	Vatsala Yashwant Marde	SagarSarita	IND-MH-2MM-2139	1	19°56.572	72°32.054
						2	19°57.514	72°27.788
						3	19°57.500	72°36.329
27		Gungwada	Pravin Yashwant Marde	HimSai	IND-MH-2MM-2667	1	19°56.600	72°32.050
						2	19°57.474	72°28.091
						3	19°57.400	72°36.300
28		Gungwada	Anand Ashok Ambhire	Pawansai	IND-MH-2MM-3174	1	19°58.430	72°32.950
						2	19°58.500	72°33.201
29		Gungwada	Rajendra Yashwant Tandel	PanduNauka	IND-MH-2MM-2115	1	20°05.490	72°26.360
						2	20°05.570	72°26.080
30		Gungwada	Ramchandra Pandu Tandel	DamyantiPrasad	IND-MH-2MM-3139	1	20°03.500	72°31.130
						2	20°04.077	72°26.199
						3	20°08.897	72°24.662

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सहकारी संस्था मर्यादित, धा. डहाणू
कार्यालय : मु. धाकटी डहाणू, ता. पो. डहाणू, जि. पालघर.
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Annexure VI

Terms & Definitions

Marine fisherman: A person who is engaged in marine fishing or any other activity associated with marine fishery or both (A person here means a man or a woman).

Traditional fishermen: Those who are fishermen by birth and fishing is their ancestral occupation.

Small scale fishermen: Those fishermen who undertake fishing smaller fishing vessels and low harvesting capacity.

Fishing Village: An assemblage of houses/dwelling places where marine fishermen live, which is recognized by the state fisheries department. A settlement of households that comes under a separate village-panchayat is a Hamlet.

Historic fishing areas: Areas where fishing has been conducted for decades

Fish landing centre: The place or harbour where fishermen land their craft with the catch.

Mechanized craft : Any craft with an engine permanently fitted to the hull, which uses machine power for propulsion/fishing operation like casting and pulling the net, operating lines etc. is identified as mechanized craft.

Motorized craft : Any craft that has an engine fitted temporarily outside the craft which is used only for propulsion and not for fishing operation is identified as motorized craft.

Non-motorized craft : Any craft that does not use any engine for fishing operation is identified as non-motorized craft.

Set bagnet (SBN) fishing : . SBN fishing is conducted by tying nets to poles (spikes) inserted and erected in the seabed. The net is designed like a tapering funnel, and its rectangular mouth is held open by two vertical poles or by anchors and floats. The net is fixed in such a way that it is oriented into the tidal/current stream and it catches fish almost by filtering the tidal water. Locally called Dol, Kav, Bokshi. The fishing structure is

called sus. Boats undertake this fishing are called Dolnetter/Bagnetter.

Gillnets fishing: Fishing are conducted by nets, which entangle the fish by gilling. gillnets are operated anywhere at the surface, column or bottom in the fishing area. Boats undertaking these fishing methods are called gillnetter.

Household: A household consists of a person or a group of persons who live together in the same house (pucca/kutcha), share the same house-keeping arrangements and are catered as one. It is important to remember that members of a household are not necessarily related (by blood or marriage) as, for instance, maid servants may form part of household. On the other hand, not all those related in the same house are necessarily members of the same household, two brothers while living in the same house with their wives and children may or may not form separate households depending on their catering arrangements. Thus, in many cases, a house may be broken into separate households (families).

Fishermen family: A family in which at least one member is engaged in marine fishing or associated activities or both.

Pucca/Kutcha house: A pucca house is one, which has walls made of burnt bricks, stones (packed with lime or cement), cement concrete, timber etc. and roof made of tiles, galvanised corrugated iron sheets, asbestos cement sheet, reinforced brick concrete, reinforced cement concrete and timber etc. Any structure other than Pucca house is termed as Kutcha house.

Family size:

o Adult refers to a person who has attained the age of 15.

o Children refers to those who are below 15 years of age

Occupation:

Full Time refers to involvement of at least 90% of the fishable duration in a calendar year.

Part time includes those fishermen who spend less than 90% of the fishable duration in a calendar year.

Actual Fishing: Adult male members in the family engaged in fishing activities in full time or part time.

Fish seed collection: Adult male/female members in the family involved in full time/part time fish seed collection.

Fishing Associated Activities: Adult members in the family (both male and female) engaged in marketing of fish, making/repairing net, labourer etc. (labourer includes head load workers, helpers etc. at the landing centres) and other fishing associated activities such as auctioneers, ice breakers, members involved in coll ection of bivalves, othershells, seaweed, ornamental fish etc.

Education:

Primary refers to schooling completed/continuing up to standard V.

Higher secondary refers to schooling completed/continuing between standard VI and XII.

Above higher secondary refers to schooling completed/continuing above standard XII or Diploma/ITI/V cational Higher Secondary Course.

Annexure VII
Fishing structure locations around Vadhavan Port

SR. NO.	SURVEY CODE NUMBER	SOCIETY	OWNER NAME	BOAT NAME	BOAT REG NO.	DOL	LATITUDE	LONGITUDE
1	4011	DHAKTI DAHANU	BHARTI DINKER PAGDHARE	LAXMI PRASAD	IND-MH-2-MM-2228	1	19°57.457	72°35.418
2	4012					2	19°58.600	72°35.015
3	4013					3	19°56.703	72°37.421
4	4021	DAHANU	YOGESH ARVIND MEHER		IND MH 2 MM 2146	1	20°02.088	072°34.452
5	4022					2	20°02.105	072°34.414
6	4023					3	20°02.106	072°34.373
7	4031	GUNGWADA	RAJESH BHIMA VINDE	MAHALAXMI MAULI	IND-MH-2MM-2241	1	19°56.876	72°31.880
8	4032					2	19°56.718	72°31.555
9	4033					3	20°06.120	72°28.984
10	4034					4	20°06.044	72°09.140
11	4041	DHAKTI DAHANU	PANDURANG BARKU BHANMEHER	VAIBHAV LAXMI	IND-MH-2-MM-2174	1	19°58.263	72°34.992
12	4042					2	19°58.265	72°34.900
13	4043					3	19°58.268	72°34.860
14	4044					4	19°58.268	72°34.840
15	4045					5	19°58.270	72°34.800
16	4051	DAHANU	KISHORE LAXMAN DAVNE		IND MH 2 MM 3176	1	19°59.945	072°37.038
17	4052					2	19°59.936	072°36.998
18	4053					3	19°59.947	072°36.973
19	4054					4	20°02.069	072°35.654
20	4055					5	20°02.085	072°35.579
21	4056					6	20°02.124	072°35.586
22	4057					7	20°03.115	072°32.670
23	4058					8	20°03.125	072°32.458
24	4059					9	20°03.0.119	072°32.478
25	40510					10	20°03.045	072°32.315
26	4061	DHAKTI DAHANU	TAKSEN NARESH VINDHE	BHAGYA-PRABHA	IND-MH-6-MM-322	1	19°55.600	72°33.500
27	4062					2	19°58.900	72°28.650
28	4063					3	20°07.500	72°30.785
29	4071	DAHANU	DHRUV DATTATHREYE DAVNE		IND MH 2 MM 2704	1	20°00.683	072°34.845
30	4072					2	20°00.739	072°34.724
31	4073					3	20°00.764	072°34.688
32	4074					4	20°02.875	072°30.501
33	4075					5	20°02.806	072°30.700
34	4081	DAHANU	HEMANT BABURAV DHANMEHER		IND MH 2 MM 2687	1	20°02.066	072°35.661
35	4082					2	20°02.047	072°35.706
36	4083					3	20°02.036	072°35.741
37	4084					4	20°02.013	072°35.786
38	4085					5	20°01.991	072°35.820
39	4091	DHAKTI DAHANU	SANGITA MOHAN MARDE	DATTALAXMI	IND-MH-6-MM-197	1	19°58.231	72°34.520
40	4092					2	20°02.613	72°31.568
41	40101	DHAKTI DAHANU	SANJAY THAKSEN DHANU	JIVDANIMATA	IND-MH-6-MM-29	1	19°58.230	72°34.726
42	40102					2	19°58.217	72°34.771
43	40103					3	19°58.207	72°34.808
44	40104					4	19°58.200	72°34.853
45	40111	DAHANU	RAVINDRA RAMESH MEHER		IND MH 2 MM 2632	1	20°00.142	072°37.641
46	40112					2	20°00.148	072°37.649
47	40113					3	20°00.154	072°37.657
48	40121	DAHANU	PRAKASH VASUDEV PATIL		IND MH 2 MM 2295	1	20°1.7958	072°36.4943
49	40122					2	19°58.6298	072°42.1289
50	40123					3	20°1.0841	072°37.8603
51	40124					4	20°1.8267	072°36.4563
52	40125					5	20°1.8495	072°36.3542
53	40126					6	20°1.8878	072°36.3249
54	40131	DHAKTI DAHANU	VISHWAS PRABHAKAR TAMORE	DIVYAJOTI	IND-MH-6-MM-663	1	20°02.280	72°27.782
55	40132					2	20°02.368	72°27.664
56	40141	DAHANU	KAILAS DAMODAR PAGDHARE		IND MH 2 MM 3209	1	20°00.7431	072°31.8242
57	40142					2	20°00.905	072°36.503
58	40143					3	19°58.0373	072°39.3690
59	40144					4	19°58.0767	072°39.3158
60	40151	GUNGWADA	HARESHWAR ATAMARAM MARDE	VIGHNAHARTA	IND-MH-2MM-2252	1	20°08.438	72°28.645
61	40152					2	20°08.225	72°28.542
62	40153					3	20°01.395	72°31.765
63	40154					4	20°01.345	72°31.640
64	40161	DHAKTI DAHANU	MANOHAR ATMARAM PAGDHARE	CHAYAKRIPA	IND-MH-2-MM-2272	1	19°56.358	72°35.101

65	40162					2	19°56.309	72°35.505
	40163					3	19°56.403	72°35.310
66								
67	40171	DHAKTI DAHANU	HARESH VASUDEV PADGHARE	GAJANAN PRASAD	IND-MH-2-MM-4961	1	19°59.285	72°34.095
68	40181	DHAKTI DAHANU	NALINI SOMNATH PADGHARE	CHANDANI NAUKA	IND-MH-2-MM-2255	1	19°54.308	72°36.116
	40182					2	19°56.870	72°35.133
69	40191	GUNGWADA	NARAYAN RAGHUNATH DAWANE	RAMPRASAD	IND-MH-2MM-3974	1	19°57.665	72°35.799
70	40192					2	19°56.213	72°33.295
71	40193					3	19°56.257	72°33.032
72	40201	GUNGWADA	GANESH HARISHCHANDRA MARDE	VISHWAMITRA	IND-MH-2MM-2261	1	19°55.105	72°32.100
73	40202					2	19°55.205	72°32.000
74	40211	DHAKTI DAHANU	SANTOSH MOTIRAM ARKE	BHAKTI SAGAR	IND-MH-2-MM-2189	1	19°57.401	72°34.158
75	40212					2	19°57.412	72°34.126
76	40213					3	19°57.410	72°34.084
77	40214					4	19°57.446	72°33.803
78	40215					5	19°57.452	72°33.717
79	40216					6	19°57.220	72°29°059
80	40217					7	19°57.272	72°29°024
81	40218					8	19°57.330	72°28.982
82	40219					9	19°57.305	72°28.936
83	402110					10	19°57.333	72°28.886
84	402111					11	19°57.370	72°28.857
85	402112					12	19°57.317	72°28.794
86	402113					13	19°57.326	72°28.750
87	40221	DAHANU	KISHORE LAXMAN DAVNE		IND MH 2 MM 2038	1	19°58.544	072°40.351
88	40222					2	20°00.041	072°36.789
89	40223					3	20°00.035	072°36.736
90	40224					4	20°00.033	072°36.734
91	40225					5	20°01.067	072°33.657
92	40226					6	20°01.083	072°33.571
93	40227					7	20°10.123	072°33.576
94	40231	DAHANU	RUPESH HARESHVAR MEHER		IND MH 2 MM 2522	1	19°59.440	072°36.701
95	40232					2	20°00.981	072°33.854
96	40233					3	20°01.072	072°33.671
97	40241	DHAKTI DAHANU	GAJANAN NARAYAN ARKE	JAY MAHALAXMI	IND-MH-2-MM-1625	1	20°03.071	72°29.599
98	40242					2	20°03.084	72°29.571
99	40243					3	20°03.101	72°29.532
100	40244					4	20°03.094	72°29.486
101	40245					5	20°03.248	72°29.247
102	40251	DHAKTI DAHANU	SUBHADRA BARBUVAHN TAMORE	DHANPRASAD	IND-MH-2-MM-2143	1	19°57.974	72°36.308
103	40252					2	19°56.420	72°.36.446
104	40261	DAHANU	KASHINATH ATMARAM TANDEL		IND MH 2 MM 1015	1	20°0.4335	072°37.8781
105	40262					2	20°0.4356	072°37.8543
106	40263					3	20°0.4499	072°37.8264
107	40264					4	20°0.4596	072°37.8021
108	40271	DAHANU	VIDYA VILAS TANDEL		IND MH 2 MM 1022	1	20°00.609	072°34.283
109	40281	DAHANU	PRAKASH RAMCHANDRA MEHER		IND MH 2 MM 2301	1	20°00.6751	072°34.1016
110	40282					2	20°00.7328	072°00.9455
111	40283					3	19°59.8270	072°37.4753
112	40291	GUNGWADA	BHUPESH DATTATRAY MARDE	TULJABHAWANI	IND-MH-2MM-2847	1	19°56.160	72°33.140
113	40292					2	19°56.081	72°33.628
114	40293					3	20°03.200	72°26.889
115	40294					4	20°03.122	72°27.180
116	40301	GUNGWADA	GANESH SADASHIV TANDEL	LAXMI PRASAD	IND-MH-2MM-2291	1	19°57.270	72°34.207
117	40302					2	19°57.188	72°34.547
118	40303					3	20°06.570	72°28.403
119	40304					4	20°06.436	72°28.709
120	40311	DAHANU	HARESH BABURAV PAGDHARE		IND MH 2 MM 2726	1	20°01.550	072°32.330
121	40312					2	20°01.400	072°32.550
122	40313					3	20°01.500	072°32.400
123	40314					4	20°01.480	072°32.430
124	40315					5	20°01.450	072°32.500
125	40321	DHAKTI DAHANU	RAJESH VASUDEV BARI	MOHINI PRASAD	IND-MH-2-MM-3971	1	19°57.390	72°30.893
126	40322					2	19°57.384	72°30.912
127	40323					3	19°57.379	72°30.964
128	40324					4	19°57.370	72°30.007
129	40331	DHAKTI DAHANU	NARESH ATMARAM TANDEL	JAYSAI	IND-MH-2-MM-2258	1	19°58.470	72°33.655
130	40332					2	19°58.433	72°33.602
131	40333					3	19°58.447	72°33.565
132	40334					4	19°58.454	72°33.518
133	40335					5	19°58.453	72°33.467
134	40336					6	19°58.462	72°33.428
135	40337					7	20°04.738	72°29.190
136	40338					8	20°04.746	72°29.137
137	40339					9	20°04.772	72°29.100
138	403310					10	20°04.785	72°29.054
139	403311					11	20°04.806	72°29.037
140	403312					12	20°03.240	72°
141								

142	40341	GUNGWADA	CHETAN MOHAN AMBRE	KAMALA PRASAD	IND-MH-2MM		1	19°55.180	72°32.295
143	40342						2	19°55.101	72°32.404
144	40351	DAHANU	ASHOK DRUV DAVNE		IND MH 2 MM 1012		1	20°00.870	072°37.647
145	40352						2	20°00.843	072°37.580
146	40353						3	20°00.836	072°37.625
147	40354						4	20°00.770	072°34.635
148	40355						5	20°02.635	072°34.828
149	40356						6	20°02.875	072°30.501
150	40357						7	20°02.768	072°30.733
151	40358						8	20°02.806	072°30.700
152	40359						9	20°02.819	072°30.580
153	403510						10	20°02.844	072°30.667
154	403511						11	20°00.814	072°37.534
155	403512						12	20°00.775	072°37.759
156	40361	GUNGWADA	ANIL MAHADEV VINDE	DHANESHWARI	IND-MH-2MM-2274		1	19°55.210	72°31.900
157	40362						2	19°55.310	72°31.878
158	40371	DAHANU	BHUPENDRA KISHORE AMBHIRE		IND MH 2 MM 1021		1	19°97.9694	072°59.8961
159	40372						2	19°97.7949	072°59.7321
160	40373						3	20°01.4030	072°61.9804
161	40374						4	20°01.3981	072°61.9881
162	40375						5	20°00.8802	072°62.8189
163	40376						6	20°00.1524	072°60.9406
164	40377						7	20°00.0582	072°61.1122
165	40381	GUNGWADA	KAILASH DASHARATH NAIK	HIMALAYA	IND-MH-2MM		1	20°03.448	72°26.421
166	40382						2	20°03.341	72°26.610
167	40383						3	19°56.643	72°31.123
168	40384						4	19°56.600	72°31.286
169	40391	DAHANU	DINESH DAMODAR MEHER		IND MH 2 MM 2609		1	20°01.909	072°36.009
170	40392						2	20°01.918	072°36.040
171	40393						3	20°01.934	072°36.977
172	40394						4	20°01.944	072°36.041
173	40401	DHAKTI DAHANU	BHUPESH CHANDRAKANT DAWNE	BAJRANGBALI	IND-MH-2-MM-2242		1	19°56.592	72°36.065
174	40402						2	19°56.600	72°36.245
175	40403						3	19°56.595	72°36.268
176	40404						4	19°56.599	72°36.293
177	40405						5	19°56.607	72°36.329
178	40406						6	19°56.591	72°36.356.
179	40407						7	19°56.570	72°36.350
180	40411	DHAKTI DAHANU	JITESH MANIRAM DHANMEHER	JAGLAXMI	IND-MH-2-MM-3937		1	19°59.367	72°34.839
181	40412						2	19°58.033	72°35.196
182	40413						3	19°58.205	72°36.291
183	40414						4	19°58.226	072°39.107
184	40421	GUNGWADA	DHANANJAY CHANDRAKANT TAMORE	RUCHIRA	IND-MH-2MM-0556		1	19°56.631	72°33.199
185	40422						2	19°56.652	72°31.068
186	40431	DHAKTI DAHANU	JAYKISAN HARESHWAR TAMORE	DHANLAXMI	IND-MH-6-MM-92		1	19°58.299	72°35.228
187	40432						2	19°58.285	72°35.146
188	40433						3	19°56.917	72°38.151
189	40434						4	19°56.650	72°35.194
190	40435						5	19°56.884	72°35.209
191	40441	DAHANU	SANJEEVNI SURESHDHA PAGDHARE		IND MH 2 MM 2607		1	20°02.182	072°34.319
192	40442						2	20°02.224	072°34.365
193	40443						3	20°00.449	072°36.490
194	40444						4	20°00.459	072°36.424
195	40445						5	20°00.463	072°36.424
196	40446						6	20°02.190	072°34.334
197	40447						7	20°02.199	072°34.342
198	40448						8	20°02.207	072°34.356
199	40449						9	20°00.429	072°36.481
200	40451	GUNGWADA	PRAKASH HARISHCHANDRA BARI	CHAITANYASAI	IND-MH-2MM-5740		1	19°57.300	72°27.402
201	40452						2	19°55.306	72°32.291
202	40453						3	20°08.409	72°25.606
203	40454						4	20°06.223	72°29.776
204	40461	DAHANU	KAVITA KISHORE TANDEL		IND MH 2 MM 2310		1	19°59.948	072°36.944
205	40462						2	19°59.956	072°36.920
206	40463						3	19°59.968	072°36.892
207	40464						4	20°00.609	072°34.283
208	40465						5	20°00.617	072°34.241
209	40466						6	20°00.625	072°34.211
210	40471	DHAKTI DAHANU	RUPESH YASHWANT MARDE	JAYLAXMI	IND-MH-6-MM-231		1	19°56.363	72°35.018
211	40472						2	19°56.362	72°35.013
212	40473						3	19°56.362	72°35.009
213	40474						4	19°56.365	72°35.004
214	40475						5	19°56.366	72°35.000
215	40481	DHAKTI DAHANU	SHANTARAM KRISHNA TAMORE	JAYSAI	IND-MH-2-MM-2334		1	19°58.0516	72°34.9819
216	40491	DHAKTI DAHANU	BHUNESHWAR DATTATROY TAMORE	VIRANGANA	IND-MH-2-MM-278		1	19°58.920	72°34.200
217	40492						2	20°02.500	72°33.200
218	40501	DHAKTI DAHANU	MANDA NARESH TAMORE	KAUSHALYAPRASAD	IND-MH-2-MM-3895		1	19°57.510	72°32.994

219	40502					2	19°58.342	72°33.616
220	40503					3	19°57.524	72°32.944
221	40504					4	19°57.562	72°32.932
222	40511	DAHANU	YOGESH BALCHANDRA KENI		IND MH 2 MM 2690	1	19°95.450	072°59.644
223	40512					2	19°95.447	072°59.832
224	40513					3	19°95.455	072°59.757
225	40514					4	19°95.428	072°59.695
226	40515					5	19°95.482	072°59.572
227	40516					6	19°95.495	072°59.502
228	40517					7	19°95.407	072°59.871
229	40518					8	20°050.40	072°58.554
230	40519					9	20°0.1787	072°62.869
231	405110					10	20°0.1821	072°62.915
232	405111					11	20°0.1828	072°62.768
233	405112					12	20°0.1857	072°62.679
234	405113					13	20°0.1866	072°62.635
235	40521	GUNGWADA	PRABHAKAR BABURAO DHANGAKAR	VAISHNAVI	IND-MH-2MM-4875	1	19°59.970	72°33.665
236	40522					2	19°59.972	72°33.628
237	40523					3	19°59.993	72°33.602
238	40524					4	20°00.010	72°33.546
239	40525					5	20°00.012	72°33.506
240	40531	DAHANU	SANDEEP BALCHANDRA MARDE		IND MH 2 MM 3572	1	19°57.9706	072°39.4617
241	40532					2	19°58.0095	072°39.4067
242	40533					3	19°58.0135	072°39.4021
243	40534					4	19°58.0860	072°39.3043
244	40535					5	19°58.0918	072°39.2950
245	40541	DHAKTI DAHANU	PRATAP BABRUWAHAN TAMORE	AAI JIVDANI	IND-MH-6-MM-164	1	20°02.772	72°30.962
246	40542					2	20°02.784	72°30.873
247	40551	DHAKTI DAHANU	PRAKASH EKNATH PAGDHARE	SHIKHORI	IND-MH-6-MM-8	1	19°57.492	72°33.360
248	40552					2	19°57.497	72°33.320
249	40553					3	19°57.501	72°33.279
250	40554					4	19°57.506	72°33.236
251	40555					5	19°57.512	72°33.195
252	40561	DAHANU	JITENDRA PANDURANG MEHER		IND MH 2 MM 952	1	20°00.509	072°37.779
253	40562					2	20°00.523	072°37.754
254	40563					3	20°00.539	072°36.0.59
255	40564					4	20°00.582	072°36.077
256	40565					5	20°00.077	072°36.317
257	40566					6	20°00.076	072°36.355
258	40567					7	20°00.103	072°36.292
259	40568					8	20°02.782	072°32.0.27
260	40569					9	20°02.778	072°32.994
261	405610					10	20°02.814	072°32.967
262	405611					11	20°02.804	072°32.928
263	405612					12	20°02.815	072°32.884
264	405613					13	20°00.245	072°29.689
265	405614					14	20°00.279	072°29.655
266	405615					15	20°00.265	072°29.608
267	405616					16	20°00.281	072°29.565
268	405617					17	20°00.317	072°29.534
269	40571	GUNGWADA	VIKRAM YASHWANT MARDE	DHANLAXMI	IND-MH-2MM-2360	1	20°03.135	72°34.513
270	40572					2	20°03.130	72°34.518
271	40573					3	20°03.129	72°34.523
272	40574					4	20°03.130	72°34.529
273	40575					5	20°03.127	72°34.535
274	40581	DHAKTI DAHANU	RAJESH VASUDEV MARDE	PRABHUKRUPA	IND-MH-6-MM-229	1	20°01.567	72°33.043
275	40582					2	20°01.540	72°33.000
276	40583					3	20°01.616	72°32.815
277	40591	DHAKTI DAHANU	MOHAN DHANJI BARI	DHANLAXMI	IND-MH-2-MM-2320	1	19°58.550	72°29.895
278	40592					2	19°58.555	72°29.887
279	40593					3	19°58.560	72°29.877
280	40594					4	19°58.562	72°29.860
281	40595					5	19°58.570	72°29.848
282	40596					6	19°58.572	72°29.835
283	40597					7	19°58.578	72°29.818
284	40598					8	19°58.530	72°29.920
285	40599					9	19°58.510	72°29.320
286	40601	GUNGWADA	AJAY HARISHCHANDRA MARDE	SAISAGAR	IND-MH-2MM-2141	1	19°56.648	72°30.137
287	40602					2	19°56.724	72°30.917
288	40603					3	20°04.935	72°27.486
289	40604					4	20°04.029	72°27.282
290	40611	DAHANU	JITENDRA PANDURANG MEHER		IND MH 2 MM 2259	1	20°00.538	072°37.628
291	40612					2	19°58.719	072°35.775
292	40613					3	19°58.727	072°35.735
293	40614					4	19°58.751	072°35.701
294	40615					5	19°58.761	072°35.672
295	40616					6	19°58.786	072°35.650
296	40617					7	19°58.775	072°35.610
297	40621	GUNGWADA	JIJABAI KAMLAKAR AMBHIRE	KANYAKUMARI	IND-MH-2MM-3991	1	20°02.550	72°31.210
298	40622					2	20°02.240	72°32.450

299	40631	DAHANU	RAMDAS PRAKASH DHANMEHER		IND MH 2 MM 189	1	19°59.767	072°35.274
300	40632					2	19°59.766	072°35.236
301	40633					3	19°59.773	072°35.200
302	40634					4	19°59.819	072°35.153
303	40635					5	19°59.826	072°35.123
304	40636					6	19°59.956	072°35.953
305	40637					7	19°59.833	072°37.497
306	40638					8	19°59.823	072°37.475
307	40639					9	19°59.784	072°37.570
308	40641	DHAKTI DAHANU	MANIRAM DAYARAM BARI	KANYAKUMARINAUKA	IND-MH-2-MM-3984	1	19°58.346	72°30.695
309	40642					2	19°58.352	72°30.653
310	40643					3	19°58.366	72°30.617
311	40644					4	19°58.372	72°30.576
312	40645					5	19°58.387	72°30.533
313	40646					6	19°58.409	72°30.491
314	40647					7	19°58.417	72°30.450
315	40648					8	19°58.434	72°30.412
316	40649					9	20°01.255	72°27.381
317	406410					10	20°01.246	72°27.381
318	406411					11	20°01.220	72°27.458
319	406412					12	20°01.207	72°27.505
320	406413					13	20°01.191	72°27.545
321	406414					14	20°01.183	72°27.581
322	406415					15	20°01.181	72°27.624
323	406416					16	20°01.141	72°27.678
324	406417					17	20°01.127	72°27.717
325	406418					18	20°01.080	72°27.740
326	40651	GUNGWADA	BHAGWANDAS NATHURAM AMBIRE	EKVIRA	IND-MH-2MM-3169	1	20°07.581	72°29.073
327	40652					2	20°07.563	72°29.320
328	40653					3	20°07.546	72°29.364
329	40654					4	20°07.530	72°29.414
330	40655					5	20°07.578	72°29.465
331	40661	GUNGWADA	CHANDRAKANT KAMALAKAR ARKE	NANDINI SAI	IND-MH-2MM-0032	1	19°57.844	72°30.200
332	40662					2	19°58.864	72°32.674
333	40671	GUNGWADA	MINAKSHI KASHINATH PAGHDHARE	MAHALAXMI	IND-MH-2MM-2244	1	19°55.738	72°30.444
334	40672					2	19°55.732	72°30.493
335	40673					3	19°55.709	72°30.524
336	40674					4	20°55.714	72°30.570
337	40675					5	20°55.739	72°30.398
338	40681	DAHANU	HEMANT BABU AMBHIRE		IND MH 2 MM 3178	1	20°00.6353	072°38.2773
339	40682					2	20°00.6319	072°38.2658
340	40683					3	20°00.7465	072°37.8140
341	40684					4	20°00.7428	072°37.7918
342	40685					5	20°1.2788	072°34.5419
343	40686					6	20°1.2983	072°34.5099
344	40687					7	20°1.3741	072°34.3561
345	40691	GUNGWADA	UKSEN NARENDRA VINDE	BHAGYAPRABHA	IND-MH-2MM	1	19°58.900	72°28.700
346	40692					2	19°58.995	72°28.600
347	40693					3	19°55.520	72°33.500
348	40694					4	19°55.410	72°33.400
349	40701	DAHANU	BHAVESH MANIRAM TAMORE		IND MH 2 MM 1018	1	20°1.937	072°31.864
350	40702					2	20°00.12	072°36.670
351	40703					3	19°58.0301	072°39.3779
352	40704					4	19°58.0341	072°39.3737
353	40711	DAHANU	MAHESH JAGDISH DAVNE		IND MH 2 MM 2100	1	20°00.650	072°38.091
354	40712					2	30°15.802	11°70.110
355	40713					3	20°02.067	072°34.503
356	40714					4	20°02.068	072°34.509
357	40715					5	20°02.072	072°34.515
358	40716					6	20°02.075	072°34.520
359	40717					7	20°02.04	072°34.525
360	40718					8	20°02.054	072°34.468
361	40721	DHAKTI DAHANU	PARSHURAM RAVIYA BARI	HIMGAURI	IND-MH-2-MM-959	1	19°58.733	72°30.781
362	40722					2	19°58.722	72°30.771
363	40723					3	19°58.718	72°30.812
364	40724					4	19°58.694	72°30.850
365	40725					5	19°58.699	72°30.881
366	40726					6	19°58.690	72°30.928
367	40727					7	19°58.616	72°31.121
368	40731	DAHANU	GANESH KRISHNA DHANMEHER		IND MH 2 MM 2841	1	19°59.367	072°37.257
369	40732					2	20°00.543	072°34.325
370	40733					3	20°00.564	072°34.493
371	40734					4	20°00.609	072°34.283
372	40741	GUNGWADA	HARESHWAR GAJANAN TAMORE	VAIBHAVLAXMI	IND-MH-2MM-2268	1	19°57.714	72°30.195
373	40742					2	19°57.775	72°30.763
374	40743					3	20°04.672	72°27.904
375	40744					4	20°04.608	72°28.027
376	40751	DAHANU	LAXMAN DAMODAR DHANMEHER		IND MH 2 MM 945	1	20°0.08698	072°34.53232
377	40752					2	20°0.12188	072°34.27368
378	40753					3	19°59.704	072°36.924
379	40754					4	19°59.252	072°39.364

380	40761	DAHANU	PRAVEEN VASUDEV DHANMEHER		IND MH 2 MM 102	1	19°59.378	072°37.292
381	40762					2	19°59.810	072°37.529
382	40763					3	19°59.898	072°39.242
383	40764					4	19°59.912	072°37.222
384	40765					5	19°59.913	072°37.193
385	40766					6	19°58.488	072°39.851
386	40767					7	19°58.503	072°39.856
387	40768					8	19°58.542	072°39.844
388	40769					9	19°58.571	072°39.834
389	407610					10	20°00.531	072°34.439
390	407611					11	20°00.522	072°34.406
391	407612					12	20°00.523	072°34.377
392	407613					13	20°00.582	072°34.350
393	40771	DHAKTI DAHANU	GHANSHYAM SUKHDEV TAMORE	PARTH	IND-MH-2-MM-2138	1	20°03.071	72°29.922
394	40772					2	20°03.088	72°29.969
395	40773					3	20°03.054	72°30.066
396	40774					4	20°03.062	72°30.054
397	40775					5	20°03.022	72°30.119
398	40781	DAHANU	DINESH DAMODAR MEHER		IND MH 2 MM 5751	1	20°01.909	072°36.009
399	40782					2	20°01.918	072°36.040
400	40783					3	20°01.929	072°36.009
401	40784					4	20°01.934	072°35.977
402	40785					5	20°01.939	072°36.009
403	40786					6	20°01.944	072°36.041
404	40791	GUNGWADA	KISHOR LAXMAN MARDE	AMBIKAPRASAD	IND-MH-2MM-2263	1	20°02.457	72°31.794
405	40792					2	19°58.477	72°34.595
406	40801	DAHANU	PRAKASH BALVANT DAVNE		IND MH 2 MM 47	1	20°00.414	072°36.991
407	40802					2	20°03.154	072°34.245
408	40803					3	20°03.086	072°32.806
409	40804					4	20°03.072	072°32.884
410	40811	DAHANU	RAVINDRA BALKRISHNA AMBHIRE		IND MH 2 MM 2520	1	20°1.8810	072°36.3597
411	40812					2	20°1.8357	072°36.5680
412	40813					3	20°1.9236	072°36.1057
413	40814					4	20°1.7381	072°36.5758
414	40815					5	20°1.9171	072°36.2691
415	40816					6	20°1.9316	072°36.1954
416	40817					7	20°1.9347	072°36.1766
417	40818					8	20°1.9200	072°36.1299
418	40819					9	20°1.8744	072°36.2645
419	40821	DHAKTI DAHANU	ABHIMANYU VITTHAL BARI	DARYA DAULAT	IND-MH-2-MM-2200	1	19°59.154	72°30.480
420	40822					2	20°02.345	72°29.668
421	40823					3	20°02.010	72°29.552
422	40831	DHAKTI DAHANU	PRAVIN BHASKAR MARDE	DHANSAI	IND-MH-2-MM-2195	1	20°03.253	72°33.538
423	40832					2	20°03.252	72°33.012
424	40833					3	20°03.280	72°33.938
425	40834					4	20°03.396	72°33.770
426	40835					5	20°03.236	72°33.058
427	40836					6	20°00.895	72°28.068
428	40837					7	20°00.883	72°28.112
429	40838					8	20°00.880	72°28.132
430	40839					9	20°00.815	72°28.256
431	408310					10	20°00.798	72°28.297
432	408311					11	20°00.835	72°28.265
433	408312					12	20°00.827	72°28.289
434	40841	GUNGWADA	MANIRAM VITHOBA TAMORE	LAXMI PRASAD	IND-MH-2MM-2213	1	19°57.453	72°36.221
435	40851	GUNGWADA	CHANDRAKANT ROHIDAS MARDE	PARVATI	IND-MH-2MM-2294	1	19°58.833	72°33.509
436	40861	GUNGWADA	MANOHAR BHALCHANDRA TAMORE	PARVATIPRASAD	IND-MH-2MM-2339	1	19°58.682	72°32.770
437	40871	DAHANU	YASHVANT NARHARI AKRE		IND MH 2 MM 2665	1	20°00.429	072°38.069
438	40872					2	20°00.747	072°36.920
439	40873					3	20°00.746	072°36.894
440	40874					4	20°00.766	072°36.876
441	40875					5	20°00.794	072°36.846
442	40876					6	20°00.728	072°36.790
443	40877					7	20°02.674	072°33.490
444	40878					8	20°02.641	072°33.372
445	40879					9	20°02.718	072°33.282
446	408710					10	20°02.680	072°33.425
447	408711					11	20°02.742	072°33.301
448	408712					12	20°02.602	072°33.540
449	408713					13	20°02.534	072°33.573
450	408714					14	19°57.9991	072°39.4198
451	408715					15	19°58.0521	072°39.3503
452	408716					16	19°58.0556	072°39.3449
453	408717					17	19°58.0268	072°39.3836
454	40881	GUNGWADA	SHIVRAM PANDU TANDEL	JAMANAPRASAD	IND-MH-2MM-4123	1	20°01.304	72°34.639

455	40891	DHAKTI DAHANU	VIJAY CHANDRAKANT MARDE	CHANDRASAGAR	IND-MH-2-MM-2519	1	19°58.793	72°32.635
456	40892					2	19°58.788	72°32.642
457	40893					3	19°58.795	72°32.603
458	40894					4	19°58.771	72°32.555
459	40895					5	19°58.802	72°32.513
460	40896					6	19°58.799	72°32.492
461	40897					7	19°56.525	72°35.175
462	40898					8	19°56.520	72°35.155
463	40899					9	19°56.515	72°35.100
464	408910					10	19°56.500	72°35.085
465	408911					11	19°56.495	72°35.060
466	408912					12	19°56.490	72°36.039
467	40901	GUNGWADA	VATSALA YASHWANT MARDE	SAGARSARITA	IND-MH-2MM-2139	1	19°56.572	72°32.054
468	40902					2	19°57.514	72°27.788
469	40903					3	19°57.500	72°36.329
470	40911	DAHANU	BHAVESH MORESHWAR TAMORE		IND MH 2 MM 2754	1	20°00.742	072°38.101
471	40912					2	20°00.800	072°38.220
472	40913					3	20°00.046	072°36.482
473	40914					4	20°00.042	072°36.514
474	40915					5	20°00.083	072°36.402
475	40916					6	20°00.149	072°36.494
476	40917					7	20°03.107	072°32.689
477	40918					8	20°03.072	072°32.884
478	40919					9	20°00.770	072°38.150
479	409110					10	20°00.780	072°38.200
480	409111					11	20°00.085	072°36.431
481	409112					12	20°00.067	072°36.456
482	409113					13	20°00.139	072°36.530
483	409114					14	20°00.100	072°32.728
484	409115					15	20°03.093	072°32.767
485	40921	DHAKTI DAHANU	KISHOR RAGHUNAATH TAAMORE	DATTAPRASAD	IND-MH-2-MM-2298	1	19°58.521	72°33.356
486	40922					2	19°58.525	72°33.324
487	40923					3	19°58.510	72°33.280
488	40924					4	19°58.520	72°33.241
489	40925					5	19°58.525	72°33.201
490	40931	DHAKTI DAHANU	BHARAT MANIRAM VINDRE	TIRTHRUP	IND-MH-2-MM-1632	1	19°59.479	72°32.463
491	40932					2	19°59.468	72°32.498
492	40933					3	19°59.457	72°32.542
493	40934					4	19°59.451	72°32.589
494	40935					5	19°59.446	72°32.637
495	40936					6	19°59.423	72°32.674
496	40937					7	19°59.405	72°32.715
497	40941	GUNGWADA	PRAVIN YASHWANT MARDE	HIMSAI	IND-MH-2MM-2667	1	19°56.600	72°32.050
498	40942					2	19°57.474	72°28.091
499	40943					3	19°57.400	72°36.300
500	40951	DHAKTI DAHANU	GAJANAN SUKHDEV TAMORE	DHANVRUDHI	IND-MH-2-MM-2232	1	19°58.884	72°32.092
501	40952					2	19°58.889	72°31.760
502	40953					3	19°58.872	72°31.805
503	40954					4	19°58.524	72°32.781
504	40955					5	19°58.456	72°32.998
505	40956					6	19°58.478	72°32.944
506	40957					7	19°58.486	72°32.398
507	40958					8	19°58.507	72°32.805
508	40959					9	20°02.332	72°27.797
509	409510					10	20°02.329	72°27.756
510	409511					11	20°02.330	72°27.709
511	409512					12	20°02.336	72°27.661
512	409513					13	20°02.331	72°27.547
513	40961	GUNGWADA	ANAND ASHOK AMBHIRE	PAWANSAI	IND-MH-2MM-3174	1	19°56.430	72°32.950
514	40962					2	19°56.500	72°33.201
515	40971	DAHANU	KAILAS RAGHUNATH DAVNE		IND MH 2 MM 243	1	20°1.2.790	072°34.526
516	40972					2	20°1.2.980	072°34.529
517	40973					3	19°58.0804	072°39.3111
518	40974					4	19°57.9676	072°39.4690
519	40981	DAHANU	HARESHWAR RAMCHANDRA AKRE		IND MH 2 MM 2618	1	19°58.286	072°39.583
520	40982					2	19°58.374	072°39.547
521	40983					3	19°58.389	072°39.527
522	40984					4	19°58.407	072°39.514
523	40985					5	19°58.421	072°39.507
524	40986					6	20°00.450	072°37.930
525	40987					7	20°00.448	072°37.947
526	40988					8	20°00.443	072°37.981
527	40989					9	20°00.436	072°38.012
528	409810					10	20°00.430	072°38.035
529	409811					11	20°00.932	072°36.747
530	409812					12	20°00.939	072°36.716
531	409813					13	20°00.946	072°36.687
532	409814					14	20°00.951	072°36.655
533	409815					15	20°00.954	072°36.620
534	409816					16	20°00.956	072°36.592

535	409817					17	20°00.945	072°36.552
536	409818					18	20°02.003	072°34.895
537	409819					19	20°02.008	072°34.852
538	409820					20	20°02.031	072°34.796
539	409821					21	20°02.052	072°34.759
540	409822					22	20°02.075	072°34.717
541	409823					23	20°02.094	072°34.679
542	409824					24	20°02.333	072°34.236
543	409825					25	20°02.331	072°34.193
544	409826					26	20°02.328	072°34.167
545	409827					27	20°02.339	072°34.127
546	409828					28	20°02.407	072°34.117
547	409829					29	20°02.340	072°34.068
548	40991	GUNGWADA	RAJENDRA YASHWANT TANDEL	PANDUNAUKA	IND-MH-2MM-2116	1	20°05.490	72°26.360
549	40992					2	20°05.570	72°26.080
550	41001	DHAKTI DAHANU	JAGDISH ATMARAM DAVNE	KOYNA	IND-MH-2-MM-2364	1	19°59.411	72°33.178
551	41002					2	19°59.429	72°33.208
552	41003					3	19°59.282	72°33.413
553	41004					4	19°59.294	72°33.503
554	41005					5	19°59.296	72°33.409
555	41011	DAHANU	SANDEEP SURESH PAGDHARE		IND MH 2 MM 2102	1	20°00.944	072°38.023
556	41012					2	20°00.957	072°27.992
557	41013					3	20°00.960	072°27.956
558	41014					4	20°00.981	072°27.922
559	41015					5	20°01.994	072°27.876
560	41016					6	20°01.008	072°27.836
561	41017					7	20°01.021	072°27.796
562	41018					8	20°00.905	072°36.503
563	41019					9	20°00.689	072°38.010
564	410110					10	20°00.928	072°36.770
565	410111					11	20°00.725	072°37.872
566	410112					12	20°00.733	072°36.751
567	410113					13	20°01.002	072°32.300
568	410114					14	20°01.053	072°32.140
569	41021	GUNGWADA	RAMCHANDRA PANDU TANDEL	DAMYANTIPRASAD	IND-MH-2MM-3139	1	20°03.500	72°31.130
570	41021					2	20°04.077	72°26.199
571	41023					3	20°08.897	72°24.662
572	41031	DAHANU	RAKESH MANIRAM PAGDHARE		IND MH 2 MM 2689	1	20°00.334	072°32.291
573	41032					2	20°00.243	072°32.412
574	41033					3	20°00.222	072°32.511
575	41034					4	20°00.587	072°35.396
576	41035					5	20°00.614	072°35.440
577	41041	DHAKTI DAHANU	HARESHWAR JAGAN BARI		IND-MH-2-MM-2227	1	20°01.584	72°30.355
578	41042					2	20°01.597	72°30.307
579	41043					3	20°01.574	72°30.249
580	41044					4	20°01.586	72°30.211
581	41045					5	20°01.637	72°30.186
582	41046					6	20°01.656	72°30.149
583	41047					7	20°01.633	72°30.084
584	41048					8	20°01.718	72°30.055
585	41049					9	20°01.635	72°29.988
586	410410					10	20°01.673	72°29.961
587	410411					11	20°01.670	72°29.914
588	41051	DHAKTI DAHANU	MADHUKAR PANDHARINATH TAMORE	RAJLAXMI	IND-MH-2-MM-1651	1	19°58.249	72°35.442
589	41052					2	19°58.272	72°35.380
590	41053					3	19°58.263	72°35.349
591	41054					4	19°58.316	72°35.276
592	41055					5	19°58.242	72°35.297
593	41056					6	20°01.587	72°33.043
594	41057					7	20°01.540	72°33.000
595	41058					8	20°01.555	72°32.950
596	41059					9	20°01.565	72°32.314
597	41061	GUNGWADA	GANESH SHRAVAN TANDEL	GAURIPRASAD	IND-MH-2MM-2248	1	20°01.217	72°31.524
598	41062					2	20°01.226	72°31.474
599	41063					3	20°01.234	72°31.416
600	41064					4	20°01.262	72°31.382
601	41065					5	20°01.285	72°31.331
602	41066					6	20°01.290	72°31.340
603	41067					7	20°04.250	72°25.360
604	41071	DAHANU	HARESHWAR SUKHDEV DANDEKAR		IND MH 2 MM 3827	1	20°00.753	072°37.390
605	41072					2	20°00.840	072°37.235
606	41073					3	20°00.998	072°31.742
607	41074					4	20°00.928	072°32.044
608	41075					5	20°00.301	072°29.561
609	41076					6	20°00.318	072°29.532
610	41077					7	20°01.921	072°28.821
611	41078					8	20°01.971	072°28.664
612	41081	GUNGWADA	YASHWANT DATTATRAY TANDEL	JAL JAGRUTI	IND-MH-2MM-2437	1	20°01.363	72°30.980
613	41082					2	20°01.360	72°30.205
614	41083					3	20°01.343	72°30.069

615	41084					4	20°01.324	72°31.116
616	41085					5	20°01.304	72°31.161
617	41086					6	20°01.256	72°31.211
618	41091	DAHANU	DINESH BALIRAM MEHER		IND MH 2 MM 200	1	20°00.499	072°36.332
619	41092					2	20°00.549	072°36.300
620	41093					3	20°00.556	072°36.274
621	41094					4	20°00.585	072°36.154
622	41095					5	20°00.114	072°32.650
623	41096					6	20°03.121	072°32.611
624	41097					7	20°03.018	072°32.478
625	41098					8	20°03.054	072°32.313
626	41099					9	20°03.069	072°32.279
627	41101	GUNGWADA	PRATIKSHA HEMANT AHIRE	SAIROOP	IND-MH-2MM-2705	1	20°02.302	72°32.900
628	41102					2	20°02.254	72°31.948
629	41111	DHAKTI DAHANU	VIJAY CHANDRASEN TAMORE	DEVKI NANDAN	IND-MH-2-MM-2270	1	19°58.828	72°32.293
630	41112					2	19°58.831	72°32.251
631	41113					3	19°58.835	72°32.206
632	41114					4	19°58.838	72°32.162
633	41115					5	19°58.843	72°32.119
634	41116					6	19°58.847	72°32.074
635	41117					7	19°55.625	72°35.200
636	41118					8	19°55.630	72°35.155
637	41119					9	19°55.634	72°35.111
638	411110					10	19°55.638	72°35.067
639	411111					11	19°55.664	72°35.022
640	41121	DAHANU	RANJAN GOPAL MEHER		IND MH 2 MM	1	20°00.606	072°36.034
641	41122					2	20°00.613	072°35.994
642	41123					3	20°00.620	072°35.954
643	41124					4	20°00.627	072°35.914
644	41131	DAHANU	JITENDRA TUKARAM MARDE		IND MH 2 MM 1010	1	20°00.944	072°36.223
645	41132					2	20°00.951	072°36.183
646	41133					3	20°00.958	072°36.143
647	41134					4	20°00.965	072°36.103
648	41135					5	20°00.977	072°36.063
649	41136					6	20°00.984	072°36.023
650	41141	DHAKTI DAHANU	NITIN PANDURANG BARI	JAY DASHA MAA	IND-MH-2-MM-2340	1	19°59.388	72°30.417
651	41142					2	19°59.407	72°30.392
652	41143					3	19°59.372	72°30.337
653	41144					4	19°59.381	72°30.283
654	41145					5	19°59.399	72°30.244
655	41146					6	19°59.413	72°30.208
656	41147					7	19°59.426	72°30.160
657	41148					8	19°59.435	72°30.119
658	41149					9	19°59.449	72°30.075
659	41151	DHAKTI DAHANU	MORESHWAR VITHOBA MARDE	SAIKRUPA	IND-MH-2-MM-2217	1	19°04.084	72°29.360
660	41152					2	20°04.069	72°29.401
661	41153					3	20°04.048	72°29.445
662	41154					4	20°04.037	72°29.481
663	41155					5	20°04.022	72°29.517
664	41156					6	20°04.022	72°29.561
665	41161	DHAKTI DAHANU	KESARI MOTIRAM ARKE	MAHASAGAR	IND-MH-2-MM-2361	1	19°56.220	72°35.693
666	41162					2	19°56.140	72°35.960
667	41163					3	19°56.170	72°35.335
668	41164					4	19°56.298	72°35.514
669	41165					5	19°56.395	72°35.203
670	41171	DAHANU	DINESH TUKARAM MARDE		IND MH 2 MM 1020	1	19°57.9870	072°39.4355
671	41172					2	19°57.9911	072°39.4294
672	41173					3	19°57.9563	072°39.5041
673	41174					4	19°57.9594	072°39.4915
674	41175					5	19°57.9795	072°39.4470
675	41176					6	19°57.9836	072°39.4402
676	41177					7	19°58.0404	072°39.3648
677	41178					8	19°58.0475	072°39.3549
678	41179					9	19°57.9951	072°39.4256
679	41181	GUNGWADA	SHIVRAM PANDU TANDEL	JAMANAPRASAD	IND-MH-2MM-4123	1	20°02.615	72°31.477
680	41182					2	20°02.592	72°31.525
681	41183					3	20°02.574	72°31.575
682	41184					4	20°02.562	72°31.619
683	41185					5	20°06.407	72°25.650
684	41186					6	20°06.347	72°25.802
685	41191	GUNGWADA	NAVEEN SURYAKANT TANDEL(VISHAL NANDAKUMAR AMBHIRE)	HEY ADHYASHAKTI	IND-MH-2MM-4439	1	19°55.138	72°35.896
686	41201	DHAKTI DAHANU	KRUSHNA NARAYAN DHANU	LAABHSAI	IND-MH-2-MM-5341	1	20°04.445	72°29.893
687	41202					2	20°04.462	72°24.835
688	41203					3	20°04.471	72°29.791
689	41204					4	20°04.491	72°29.749

690	41205					5	20°04.513	72°29.699
691	41206					6	20°04.539	72°29.650
692	41207					7	19°58.301	72°33.979
693	41208					8	19°58.296	72°33.956
694	41209					9	19°58.302	72°33.880
695	412010					10	19°58.325	72°33.854
696	412011					11	19°58.341	72°33.814
697	412012					12	19°58.355	72°33.754
698	412013					13	19°58.391	72°33.720
699	41211	DHAKTI DAHANU	KUNAL DINKAR PAGDHARE	VISHWASIDDHI	IND-MH-2-MM-2260	1	19°55.249	72°37.920
700	41212					2	19°56.829	72°36.644
701	41213					3	19°57.743	72°37.318
702	41221	DHAKTI DAHANU	SANTOSH SAANTARAM VINDHE	BHAGYA-SAI	IND-MH-2-MM-3143	1	19°58.041	72°34.174
703	41222					2	19°58.041	72°34.100
704	41223					3	19°58.041	72°34.200
705	41224					4	19°58.041	72°34.222
706	41225					5	20°04.354	72°30.056
707	41226					6	20°04.354	72°30.150
708	41227					7	20°04.354	72°30.100
709	41228					8	20°04.354	72°30.200
710	41229					9	20°04.354	72°30.400
711	412210					10	19°58.041	72°35.500
712	412211					11	19°58.041	72°34.350
713	41231	DHAKTI DAHANU	MAALTI PANDURANG TAAMORE	VAJRESHWARI	IND-MH-6-MM-100	1	19°56.902	72°35.914
714	41232					2	19°56.908	72°35.885
715	41233					3	19°56.937	72°35.840
716	41234					4	19°56.949	72°35.803
717	41235					5	19°59.410	72°32.318
718	41236					6	19°59.425	72°32.275
719	41237					7	19°59.438	72°32.173
720	41238					8	20°03.326	72°28.862
721	41239					9	20°03.357	72°28.839
722	412310					10	20°03.387	72°28.786
723	412311					11	20°03.374	72°28.749
724	41241	GUNGWADA	LATA DATTATRAY TANDEL	OMSAI	IND-MH-2MM-3968	1	19°59.152	72°31.810
725	41242					2	19°59.139	72°31.859
726	41243					3	19°59.121	72°31.191
727	41244					4	19°59.119	72°31.960
728	41245					5	19°59.109	72°31.011
729	41246					6	20°07.613	72°29.092
730	41247					7	20°07.634	72°29.042
731	41248					8	20°07.666	72°29.003
732	41249					9	20°07.701	72°29.907
733	412410					10	20°07.695	72°28.843
734	41251	GUNGWADA	RAJESH NAMDEO PAGHDHARE	VIGHNAHARTA	IND-MH-2MM-2521	1	20°54.220	72°35.270
735	41261	DHAKTI DAHANU	DINESH RAVINDRA MADHE	BHIMAVATI	IND-MH-2-MM-2284	1	20°04.512	72°32.660
736	41262					2	20°04.500	72°04.640
737	41263					3	20°04.480	72°04.620
738	41264					4	20°04.470	72°04.610
739	41265					5	20°04.037	72°30.520
740	41266					6	20°04.042	72°30.488
741	41267					7	20°04.058	72°30.442
742	41268					8	20°04.075	72°30.395
743	41271	DHAKTI DAHANU	VANITA BHARAT MADHE	SAI VANDANA	IND-MH-6-MM-310	1	20°03.827	72°31.215
744	41281	DHAKTI DAHANU	PRAKASH AATMARAM DAVNE	LAXMI PRASAD	IND-MH-6-MM-314	1	19°59.570	72°34.030
745	41282					2	19°59.567	72°34.055
746	41283					3	19°59.557	72°34.093
747	41284					4	19°59.513	72°34.147
748	41285					5	19°59.500	72°34.195
749	41286					6	19°59.996	72°34.653
750	41287					7	19°59.575	72°31.026
751	41288					8	19°59.801	72°31.247
752	41289					9	19°59.784	72°31.351
753	412810					10	19°59.778	72°31.483
754	412811					11	19°59.762	72°31.470
755	412812					12	19°59.870	72°31.439
756	41291	DHAKTI DAHANU	SUNIL BABAN AKRE	DEEP LAXMI	IND-MH-6-MM-460	1	20°03.240	72°32.221
757	41292					2	20°03.239	72°03.256
758	41293					3	20°03.220	72°32.292
759	41301	DHAKTI DAHANU	SUVARNA AJAY MADHE	RAJAN BOAT	IND-MH-2-MM-2266	1	20°02.277	72°24.891
760	41302					2	20°02.298	72°24.938
761	41303					3	20°02.255	72°24.989
762	41304					4	20°02.237	72°25.038
763	41305					5	20°02.224	72°25.088

764	41306					6	20°02.209	72°25.134
765	41307					7	20°02.194	72°25.155
766	41308					8	20°08.362	72°17.074
767	41309					9	20°08.388	72°17.131
768	413010					10	20°08.388	72°17.205
769	413011					11	20°08.361	72°17.250
770	413012					12	20°08.385	72°17.093
771	413013					13	20°08.396	72°17.114
772	413014					14	20°06.199	72°20.619
773	413015					15	20°06.199	72°20.574
774	413016					16	20°06.223	72°20.525
775	413017					17	20°06.237	72°20.481
776	413018					18	20°06.269	72°20.442
777	413019					19	20°06.302	72°20.405
778	413020					20	20°07.749	72°26.094
779	413021					21	20°07.754	72°26.155
780	413022					22	20°07.742	72°26.198
781	413023					23	20°07.722	72°26.244
782	413024					24	20°07.710	72°26.253
783	413025					25	20°07.653	72°26.330
784	41311	GUNGWADA	BHUNESHWAR DATTATRAY MARDE	PRIYADARSHINI	IND-MH-2MM-3110	1	20°05.590	72°26.262
785	41312					2	20°05.610	72°26.228
786	41313					3	20°05.625	72°26.180
787	41314					4	20°05.649	72°26.141
788	41315					5	20°05.660	72°26.098
789	41316					6	20°05.684	72°26.060
790	41317					7	19°57.333	72°29.962
791	41318					8	19°57.321	72°29.909
792	41319					9	19°57.228	72°29.861
793	413110					10	19°57.337	72°29.825
794	413111					11	19°57.383	72°29.786
795	41321	DHAKTI DAHANU	RUKHMANI AJAY MADHE	GANGATIRTH	IND-MH-6-MM-438	1	19°59.672	72°33.277
796	41322					2	19°56.404	72°35.621
797	41323					3	20°06.467	72°31.220
798	41331	DHAKTI DAHANU	SANTOSH DHANJI BAARI	CHANDRAKANTH	IND-MH-2-MM-955	1	19°58.969	72°31.710
799	41332					2	19°58.979	72°31.683
800	41333					3	19°58.996	72°31.635
801	41334					4	19°59.006	72°31.594
802	41335					5	19°59.010	72°31.549
803	41336					6	19°59.022	72°31.402
804	41337					7	19°59.030	72°31.354
805	41338					8	19°59.044	72°31.301
806	41339					9	19°58.612	72°29.277
807	413310					10	19°58.628	72°29.228
808	413311					11	19°58.639	72°29.190
809	413312					12	19°58.653	72°29.148
810	413313					13	19°58.665	72°29.110
811	413314					14	19°58.677	72°29.070
812	413315					15	19°58.685	72°29.045
813	413316					16	19°58.698	72°29.010
814	41341	DHAKTI DAHANU	NITESH RAMKRISHNA BAARI	JAI LAXMI	IND-MH-6-MM-735	1	49.59.470	72°27.526
815	41342					2	19°59.468	72°27.474
816	41343					3	19°59.520	72°27.198
817	41344					4	19°59.488	72°30.118
818	41345					5	19°59.534	72°29.955
819	41351	GUNGWADA	BHARAT PANDURANG TANDEL	BHAGWATI PRASAD	IND-MH-2MM-3967	1	20°01.089	72°30.527
820	41352					2	20°01.699	72°30.488
821	41361	DHAKTI DAHANU	MAHADEV BABU BAARI	KAMLADEVI	IND-MH-2-MM-2337	1	20°00.044	72°30.675
822	41362					2	20°00.074	72°30.623

Annexure IX
Fishing structure locations within Vadhavan Port limit

Sr. No.	Survey Code No.	Society	Owner name	Boat name	Boat regn. No.	Latitude	Longitude
1	4011	DHAKTI DAHANU	BHARTI DINKER PAGDHARE	LAXMI PRASAD	IND-MH-2-MM-2228	19°57.457	72°35.418
2	4012					19°58.600	72°35.015
3	4013					19°56.703	72°37.421
4	4031	GUNGWADA	RAJESH BHIMA VINDE	MAHALAXMI MAULI	IND-MH-2MM-2241	19°56.876	72°31.880
5	4032					19°56.718	72°31.555
6	4041	DHAKTI DAHANU	PANDURANG BARKU BHANMEHER	VAIBHAV LAXMI	IND-MH-2-MM-2174	19°58.263	72°34.992
7	4042					19°58.265	72°34.900
8	4043					19°58.268	72°34.860
9	4044					19°58.268	72°34.840
10	4045					19°58.270	72°34.800
11	4061	DHAKTI DAHANU	TAKSEN NARESH VINDHE	BHAGYA-PRABHA	IND-MH-6-MM-322	19°55.600	72°33.500
12	4091	DHAKTI DAHANU	SANGITA MOHAN MARDE	DATTALAXMI	IND-MH-6-MM-197	19°58.231	72°34.520
13	40101	DHAKTI DAHANU	SANJAY THAKSEN DHANU	JIVDANIMATA	IND-MH-6-MM-29	19°58.230	72°34.726
14	40102					19°58.217	72°34.771
15	40103					19°58.207	72°34.808
16	40104					19°58.200	72°34.853
17	40143	DAHANU	KAILAS DAMODAR PAGDHARE		IND MH 2 MM 3209	19°58.0373	72°39.3690
18	40144					19°58.0767	72°39.3158
19	40161	DHAKTI DAHANU	MANOHAR ATMARAM PAGDHARE	CHAYAKRIPA	IND-MH-2-MM-2272	19°56.358	72°35.101
20	40162					19°56.309	72°35.505
21	40163					19°56.403	72°35.310
22	40171	DHAKTI DAHANU	HARESH VASUDEV PADGHARE	GAJANAN PRASAD	IND-MH-2-MM-4961	19°59.285	72°34.095
23	40181	DHAKTI DAHANU	NALINI SOMNATH PADGHARE	CHANDANI NAUKA	IND-MH-2-MM-2255	19°54.308	72°36.116
24	40182					19°56.870	72°35.133
25	40191	GUNGWADA	NARAYAN RAGHUNATH DAWANE	RAMPRASAD	IND-MH-2MM-3974	19°57.665	72°35.799
26	40192					19°56.213	72°33.295
27	40193					19°56.257	72°33.032
28	40201	GUNGWADA	GANESH HARISHCHANDRA MARDE	VISHWAMITRA	IND-MH-2MM-2261	19°55.105	72°32.100
29	40202					19°55.205	72°32.000
30	40211	DHAKTI DAHANU	SANTOSH MOTIRAM ARKE	BHAKTI SAGAR	IND-MH-2-MM-2189	19°57.401	72°34.158
31	40212					19°57.412	72°34.126
32	40213					19°57.410	72°34.084
33	40214					19°57.446	72°33.803
34	40215					19°57.452	72°33.717
35	40251	DHAKTI DAHANU	SUBHADRA BARBUVAHN TAMORE	DHANPRASAD	IND-MH-2-MM-2143	19°57.974	72°36.308
36	40291	GUNGWADA	BHUPESH DATTATRAY MARDE	TULJABHAWANI	IND-MH-2MM-2847	19°56.160	72°33.140
37	40292					19°56.081	72°33.628
38	40301	GUNGWADA	GANESH SADASHIV TANDEL	LAXMI PRASAD	IND-MH-2MM-2291	19°57.270	72°34.207
39	40302					19°57.188	72°34.547
40	40321	DHAKTI DAHANU	RAJESH VASUDEV BARI	MOHINI PRASAD	IND-MH-2-MM-3971	19°57.390	72°30.893
41	40322					19°57.384	72°30.912
42	40323					19°57.379	72°30.964
43	40331	DHAKTI DAHANU	NARESH ATMARAM TANDEL	JAYSAI	IND-MH-2-MM-2258	19°58.470	72°33.655
44	40332					19°58.433	72°33.602
45	40333					19°58.447	72°33.565
46	40334					19°58.454	72°33.518
47	40335					19°58.453	72°33.467
48	40336					19°58.462	72°33.428
49	40341	GUNGWADA	CHETAN MOHAN AMBRE	KAMALA PRASAD	IND-MH-2MM	19°55.180	72°32.295
50	40342					19°55.101	72°32.404
51	40361	GUNGWADA	ANIL MAHADEV VINDE	DHANESHWARI	IND-MH-2MM-2274	19°55.210	72°31.900
52	40362					19°55.310	72°31.878
53	40383	GUNGWADA	KAILASH DASHARATH NAIK	HIMALAYA	IND-MH-2MM	19°56.643	72°31.123
54	40384					19°56.600	72°31.286

55	40401	DHAKTI DAHANU	BHUPESH CHANDRAKANT DAWNE	BAJRANGBALI	IND-MH-2-MM-2242	19°56.592	72°36.065
56	40402					19°56.600	72°36.245
57	40403					19°56.595	72°36.268
58	40404					19°56.599	72°36.293
59	40405					19°56.607	72°36.329
60	40407					19°56.570	72°36.350
61	40412	DHAKTI DAHANU	JITESH MANIRAM DHANMEHER	JAGLAXMI	IND-MH-2-MM-3937	19°58.033	72°35.196
62	40413					19°58.205	72°36.291
63	40414					19°58.226	072°39.107
64	40421	GUNGWADA	DHANANJAY CHANDRAKANT TAMORE	RUCHIRA	IND-MH-2MM-0556	19°56.631	72°33.199
65	40422					19°56.652	72°31.068
66	40431	DHAKTI DAHANU	JAYKISAN HARESHWAR TAMORE	DHANLAXMI	IND-MH-6-MM-92	19°58.299	72°35.228
67	40432					19°58.285	72°35.146
68	40433					19°56.917	72°38.151
69	40434					19°56.650	72°35.194
70	40435					19°56.884	72°35.209
71	40452	GUNGWADA	PRAKASH HARISHCHANDRA BARI	CHAITANYASAI	IND-MH-2MM-5740	19°55.306	72°32.291
72	40471	DHAKTI DAHANU	RUPESH YASHWANT MARDE	JAYLAXMI	IND-MH-6-MM-231	19°56.363	72°35.018
73	40472					19°56.362	72°35.013
74	40473					19°56.362	72°35.009
75	40474					19°56.365	72°35.004
76	40475					19°56.366	72°35.000
77	40481	DHAKTI DAHANU	SHANTARAM KRISHNA TAMORE	JAYSAI	IND-MH-2-MM-2334	19°58.0516	72°34.9819
78	40491	DHAKTI DAHANU	BHUNESHWAR DATTATROY TAMORE	VIRANGANA	IND-MH-2-MM-278	19°58.920	72°34.200
79	40492					20°02.500	72°33.200
80	40501	DHAKTI DAHANU	MANDA NARESH TAMORE	KAUSHALYAPRASAD	IND-MH-2-MM-3895	19°57.510	72°32.994
81	40502					19°58.342	72°33.610
82	40503					19°57.524	72°32.944
83	40504					19°57.562	72°32.932
84	40531	DAHANU	SANDEEP BALCHANDRA MARDE		IND MH 2 MM 3572	19°57.9706	72°39.4617
85	40532					19°58.0095	72°39.4067
86	40533					19°58.0135	72°39.4021
87	40534					19°58.0860	72°39.3043
88	40535					19°58.0918	72°39.2950
89	40551	DHAKTI DAHANU	PRAKASH EKNATH PAGDHARE	SHIKHORI	IND-MH-6-MM-8	19°57.492	72°33.360
90	40552					19°57.497	72°33.320
91	40553					19°57.501	72°33.279
92	40554					19°57.506	72°33.236
93	40555					19°57.512	72°33.195
94	40601	GUNGWADA	AJAY HARISHCHANDRA MARDE	SAISAGAR	IND-MH-2MM-2141	19°56.648	72°30.137
95	40602					19°56.724	72°30.917
96	40612	DAHANU	JITENDRA PANDURANG MEHER		IND MH 2 MM 2259	19°58.719	072°35.775
97	40613					19°58.727	072°35.735
98	40614					19°58.751	072°35.701
99	40615					19°58.761	072°35.672
100	40616					19°58.786	072°35.650
101	40617					19°58.775	072°35.610
102	40641	DHAKTI DAHANU	MANIRAM DAYARAM BARI	KANYAKUMARINAUKA	IND-MH-2-MM-3984	19°58.346	72°30.695
103	40642					19°58.352	72°30.653
104	40643					19°58.366	72°30.617
105	40644					19°58.372	72°30.576
106	40645					19°58.387	72°30.533
107	40646					19°58.409	72°30.491
108	40647					19°58.417	72°30.450
109	40648					19°58.434	72°30.412
110	40661	GUNGWADA	CHANDRAKANT KAMALAKAR ARKE	NANDINI SAI	IND-MH-2MM-0032	19°57.844	72°30.200
111	40662					19°58.864	72°32.674
112	40671	GUNGWADA	MINAKSHI KASHINATH PAGHDHARE	MAHALAXMI	IND-MH-2MM-2244	19°55.738	72°30.444
113	40672					19°55.732	72°30.493
114	40673					19°55.709	72°30.524

115	40693	GUNGWADA	UKSEN NARENDRA VINDE	BHAGYAPRABHA	IND-MH-2MM	19°55.520	72°33.500
116	40694					19°55.410	72°33.400
117	40703	DAHANU	BHAVESH MANIRAM TAMORE		IND MH 2 MM 1018	19°58.0301	072°39.3779
118	40704					19°58.0341	072°39.3737
119	40721	DHAKTI DAHANU	PARSHURAM RAVIYA BARI	HIMGAURI	IND-MH-2-MM-959	19°58.733	72°30.781
120	40722					19°58.722	72°30.771
121	40723					19°58.718	72°30.812
122	40724					19°58.694	72°30.850
123	40725					19°58.699	72°30.881
124	40726					19°58.690	72°30.928
125	40727					19°58.616	72°31.121
126	40741	GUNGWADA	HARESHWAR GAJANAN TAMORE	VAIBHAVLAXMI	IND-MH-2MM-2268	19°57.714	72°30.195
127	40742					19°57.775	72°30.763
128	40792	GUNGWADA	KISHOR LAXMAN MARDE	AMBIKAPRASAD	IND-MH-2MM-2263	19°58.477	72°34.595
129	40821	DHAKTI DAHANU	ABHIMANYU VITTHAL BARI	DARYA DAULAT	IND-MH-2-MM-2200	19°59.154	72°30.480
130	40841	GUNGWADA	MANIRAM VITHOBA TAMORE	LAXMI PRASAD	IND-MH-2MM-2213	19°57.453	72°36.221
131	40851	GUNGWADA	CHANDRAKANT ROHIDAS MARDE	PARVATI	IND-MH-2MM-2294	19°58.833	72°33.509
132	40861	GUNGWADA	MANOHAR BHALCHANDRA TAMORE	PARVATIPRASAD	IND-MH-2MM-2339	19°58.682	72°32.770
133	408714	DAHANU	YASHVANT NARHARI AKRE		IND MH 2 MM 2665	19°57.9991	072°39.4198
134	408715					19°58.0521	072°39.3503
135	408716					19°58.0556	072°39.3449
136	408717					19°58.0268	072°39.3836
137	40891	DHAKTI DAHANU	VIJAY CHANDRAKANT MARDE	CHANDRASAGAR	IND-MH-2-MM-2519	19°58.793	72°32.635
138	40892					19°58.788	72°32.642
139	40893					19°58.795	72°32.603
140	40894					19°58.771	72°32.555
141	40895					19°58.802	72°32.513
142	40896					19°58.799	72°32.492
143	40897					19°56.525	72°35.175
144	40898					19°56.520	72°35.155
145	40899					19°56.515	72°35.100
146	408910					19°56.500	72°35.085
147	408911					19°56.495	72°35.060
148	408912					19°56.490	72°36.039
149	40901	GUNGWADA	VATSALA YASHWANT MARDE	SAGARSARITA	IND-MH-2MM-2139	19°56.572	72°32.054
150	40903					19°57.500	72°36.329
151	40921	DHAKTI DAHANU	KISHOR RAGHUNAATH TAAMORE	DATTAPRASAD	IND-MH-2-MM-2298	19°58.521	72°33.356
152	40922					19°58.525	72°33.324
153	40923					19°58.510	72°33.280
154	40924					19°58.520	72°33.241
155	40925					19°58.525	72°33.201
156	40931	DHAKTI DAHANU	BHARAT MANIRAM VINDRE	TIRTHRUP	IND-MH-2-MM-1632	19°59.479	72°32.463
157	40932					19°59.468	72°32.498
158	40933					19°59.457	72°32.542
159	40934					19°59.451	72°32.589
160	40935					19°59.446	72°32.637
161	40936					19°59.423	72°32.674
162	40937					19°59.405	72°32.715
163	40941	GUNGWADA	PRAVIN YASHWANT MARDE	HIMSAI	IND-MH-2MM-2667	19°56.600	72°32.050
164	40943					19°57.400	72°36.300
165	40951	DHAKTI DAHANU	GAJANAN SUKHDEV TAMORE	DHANVRUDHI	IND-MH-2-MM-2232	19°58.884	72°32.092
166	40952					19°58.889	72°31.760
167	40953					19°58.872	72°31.805
168	40954					19°58.524	72°32.781
169	40955					19°58.456	72°32.998
170	40956					19°58.478	72°32.944
171	40957					19°58.486	72°32.398
172	40958					19°58.507	72°32.805
173	40961	GUNGWADA	ANAND ASHOK AMBHIRE	PAWANSAI	IND-MH-2MM-3174	19°56.430	72°32.950
174	40962					19°56.500	72°33.201

175	40973	DAHANU	KAILAS RAGHUNATH DAVNE		IND MH 2 MM 243	19°58.0804	072°39.3111
176	40974					19°57.9676	072°39.4690
177	40981	DAHANU	HARESHWAR RAMCHANDRA AKRE		IND MH 2 MM 2618	19°58.286	072°39.583
178	40982					19°58.374	072°39.547
179	40983					19°58.389	072°39.527
180	40984					19°58.407	072°39.514
181	40985					19°58.421	072°39.507
182	41001	DHAKTI DAHANU	JAGDISH ATMARAM DAVNE	KOYNA	IND-MH-2-MM-2364	19°59.411	72°33.178
183	41002					19°59.429	72°33.208
184	41003					19°59.282	72°33.413
185	41004					19°59.294	72°33.503
186	41005					19°59.296	72°33.409
187	41051	DHAKTI DAHANU	MADHUKAR PANDHARINATH TAMORE	RAJLAXMI	IND-MH-2-MM-1651	19°58.249	72°35.442
188	41052					19°58.272	72°35.380
189	41053					19°58.263	72°35.349
190	41054					19°58.316	72°35.276
191	41055					19°58.242	72°35.297
192	41111	DHAKTI DAHANU	VIJAY CHANDRASEN TAMORE	DEVKI NANDAN	IND-MH-2-MM-2270	19°58.828	72°32.293
193	41112					19°58.831	72°32.251
194	41113					19°58.835	72°32.206
195	41114					19°58.838	72°32.162
196	41115					19°58.843	72°32.119
197	41116					19°58.847	72°32.074
198	41117					19°55.625	72°35.200
199	41118					19°55.630	72°35.155
200	41119					19°55.634	72°35.111
201	411110					19°55.638	72°35.067
202	411111					19°55.664	72°35.022
203	41141	DHAKTI DAHANU	NITIN PANDURANG BARI	JAY DASHA MAA	IND-MH-2-MM-2340	19°59.388	72°30.417
204	41142					19°59.407	72°30.392
205	41143					19°59.372	72°30.337
206	41144					19°59.381	72°30.283
207	41145					19°59.399	72°30.244
208	41146					19°59.413	72°30.208
209	41147					19°59.426	72°30.160
210	41148					19°59.435	72°30.119
211	41149					19°59.449	72°30.075
212	41161	DHAKTI DAHANU	KESARI MOTIRAM ARKE	MAHASAGAR	IND-MH-2-MM-2361	19°56.220	72°35.693
213	41162					19°56.140	72°35.960
214	41163					19°56.170	72°35.335
215	41164					19°56.298	72°35.514
216	41165					19°56.395	72°35.203
217	41171	DAHANU	DINESH TUKARAM MARDE		IND MH 2 MM 1020	19°57.9870	072°39.4355
218	41172					19°57.9911	072°39.4294
219	41173					19°57.9563	072°39.5041
220	41174					19°57.9594	072°39.4915
221	41175					19°57.9795	072°39.4470
222	41176					19°57.9836	072°39.4402
223	41177					19°58.0404	072°39.3648
224	41178					19°58.0475	072°39.3549
225	41179					19°57.9951	072°39.4256
226	41191	GUNGWADA	NAVEEN SURYAKANT TANDEL(VISHAL NANDAKUMAR AMBHIRE)	HEY ADHYASHAKTI	IND-MH-2MM-4439	19°55.138	72°35.896
227	41207	DHAKTI DAHANU	KRUSHNA NARAYAN DHANU	LAABHSAI	IND-MH-2-MM-5341	19°58.301	72°33.979
228	41208					19°58.296	72°33.956
229	41209					19°58.302	72°33.880
230	412010					19°58.325	72°33.854
231	412011					19°58.341	72°33.814
232	412012					19°58.355	72°33.754
233	412013					19°58.391	72°33.720
234	41211	DHAKTI DAHANU	KUNAL DINKAR PAGDHARE	VISHWASIDDHI	IND-MH-2-MM-2260	19°55.249	72°37.920
235	41212					19°56.829	72°36.644

236	41213					19°57.743	72°37.318
237	41221	DHAKTI DAHANU	SANTOSH SAANTARAM VINDHE	BHAGYA-SAI	IND-MH-2-MM-3143	19°58.041	72°34.174
238	41222					19°58.041	72°34.100
239	41223					19°58.041	72°34.200
240	41224					19°58.041	72°34.222
241	412210	DHAKTI DAHANU	SANTOSH SAANTARAM VINDHE	BHAGYA-SAI	IND-MH-2-MM-3143	19°58.041	72°35.500
242	412211					19°58.041	72°34.350
243	41231	DHAKTI DAHANU	MAALTI PANDURANG TAAMORE	VAJRESHWARI	IND-MH-6-MM-100	19°56.902	72°35.914
244	41232					19°56.908	72°35.885
245	41233					19°56.937	72°35.840
246	41234					19°56.949	72°35.803
247	41235					19°59.410	72°32.318
248	41236					19°59.425	72°32.275
249	41237					19°59.438	72°32.173
250	41241	GUNGWADA	LATA DATTATRAY TANDEL	OMSAI	IND-MH-2MM-3968	19°59.152	72°31.810
251	41242					19°59.139	72°31.859
252	41243					19°59.121	72°31.191
253	41244					19°59.119	72°31.960
254	41245					19°59.109	72°31.011
255	41287	DHAKTI DAHANU	PRAKASH AATMARAM DAVNE	LAXMI PRASAD	IND-MH-6-MM-314	19°59.575	72°31.026
256	41322	DHAKTI DAHANU	RUKHMANI AJAY MADHE	GANGATIRTH	IND-MH-6-MM-438	19°56.404	72°35.621
257	41331	DHAKTI DAHANU	SANTOSH DHANJI BAARI	CHANDRAKANTH	IND-MH-2-MM-955	19°58.969	72°31.710
258	41332					19°58.979	72°31.683
259	41333					19°58.996	72°31.635
260	41334					19°59.006	72°31.594
261	41335					19°59.010	72°31.549
262	41336					19°59.022	72°31.402
263	41337					19°59.030	72°31.354
264	41338					19°59.044	72°31.301
265	41344	DHAKTI DAHANU	NITESH RAMKRISHNA BAARI	JAI LAXMI	IND-MH-6-MM-735	19°59.488	72°30.118