Evaluation of Distribution of tax exempted diesel and kerosene to fishing boats in Karnataka

External Evaluation



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Karnataka Evaluation Authority

STUDY CONDUCTED FOR

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AND

Department of Fisheries, Government of Karnataka

BY

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FINAL EVALUATION REPORT

"Evaluation of Distribution of tax exempted diesel and kerosene to fishing boats in Karnataka"

HKCAL, Gulbarga

Under auspices of

Fisheries Department of the Government of Karnataka and

Karnataka Evaluation Authority (KEA)

PREFACE

Prior to 1960, marine fishing was carried out with traditional methods, nearer to shore. The Government decided to encourage mechanization of fishing vessels with liberal subsidy in mid –sixties. This resulted in increase in number of trawlers and purse-seiners started operating in the coastal waters. This first resulted in increased catch, but later in over exploitation the catch per boat started declining. Also, increase in cost of diesel used by mechanized fishing boats, resulted in less income realization per unit effort. The department stopped encouragement for further mechanization of fishing vessels.

In order to improve the income realization by mechanized fishing vessels and with a view to encourage fishermen to go to deeper waters for fishing, the State Government introduced a scheme of providing subsidy on diesel purchased by exempting the state sales tax ehich was about Rs. 052 per litre in 1985-86. Now, the subsidy due to exemption of sales tax is close to Rs. 7 per litre and capped on eligible maximum subsidy per mechanized boat, subsequently, on the demand from fisher folk, the Government decided to do away with back end subsidy and instead provided "at source sales tax exemption" for the diesel being purchased for mechanized fishing boats. In order to cater these needs, the Government facilitated establishment of department approved diesel outlets (Bunks) in fishing harbours and fish landing centres. These bunks are supplied sales tax exempted diesel from oil companies, based on the permission letter issued by the fisheries department.

The Karnataka Evaluation Authority (KEA) has taken up Evaluation of "Distribution of tax exempted diesel and kerosene to fishing boats in Karnataka" implemented by Fisheries Department". The KEA assigned this evaluation study to M/s Hyderabad Karnataka Centre for Advanced Learning, Gulbarga. The

Evaluation Study by Evaluation Consultant Organization is approved by 34th Technical Committee meeting.

I am sure that evaluation study and its findings and recommendations will be useful to the Fisheries department to continue the scheme with necessary modifications.

The study received constant support and guidance of the Principal Secretary and the Secretary planning, programme Monitoring and Statistics, Government of Karnataka. The Evaluation study was actively supported by the Director, Fisheries Department of Government of Karnataka providing useful data and information for this evaluation study. The evaluation report has been reviewed by members of the Technical Committee of KEA, and an Independent Assessor, who provided suggestions and inputs to improve it from its draft form. I duly acknowledge the contribution of all who were involved in the study and contributed directly or indirectly.

20th June, 2017
Bangalore

ShivRaj Singh
Chief Evaluation Officer
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Acknowledgement

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Deputy Directors of Fisheries Department of Dakshina Kannada, Uttara Kannada and Udupi Districts.

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Director

HKCAL, Kalaburagi

List of Abbreviations

AGDP : Additional Director General of Police

BASF : Fertilizers Baden Aniline and Soda Factory,

BPC : Bharat Petroleum Company

CMC : City Municipal Council
CMFRI : Central Marine Fisheries Research Institute

D. K : Dakshina Kannada
DCFMF : District Co-operation Fish Marketing Federation
EEZ Exclusive economic zone

FACSD : Food and Civil Supplies Department
FAO : Food and Agricultural Organisation
GOI : Government of India
GOK : Government of Karnataka

GPS : global positioning system
GSDP: Gross State Domestic Product
HP : Hindustan Petroleum
IBE : inboard engines
IOC : Indian Oil Corporation
KFDC : Karnataka Fisheries Development Corporation,
MCF: Mangalore Chemicals and
MRPL : The Mangalore Refinery and Petrochemicals Limited

NA: Not Available

NABARD: National Bank for Agriculture and Rural Development
NDP :Net Domestic Product
NSSO : National Sample Survey Organization
OAL : Over-All-Length
OBE : outboard engines
PDS : Public Distribution System
PFCS : Primary Fisheries Co-operative Societies
SEZs: Special Economic Zones
TMC, Town Municipal Council
TP: Taluk Panchayath

U. K.: uttara Kannada

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EXECUTIVE SUMMARY

Karnataka, India's eighth largest state covers an area of 1, 91,791 square km and accounts for 5.83 per cent of the total geographical area of the country (measured at 3,288,000 km^2). Coastal ecosystem of Karnataka is a mosaic of monsoon wetlands, beaches and mountains, some as high as 2000 meters, stretched along its 300 km long shoreline. More than 75 per cent of the commercial fish catch is dependent on estuaries for part of their life cycle (Bhatta & Bhat 1998). Sand bars have been developed in most of the estuaries. Karnataka has a monsoon tropical climate with bulk of rainfall being received during southwest monsoon period. All these natural phenomena create conducive conditions that attract fish and other marine organisms to inshore waters. A shallow continental shelf, wet lands and mangroves provide rich breeding and feeding grounds for fish and other marine species (Nandakumar & Nayak 2010). Coastal Karnataka has 191 marine fishing villages spread over the three districts which make it one fishing village, each covering about 1.6 km of the coastal line on an average. In addition to marine fisheries, coastal Karnataka also has a large potential for brackish water fisheries. Marine fish production from Karnataka coast has shown considerable variation over the years. Fisheries are a sunrise sector of this state. It emerged as an important commercial activity during 80s from subsistence, supplementary status. The economic importance of the fisheries sector to the economy may be identified under three main areas: (1) as a source of animal protein for human consumption (2) as a source of income and employment, and (3) as a source of foreign exchange earnings (Bhatta, Sagarad & Rao 2000). Till late 1950s fishing operations were largely of traditional, non-mechanised, small scale and subsistence nature. Gears such as *rampani*[1] *(giant shore-seine), kai-rampani*[2]*(mini shore-seine) bisana* (throwing conical nets), *and patte-bale*[3] *(encircling gillnet),* were prominently used in harvesting only pelagic species. Fisheries gained momentum with the onset of post-independence economic planning in India (Kurien 1991). The planned marine fisheries development had multifaceted objectives such as, increasing the fish harvest, improving the socio-economic conditions of fisher folk, increasing export earnings and generating new employment opportunities. These objectives were achieved through the State initiated mechanisation by introducing two shrimp trawlers (12 ft length with Yanmar engine) in 1957-1958. At present two types of trawlers are operating in Karnataka coast *i.e.,* single day trawlers with a size of 30-32 feet over-all-length (OAL) and multiday trawl boats with OAL > 32 feet. Single day trawlers operate in inshore waters and their main catch composition consists of soles, penaeid prawns and croakers. Whereas, multiday trawlers operates in deep sea waters up to 300 m depth and their main catch consists of ribbonfish, cuttlefish, squids, pink perch, cephalopods, carangids, lizard fish etc. The landmark in the development of Karnataka marine fisheries is the introduction of purse-seines in 1975-76. Karnataka was the first state in the country to introduce purse-seiners. This increased the fishing capacity to the capture-

fisheries sector and resulted in over exploitation of marine resources. The number of purse-seiners increased from 2 in 1975-76 to 232 in 2012-2013. By 2012-'13, there were about 2825 mechanized boats (232 purse seiners, 2593 trawlers (including gillnetters), 6335 motorized boats and 6923 traditional boats operating in the State. The OAL of purse-seiners increased from 43 feet to 60 feet. This resulted in 'Blue-Revolution' off the Karnataka coast by increasing the annual average catch from 85,000 tones prior to 1976 to about 160,000 after 1976 (Jayaraj 1983). The fish production during 2012-13 was 3.57 lakh metric tons and 0.96 lakh metric tons of marine products worth Rs.854.00 crore were exported from the State. The marine Fish production has increased from 0.53 million tonnes in 1950-51 to 3.78 million tons in 2013 -14. And subsequently by year 2014-15 and 2015-16 the state marine fish production has increased to 3.89 million tons and 4.11 million tons respectively.

In order to improve the income realization by mechanized fishing vessels and with a view to encourage fishermen to go to deeper waters for fishing, the Government felt the need to subsidize the diesel being used by these fishing vessels. Hence, in 1985-86 the State Government introduced a scheme of providing subsidy on diesel purchased for the fishing purpose by exempting the State sales tax which was about Rs.0.52 per liter at that time. Subsequently, on the demand from the fisher folk, the Government decided to do away with back end subsidy and instead provided *"at source sales tax exemption''* for the diesel being purchased for mechanized fishing boats.

In order to cater to these needs, the Government of Karnataka facilitated the establishment of government approved diesel outlets (bunks) in fishing harbours and fish landing centers. These bunks are supplied with sales tax exempted diesel from Oil Companies based on the permission letter issued by the fisheries department. At present the sales tax exemption on the diesel comes to around Rs.8 per litre. The scheme of subsidized diesel and kerosene for the fishing boats started in the year 1985-86 to improve the economic realization by mechanised / motorised fishing vessels and with a view to encourage fishermen to go to deeper waters for fishing. Presently the subsidy on the liter of diesel is around Rs.8/- per liter with a maximum quantity of 90,000 liters per annum and kerosene subsidy is Rs.40/- per liter with a maximum quantity of 2250 liters.

The finance department annually releases certain quantity of State sales tax exempted diesel under Section 5 of Karnataka Sales Tax Act 1957. To this effect every year, a Government order is issued by the finance Department. Presently 30 approved Diesel Bunks are located in fishing harbours and fish landing centres. These bunks are procuring diesel from Indian Oil Corporation (IOC), Bharat Petroleum Company (BPC) and Hindustan Petroleum (HP) oil companies and supplying the same to mechanised fishing vessels as per guidelines issued by the department of Fisheries. As per Karnataka

Marine Fisheries Act 1986, the benefit of tax exemption is given to boats having fishing license and identity cards. The diesel is procured from any of the department approved bunks. Sales tax free diesel can be procured by Karnataka Fisheries Development Corporation, District Co-operation Fish Marketing Federation and Primary Fisheries Co-operative Societies from the 30 department approved bunks only. The diesel is distributed to boats as per maximum limit fixed based on the engine capacity (HP) of the boats.

Similarly subsidized kerosene is provided for fitting motorized engines, the engine capacity varying between 9.8 to 20 HP. There are 4514 motorized boats of which 990 are there in Uttara Kannada 2610 in Dakshina Kannada and 914 in Udupi districts. The kerosene is given to these boats at the rate of Rs. 16.50 per ltd. This is distributed through 25 fair price shops and other institutions. The number of motorised boats operating in the district is identified by conducting a joint inspection by officers of the Department of Fisheries and Food and Civil Supplies Department. After this, each motorised boat is provided with a permit for procuring subsidized kerosene through PDS.

A detailed evaluation of the this tax exempted diesel and kerosene to fishing boats in Karnataka scheme was needed to assess the need and utility of the scheme, the process of its implementation, the organizational and administrative problems and loopholes if any, the economics and operational efficiency of mechanised boats after the implementation, whether the Scheme has impacted on employment and earningsand levels of the fisher folk, need of continuance of the Scheme and modifications recommended and the overall impact of the Scheme on the marine fish production and fish population of Karnataka.

The evaluation study was conducted in three districts of Udupi, Uttara Kannada and Dakshina Kannada. Data was gathered from at least 10% of the boat owners (in mechanized this should be boat power wise) in each of the three districts under the Scheme through structured questionnaire schedules. In addition discussions and personal interviews of Scheme benefitted boat owners, boat owners not covered under the Scheme, discreet personal interviews of departmental staff, retired employees and knowledgeable Scientists of Central Marine Fisheries Research Institute and/ or the Fisheries College in Cochin (one office is in Karwar) and Mangalore respectively were carried out. Inputs were also taken from Academicians of the department of Marine Biology, Karnatak University, based in Karwar. The team in all total interviewed 325 beneficiaries of mechanised fishing boats, 600 beneficiaries of motorized fishing boats and 100 people from the non-fishermen, fish merchants, fish labourers and retired government officials and academicians from the different fisheries institutions. Primary and secondary data obtained from all the 3 districts by above mentioned data collection

strategies were analysed and results were categorized as per requirements expected from the objectives of the evaluation.

It was observed that the >130 HP boats spends 3.5 times more expenditure and average catch per effort (trip) on diesel compared to <70HP boats. Thus diesel consumption is distributed towards higher fishing capacity boats. The average return per effort is also highest for higher capacity boats due to higher fishing intensity. It was also observed in Udupi harbour that it has reported maximum number of boats involved in harvesting 'others' which are procured by the fish meal/oil plants which could have formed rich fish biodiversity and is feed for other commercial fisheries. 61 fishing boats in Malpe and Mangalore have reported that they mostly harvest others indicating the vulnerability of the destruction of marine biodiversity here where maximum number of high speed boats operates. It was reported that the HP which determines speed and fishing intensity has increased enormously during the recent years. The annual quantity of diesel drawn was 6376 liters per unit which was highest in Malpe with 7860 liters per unit. The results indicate that the fishing boats on an average enjoy an average fuel subsidy of Rs 51,000. The overall fuel subsidy per fishing season would be around Rs. 432,432 per season/boat with an average of 244 fishing days fuel subsidy per fishing day would be around 1772 per boat.

The study reported that most of the beneficiaries who responded were aware of subsidized fuel supply being used in their fishing vessels. Renewal of fishing license was known to most of the fishers. Further, majority of the fishers have accepted that the direct benefit transfer of subsidy amount to bank account is a good modification to the scheme. Overall, fishers' assessment of the quantity supplied was positive and there were very few of complaints. Distribution of subsidized fuel to unregistered boats and/or non-fishing purposes was not reported by sampled fishers. It is interesting to note that most fishers agreed that subsidy has led to increase in income but not necessarily catch. Obviously, everybody agrees with the need for continuation of the subsidy scheme. All of them reported that fuel subsidy has led to increase in income, employment and also to some extent catch and hence it should be continued beyond 20 years.

Similarly it was observed that the average quantity of subsidized kerosene drawn varies between 234-263 liters/month. The total consumption of kerosene for one season per boat varies between 2094-2340 liters which is equal to Rs.90, 000 /subsidy/season/boat. Interestingly the consumption of kerosene per trip decreases from 83 to 54 liters/trip as HP increases from 10 to 20. The storage capacity of boats decreases from 125 liters for <=10 HP boats to 88 liters for >=20 HP engines. Similarly the average catch per effort also decreases from 52kgs to 43 kg as the HP increases. Similarly the average gross return decreases substantially when the HP increases from <=10 to >=20 HP. No beneficiary reported selling of any surplus kerosene to other users. Most of them wanted the existing scheme to

continue in the same form with some minor modifications. The diversion of subsidized kerosene for non-fishing purpose was not reported by any beneficiary. 8% of them observed that they are aware of subsidy component in buying the kerosene. All beneficiaries unanimously expressed that the present subsidy limit is not enough. Further, they agree that the direct benefit transfer of subsidy amount is good and should be continued. Unlike in the case of diesel a substantial part of kerosene was supplied manually. Almost everybody agrees that the supply of subsidized kerosene has helped in increasing fish production.

It was observed that the gross subsidy was 7.65 lakhs for >130HP boats whereas it was only 2.30 lakhs for smaller boats. Thus, the subsidy component is higher for richer fishing units. Around 60% of total subsidy is diverted to the >130HP boats which consume more diesel due to higher fishing capacity. These boats are also highly capital intensive with an average invest of Rs. 90.00 lakhs on capital and Rs. 1.70 crore on operational expense per year. It is suggested that the present method of providing subsidy is counterproductive and regressive. Since it encourages excessive fishing capacity and involves destructive fishing practices. Hence, based on our field observations it is suggested that the rate of subsidy for every liter of fuel consumed by higher capacity engines could be reduced to maintain equity in the distribution and gradually the subsidy could be minimized.

In regards to the process of implementation of the scheme, it was observed that there is due compliance to the process of distribution of subsidized diesel and kerosene at all levels. In some of the diesel bunks automation Instrument is provided by the Oil Companies to monitor the supply of diesel, quantity of diesel in the storage tank and the distribution of diesel to the fishing boats. This instrument is computer based and all the above mentioned parameters can be observed in finger tip. Further, these informations can be observed at their respective divisional or sub-divisional offices. It was observed by the team that this instrument is very useful to get the information on the diesel accurately.

The major recommendations based on various observations and interviews with the beneficiaries would be that the subsidy on diesel to mechanized fishing boats is justifiable and need to be continued with more of supervision. Also in some of the diesel bunks automation Instrument is provided by the Oil Companies to monitor the supply of diesel, quantity of diesel in the storage tank and the distribution of diesel to the fishing boats. This instrument is computer based and all the above mentioned parameters can be observed in finger tip. Further, these informations can be observed at their respective divisional or sub-divisional offices. It is observed by the team that this instrument is very useful to get the information on the diesel accurately. The department may insist all the diesel outlets to install this instrument compulsorily. All the assistant directors of fisheries (grade-1) / grade-2) who are working in the coastal areas are entrusted with the supervision of the scheme and to

observe any loopholes in the implementation of the scheme by inspecting the concerned diesel bunks. It is observed that the assistant directors of fisheries are not getting sufficient time for the supervision as they have to implement other regular schemes of the department. It is therefore suggested to give additional hands or to fill up all the vacant posts of the assistant directors of fisheries in the coastal area so as to strengthen the supervision of this scheme. At present all the Fishing boats owned by family members are eligible for subsidized diesel. In the existing modalities of the scheme, there is no mention of one family-one subsidy. Government may think of introducing one family-one subsidy in the years to come.

With regards to the subsidized kerosene scheme the kerosene is distributed to the authorized outlets in the middle of the month and they have to distribute the same to the beneficiaries within 7-10 days. If the beneficiary is not able to collect the subsidised kerosene within such time due to any reasons, the quota allotted to such boat lapses. It is recommended to supply the subsidised kerosene to the authorised outlets in the beginning of the month and continue up to the last week of the month. (Up to 28th of the month).

The team after carrying out the evaluation of the distribution of tax exempted diesel and kerosene to the fishing boats were of the opinion that, these 2 schemes needs to be continued with the above modifications on the schemes. But additionally It is felt by the team that other measures like zonation of fishing, mesh size regulation, ban on bull trawling, catching cuttle fish by unnatural methods and other management measures are to be integrated for checking the over exploitation of fishery resources. Only subsidised diesel/kerosene alone will not stop the over exploitation of fishery resources.

Chapter I

INTRODUCTION

Geographical Profile of Coastal Karnataka

Karnataka, India's eighth largest state covers an area of 1, 91,791 square km and accounts for 5.83 per cent of the total geographical area of the country (measured at 3,288,000 km^2). The state consists of 30 districts, 176 taluks, 270 towns, 22 urban conglomerations, 286 municipalities and corporations, 27,482 inhabited villages and 1,926 uninhabited villages (GOK 2010). Dakshina Kannada, Udupi, and Uttara Kannada (U. K.) are the three coastal districts of the state. According to 2011 census the state has a population of 6, 11, 30,704 (5.05 per cent of the total population of the country) and occupies ninth place in terms of population.

Coastal ecosystem of Karnataka is a mosaic of monsoon wetlands, beaches and mountains, some as high as 2000 meters, stretched along its 300 km long shoreline. The coastal eco-region of the state is separated by Western Ghats connected by a number of rivers that form vast estuaries. There is a narrow strip of coastal plains with varying width between the mountain and the Arabian Sea, the average width being about 20 km. The average height of the hinterland is 70-75 meters, but in some places it can be as high as 150 meters. Fourteen rivers originate in the Western Ghats and their tributaries flow through three coastal districts into the Arabian Sea, forming a mosaic of more than 8,000 ha of estuaries along the coast and render the inshore area rich in nutrients (Bhatta, Rao & Nayak 2003). The state has 5.60 lakh ha of inland water resources, consisting of tanks, reservoirs, rivers, canals and fish culture ponds.

More than 75 per cent of the commercial fish catch is dependent on estuaries for part of their life cycle (Bhatta & Bhat 1998). Sand bars have been developed in most of the estuaries. Karnataka has a monsoon tropical climate with bulk of rainfall being received during southwest monsoon period. All these natural phenomena create conducive conditions that attract fish and other marine organisms to inshore waters. A shallow continental shelf, wet lands and mangroves provide rich breeding and feeding grounds for fish and other marine species (Nandakumar & Nayak 2010).

Coastal Karnataka has 191 marine fishing villages spread over the three districts which make it one fishing village, each covering about 1.6 km of the coastal line on an average. In addition to marine fisheries, coastal Karnataka also has a large potential for brackish water fisheries.

Table 1.1 Profile of coastal/marine Area of Karnataka

Sl. No.	Details	Length of coast line(km)	EEZ (sq. km)	Continental shelf (sq. km)	Number of landing centers	Number of fishing villages
1	D.K. district	42	NA	NA	14	17
2	Udupi district	98	NA	NA	31	41
3	U.K. district	160	NA	10-11,000	13	86
4	State Total	300	87,000	27,000	96	144
5	India	8,811	2.02 million	0.53 million	2,251	3,202
6	4 as per cent of 5	3.40	4.30	5	4.26	4.50

Source:
1. Marine Fisheries Census 2010 Central Marine Fisheries Research Institute, Kochi
2. GOI. (2008). Handbook on Fisheries Statistics. New Delhi: Ministry of Agriculture
Note: NA= Not Available

Table 1.1 presents some of the parameters representing marine resource potential of the state in comparison with India. Karnataka has 27,000 square km. area of continental shelf which represents 5 per cent of total. The EEZ area of the state is 87,000 square km which is 4.30 per cent of India. Similarly Karnataka coast has only 6 per cent of the 3,202 villages of the entire country. Further the total landing also fluctuates and constitutes around 5 per cent of total Indian fish production. However, the fish production/fishing unit is 16.70 tons which is above the national average of 12 tons (GOI 2008).

Table 1.2 Demographic profiles of the coastal districts of Karnataka

Details	State	D. K.	Udupi	U.K
Total population	6,11,30,704	20,83,625	11, 77,708	14,37,169
Decadal population growth rate (per cent)	15.67	9.80	5.90	6.2
Area (in sq. km)	1, 91,791	4,866	3,575	10,291
Density of population (persons per sq. km)	319	457	287	140
Literacy level (per cent)	75.60	88.62	86.29	88.06
Percentage of workers to total population	44.30	50.00	44.00	42.3
Net district total income 2007-08 (` in lakh) at current price	2,11,66,253	9,69,984	4,73,922	
Net district total income 2012-13 (` in lakh) at current price	46595882	2137144	1063304	943598
Per capita income (in `)2007-2008 (at constant price 1999-2000)	36,945	47,151	39,307	

Per capita income (in `)2012-13 (at current price)	77168	98572	83679	61015
Rank based on Human Development Index	7	2	3	7
Net district income from fishing 2007-08 (`in lakh) at constant price	79,773	22, 534	20,529	
Net district income from fishing 2012-13 (`in lakh) at constant price	84,629	19743	18049	14986
Percentage contribution of fishing to total income 2007-08	0.38	2.32	4.33	
Percentage contribution of fishing to total income 2012-13	0.18	0.92	1.70	1.59

Source**:** 1.GOK. (2010). Karnataka at a Glance. Bangalore: Directorate of Economic and Statistics.

2. GOI. (2011). Census of India 2011, Provisional population totals. Bangalore: Directorate of Census Operations.
3. GOK (2006). Human Development report 2006, Bangalore: Planning and Statistics Department

Table 1.2 explains the geographic and demographic profile of coastal Karnataka. Dakshina Kannada (D.K.) district has a total geographical area of 4,866 sq. km, which forms 2.5 per cent of states total area and ranks 12th in terms of area in the state. The district is about 177 km in length, and about 40 km broad in its narrow-west and about 80 km in the east. Mangalore is the district headquarters and is also the most important sea port/fishing port in the state (GOK 1989). As per 2011 Census (provisional), the population of D.K. district is 20, 83,625 of which 50.44 per cent is female and 49.56 (10, 32,577) per cent is male. The district shares 3.41 per cent of states total population and ranks 8th in the state. The sex ratio is 1018 and the density of population is 457/sq. km, which is more than that of the state (319) and the national (382) averages (GOI 2011). The district continues to be the second densely populated district in the state after Bangalore Urban. It ranks first in the state in terms of literacy rate (88.62 per cent), with 93.31 per cent literacy among men and 84.04 per cent literacy among women. The literacy rate in urban and rural areas is 92.20 per cent and 85.34 percent respectively (GOI 2011).

For the purpose of administration D.K. district is divided into 5 taluks. There are 354 inhabited villages, 20 towns, 17 hobalies and 8 municipalities/town panchayats. Mangalore is well connected by road, rail and air to all major cities in the south. The district has one airport, one all weather port and one fisheries harbour. With all these facilities in close proximity, Mangalore is selected for setting up Special Economic Zones (SEZs) in oil refinery, software, thermal power, and real estates.

The coastal zone in the district, between Mangalore and Surathkal is an industrialized zone. Kulai is a major industrial town which is situated between Surathkal and New Mangalore Harbour. (Shirodkar, Mesquita, Pradhan, Verlekar, Babu & Vetthamony 2009). There are 22 large scale and medium scale industries and 18,009 small scale industries in the district. The Mangalore Refinery and Petrochemicals Limited (MRPL), Mangalore Chemicals and Fertilizers (MCF), Baden Aniline and Soda Factory (BASF), Kudremukh Iron and Steel Company are the major large scale industries. District has a dense network of six rivers and estuaries that have contributed to a strong fisheries sector. The per capita GDP of the D.K. district is `52,391 (at constant 2004-2005 prices) which is third highest in the state (GOK 2010). The district ranks 2nd in Human Development Index in the state.

Udupi district, with a total geographical area of 3,575 sq. km constitutes 1.86 per cent of state total area. It was formed in 1997 by separating it from erstwhile Dakshina Kannada. The district headquarter is located in the famous pilgrimage town of Udupi. The district has three natural regions: (i) the coastal zone of about 98 kms, (ii) the midland plain terrain, covering 75 per cent of the district and (iii) the malnad region with hills and thick forests (GOK 2010). As per 2011 census the district has total population of 11, 77,708 and ranks 23rd in the state. Of the total population 50.53 per cent is female and 49.47 per cent (5, 62,896) is the male (sex ratio: 1093). The density of population is 304 per sq. km, ranking 12th in the state (GOI 2011). The literacy rate is 86.29 per cent with women literacy rate of 81.41 per cent. The rural literacy rate is 83.91 per cent and urban literacy rate is 92.28 per cent (GOI 2011).

Udupi district has been divided into three taluks. There are 248 inhabited villages and 8 towns in the districts. The district has a zilla panchayat and 146 grama panchayats in addition to 4 municipalities (GOK 2010). The district has 8,841 km roads, and 108 km railway line. It has 13 large and medium scale industrial units employing about 45,612 people (GOK 2010). The recently launched coal based thermal power plant- Udupi Power Corporation is one of them. The per capita GDP of the district is `42,341(at constant 2004-2005 prices) for the year 2007-08. Udupi ranks 3rd in the state in Human Development Index. The important indicators of demographic profile of D.K. and Udupi districts are presented in Table 1.2

Uttara Kannada (also known as North Canara) is a district in the Indian state of Karnataka. It is bordered by the state of Goa and Belgaum District to the north, Dharwad District and Haveri District to the east, Shimoga District and Udupi District to the south and the Arabian Sea to the west. The city of Karwar is the administrative headquarters of the district and developing city. Sirsi, Dandeli and

Bhatkal are the other major developing towns of the district. The district has 2 agroclimatic divisions namely

1. Coastal region - consists of Karwar, Ankola, Kumta, Honnavar and Bhatkal taluks
2. Malnad region - consists of Sirsi, Siddapur, Yellapur, Haliyal, Joida and Mundgod taluks

Uttara Kannada had population of 1,437,169 of which male and female were 726,256 and 710,913 respectively. In 2001 census, Uttara Kannada had a population of 1,353,644 of which males were 686,876 and remaining 666,768 were females. Uttara Kannada District population constituted 2.35 percent of total Maharashtra population. In 2001 census, this figure for Uttara Kannada District was at 2.56 percent of Maharashtra population.Uttara Kannada being one of the coastal district of the Karnataka state has a coast of 120 kilometers (75 mi) has many ports which are used for sea trade, naval base, fishing and other maritime activities. Ship bunkering facility is available at Karwar port. Karwar, Tadri, Kumta, Honnavar, Bhatkal and Tengingundy Ports are fishing ports. The initial provisional data released by census India 2011, shows that density of Uttara Kannada district for 2011 is 140 people per sq. km. In 2001, Uttara Kannada district density was at 132 people per sq. km. Uttara Kannada district administers 10,277 square kilometers of areas. Average literacy rate of Uttara Kannada in 2011 were 84.06 compared to 76.60 of 2001. If things are looked out at gender wise, male and female literacy were 89.63 and 78.39 respectively.

The District consists of 11 Talukas viz. Karwar, Ankola, Kumta, Honnavar, Bhatkal, Sirsi, Siddapur, Yellapur, Mundgod, Haliyal, Supa (Joida).

There are 6 Assembly Constituency, 4 Revenue Sub-Divisions, 3 CMC, 2 TMC, 6 TP, 19 Nadakacheri Offices, 239 VA circles, 35 Hobblies, 208 Gram Panchayats & 1289 Villages in this district. Kannada & Konkani is the major Regional Language spoken. The cultivable land in the District is approximately 10 percent, as the forests dominate the total area. Apart from the natural resources the district has also got some manmade wonders. Important among them are Hydro Electric Power Project and Nuclear Power Project. The important Hydro Electric Power Projects are Supa Dam, Kadra Dam, Kodasalli and Gerusoppa Dam along with their generating units and among Nuclear Power Project, the Kaiga Nuclear Power Project is important.

With a Gross State Domestic Product (GSDP) of Rs. 44, 64,081 crore in 2009-10 (at constant 2004-2005 prices), the state is one of the most economically progressive states in India. The average annual growth rate of GSDP during the last six years (2005-2010) was 5 percent. In the year 2009-2010 agriculture sector contributed 12.5 per cent to GSDP as against 13.4 per cent in 2008-09

showing a declining trend, whereas contribution of fishing was stable at 0.40 per cent. The state has the seventh highest per-capita income of all the states with annual growth rate of 10.1 per cent during 2000-2008 (GOK 2010). Karnataka's contribution to national GDP in 2004-05 was 5.2 per cent and state registered a GSDP growth rate of 7 per cent for the year 2007-2008.

Although the contribution of fisheries at the state level is only at 0.38 per cent to the state GDP, the two selected coastal districts contribute much higher. It is observed that, the industrial growth in the two coastal districts during 1990s and 2000 have reduced the share of fisheries. However, in absolute values fisheries still contribute substantially to income and employment.

Chapter II

LOG FRAME/PROJECT THEORY

In order to improve the income realization by mechanized fishing vessels, and with a view to encourage fishermen to go to deeper waters for fishing, the Government felt the need to subsidise the diesel being used by these fishing vessels. Hence, in 1985-86, the State Government introduced a scheme of providing subsidy on diesel purchased by exempting the State sales tax which was about Rs.0.52 per litre (now the subsidy due to exemption of sales tax is close to Rs 7 per litre), and capped on eligible maximum subsidy per mechanised boat as detailed below:

Table 2.1Capping on subsidy per mechanised boat

Sl.no.	Category of Boat	Maximum subsidy permitted per year
1	Purse-seiners	Rs.9000
2	Trawlers	Rs.3000
3	Gill netters	Rs.1000

The relief was being released to mechanised fishing boats through backend subsidy. The Deputy Directors of Fisheries of Mangalore and Karwar were given powers to countersign the subsidy bills. This scheme prevailed from 1985-86 to 1998-99. Subsequently, on the demand from fisher folk, the Government decided to do away with back end subsidy and instead provided "*at source sales tax exemption"* for the diesel being purchased for mechanised fishing boats. The Government of Karnataka facilitated the establishment of government approved diesel outlets (bunks) in fishing harbours and fish landing centers. These bunks are supplied with sales tax exempted diesel from Oil Companies based on the permission letter issued by the fisheries department. At present the sales tax exemption on the diesel comes to around Rs.8 per litre. The scheme of subsidized diesel and kerosene for the fishing boats started in the year 1985-86 to improve the economic realization by mechanised / motorised fishing vessels and with a view to encourage fishermen to go to deeper waters for fishing. Presently the subsidy on the liter of diesel is around Rs.8/- per liter with a maximum quantity of 90,000 liters per annum and kerosene subsidy is Rs.40/- per liter with a maximum quantity of 2250 liters.

The finance department annually releases certain quantity of State sales tax exempted diesel under Section 5 of Karnataka Sales Tax Act 1957. To this effect every year, a Government order is issued by the finance Department. Presently 30 approved Diesel Bunks are located in fishing harbours and fish landing centres. These bunks are procuring diesel from Indian Oil Corporation (IOC), Bharat Petroleum Company (BPC) and Hindustan Petroleum (HP) oil companies and supplying the same to mechanised fishing vessels as per guidelines issued by the department of Fisheries. As per Karnataka

Marine Fisheries Act 1986, the benefit of tax exemption is given to boats having fishing license and identity cards. The diesel is procured from any of the department approved bunks. Sales tax free diesel can be procured by Karnataka Fisheries Development Corporation, District Co-operation Fish Marketing Federation and Primary Fisheries Co-operative Societies from the 30 department approved bunks only. The diesel is distributed to boats as per maximum limit fixed based on the engine capacity (HP) of the boats.

The Diesel quota allotment and consumption during the last five years is given below:

Table 2.2Diesel quota allotment and consumption in last five years

Year	Quota allotted (in KL)	Diesel consumed (in KL)	Number of mechanized fishing boat	Marine Fish Production (Mt Tonnes)
2009-10	85000	84118	2353	248728
2010-11	95000	94799	2500	340571
2011-12	115000	114560	3193	347383
2012-13	125000	120758	3152	357325
2013-14	150000	126092	2912	357000
2014-15	150000	119768*	3777	323876

**** Upto January 2015***

Measures taken at Fisheries Department level:

a) The Director of Fisheries releases the required diesel quota every quarter to the Deputy Directors of Fisheries Mangalore and Karwar, who in turn release the monthly quota to department approved diesel bunks within their jurisdiction, based on consumption.
b) Monthly diesel quota released and consumed is monitored by the respective Deputy Directors.
c) The Deputy Directors every year issue diesel pass books to the registered mechanised fishing vessels, which are to be produced by the boat owners for entries when procuring the sales tax exempted diesel from the diesel bunks.
d) The Department of Fisheries, based on boat engine horse power(HP) has fixed daily diesel quota, to be released per boat, as given below:

Table 2.3Fixed daily diesel quota

Horse power of the Boat Engine	Diesel released/day (litres)	Diesel released/month (litres)
Up to 40 HP	70	2100
41-70 HP	90	2700
71-90 HP	150	4500
91-130 HP	250	7500
Above 130 HP	300	9000

Procedure for distribution of tax free diesel to fishing boats as per officeorder No.MEF/36/2003-04, dated: 06.01.2005 of Director of Fisheries.

1. This scheme is implemented through Fisheries Co-operative Societies, District Co-operative Fish Marketing Federations and Karnataka Fisheries Development Corporation Ltd.
2. As per Karnataka Marine Fisheries Act 1986, the benefit of tax exemption isgiven to boats having fishing license and identity cards. The diesel is to be procured from any of the department approved bunks.
3. Sales tax free diesel can be procured by Karnataka Fisheries Development Corporation, District Co-operation Fish Marketing Federation and Primary Fisheries Co-operative Societies from the 30 department approved bunksonly.
4. The diesel is to be distributed to boats as per maximum limit fixed based on the engine capacity (HP) of the boats.
5. The tax exempted to diesel can be purchased on payment of cash, not oncredit.
6. Tax exemption is not permitted to those boats which go for fishing when it isprohibited. In case, fishing is done during the prohibited period the benefit oftax free diesel supply to such boats is stopped.
7. The diesel cannot be supplied to fishing boats of other States.
8. The transfer of the diesel from one boat to another is not permitted. The procured diesel cannot be sold to anybody and use other than for which itwas purchased is prohibited.
9. The distribution of diesel can be done to those pass book holders who haveregistered as per the Fisheries Act and certified by the fisheries department.
10. The responsibility of printing pass books is entrusted to the Karnataka Co- operative Fisheries Marketing Federations.
11. The owner of boat should authorise a person to sign the cash bill and get thesales tax free diesel.
12. The person authorised to get the diesel should get the signature of manager of the petrol bunk in the pass book.
13. The Fisheries Co-operative Society, District Co-operative Fish Marketing Federation and Karnataka Fisheries Development Corporation Ltd. should certify about the utilisation of the sales tax free diesel by the boats by way ofverification by the bunks or by enquiry etc, and send a certification to district officers of Fisheries department regarding proper utilisation of diesel of theprevious month.
14. In case it is found that misappropriation of diesel has taken place by any boat, the pass books of such boat will be cancelled and diesel supply stopped.
15. The Deputy Directors of Fisheries of coastal districts and other officers should make surprise visits to the bunks every now and then, and examinethe process and supply to see that no misappropriation takes place.
16. It is the responsibility of the approved diesel bunks to record the quantity ofsales tax free diesel distributed with dates in the passbook.
17. The pass books are to be provided to the departmental (fisheries) officersduring the course of inspection.

Supply of Subsidized kerosene to the fishing boats:

Similarly subsidized kerosene is provided for fitting motorized engines the engine capacity varying between 9.8 to 20 HP. There are 4514 motorised boats of which 990 are there in Uttara Kannada 2610 in Dakshina Kannada and 914 in Udupi districts. The kerosene is given to these boats at the rate of Rs. 16.50 per ltd. This is distributed through 25 fair price shops and other institutions. The number of motorised boats operating in the district is identified by conducting a joint inspection by officers of the Department of Fisheries and Food and Civil Supplies Department. After this, each motorised boat is provided with a permit for procuring subsidized kerosene through PDS.

Chapter III

PROGRESS REVIEW

Karnataka state in the south-west part of India is one of the states with high density of fishers' population. According to Central Marine Fisheries Research Institute [CMFRI] (2010) Karnataka has 30,713 fishermen families with total population of 1, 67,429. Among 30,713 fishermen families, 93% were traditional fishermen. According to Government of Karnataka (GOK 2009) more than 60 per cent of the total fishers are small scale fishers. The inherent rich inland waters and rivers at the foot of the Western Ghats, with 27,000 sq km of Indian EEZ are the parts of Karnataka marine fisheries.

The marine fisheries sector consists of inshore fisheries exploited mainly by the artisanal or small scale fishers and off-shore fisheries exploited mainly by trawlers, purse-seine, and deep fishing vessels. Small scale fisheries in the state comprise a dynamic and evolving sub-sector employing labor intensive harvesting, processing and distribution system to generally exploit near-shore fishing resources within 50m depth (5 nautical miles) from the lowest base line on the coast. The purse-seine and trawlers employ capital intensive fishing technologies and salaried crew. They are allowed to operate beyond 50m depth.

Till late 1950s fishing operations were largely of traditional, non-mechanised, small scale and subsistence nature. Gears such as *rampani*[1] *(giant shore-seine), kai-rampani*[2]*(mini shore-seine) bisana* (throwing conical nets), *and patte-bale*[3] *(encircling gillnet),* were prominently used in harvesting only pelagic species. Prior to the advent of purse-seines, *rampani* was contributing about 75 per cent of the total catch. It was used to operate within 3 km from the sea shore. The entire activity was based on fishermen effort. These traditional technologies had evolved over the centuries to suit the specific ecological context of seas as well as the distinct characteristics of the various fish species. The fishing nets used were selective and operation was passive in nature (Kurien 1991). Their technology was suitable for fishing merely as a source of livelihood. The requirement of specific fishing skills and social barriers *i.e.,* fishing being an occupation of a particular caste prevented the free entry of capital and labor from outside the traditional fishing communities (Kurien & Vijayan 1995).

The important features of the traditional fishing in the region were decentralization based on co-operative principle, labour intensive and gender based division of labour. Men were involved in fishing and women were engaged in the post-harvest activity. The wages to labour has always been on sharing basis. The fish was landed in home villages. There were fisher organisations at each

fishing village. The aforesaid features are still being practiced and do constitute a significant part of social capital.

Fisheries gained momentum with the onset of post-independence economic planning in India (Kurien 1991). The planned marine fisheries development had multifaceted objectives such as, increasing the fish harvest, improving the socio-economic conditions of fisher folk, increasing export earnings and generating new employment opportunities. These objectives were achieved through the State initiated mechanisation by introducing two shrimp trawlers (12 ft length with Yanmar engine) in 1957-1958. In 1966, a scheme for construction and distribution of trawlers was introduced by the district fish marketing co-operative federation on a pilot basis, a decade after Kerala started modernisation of its fisheries (Bhatta 1996). Introduction of trawlers in fishing was successfully achieved by training fishermen in mechanized fishing and distribution of mechanised boats on loan-cum-subsidy basis to a few groups of 5 fishermen each. Initially the trained fishermen were given boats without any capital investment. Simultaneously, fishing nets were supplied at subsidised rates. Salt was distributed at subsided rates through fish curing yards for helping traditional fish preservation. During the period from 1967- 68 to 1969-70, 240 trawlers were introduced under financial assistance from the then Agricultural Refinance Corporation (now NABARD) through co-operative societies.

At present two types of trawlers are operating in Karnataka coast *i.e.*, single day trawlers with a size of 30-32 feet over-all-length (OAL) and multiday trawl boats with OAL > 32 feet. Single day trawlers operate in inshore waters and their main catch composition consists of soles, penaeid prawns and croakers. Whereas, multiday trawlers operates in deep sea waters up to 300 m depth and their main catch consists of ribbonfish, cuttlefish, squids, pink perch, cephalopods, carangids, lizard fish etc.
The landmark in the development of Karnataka marine fisheries is the introduction of purse-seines in 1975-76. Karnataka was the first state in the country to introduce purse-seiners. This increased the fishing capacity to the capture- fisheries sector and resulted in over exploitation of marine resources. The number of purse-seiners increased from 2 in 1975-76 to 232 in 2012-2013. By 2012-‘13, there were about 2825 mechanized boats (232 purse seiners, 2593 trawlers (including gillnetters), 6335 motorized boats and 6923 traditional boats operating in the State. The OAL of purse-seiners increased from 43 feet to 60 feet. This resulted in ‘Blue-Revolution’ off the Karnataka coast by increasing the annual average catch from 85,000 tones prior to 1976 to about 160,000 after 1976 (Jayaraj 1983). This achievement coupled with, financial incentive schemes of the government and successful operation in the neighbouring Goa attracted the non-fishing community to invest in fishery sector to gain profit (Srivastava, Reddy, Subrmanyam & Gupta 1986). However, the introduction of purse-seines eclipsed and routed out the traditional fishing, especially, *rampani* and *kairampani*. Considering the conditions of traditional fishers, the Government of Karnataka introduced the

'*Rampani Scheme'*, under which purse-seine boats were distributed to a group of 24 to 48 fishermen involved in the traditional *ramapni* fishing.

The introduction of trawlers and purse-seiners caused a shift in marketing. New assembly-cum-landing centers have been developed. A substantial portion of the marketing activity shifted to major and minor ports. Owing to this shift in the location of landing centers and changes in the marketing activity, the volume of fish landing in the village landing centers declined which in turn, badly affected the fisherwomen and made the village economy suffer. Now, there is a strong interlocking between production and marketing.

During 1980s, in order to increase the efficiency of traditional fishermen, a scheme of motorisation of country craft was initiated. Accordingly, inboard engines (IBE)/outboard engines (OBE) with 10-25Hp were used for propulsion. The scheme provided 50 per cent subsidy for motorising the traditional crafts and the balance amount was financed by the commercial banks. This enhanced the efficiency of canoes operating the gill net and extended the area of operation up to 60 m depth (Muthiah & Bhat 2003). The traditional art of propulsion which used to give a fair amount of physical exercise has disappeared (Kurien & Vijayan 1995). This import-led development divided the fishers into two groups: motorized boat owners and non-motorized or traditional boat owners.

Further, the advent of electronic devices during the 1980s resulted in the use of equipments like fish finders, sonar, communication devices, radio, global positioning system (GPS) etc. and intensified the fish harvest. The practice of night fishing, multi-day fishing, fishing during monsoon by the motorized boats became common. Marine fish production from Karnataka coast has shown considerable variation. The fish production during 2012-13 was 3.57 lakh metric tons and 0.96 lakh metric tons of marine products worth Rs.854.00 crore were exported from the State. Subsequently the marine fish production has increased to 3.89 and 4.11 lakh metric tons in 2014-15 and 2015-16.

Several factors such as, drive to export shrimp, and state sponsored modernisation programme through co-operatives and banks influenced the growth of marine fishing in Karnataka since early 1960s. However, the development of modern marine fisheries has been traced to the launching of Indo-Norwegian project for the mechanization of the fishing craft in 1966. From 1980 to 2013 the number of trawlers grew from 1833 to 2593 and motorised boats increased from 974 in 1990 to 6335 in 2013. During the last 20 years, the number of traditional (motorised and non-motorised) boats increased by 47 per cent. In recent years, the deep-sea fishing is developed with the help of imported speed engines and has reduced the number of days of fishing trips from 15-20 days to 3-5 days.

Rapid growth of population, increase in fishing capacity, international trade in fish products and, increase in per capita income have caused transformation of fisheries during the past two decades. Coastal Karnataka presents a case of the failure of fisheries management institutions in maintaining fisheries as a common pool resource. The factors leading to failures and need for fisheries governance system requires a thorough understanding of the pattern of growth and resulting failures of the system.

a. Marine Fisheries: Contributions to State Economy

Fisheries are a sunrise sector of our economy. It emerged as an important commercial activity during 80s from subsistence, supplementary status. The economic importance of the fisheries sector to the economy may be identified under three main areas: (1) as a source of animal protein for human consumption (2) as a source of income and employment, and (3) as a source of foreign exchange earnings (Bhatta, Sagarad & Rao 2000).

Source of animal protein for human consumption: Almost 56 per cent of world population derives nearly 20 percent or more of their animal protein from fish. The average global per capita fish supply is 16.5 kg but with large difference across regions and countries as well as within countries (FAO 2007). Unlike other animal food like meat, egg, and pork, fishes are available at wide range of price tags, making it accessible to the poor. Fisheries is considered as 'rich food for poor people' and cheapest protein to the poor across the world (Sugunan 2010). Small fish are especially important for consumers, as they can be purchased in small quantities at low cost. It plays a vital role in addressing nutritional security and food security of poor coastal and inland population through its richness in micro-nutrition (Satia & Jallow 2010). Fish contains 60 per cent of first class protein on a dry matter basis, along with fat, calcium, phosphorus and other nutrients needed for healthy human life (Josupeit 1981). Fish also contributes fatty acids that are necessary for the proper development of the brain and body (Kurien 2005). Fish is second in importance among the nutritious food, after egg with protein efficiency ratio of 3.5 (Gopalan, Ramasastry & Balasubrahmanian 1976).

The study by the National Sample Survey Organisation (NSSO) (64^{th} round 2007-2008) on food habits of the people in India reveals that, 62.5 per cent of rural and 59.4 per cent of urban households consume fish, meat or egg. Between 1987-88 and 1990-2000, the proportion of households consuming one of the three items has increased by 4 per cent in rural areas and 1 per cent in urban areas. This indicates that fish plays an important role in meeting the food requirement in the country. Between 1998 and 2008 the per capita cereal consumption declined from 12.5 kg to 11.7 kg in rural areas and from 10.4 kg to 9.7 kg in urban areas. This reveals that there is a diversification of food basket in favour of non-cereal food like fish, meat and eggs (NSSO 2007-08). As per the 9^{th} plan document, per capita fish consumption in India was 9 kg/annum based on an estimate that 56 per cent are fish eaters. In India for

every 1000 households, 149 houses in rural and 156 houses in urban areas consume fish (GOI 2008). In Karnataka the per capita monthly expenditure on meat, fish and eggs in rural area has increased from `21.18 in 2001 to 29.51 in 2008 and for urban areas it increased from `31.85 to `42.67 for the corresponding period (NSSO 2001, 2008).

b. ***Source of income and employment:***

Globally, fishing and fish farming activities provided livelihood to an estimated 41 million people in 2004. Applying an assumed ratio of 1:3 for direct employment (production) and secondary activities (processing, marketing, and distribution) respectively, about 123 million people are estimated to be in secondary activities, and a high proportion of these workers are women (FAO 2007). According to live stock census 2003, fisheries is a source of livelihood for over 14.49 million people in India, of which 4.70 million were males, 4.03 million females and 5.67 million children below 14 years of age. The total number of fishermen engaged in the actual operation of fishing was about 2.01 million of whom 0.093 million were full-time fishermen and 1.07 million were part-time fishermen (GOI 2008). However, according to the Marine Fisheries Census, 2010 (CMFRI 2010), the total population of marine fishers in the country is 3.99 million, living in 8, 64,550 households in 3,288 fishing villages along the coast, of nearly 25 percent of the total number of fishers in India. Of this total, over 8, 00,000 are recorded as active fishers, 1.0 million as part time fishers while 1.4 million fall in the category of 'others'.

The Karnataka state, accounts for 5.3 per cent (7.67 lakh) of the total fisher population of the country. Out of the total fishermen, share of marine sector is 35.96 per cent (2.75 lakh). Of these, active fishermen numbered 1, 41,720 constituting 54.81 per cent of the total (GOK 2009). Besides active marine fishermen, the sector also offers employment to a large number of post-harvest workers such as, women fish retailers, cycle/M-80 fish retailers, fish merchants, export processing plant workers, pre-processing plant workers and head loaders. But there is a dearth of information on the distribution of labour force in different sub-sectors. The fish production from the state contributed about 5.80% of India's total fish production for the year 2010-11. The level of per-capita fish availability for 2010-11in the state is around 6.8 kg.

The marine fisheries sector is also an important source of revenue contributing to regional growth. The contribution of fishing industry to the development of the economy may be measured in terms of its contribution to Gross Domestic Product (GDP)/Net Domestic Product (NDP). The contribution of Fisheries Sector to GSDP at current prices during 1993-94 was Rs 16,316 lakhs and it has increased to Rs 286273 lakhs in 2012-13. By 2012-13 the state fisheries contribution to AGDP and GSDP has

increased to 4.06 per cent and 0.54 percent from a value of 2.3 percent and 0.45 per cent respectively in year 2005-06.

Marine fish production from Karnataka coast has shown considerable variation over the years. **The fish production during 2012-13 was 3.57 lakh metric tons and 0.96 lakh metric tons of marine products worth Rs.854.00 crore were exported from the State. The marine Fish production has increased from 0.53 million tonnes in 1950-51 to 3.78 million tons in 2013 -14. And subsequently by year 2014-15 and 2015-16 the state marine fish production has increased to 3.89 million tons and 4.11 million tons respectively.**

Source of foreign exchange earnings: India contributes to five per cent of the global fish trade. There has been a steady increase in exports by volume and value realization since 1960s. From 2002 to 2009, export volumes and value showed modest gains (Marine Products Export Development Authority [MPEDA] 2010). In the year 2008-09, India exported 6, 02,835 tons of marine products, valued `8,607.94 cores, representing 1.1 percent of the total exports of the country. The marine export value reported during 2013-14 was at 5.08 billion dollars.

Karnataka's contribution to the national marine fish production varied between 13 per cent and 5 per cent annually, during 1980-2009. It contributes around 5 per cent of India's seafood exports and ranks 6th in fish export (GOI 2008). The State marine fish export accounted 33,000 metric tons, valued 26,400 lakh in 2008-09 (GOK 2009).

Table 3.1 Foreign exchange earnings of marine products in India and Karnataka (in crores)

Details	1980-81	1985-86	1990-91	1995-96	2000-01	2005-06	2008-09	2013-14
India (` in crores)	234.84	398	893.37	3,501.11	6,443.89	7,245.3	8,607.94	30,213.26
Karnataka (` in crores)	11.43	14.13	38.12	98.74	94.46	103.27	264	2041.02
Total marine fish export in India (Quantity in 000 tons)	75.59	83.65	139.41	296.27	440.47	512.16	602.84	983.76
Karnataka's share in the value of fish exports of India (per cent)	4.87	3.55	4.27	2.82	1.47	1.43	3.07	6.76
Export share of total marine fish production in Karnataka (Quantity in ,000 tons)	4.41	3.15	5.89	7.16	11.82	15.96	33	--
Export share of total marine fish production in Karnataka (in per cent)	2.74	1.56	3.17	3.29	7.78	9.02	26.61	19.23
Export share in the value of total marine fish production of Karnataka (per cent)	49.47	26.75	65.07	35.5	38.04	22.16	32.18	33.27

Source: 1. GOI. (2009). Handbook on Fisheries Statistics. New Delhi: Ministry of Agriculture
2. GOK. (2002). Statistical Bulletin of Fisheries. Bangalore: Directorate of fisheries
3. GOK. (2009). Statistical Bulletin of Fisheries. Bangalore: Directorate of fisheries

The above table shows that, the exports of marine products from Karnataka increased from 4,408 tons valued at `11.43 core in 1980-81 to 33000 tons valued at `264.00 crore in 2008-2009. The marine export for the year 2013-14 came at 2041.02 crores. But, the contribution of the state to the total exports of marine products from the country has declined from 4.87 per cent in 1980-81 to 3.07 per cent in 2008-2009 in terms of value. The decline in the share of fish exports is mainly due to the decline in the capture-shrimp-fisheries and cultured-shrimp production. But by year 2013-14 the increase in the total exports to 6.76 per cent is due to subsequent increase in number of operating vessels and vast mechanization of boats. In Karnataka, the value of export share in the total value of fish production increased from 49.47 per cent in 1980-81 to 65.07 per cent in 1990-91. But it declined to 32.18 per cent in 2008-2009. Over the years fish export from Karnataka has increased from 2.74 per cent in 1980-81to 26.61 per cent in 2008-2009. This indicates the declining trend in the availability of fish to the consumers in the domestic market.

c. Growth in Production and Fishing Capacity

The marine fisheries which is one of the sub-sectors of Indian fisheries currently accounts for nearly 40 per cent of the total fish production, which contributed 71per cent of the total fish production during 1950-51. The CMFRI identifies three phases of development in marine fisheries (CMFRI 2003). Phase I corresponds to the pre-development stage up to 1965 where fishing was predominantly by indigenous crafts and gears. Phase II (1965-86) is characterised by substantial increase in the use of synthetic gears, export trade and expansion of mechanised crafts, establishment of fishing ports and motorization of small boats. Phase III (1986-2000) witnessed substantial growth in the modernisation of the artisanal crafts, extension of fishing grounds, offshore fishing through multi-day vessels and introduction of seasonal closures. The fourth phase (Post-2000 period) is characterised by stagnation with inshore catches, reduced investment and increasing conflicts at sea over access to fish.

The marine fisheries resource potential of the state is estimated at 4.25 lakh metric tons, of which about 50 per cent falls within the inshore region of 50 m-depth ranges and remaining within the off shore/ deep zone (GOK 2009). Productivity is highest in the coastal and inshore waters. As the depth of the sea increases, the less is the production of organic substances on account of unfavorable ecological conditions. The yield rate of fish in the waters between 50-200m depth is only half of that in the region up to 50m-depth.

The fisheries of Karnataka consist of small and large pelagic species, demarsal finfish species, and crustaceans and mollusks. The small pelagic resources account for nearly 50 per cent by mass of total catches. They are significant in terms of providing food and nutritional security to coastal communities and also the most commonly shared stocks in view of their migratory nature. About

20-30 per cent of the small pelagic species are exploited by artisanal fishers. The most important pelagic species include sardine, mackerels, anchovies and soles. The percentage contribution of mackerel and oil sardines varied from 11.82 per cent and 37 per cent respectively in 1981 to 6 per cent and 19 per cent respectively in 2009. The economically important large pelagic fish species in the area are seer fish, big-eye, ribbon fish, mullets and carangids.

Table 3.2 Production per km of coastline in Karnataka to the National average (in metric tons)

Period	Karnataka		India		(2) as per cent of (4)
	Average annual production	Average production per km of coastline	Average annual production	Average production per km of coastline	
1	2	3	4	5	
1950-1960	57,400.00	191.33	6,34,200.00	84.40	9.05
1960-1970	93,318.00	311.06	8,12,600.00	108.10	11.48
1970-1980	1,07,312.00	357.71	12,49,200.00	166.20	8.59
1980-1990	1,51,401.40	504.67	16,97,300.00	213.80	8.92
1990-2000	1,84,419.30	614.73	22,52,300.00	299.60	8.19
2000-2009	1,59,833.00	532.78	29,24,000.00	360.19	5.47
2010-2014	3,58,000.00	1,193.33			

Source:
1. GOK. (2009). Statistical bulletins of fisheries various issues, Bangalore: Directorate of fisheries.
2. Mohamed, K. S., Muthiah, C., Zacharia, P.U., Sukumaran, K.K., Rohit, P., & Krishnakumar, P. K. (1998). Marine fisheries of Karnataka State, India. *Naga, 21*, 10-15.
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Fish production in India witnessed a significant increase since independence. It touched 30.24 lakh tons in 2006-2007, from a very low figure of 5.34 tons in 1950-51 (GOI 2008). The decadal growth of state's average marine fish production per km of coastline was almost double of the national average production since 1950s and the rate of increase was steep during 70s and 80s, mainly due to very efficient exploitation of the pelagic resources by purse seine fleet. The marine fish production of the state almost doubled during the 50s-60s and 60s-70s. During 1970-80 and 1980-1990s rate of growth of production increased at decreasing rate although overall decadal growth was 40 per cent. However from 1990-2000 to 2000-2009 the decline in the total production itself from 184,000 tons to 160000 tons. Although, at the all India level there was no decline in total marine fish production, in Karnataka, we could observe stagnation and marginal decline in the production till 2009, which is one of the indicators of unsustainability. The crisis of marine fish stock decline persisted in Karnataka till 2009.But there has been gradual steep increase due to vast increase in number of fishing vessels and also due to large scale mechanization of fising boats. . Motorization of traditional crafts like gill-

netters and long- liners and encouragement of off shore fishing beyond 50 meters depth using bigger vessels for a duration of 7-8 days, have effectively increased the range and efforts of fishing operations. Further, financial institutions have extended the required loan facilities for acquiring bigger fishing boats, which has helped in increasing the fleet strength of the mechanized boats. In recent years, fishermen are being trained in operation of sophisticated electronic equipments both for fishing and navigation. The estimated resource potential of the state is 4, 25,000 tons (CMFRI 2005), whereas the actual catch is around 4,11,000 tons, which is nearly 96 per cent of the potential. The year wise review of Karnataka marine fish production shows a declining trend till 2009 after which there is an increase in the production. It may be due to increase in the number of fishing crafts and mechanization. The pioneering attempts of the state in mechanization and motorization led to significant achievements in the fisheries sector. And the absolute value of fisheries sector has almost increased more than threefold over the years.

A review of sector wise status of marine fisheries over the last decade shows that the mechanised crafts have a lion's share of around 88 per cent in terms of both quantity and value terms. In traditional sector, *Patte-bale*[3]and *Matu-bale*[4] is the most popular gears and are operated mainly during the monsoon season (June to August). The major catch of *Matu-bale* gear consists of penaied prawns, sardine, mackerel, croakers and carangids.

Table 3.3Sector-wise marine fish production in Karnataka (in metric tons)

Year	Total Marine fish production	Share of		Production per unit /year	
		Mechanised (Per cent)	Non-mechanised (Per cent)	Mechanised	Non-Mechanized
1976-1977	62,785.00	40.53	59.47	17.70	NA
1979-1980	1,91,026.00	81.68	18.32	80.14	NA
1984-1985	1,68,046.00	92.73	7.27	51.11	1.03
1989-1990	1,86,132.00	92.11	7.89	45.96	1.26
1994-1995	1,72,500.00	89.49	10.51	31.87	1.52
1999-2000	1,65,653.00	95.00	5.00	24.91	0.43
2004-2005	1,71,227.00	96.44	3.56	20.88	0.32
2005-2006	1,76,897.00	96.10	3.90	19.63	0.33
2006-2007	1,68,881.00	97.15	2.85	44.44	0.23
2007-2008	1,23,956.00	92.98	7.02	12.34	0.41
2008-2009	1,23,978.60	93.58	6.42	12.43	0.35
Average	1,66,612.55	87.98	12.02	32.85	0.53

Source: 1. GOK. (2005). Statistical bulletin of fisheries. Bangalore: Directorate of Fisheries
2. GOK. (2009). Statistical bulletin of fisheries. Bangalore: Directorate of Fisheries.

Table 3.3 shows that the share of non-mechanised/traditional sector declined from 59 per cent in 1977 to 6 percent in 2009. The average catch rate per non-mechanised unit has declined from 1.03 metric tons in 1984-85 to 0.35 metric tons in 2008-09, a decline by around than 3 times. The catch rate of

mechanised units has declined from 46 metric tons in 1990 to 12 metric tons in 2008-09. Further, the catch per unit of fishing unit/year has also declined from 17.70 tons in 1976-77 to 12.43 tons per year in 2008-2009 representing a decline of 30 per cent.

A review of contribution of various types of mechanized crafts to fish-catch quantity suggests that the trawlers and purse-seines have a major share with 49 per cent and 26 per cent respectively in 2008-09. The purse-seine catch was around 96320 tons in 1980; increased to 133963 tons in 1986 and declined to 21,142 tons in 2007 and increased to 32,374 tons in 2009. The catch per unit effort was around 106 tons in 2009.

During the period between 1980 and 1993 purse-seiners were contributing 42 per cent to 67 per cent, whereas trawlers were contributing 18 per cent to 43 per cent. But, since 1994 the scenario has changed. During the period between 1994 and 2009 trawlers contributed 43-69 per cent whereas, purse-seiners contributed between 42 and 27 per cent. The increase in the contribution of trawlers is due to the increase in the number of multiday trawlers and use of high speed engines. In terms of fish catch value, the trawlers have a share of 78 per cent in 2008-09, up from 62 per cent in 1999-2000.

Chapter IV

PROBLEM STATEMENT

Having a continental shelf of 27000 square kms, 300 kms of coastline and 14.8 lakh hectors of inland waters(rivers and canals excluded), the State is rich in fisheries resources. The total fish production in the State was 575.30 thousand tonnes in 2012-13, of which 373.17thousand tonnes was marine fish. The State's fish production accounts for 5.8% of India's total fish production. The current level of per capita fish availability in the state is 6.8 kg. Karnataka ranks 5th in marine fish production and 9th in the inland fish production of India. The total fish folk population of the State is 8.72 lakhs. Of these, 3.11 lakh persons are related to marine fishing area and 5.65 lakh persons to inland fishing.

Marine fisheries being capture fishery, needs to be exploited with efficient methods of fishing. Prior to 1960, marine fishing was carried out with traditional methods, nearer to shore. Fishermen did not possess proper vessels, gears and mechanical measures of propulsion to go deep into the sea. Due to this, the bottom fauna and shoal fishes in open waters were not efficiently caught. Thus, the Government decided to encourage mechanisation of fishing vessels with liberal subsidy in mid-sixties. This resulted in increase in number of trawlers and purse-seiners, and by early 1980s, sufficient number of trawlers and purse-seine boats (As per the paper "Marine fisheries of Karnataka State, India, published in Naga, The ICLARM Quarterly April- June 1998 on pages 10 to 15 Karnataka has the highest number of purse-eine boats in the Country) started operating in the coastal waters. This first resulted in increased catch, but later in overexploitation, so much so that the catch per boat started declining. Also, increase cost of diesel used by mechanised fishing boats, resulted in less income realization per unit effort. The department stopped encouragement for further mechanisation of fishing vessels.

Table 4.1 Marine Fish production of Karnataka from 1992-93

Sl. No.	Year	Marine Fish production in thousand metric tonnes
1	1992-93	234.19
2	1993-34	204.52
3	1994-95	203.75
4	1995-96	247.51
5	1996-97	252.78
6	1997-98	219.86

7	1998-99	190.61
8	1999-2000	195.63
9	2000-01	205.90
10	2001-02	128.42
11	2002-03	180.16
12	2003-04	187.00
13	2004-05	171.23
14	2005-06	176.97
15	2006-07	168.54
16	2007-08	175.57
17	2008-09	218.13
18	2009-10	248.72
19	2010-11	340.57

Source: Director of Fisheries, Karnataka

Table 4.2 Marine Fish Wholesale Price Index of Karnataka from 1971
Base year 1970 = 100

Sl. No.	Year	Marine Fish price index
1	1971	103.1
2	1972	115.5
3	1973	133.8
4	1974	159.3
5	1975	157.8
6	1976	172.7
7	1977	192.3
8	1978	228.8
9	1979	252.7
10	1980	267.0
11	1981	246.6
12	1982	292.7
13	1983	314.9
14	1984	304.1
15	1985	347.2
16	1986	371.1
17	1987	385.2
18	1988	405.1

19	1989	419.4
20	1990	477.2
21	1991	533.6
22	1992	732.4
23	1993	816.7
24	1994	1088.5
25	1995	1319.6
26	1996	1448.0
27	1997	1785.8
28	1998	1971.3
29	1999	1973.4
30	2000	2300.4
31	2001	2305.1
32	2002	2527.2
33	2003	2484.5

The Government felt the need to subsidies the diesel being used bythese fishing vessels as without fuel subsidy fishing operations are not economically feasible. Thus, at present fuel subsidies are supporting financial viability of the multiday vessels.

Chapter V

Objective of Evaluation, Scope and Purpose

The scope of evaluation is confined to the three costal districts of namely Dakshina Kannada, Uttar Kannada and Udupi. The Objectives are:-

a) To evaluate the need and utility of the Scheme.

b) To evaluate the process of implementation of the entire Scheme.

c) To study the organizational and administrative problems and loopholes, if any, in the implementation of the Scheme.

d) To study the economics and operational efficiency of mechanized boats after the implementation of the Scheme.

e) To assess whether the Scheme has impacted on employment, earnings and levels of the fisher folk.

f) Need of continuance of the Scheme and modifications/ improvements if any in the Scheme if it is recommended for continuation.

g) Overall impact of the Scheme on the marine fish production and fish population of Karnataka.

Chapter VI

EVALUATION DESIGN

The study adopts a mixed method of research, employing both qualitative and quantitative tools of research to examiner the objective. The focus of quantitative tool would be attribution of change to the program intervention while the qualitative tools would analyze the factors that were responsible for change. The study would adopt methodological triangulation between the qualitative and quantitative findings and also encompass the findings from observation tool to increase the validity of the study.

Sources of Quantitative data:

10% of the fishing boats would be sampled by the Evaluation team. The total number of sampling units for primary data collection is as below:

- *Gillnetters (Less than 40HP) – 15 samples*
- *Purse-seiners (91-130HP) – 30 samples*
- *Small trawlers (41-90 HP) -60 samples*
- *4 Night trawlers (91-130 HP) – 90 samples*
- *Multiday trawlers (Above 130 HP) – 150 samples*
- *OBM boats – 600 samples*

Source of Secondary data collection- From all diesel (30) and Kerosene outlet (21).

All the fishing centres viz., Mangalore, Hejmady Kodi, Malpe, Hangarkatta, Gangolli, Bhatkal Bunder, Thenginagundi, Honavr, Tadri, Gangavali, Belekeri, Amadalli-Mudga and Karwar were covered for collecting samples from the individual beneficiaries and diesel outlets.

For Kerosene distribution also all the fishing centres and Kerosene outlets were covered for sampling.

Sources of Qualitative data:

- The observations/opinions of Fishery Professionals, Officers/staff of the Fisheries Dept., Non fishermen, retired officers and related persons were collected from the major landing centres like Mangalore, Malpe, Gangolli, Bhatkal-Bunder, Honnavar, Tadri and Karwar.
- 100 samples were collected from this category.

Chapter VII

METHODOLY EMPLOYED IN THE STUDY

Total of 325 beneficiaries out of 3137 of fishing boats using diesel as fuel for their fishing boats, 600 beneficiaries out of 5996 motorized boats using kerosene as fuel were contacted and have collected information with the help of a questionnaire. The information on all the diesel outlets (30) and 21 kerosene outlets was collected. Besides the expert opinion from 100 members including boat owners not covered under the scheme, retired employees, Scientists of CMFRI in Karwar and Mangalore, inputs from the academicians of the department of Marine Biology, Karwar was collected and analyzed. Also there was separate check on the quality and quantity of the diesel supplied by the Oil Companies as per the norms fixed by the Petroleum Ministry. Observations were made at bunks to see whether they were stamped for accuracy of weights and measurement by the department and also whether there was variation in the quality and quantity of fuel supplied to the fishing boats. Also random physical verification were carried out to observe the validity of registration certificates, licenses and pass books issued by the fisheries Dept.

Chapter VIII

DATA COLLECTION AND ANALYSIS

Triangulation as a method was used to validate the findings by collecting quantitative from beneficiaries of both diesel& kerosene subsidy scheme, from dealers, from diesel bunks and also through collecting qualitative data from Non-fishermen, Retired employees of fisheries department, academicians from College of fisheries, CMFRI & Dept., of Marine Biology, Karnataka University at Karwar.

For the collection of qualitative as well as quantitative data following tools and techniques have been used.

- Questionnaire for the evaluation of distribution of tax exempted diesel to the fishing boats.(Beneficiaries)
- Questionnaire for the evaluation of distribution of tax exempted diesel to the fishing boats.(Diesel bunks)
- Questionnaire for the evaluation of distribution of Subsidized Kerosene to the motorized fishing boats. (Beneficiaries)
- Questionnaire for the evaluation of distribution of Subsidized Kerosene to the motorized fishing boats. (Dealers)
- IDI tool for the evaluation of tax exempted diesel and subsidized Kerosene to the fisheries sector.(Non-fishermen, Retired employees of fisheries department, academicians from College of fisheries, CMFRI & Dept., of Marine Biology, Karnataka University at Karwar)
- Observation of passbook, registration certificate and license at the bunk as well as beneficiary level

Sample was drawn prior to visiting the field using the data obtained from the real craft software. As per the real craft software (as on 23-09-2015) total of 19,439 fishing boats were registered. Of which 280 were the purse-seiners, 3600 were the different types of trawlers and 185 were the gillnetters which were using diesel as fuel for running and 7097 boats were fitted with outboard motors and use Kerosene as fuel for running. The total no. of boats registered was available in the real craft software. But the category wise boats registered were not available in the said software. These details were collected from the departmental staff and the people who were in the field. Data entry and analysis were done using Microsoft EXCEL version 2010. Data is presented as proportions and percentages. Graphical representation is used for trend analysis.

Also content analysis was done for the discrete In-depth interview across 100 respondents, after translation of the transcripts into English and common thematic ideas were coded.

The evaluation report was prepared by making applicability of the 5 studies mentioned in the Back ground material.

Chapter IX

FINDINGS AND DISCUSSION

a. Diesel Subsidy scheme

Table 9.01 explains the most important species targeted by the boat in each category based on HP. Interestingly apart from commercially important species such as squids, maximum number of deep-sea fishing vessels focus on others representing rich marine biodiversity which is not reflected in their market price. Thus, 41% of >130 HP boats, 38% of 91-131 HP boats target others which are mainly sold to fish meal companies.

Table 9.02 presents average diesel expenditure across HP classification. The >130 HP boats spends 3.5 times more expenditure and average catch per effort (trip) on diesel compared to <70HP boats. Thus diesel consumption is distributed towards higher fishing capacity boats. The average return per effort is also highest for higher capacity boats due to higher fishing intensity.

Table 9.03 shows the distribution of fishing boats in the three districts of the state. D.K has the maximum percentage of steel boats followed by Udupi (Malpe). The steel boats represent advanced technology with higher capital interest and higher fishing capacity. Also it provides description of concentration of boats across fishing harbours. Malpe and Mangalore have emerged as highly concentrated harbours followed by Gangolli and Bhatkal. Although steel boats are increasing overall wooden boats are common followed by fiber boats.

Table 9.04 shows the number of boats reporting diversity of fish species in the three districts. Udupi harbour has reported maximum number of boats involved in harvesting 'others' which are procured by the fish meal/oil plants which could have formed rich fish biodiversity and is feed for other commercial fisheries. 61 fishing boats in Malpe and Mangalore have reported that they mostly harvest others indicating the vulnerability of the destruction of marine biodiversity here maximum number of high speed boats operate.

Table 9.05 shows some of the basic technical details of the boats operating from different landing centers. We have converted the information in the overall length of the boats, horsepower of the engines, age, annual number of fishing days etc. The length of the boat is ranged between 10-17 meters with an average of 16 meters which is close to minimum length of 20 meters to consider a boat as a deep sea unit. The average horsepower 309 ranging from a minimum of 37HP to 350HP. Thus the HP which determines speed and fishing intensity has increased enormously during the recent years. The annual quantity of diesel drawn was 6376 liters per unit which was highest in Malpe with 7860 liters per unit. The results indicate that the fishing boats on an average enjoy an average fuel subsidy of Rs 51,000. The overall fuel subsidy per fishing season would be around Rs. 432,432 per season/boat with an average of 244 fishing days fuel subsidy per fishing day would be around 1772 per boat.

The average age of boats is 18 years which varies between 15 years in Tadadi and 35 years in Tenginagundi. Some of these landing centers have become obsolete with a very few old boats operating from these centers. Malpe consumes maximum quantity of subsidized diesel followed by Mangalore per season. Further the number of fishing days in a year was maximum in Tengingundi with 300 days, followed Karwar.

b. Evaluation of the fuel subsidy scheme by the beneficiaries

Table 9.06 presents the analysis of fishers' observations regarding the methods adopted to check utilization of subsidized fuel. Overall, 50% of the fishers observed that tachometer reading is being followed. Remaining 50% observe tachometers are not being used and/or not installed. The table shows that most of the samples who responded were aware of subsidized fuel supply being used in their fishing vessels. Renewal of fishing license was known to most of the fishers. Further, majority of the fishers have accepted that the direct benefit transfer of subsidy amount to bank account is a good modification to the scheme. Overall, fishers' assessment of the quantity supplied was positive and there were very few of complaints. Distribution of subsidized fuel to unregistered boats and/or non-fishing purposes was not reported by sampled fishers. Purchase of diesel was most common and in most cases owner himself directly purchases the diesel. Diversion of subsidized fuel during non-fishing days was not reported. It is interesting to note that most fishers agree that subsidy has led to increase in income but not necessarily catch. Obviously, everybody agrees with the need for continuation of the subsidy scheme.

One of the conditions of diesel supply is recording of the reading as per tachometer and its entry in the passbook of the respective fishing unit. The results shows that 50% of the beneficiaries reported that either tachometer readings were not recorded or they were not installed. Most of the beneficiaries have observed that owners are aware of the exact quantity of diesel procured and amount of subsidy per liter. The fixing of the quantity of the diesel subsidy based on the HP of the engines was not acceptable to 43% of the beneficiaries. In fact 52% of the beneficiaries with higher capacity engine (>130HP) were not comfortable with the HP as the basis. The beneficiaries have realized the benefits of direct transfer of subsidy to their respective bank accounts. However still 20% of the beneficiaries under >130 HP categories are not convinced about the advantages. It was observed that none of them had any complaint about quantity of diesel supplied and none of them had lodged any complaints. Similarly distribution of diesel to unregistered boats, diverting diesel of other purposes was not reported. Most purchases are on cash basis. In most cases diesel is brought by owners themselves and normally entered in the passbook. Most beneficiaries' reported that on non-fishing days during maintenance period diesel was not supplied. All of them reported that fuel subsidy has led to increase in income, employment and also to some extent catch and hence it should be continued beyond 20 years.

c. Assessment of fuel subsidy scheme by dealers

The study reviewed the observations of the dealers in efficient implementation of the scheme.

U.K has maximum number of diesel and kerosene dealers followed by Udupi and D.K. Indian oil is leading supplier of both diesel and kerosene. IOC had 71% of the kerosene and 62% of diesel stations among the pumps supplying diesel and kerosene to fishing industry. Most dealers (86% and 52% respectively) have their own transport tankers. The dealers report that they take measures to check the quantity mostly by DIP reading. They reported that they take all possible measures to identify genuine beneficiaries before supplying subsidized fuel.

The kerosene is mostly carried through cans by the beneficiaries. The dealers reported that kerosene is supplied monthly. They believe that the scheme should be continued so that poor fishers are benefited. The overall assessment of the diesel and kerosene subsidy scheme as that it is functioning well except

that the limit fixed per boat based on HP is inadequate. The policy should not treat marine fisheries as commercial activity but also as a livelihood and social sector.

d. KEROSENE SUBSIDY

Table 9.08 presents the classification of the sampled boats based on HP into 3 categories namely <=10HP, 10-20HP, greater than 20HP. Among them most of the boats use fiberglass boats fitted with mostly Japanese engines. The length varies between 9-12.20 meters. The age varies from 11-14 years representing that fiber glass boats were introduced by early 2000.

Table 9.09 explains the consumption of subsidized kerosene by these beneficiaries' boats. The average quantity of subsidized kerosene drawn varies between 234-263 liters/month. The total consumption of kerosene for one season per boat varies between 2094-2340 liters which is equal to Rs.90, 000 /subsidy/season/boat.

Table 9.1 presents the technical details of the fishing trips by the motorized boats. The number of fishing days in a fishing season varies from 200 to 243 depending on HP. Interestingly the consumption of kerosene per trip decreases from 83 to 54 liters/trip as HP increases from 10 to 20. The storage capacity of boats decreases from 125 liters for <=10 HP boats to 88 liters for >=20 HP engines. Similarly the average catch per effort also decreases from 52kgs to 43 kg as the HP increases. Similarly the average gross return decreases substantially when the HP increases from <=10 to >=20 HP.

Table 9.11 Evaluation of the scheme by the beneficiaries

Most of the kerosene users reported that the tachometer reading was not recorded in the passbook. This was true for all the HP categories. Further most of the beneficiaries have reported that they own only one boat including the entire family. Further they also reported that no spare engine is maintained by the beneficiaries. All beneficiaries normally procure their monthly quota and store in their godown. No beneficiary reported selling of any surplus kerosene to other users. Most of them wanted the existing scheme to continue in the same form with some minor modifications. The diversion of subsidized kerosene for non-fishing purpose was not reported by any beneficiary. 8% of them observed that they are aware of subsidy component in buying the kerosene. All beneficiaries unanimously expressed that the present subsidy limit is not enough. Further, they agree that the direct benefit transfer of subsidy amount is good and should be continued. Unlike in the case of diesel a substantial part of kerosene was supplied manually. Almost everybody agrees that the supply of subsidized kerosene has helped in increasing fish production.

Table 9.12 ECONOMIC EFFICIENCY OF FISHING OPERATIONS

We follow the HP classification as per state's existing procedure. We estimated the average capital investment of Rs 21 lakhs for 40-70HP. It increases to 90 lakhs for the 130 HP boats. The variable costs of >=130 HP boats was 1.70 crores which is 5 times greater than the average variable costs of 70-40 HP category. The net supplies of >=130HP category as 9.4 lakhs and it gradually decreases to 5.27 lakhs, 3.19 lakhs and 1.93 lakhs for respective HP classes. In addition to higher net profit earned by larger boats they also get larger fuel subsidy amount. The gross subsidy was 7.65 lakhs for >130HP boats whereas it was only 2.30 lakhs for smaller boats. Thus, the subsidy component is higher for richer fishing units.

The diesel subsidy scheme which meets substantial cost of operational expenses of fishing needs to be streamlined. The above table shows that around 60% of total subsidy is diverted to the >130HP boats which consume more diesel due to higher fishing capacity. These boats are also highly capital intensive with an average invest of Rs. 90.00 lakhs on capital and Rs. 1.70 crore on operational expense per year. It is suggested that the present method of providing subsidy is counterproductive and regressive. Since it encourages excessive fishing capacity and and involves destructive fishing practices. Hence, based on our field observations it is suggested that the rate of subsidy for every liter of fuel consumed by higher capacity engines could be reduced to maintain equity in the distribution and gradually the subsidy could be minimized.

Table 9.13 presents the comparison of purse seining and gill nets other two forms of net used for deep sea fishing and are eligible for fuel subsidy. Gillnets which are ecologically more sustainable earn much less net profit(2.8 lakhs) with an investment of Rs. 15 lakhs on capital and 9 lakhs on variable expenses. On the other hand purse seining fishing earns a net profit of 90 lakhs on capital and 1.5 crores on variable expenses. It is important that in order to reduce the destructive fishing practices and intensity of fishing to introduce sustainable harvesting practices, the subsidy amount per liter of diesel used by high end HP boats could be reduced which may resolve their profitability but definitely does not lead to economic un-sustainability.

Table 9.01 Variety-wise fish caught by fishing units in a year based on horsepower classification

Varieties	**Horsepower classification**				**Total (n=321)**
	> 130 hp	**91-130 hp**	**71-90 hp**	**< 70 hp**	
Cuttle fish	48	35	6	8	97
Shrimps	9	11	6	8	34
Squilla	12	5	5	5	27
Mackerel	53	37	3	8	101
Sardine (Bhuthai)	29	26	1	6	62
Soles	4	6	4	3	17
Scianieds	2	4	2	1	9
Others	78	72	15	24	189

Table 9.02 fishing capacity and catch

Particulars	**Horsepower classification**			
	> 130 hp	**91-130 hp**	**71-90 hp**	**< 70 hp**
	(n=135)	(n=86)	(n=18)	(n=31)
Average expenditure in a season for the purchase of diesel in Rupees (mean)	3350902	2125362	1419400	910493
Average catch per effort in Kg (mean)	2055	4066	1338	615
Average gross return per effort in Rupees (mean)	37222	38900	6189	5652
Total fish harvest in Kg (mean value)	46310	28059	10000	9836
Average return per effort in Rs	18	10	5	9

Table 9.03 District wise description of boats operating

District	Total no. of boats	Wood (%)	Fiber (%)	Steel (%)	Wood & fiber glass (%)	Total no. of engines	Indian (%)	Chinese (%)
Dakshina kannada	70	51	23	26	0	76	71	29
Udupi	139	81	7	12	0	149	64	36
Uttara kannada	87	86	0	1	13	91	85	15
Overall total	296	76	9	12	4	316	73	27

Note: Indian: Ashok Leyland and Ruston; Chinese: Yuchai, Sinotruck, Dongfenj, Hino, Kyumens

Table 9.04 Number of boats reporting type of fish catch

Number of boats reporting fish species			
District	No. of landing centers	No. of boats reporting fish species	
		Commercial species	Others
Dakshina kannada	1	148	60
Udupi	2	89	76
Uttara kannada	10	110	53

Note: Commercial species include Cuttle fish, Shrimps, Squilla, Mackerel, Sardine (Bhuthai), Soles and Scianieds

Table 9.05 Technical operations of the fishing boats

	Base of operation													Total
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
Average length of mechanized boat in meters (n=312)	17	15	15	14	16	16	17	16	15	10	10	11	16	16
Range of horsepower of the engine (n=317) (min–max)	309 (41–350)	307 (44–350)	239 (41–280)	195 (41–236)	252 (98–350)	123 (54–177)	252 (98–350)	313 (37–350)	42 (98–140)	6 (51–57)	7.5 (44–51)	44 (54–98)	313 (37–350)	309 (37–350)
Construction of the boat in years (n=300; mean)	18	17	16	18	15	16	19	26	23	31	25	35	16	18
Quantity of subsidized diesel eligible in liters/month (n=318; mean)	7883	6769	7693	3300	8088	7480	6333	6119	5671	-	-	4020	7488	7278
Average quantity of subsidized diesel actually drawn in liters/month (n=310; mean)	7859	4869	3180	3300	4731	3820	7750	5610	5671	1250	1600	-	6560	6376
Quantity of subsidized diesel drawn in a fishing season in liters (n =306; mean)	68756	20114	29112	15038	35939	15455	68500	39543	54171	4450	6350	4467	63353	54054
No. of fishing days in a year (n=319; mean)	263	-	224	269	244	68	277	232	289	-	300	-	233	244

Note: Malpe-1, Bhatkal-2, Honnavar - 3, Baithkol-4, Thadadi-5, Bhelekeri-6, Gangavali -7, Gangolli-8, Karwar-9, Alvakodi-10, Thenginagundi-11, Hangarakatta-12, Mangalore-13.

Table 9.06 Evaluation of the subsidy scheme by the beneficiaries

		HP classification								Total	
		> 130 hp		**91-130 hp**		**71-90 hp**		**< 70 hp**			
Weather the Tachometer reading is observed and recorded in the passbooks?	Yes	69	54	41	50	8	50	8	28	126	49
	No	30	23	25	30	3	19	15	52	73	29
	If no Tachometer	29	23	16	20	5	31	6	21	56	22
	Total	128	100	82	100	16	100	29	100	255	100
Whether the owner is aware of the quantum of subsidy per liter of diesel purchased and total subsidy amount in a year	Yes, owners aware of it	140	93	89	92	21	95	34	97	284	93
	No, owners are not aware of it	11	7	8	8	1	5	1	3	21	7
	Total	151	100	97	100	22	100	35	100	305	100
Whether the quantity of subsidized diesel fixed per boat on basis of H.P of the engine is adequate?	Yes, it is adequate	74	48	57	60	15	71	25	74	171	56
	No, it is not adequate	79	52	37	39	6	29	9	26	131	43
	Don't Know			1	1					1	0.3
	Total	153	100	95	100	21	100	34	100	303	100
What is the frequency of renewal of boat registration? (/year)	Once	82	73	53	80	12	80	22	85	169	77
	Any others	30	27	13	20	3	20	4	15	50	23
	Total	112	100	66	100	15	100	26	100	219	100
What is the frequency of renewal of fishing license? (/year)	Once in a year	154	100	100	100	21	100	35	100	310	100
In the revised scheme, back-end subsidy on the diesel is directly transferred to the Bank account of the beneficiary. Your opinion / experience on the modified scheme.	Scheme is good	122	79	87	87	19	86	30	86	258	83
	Scheme is not good	18	12	4	4	1	5	2	6	25	8
	Any others	14	9	9	9	2	9	3	9	28	9
	Total	154	100	100	100	22	100	35	100	311	100

		HP classification								Total	
		> 130 hp		91-130 hp		71-90 hp		< 70 hp			
Whether the diesel pumps supply exact quantity of subsidized diesel. (Shortage if any)	Yes	155	%	102	%	22	%	35	100	314	%
Any complaints lodged on the quality and quantity of diesel supplied so far	If complaints are lodged	1	1	2	2					3	1
	If complaints are not lodged	154	99	100	98	22	100	35	100	311	99
	Total	155	100	102	100	22	100	35	100	314	100
Are the complaints solved by the concerned department	If solved	6	86	6	67			4	80	16	73
	If not solved	1	14	3	33	1	100	1	20	6	27
	Total	7	100	9	100	1	100	5	100	22	100
Whether you have observed distribution of subsidized diesel to unregistered boats without a passbook?	If not distributed	154	99	100	99	22	100	34	97	310	99
	If distributed	1	1							1	0
	Don't know			1	1			1	3	2	1
	Total	155	100	101	100	22	100	35	100	313	100
Whether the subsidized diesel is supplied to other than fishing purposes?	No	154	99	101	99	22	100	35	100	312	99
	Do not know	1	1	1	1					2	1
	Total	155	100	102	100	22	100	35	100	314	100
Diesel is purchased on credit basis or cash basis	Cash basis	123	80	80	80	17	81	26	76	246	80
	Credit basis	1	1							1	0
	If by both way	29	19	20	20	4	19	8	24	61	20
	Total	153	100	100	100	21	100	34	100	308	100
Who goes to purchase the diesel?	Owner	136	87	90	88	19	86	31	89	276	88
	Representative	2	1	2	2			1	3	5	2
	If both	17	11	10	10	3	14	3	9	33	10
	Any other	1	1							1	0.3
	Total	156	100	102	100	22	100	35	100	315	100

		HP classification								Total	
		> 130 hp		91-130 hp		71-90 hp		< 70 hp			
If owner is not going for purchase of diesel, what is the reason?	Personal reason	73	96	45	85	7	88	18	95	143	92
	Boat related work			1	2			1	5	2	1
	Any other	3	4	7	13					10	6
	Don't know					1	13			1	1
	Total	76	100	53	100	8	100	19	100	156	100
For every purchase, whether the owner or his representative carrying diesel passbook for necessary entries or he leaves the diesel passbook with the diesel bunks. (yes)		156	100	102	100	22	100	35	100	315	100
During maintenance / repairs to your boat, how do you ensure that subsidized diesel is not supplied to other boats in your diesel passbook?	Diesel is not supplied	148	98	98	99	22	100	35	100	303	99
	Any other	3	2	1	1					4	1
	Total	151	100	99	100	22	100	35	100	307	100
Your suggestions to improve the implementation of the scheme to ensure that diesel is supplied to only authorized boats.	It is a good scheme and should continue	133	98	93	99	20	95	35	100	281	98
	Any other	3	2	1	1	1	5			5	2
	Total	136	100	94	100	21	100	35	100	286	100
In what way the subsidized diesel has helped you in fishing	Increase in catch	13	9	12	12	4	18	6	17	35	12
	Increase in income	131	89	85	88	18	82	28	80	262	87
	Reduced in catch	1	1							1	0.3
	Any other	2	1					1	0.3	3	1
	Total	147	100	97	100	22	100	35	100	301	100
Is the scheme of supplying subsidized diesel to be continued?		153	100	99	100	22	100	35	100	309	100
If yes, for how many years? Justify.	> 20 years	147	99	96	100	22	100	35	100	300	100
	<= 5 years	1	1							1	0.3
	Total	148	100	96	100	22	100	35	100	301	100

Table 9.07 Number of authorized dealer for distribution of subsidized Kerosene/Diesel for fishing boats

District	No .of dealers		Percent	
	Kerosene	Diesel	Kerosene	Diesel
Dakshina Kannada	03	5	14.0	19.0
Udupi	06	10	29.0	37.0
Uttara Kannada	12	12	57.0	44.0
Total	21	27	100.0	100.0

Instructions for the distribution of subsidized diesel/kerosene

	Frequency		Percent	
Name of the oil company from where the subsidized Kerosene/Diesel drawn				
	Kerosene	Diesel	Kerosene	Diesel
HP	2	7	10	24
IOC	15	18	71	62
BPC	1	4	5	14
Others	3	0	14	0
Total	21	29	100	100
Kerosene/Diesel dealers with transport tanker				
	Kerosene	Diesel	Kerosene	Diesel
Yes	18	15	86	52
No	3	14	14	48
Total	21	29	100	100
Measures employed to check the quality of Kerosene/Diesel supplied by the private transporters				
	Kerosene	Diesel	Kerosene	Diesel
Yes	16	27	76	93
No	5	2	24	7
Total	21	29	100	100
Measures employed to check the quantity of Kerosene/Diesel supplied by the private transporters				
	Kerosene	Diesel	Kerosene	Diesel
DIP reading	21	29	100	100
Total	21	29	100	100
Pre requisites required to supply subsidized Kerosene/Diesel (1*)				
	Kerosene	Diesel	Kerosene	Diesel
Yes	21	29	100	100
Total	21	29	100	100

Measures adopted to supply Kerosene/Diesel to the genuine beneficiaries(2*)				
	Kerosene	Diesel	Kerosene	Diesel
Yes	21	29	100	100
Total	21	29	100	100
Measures to supply correct quantity of subsidized Kerosene/Diesel to the fishing boats(3*)				
	Kerosene	Diesel	Kerosene	Diesel
Yes	21	29	100	100
Total	21	29	100	100
Mechanisms to verify that the fishing boats supplied with subsidized Kerosene/Diesel has carried out fishing				
	Kerosene	Diesel	Kerosene	Diesel
Yes	6	18	29	62
No	15	11	71	38
Total	21	29	100	100
Tachometer reading is observed and recorded				
	Kerosene	Diesel	Kerosene	Diesel
Yes	3	5	14	17
No	18	24	86	83
Total	21	29	100	100
Measures taken to verify misusing(4*)				
Yes	18		86	
No	3		14	
Total	21		100	
Measures taken by the food and civil supplies dept to ensure that the kerosene supplied is not sold in open/black market				
Yes	18		86	
No	3		14	
Do you provide credit facility for the purchase of subsidized diesel?				
Yes	15		52	
No	14		48	
Total	29		100	

Note: 1* - As per horsepower of the boats, Passbook issued by the fisheries dept
2* - Verifying the passbook and boats
3* -As per the hp of boats and verifying the passbook, As per the norms fixed by the oil companies
4*- By inspection

Method of supply of fuel by the beneficiaries

	Frequency		Percent	
Supply of kerosene quota				
Monthly	21		100	
Mode of delivery (kerosene)				
Through cans	17		81	
Through pumps	4		19	
Frequency of inspection made by officers				
	Kerosene	Diesel	Kerosene	Diesel
Most regularly	18	9	86	31
Occasionally	3	20	14	69
Total	21	29	100	100
Why should continue the proposed scheme				
	Kerosene	Diesel	Kerosene	Diesel
Don't know	7	6	33	21
This scheme will help the poor fishers and theirs family	14	23	67	79
Total	21	29	100	100

Table 9.08 Number of fishing units and boat details based on hp classification

Sl. No.	Particulars	Horse power classification						Total	
		< 10 hp		10 to 20 hp		>20 hp			
		n	%	*n*	%	*n*	%	*n*	%
1	No. of fishing units	372		50		177		599	
2	**Boat is made of**								
	Wood	37	11	4	9	1	1	42	9
	Fiberglass	295	89	41	91	110	99	446	91
	Total	332	100	45	100	111	100	488	100
3	**Make of engine**								
	Yamaha	265	75	25	53	176	99	466	81
	Suzuki	69	20	16	34	1	1	86	15
	Mariner	18	5	5	11	-	-	23	4
	Johnson	-	-	1	2	-	-	1	-
	Total	352	100	47	100	177	100	576	100
4	Length of mechanized boats in meters	336		48		144		528	
	(mean value)	9.05 m		9.64 m		12.20 m		9.98 m	
5	Construction of boat in years	362		49		172		583	
	(mean value)	14 years		16 years		11 years		12 years	
6	Average life of the engine in years	284		39		145		468	
	(mean value)	19 years		21 years		30 years		23 years	

Table 9.09: Details of subsidized kerosene eligible and drawn in a month/fishing season

Particulars	Horse power classification			Total (*n* = 600)
	< 10 hp	10 to 20 hp	> 20 hp	
Average quantity of subsidized kerosene eligible/month (in liters)	240.75	245.87	276.68	251.61 (*n* = 574)
Average quantity of subsidized kerosene actually drawn in a month (in liters)	234.65	245.96	263.68	244.36 (*n* = 600)
Average quantity of subsidized kerosene drawn in a fishing season (9 months) in liters	2094.48	2182.93	2340.41	2180.04 (*n* = 553)

Table 9.10: Details of fishing in a year/season (*n* = 600)

Particulars	Horse power classification			Total
	< 10 hp	10 to 20 hp	> 20 hp	
Average number of days you go for fishing in a year/season	199 (*n* = 354)	196 (*n* = 50)	243 (*n* = 155)	217 (*n* = 559)
Average consumption of kerosene/trip (in liters)	83.46 (*n* = 336)	81.09 (*n* = 47)	54.42 (*n* = 172)	72.54 (*n* = 555)
Storage capacity of tank in the boat (in liters)	125.55 (*n* = 354)	120.12 (*n* = 50)	88.03 (*n* = 154)	105.74 (*n* = 558)
Average catch per effort (in Kg)	52.24 (*n* = 295)	53.53 (*n* = 43)	43.25 (*n* = 151)	49.52 (*n* = 489)
Average gross return per effort (in rupees)	2933.15 (*n* = 304)	2387.33 (*n* = 44)	1410.30 (*n* = 151)	2389.91 (*n* = 499)

Table 9.11 Evaluation of the subsidy scheme by the beneficiaries

Particulars		Horse power classification						Total	
		< 10 hp		10 to 20 hp		> 20 hp			
		N	%	*n*	%	*n*	%	*n*	%
Whether the Tachometer reading is observed in the passbooks?	If recorded	7	3	-	-	-	-	7	2
	If not recorded	235	97	32	100	45	100	312	98
	Total	242	100	32	100	45	100	319	100
How many fishing boats you have in your family including wife and children? (in numbers)	1	357	99	49	100	177	361	583	99.1
	2	2	0.6	-	-	-	-	2	0.3
	3	2	0.6	-	-	-	-	2	0.3
	9	1	0.3	-	-	-	-	1	0.2

Particulars		Horse power classification						Total	
		< 10 hp		10 to 20 hp		> 20 hp			
		N	%	*n*	%	*n*	%	*n*	%
	Total	362	100	49	100	177	361	588	100
Do you have any spare engine? If yes, is it registered?	Yes	3	1	-	-	-	-	3	1
	No	355	99	49	100	177	100	581	99
	Total	358	100	49	100	177	100	584	100
How do you procure monthly quota of kerosene? Is it as per the requirement or monthly quota? Is purchased at onetime and stored in the house/godown?	Stored in godown	367	100	50	100	177	100	594	100
Are any boats selling surplus kerosene to others?	If not selling	367	100	50	100	177	100	594	100
Any suggestions to improve the distribution system.	It is a good scheme	122	44	21	54	110	76	253	55
	Need to improve	147	53	17	44	34	23	198	43
	Any other	9	3	1	3	1	1	11	2
	Total	278	100	39	100	145	100	462	100
Any suggestions to ensure that the kerosene supplied is not used for any other purpose.		153	41	19	38	30	17	202	34
	Not used for other purpose	219	59	31	62	147	83	397	66
	Total	372	100	50	100	177	100	599	100
Whether the owner is aware of the quantum of subsidy per liter of kerosene purchased	Yes, owner is aware of it	273	80	43	90	145	82	461	81
	No, owner is not aware of it	70	20	5	10	32	18	107	19
	Total	343	100	48	100	177	100	568	100
Whether the subsidized kerosene fixed per boat is adequate?	No	371	100	50	100	177	100	598	100
What is the frequency of renewal of boat	If ones in year	311	100	45	100	155	100	511	100

Particulars		Horse power classification						Total	
		< 10 hp		10 to 20 hp		> 20 hp			
		N	%	*n*	%	*n*	%	*n*	%
registration/ year?									
What is the frequency of renewal of fishing license/year?	If ones in year	362	100	50	100	176	100	588	100
It is proposed to transfer back-end subsidy on the kerosene directly to the Bank account of the beneficiary. What is your opinion on the modified scheme?	Scheme is good	239	83	31	86	45	100	315	85
	Scheme is not good	37	13	5	14	-	-	42	11
	Any other	12	4	-	-	-	-	12	3
	Total	288	100	36	100	45	100	369	100
Whether the kerosene dealers supply the exact quantity of subsidized kerosene	Yes	370	100	50	100	177	100	597	100
Is there any shortage of kerosene supply?									
	Yes	24	7	4	9	-	-	28	5
	No	305	93	42	91	177	100	524	95
	Total	329	100	46	100	177	100	552	100
Any complaints lodged on the quality and quantity of kerosene supplied	If complaints are not lodged	341	100	48	100	177	100	566	100
Whether the kerosene dealers are supplying the kerosene manually or through pumps.	Through pumps	261	71	37	74	47	27	345	58
	Manually	107	29	13	26	130	73	250	42
	Total	368	100	50	100	177	100	595	100
Whether the dealers supply kerosene to the unregistered boats without a permit issued by the Food & Civil supplies Dept.?	If not supplying	336	97	47	98	177	100	560	98
	Don't know	9	3	1	2	-	-	10	2
	Total	345	100	48	100	177	100	570	100
Whether the subsidized kerosene is supplied to other than fishing purpose.	No	336	97	47	98	177	100	560	98
	Don't know	9	3	1	2	-	-	10	2
	Total	345	100	48	100	177	100	570	100

Particulars		**Horse power classification**						**Total**	
		< 10 hp		**10 to 20 hp**		**> 20 hp**			
		N	**%**	***n***	**%**	***n***	**%**	***n***	**%**
Any complaint on the quality and quantity of kerosene supplied	No	336	100	47	100	177	100	560	100
After the use of subsidized kerosene whether the fish production has increased considerably?	Increased fish production	294	90	45	94	151	98	490	92
	No changes	34	10	3	6	3	2	40	8
	Total	328	100	48	100	154	100	530	100
In your opinion, is a need to continue the scheme?	Should continue	369	100	50	100	177	100	596	100
If YES, substantiate it.	Very useful scheme	292	95	44	98	153	99	489	97
	Helped many poor fisher families	12	4	1	2	1	1	14	3
	Many fisher families depends on the scheme	3	1	-	-	-	-	3	1
	Total	307	100	45	100	154	100	506	100

General awareness of non beneficiaries on fuel subsidy scheme

	Frequency	Percent
Awareness of diesel/kerosene subsidy scheme		
No	5	6
Yes	80	94
Opinion on diesel/kerosene subsidy scheme		
Functioning well	74	88
Not satisfactory	11	12
The fishermen are benefited under diesel/kerosene subsidy schemes		
No	8	9
Yes	77	91

Fishermen are able to catch more fish by diesel/kerosene subsidy schemes		
No	7	8
Yes	78	92
The subsidized diesel/kerosene fixed per boat is adequate		
No	52	61
Yes	33	39
Scheme has really helped to the poor fishers		
No	6	7
Yes	79	93

Suggested modification in the scheme by the beneficiaries

	Frequency	Percent
Modification and improvement needed		
Don’t know	41	48
Modification not required	17	20
Subsidy should directly transfer to the beneficiary bank account	27	32
Efficiency of mechanized boats		
Number and fishing are increased	15	18
Don’t know	23	27
Its good	47	55
Impact of price increase		
Don't know	52	61
Fish market has improved	28	33
Price increase is a common factor	5	6
How the subsidy to the boats is justified in the context of fish catch is over exploited		
Don't know	20	23
Fish catch has not over exploited	16	19
This scheme has helped to poor fishers	49	58
How the subsidy to the boats is justified in the context of fish catch is a commercial activity		
Don't know	14	1.2
It became a employment sector	7	8.1
It is not a commercial activity	31	36

Many poor fishers families are dependent on fishing	33	22.1
Why should continue the proposed scheme		
Don't know	17	20
Fishermen's are encouraged by the subsidy	23	27
Many poor fisher families are dependent on fishing	45	53

Table 9.12: Cost and return details of trawlers

Particulars	**Trawlers**			
	> 130 hp	130-91 hp	90- 71 hp	70-40 hp
A. Total capital costs	9000000	6050000	32,30,000	2100000
Variable costs				
Labor	4501250	2880000	1765000	935000
Fuel	5106900	4305750	2503450	1492070
Repair and maintenance	2400000	800000	800000	200000
Cost of ice	500000	300000	200000	50000
Misc. expenses	500000	300000	100000	50000
Interest on capital expenditure	1080000	726000	387600	252000
Interest on working capital	1560978	1030290	644214	327248
Depreciation	1417857	650000	340000	240000
B. Total variable costs	17066985	10992040	6740264	3546318
Revenue				
Total harvest quantity (Kgs)	238,000	176,000	174,000	70,000
C. Total revenue	18,005,000	11520000	7060000	3740000
D. Surplus (C-B)	938015	527960	319736	193682
E. Sales Tax subsidy on the diesel (@ Rs. 8.50 /liter)	765000	637500	382500	229500
F. Gross surplus available for bank installment and other expenses	1703015	1165460	702236	423182

Table 9.13: Cost and return details of purse-seine and gillnet fishing boats

Particulars	**Fishing boats**	
	Purse-seine	Gillnet
A. Total capital costs	90,00,000	15,00,000
Variable costs		
Labor	3993750	293750
Fuel	5006900	56050
Repair and maintenance	2000000	75000
Cost of ice	200000	30000
Misc. expenses	400000	50000
Interest on capital expenditure	1080000	180000
Interest on working capital	1392078	60576
Depreciation	1010000	150000
B. Total variable costs	15082728	895376
Revenue		
Total harvest quantity (Kgs)	356,000	11,500
C. Total revenue	15975000	1175000
D. Surplus (C-B)	892272	279624
E. Sales Tax subsidy on the diesel (@ Rs. 8.50 /liter)	765000	--
F. Gross surplus available for bank installment and other expenses	1657272	--

Chapter X

ANALYSIS AND INFERENCES

In order to improve the income realization by mechanized fishing vessels and with a view to encourage fishermen to go to deeper waters for fishing, the Government felt the need to subsidize the diesel being used by these fishing vessels. Hence, in 1985-86 the State Government introduced a scheme of providing subsidy on diesel purchased for the fishing purpose by exempting the State sales tax which was about Rs.0.52 per liter at that time. Subsequently, on the demand from the fisher folk, the Government decided to do away with back end subsidy and instead provided *"at source sales tax exemption''* for the diesel being purchased for mechanized fishing boats.

In order to cater to these needs, the Government of Karnataka facilitated the establishment of government approved diesel outlets (bunks) in fishing harbours and fish landing centers. These bunks are supplied with sales tax exempted diesel from Oil Companies based on the permission letter issued by the fisheries department. At present the sales tax exemption on the diesel comes to around Rs.8 per litre.

The scope of evaluation of sales tax exempted diesel and kerosene to fishing boats is confined to the three coastal districts, viz., Dakshina Kannada, Udupi and Uttara Kannada.

All the stakeholders like fishermen, fish merchants, fish labourers and others such as non-fishermen, retired government officials, academicians have supported for the continuation of the scheme. *The team has made the evaluation of the scheme and following inferences were made:*

a) **To evaluate the need and utility of the Scheme:** The scheme is in existence since 1985-86. The capture fishery is most unpredictable or gambling. The catch depends on the season. It was observed that sometimes the season failed considerably and the fishermen incurred heavy loss. The less catch also resulted in the decrease in export and as a result the foreign exchange was also affected considerably. The subsidized diesel helps the fishermen to minimize the loss. It is therefore felt by the fishermen and the experts in the field that the subsidized diesel helps the fishermen to continue the fishing as their occupation even if they incur loss and needs to be continued. The cost of investment for the mechanized fishing boats of OAL 20-24 M is around Rs. 80 to 90 Lakhs. There is a need to have investment for going deep into the sea. Keeping in

view of the enormous investments made by the Government in providing fuel subsidy, an analysis was done by CMFRI on the primary data collected during 2013-14 on the reduction in the net operating income of boat owners if fuel subsidies were removed. It has been observed that when fuel subsidies are withdrawn, the net operating income from multiday trawlers (10 days) decreases by 35.90%, that of (4 day) trawlers decreases by 8.13%,that of (six day trawlers) decreases by 12.59% and of single day trawlers decreases by 28.81%. Therefore, the subsidy on diesel to mechanized fishing boats is justifiable and need to be continued with more of supervision.

b) To evaluate the process of implementation of the entire Scheme.

The Government allots some quantity of subsidized diesel quota for the entire year. The Director of Fisheries on the basis of the diesel consumed by the authorised diesel bunks in the previous year fixes the quota of subsidized diesel for the concerned authorised diesel bunks and communicates the same to the respective Deputy Director of Fisheries of the district and the Oil companies for which the authorized diesel bunks are attached. As per the quota fixed by the Director of Fisheries, the concerned diesel bunks place indent with the Oil Companies and they supply the diesel to the authorized diesel bunks. If the quota fixed by the Director of Fisheries for the particular month is not sufficient due to the good harvest of fish, then the authorized diesel bunks apply for the additional quota with the Director of Fisheries and after reviewing the consumption and fishing efforts, the Director of Fisheries allots the additional quota for the month from the next month's quota. The diesel bunks are required to submit the diesel drawn and distributed to the fishing boats and the report to be submitted to the Director of Fisheries.

The diesel from the terminals of the Oil Companies is transported through the tankers owned by the authorized diesel bunks or through the private tankers. From the terminals of the Oil Companies the tanker transports the diesel and unloads the diesel to the storage tanks of the diesel bunks. Before the diesel is unloaded, the DIP reading is observed by the diesel bunk staff for the accuracy in quantity. Further the quality of the diesel in respect of density, color etc is being observed by the staff. If there is any discrepancy observed with the quantity or quality of the diesel the same will be reported to the terminal of the Oil Companies and the same will be rectified immediately.

The stored diesel is distributed by the authorised diesel bunks to the fishing boats on the basis of the passbooks issued by the department of fisheries. In the passbook the quantity of subsidised diesel eligible per fishing boat for the day/month is mentioned. Depends on the Horse Power of

the engine different quantity of diesel is fixed per boat. The passbook is issued by the Deputy Director of Fisheries on the basis of the registration certificate and the fishing license of the fishing boats. The diesel bunks delivering the diesel are stamped by the weights and measurement department for the accuracy of the quantity. Therefore, the diesel bunks are ought to deliver correct quantity of the diesel to the fishing boats. Most of the authorised diesel bunks are located alongside the fishing harbours/jetties. Therefore in most of the cases the diesel is directly delivered to the diesel tanks of the fishing boats. In few cases where there is no provision for the fishing boats to come near the jetties, the diesel is carried through the Jerry cans. (Mostly the small boats).

In some of the diesel bunks automation Instrument is provided by the Oil Companies to monitor the supply of diesel, quantity of diesel in the storage tank and the distribution of diesel to the fishing boats. This instrument is computer based and all the above mentioned parameters can be observed in finger tip. Further, these informations can be observed at their respective divisional or sub-divisional offices. It is observed by the team that this instrument is very useful to get the information on the diesel accurately. **The department may insist all the diesel outlets to install this instrument compulsorily.** The Oil Companies supplies and installs this instrument from their fund.

c) **To study the organizational and administrative problems and loopholes, if any, in the implementation of the Scheme.**

The government allots subsidized diesel quota per annum. The Director of Fisheries distributes the quota of subsidised diesel to each of the authorised diesel bunks on the basis of the previous year's consumption. The Director of Fisheries circulates the quota for the next month to the respective Oil Companies in the last week of the previous month. The diesel quota released for the month has to be used in that particular month only. If any quota is remaining due to bad fishing season the same will be removed and included in the pooled quota.

The diesel bunks place indent for the supply of the diesel to their respective diesel bunks and the Oil Companies supply the indented quantity to the diesel bunks directly. The staff of the diesel bunks checks the quantity and quality of the diesel as soon as it is arrived at the outlets. If the quantity & quality of the supplied diesel is correct, then only the diesel is unloaded to the storage tanks.

GOVERNMENT (Allots annual quota)

DIRECTOR OF FISHERIES (allots monthly quota for the diesel bunks)

AUTHORISED DIESEL BUNKS PLACE INDENT WITH OIL COMPANIES

TOTAL AMOUNT ON THE INDENTED QUANITY PAID IN ADVANCE

(In the form of RTGS or D.D.)

OIL COMPAINES (supply the diesel quota indented)

AUTHORISED DIESEL BUNKS (stores the diesel)

FISHING BOATS (draws the diesel as per the limit fixed)

AUTHORISED DIESEL BUNKS (collects cash/or on credit)

The concerned Deputy Director of Fisheries of the district issues the passbooks for getting subsidized diesel by the fishing boats on the basis of the registration certificate and fishing license. The different Horse Power of the engine fitted to the fishing boats qualify for different quantity of subsidized diesel as shown in the table no 3.1. The scheme is working well as far as the quantity and quality of diesel supplied to the fishing boats are concerned. All the assistant directors of fisheries (grade-1) / grade-2) who are working in the coastal areas are entrusted with the supervision of the scheme and to observe any loopholes in the implementation of the scheme by inspecting the concerned diesel bunks. It is observed that the assistant directors of fisheries are not getting sufficient time for the supervision as they have to implement other regular schemes of the department. It is therefore suggested to give additional hands or to fill up all the vacant posts of the assistant directors of fisheries in the coastal area so as to strengthen the supervision of this scheme.

d) **To study the economics and operational efficiency of mechanised boats after the implementation of the Scheme.**

The economics and operational efficiency of mechanised boats after the implementation of the scheme is given in the tables in Appendix 1.a, 1.b, 1.c, 1.d, 1.e, and 1.f,

e) **To assess whether the Scheme has impacted on employment, earnings and levels of the fisher folk.**

The scheme has really impacted on the employment, earnings and levels of the fisher folk. The scheme has generated tremendous employment. Many people are employed /engaged in this profession. As far as the levels of the fishermen are concerned, presently they have a permanent own house to live, their life style is improved, most of the fishermen children are educated and fairly good number are in medicines and I.T. Professional. They have a respectable status in the general public.

f) **Need of continuance of the Scheme and modifications/ improvements if any in the Scheme if it is recommended for continuation.**

There is a need to continue the scheme, as the scheme has helped the fishermen to carry out fishing profitably. Without the subsidy they would have definitely incurred loss and the fishing would have been stopped and the fishermen would have become unemployed. In the distribution of subsidized diesel it is observed that some of the higher horse power engine fitted boats consume more than the diesel quota fixed to them. When asked about additional quantity of diesel, they say that they have purchased from private bunks. This requires strict supervision by the department officers at the diesel bunk level. After the introduction of this scheme no additional staff was given to the department for supervising this scheme. The staff working in the department was used to carry out the additional work of supervision of this scheme. It is therefore suggested to strengthen the fisheries department staff for better supervision.

g) Overall impact of the Scheme on the marine fish production and fish population of Karnataka.

Definitely the scheme has impacted on the marine fish production. When we see the production of fish for the few decades, it has increased tremendously. This is because, the fishing boats go deep and very far into the sea and fishing continuously for 10 to 12 days. The fishermen of Karnataka are basically from the fishermen community viz., Mogaveeras, Kharvies, Mogers, Gabhits, Harikanthas, Ambigas, Daljies, etc., They mainly stick on to this fishing profession. Most of the fishermen don't posses agricultural lands and therefore they can't take up the agriculture as their profession. Off late the crew members in the fishing boats are employed from the nearby states because there is a scarcity among the local fishermen, as the fishermen youths are educated and they take up other profession.

It is felt by the team that other measures like zonation of fishing, mesh size regulation, ban on bull trawling, catching cuttle fish by unnatural methods and other management measures are to be integrated for avoiding the over exploitation of fishery resources.

h) Whether the scheme has been effectively implemented with respect to Procurement of diesel, distribution of diesel, Quality & Quantity supplied, issue of passbooks etc.,

The diesel from the terminals of the Oil Companies is transported through the Tankers owned by the authorised diesel bunks or private tankers. From the Oil Companies the tanker brings the diesel and unloads the diesel to the storage tanks of the outlets. Before the diesel is unloaded to the storage tank of the outlets, the DIP reading is observed by the diesel bunk staff for the quantity. Further the quality of the diesel in respect of density, color etc., are being observed by the staff. If there is any discrepancy with the quantity or quality of the diesel, the same will be reported to the Terminal Manager of the respective Oil Companies and the same will be rectified immediately.

The stored diesel is distributed to the fishing boats on the basis of the pass books issued by the department of fisheries. The department of fisheries issues passbooks to the fishing boats for obtaining subsidised diesel from the authorised diesel bunks. In the passbook the quantity of subsidised diesel eligible by the fishing boat for the day/month is mentioned. Depends on the Horse Power of the engine, different quantity of subsidised diesel is fixed per boat. The pass book is issued by the department of fisheries on the basis of the registration certificate and the fishing license of the fishing boats. The diesel bunks which deliver the subsidised diesel to the fishing boats are stamped by the Weights and Measurement department for the accuracy of the quantity. Therefore, the diesel bunks ought to deliver correct quantity of the diesel to the fishing boats.

i) Here there is a possibility that the some staff of the diesel bunks tamper the dispensing machines after it is stamped and short supply the diesel to the fishing boats.

Most of the authorised diesel bunks are located alongside the fishing harbours/jetties. Therefore in most of the cases, the diesel is directly delivered into the diesel tanks of the fishing boats. In few cases where there is no provision for the small fishing boats to come near the harbours/jetties, the diesel is carried through the Jerry cans. (Mostly with the small boats).

The passbooks for the procurement of subsidized diesel are issued by the Deputy Director of Fisheries of the respective district. The fishing boat owners apply for the passbooks along with the copy of the registration certificate and the fishing license. In the registration certificate of the boat, the horse power of the engine is mentioned. The authorised diesel outlets collect the application for the issue of passbooks and forward the same to the Deputy Director of Fisheries, through the concerned assistant director of fisheries of the area. The Deputy Director of Fisheries scrutinize the application and issues the passbooks, mentioning the quantity of the subsidised diesel eligible for that particular boat per day/per month. The fishing boat owners either by themselves or through his representatives procure the diesel from the authorised outlets. The fishermen can avail the subsidised diesel in any one of the authorised outlets situated alongside the entire coast by producing the valid passbooks.

For the Diesel distribution part:

A. The subsidy on the diesel is as per the Horse Power of the engine. The quantum of subsidy is on the sales tax of the diesel. Entire sales tax is exempted. Around Rs.8/- per liter of diesel is the present subsidy. Accordingly, the maximum quantum of subsidy provided to each category of boat is as follows:

Table 10.1HP wise eligibility of fishing vessels for diesel subsidy

Horse Power of the engine of the boat	Diesel eligible per day (litres)	Diesel eligible per month(litres)	Diesel eligible per year(litres)	Maximum subsidy eligible per year (rs.)
Upto 40 HP	70	2100	21000	1,68,000
41-70 HP	90	2700	27000	2,16,000
71-90 HP	150	4500	45000	3,60,000
91-130 HP	250	7500	75000	6,00,000
Above 130 HP	300	9000	90000	7,20,000

At present all the Fishing boats owned by family members are eligible for subsidized diesel. In the existing modalities of the scheme, there is no mention of one family-one subsidy. **Government may think of introducing one family-one subsidy in the years to come.**

B. To avail the diesel subsidy, the passbook issued by the Department of Fisheries is a must. The Department of Fisheries issues the passbook on the basis of the registration certificate and fishing license of the fishing boat. In the registration certificate all the information regarding the OAL of the boat, Horse power of the engine and other particulars are mentioned. In the passbooks the quantity of subsidised diesel eligible for that particular boat per day/month is also mentioned.

C. The Registration certificate is issued only once and at present there is no renewal for the registration. But the fishing license is issued once in a year and it has to be renewed every year. The fishing license is renewed every year and it is justified. Whereas the registration certificate issued once is permanent. We feel that this is not a proper procedure because many of the boats are abandoned after 8 to 10 years. **The public and experts in the field are of the opinion that there is a probability of misusing the obsolete fishing boats and therefore registration has to be renewed once in 5 years.**

D. The average catch per effort and gross return per effort in respect of mechanised boats are given in the table 2.02. It was not possible to compare with mechanised boats not receiving sales tax free diesel because all the operational fishing boats are registered and eligible for subsidised diesel.

E. The subsidised diesel is procured from the Central Government owned Oil Companies from Baikampady (BPC), Thannirbavi (IOC) and MRPL premises (HP). As mentioned earlier, the diesel is supplied to the authorised outlets through tankers. The diesel stored in the storage tank of the authorised outlets is distributed to the fishing boats on the basis of the passbooks issued by the department of fisheries. As far as the quantity and quality of the diesel concerned, there is a check from the Oil Companies as well as at the authorised bunks. Besides, the dispensing pumps are stamped by the government departments for the accuracy of the quantity. The passbooks are issued every year (season) by the department of fisheries on the basis of the registration certificate and fishing license of the fishing boats. There is absolutely no problem on these issues.

F. The authorized outlets have to distribute the subsidized diesel only to the valid passbook holders. The passbook is issued only to those who are having registration certificate and fishing license. Therefore the question of distribution of diesel to those not having passbook does not arise. **But there is a possibility that sales tax exempted diesel is used by the intensely active**

fishing boat in the name of a casually qualified boat. At present there is no mechanism to check this. By strengthening the supervision by the fisheries department officials at the outlet level, this can be stopped. While fishing in the sea it is very difficult to check this possibility.

G. As explained above, in majority of the cases the subsidized diesel is directly distributed to the storage tanks of the fishing boats which are fitted underneath the deck. Therefore, the possibility of subsidized diesel being used for other purpose is remote. The other transport vehicles or passenger vehicles are prohibited to come inside the outlet. **We suggest to barricade the entire area of the outlet to prohibit any vehicles (other than diesel tankers) entering the area.**

H. The records of complaints received are not maintained in the fisheries office. It was reported by some people that multiday fishing boats require additional quantity of diesel and therefore, they procure the additional diesel from the open market. It is true that the quota fixed for the multiday fishing boats are not sufficient. But how they procure the additional quantity of diesel is not sure and it is very difficult to assess this.

I. All the fishermen are of the opinion that the scheme on the exemption of sales tax on the diesel distributed to the fishing boats has to be continued at least for a period of next 20 years. The reason given by most of the fishermen is that the cost of diesel is increasing every year and therefore it is very difficult to bear the additional cost of the diesel. Further, if the diesel subsidy is removed, most of the fishing boats stop going for fishing as they cannot meet the additional cost of the diesel and as a result the fishermen employed (crew members), the fish merchants and fishery related laborers become jobless and there will be huge cry in the fisheries sector. Further, if the fishing boats stop going for fishing, the export of valuable fishes will be stopped and the foreign exchange will be affected enormously. Therefore, the fishermen are of opinion that the subsidy on the diesel has to be continued for a minimum period of 20 years, till the practice of fishing is made self-sustainable.

J. It is said that though the price of the fish is 15 times today as compared with the year 1985-86 and the fish is over exploited and yield is getting affected. The fishermen and the experts in the field say that even though the price is increased, the cost of expenditure is also increased and therefore this factor cannot be considered for discontinuing the sales tax subsidy. Over the years the number of fishing boats increased and this is due to the fishing boats venturing into very deep in the sea and for many days and therefore exploited the deep sea resources. These multiday

fishing boats bring mostly quality fishes preserved in ice. Therefore, the quantity appears to be decreased but the income in terms of value is increased over the years.

The cost of the multiday fishing boat is not less than Rs.60.00 lakhs and it is told that the marine fishing is done by mechanised boats is an commercial activity rather than meant for sustenance and therefore how the sales tax exempted diesel to mechanised fishing boats is justifiable. As mentioned earlier, the opinion of the fishermen is that, though the investment on the fishing boat is more than Rs. 60.00 lakhs, the money is borrowed from the bank as loan and advance obtained from the fish merchants. The fishermen are not in a position to invest for fishing boats. The multiday fishing operation is for conserving the diesel and not for any commercial activities. These multiday fishing boats usually stop operation in the night (except when carrying out fishing for shrimp). Therefore the expert in the fishing field are of the opinion that though the fishing boats go for 10-12 days voyage this cannot be termed as commercial fisheries. The commercial fishing boats have freezing facilities on board, whereas in this case crushed ice are taken on board the fishing boats to preserve the fish.

Though the Banks are financing for the fishing sector, it is observed that the banking finance is meager for both capital and operational expenses. The finance extended by the fish merchants for the fishing boats is still a powerful proposition.

Therefore, the fishermen are of the opinion that there is a need to continue the scheme, with modifications if any, to see that the scheme is fool proof.

K. From 2015-16 onwards the mode of payment of sales tax subsidy is on the buyback system. The subsidy on the diesel is directly transferred to the bank accounts of the beneficiaries. The fishermen are of the opinion that this is a good move and they are satisfied with the present system. Only their request is to see that the subsidy is transferred to their bank account without much delay.

II.KEROSENE SUBSIDY FOR THE MOTORISED BOATS:

L. The average quantity of subidised kerosene distributed per month per boat is 250 liters. Each district is distributing different quantity of kerosene depending on the kerosene quota they get from the public distribution system. In the open market the white kerosene is sold at around Rs.60/- per liter. The subsidised kerosene costs around Rs.20/- per liter. As a result the fishing boats get kerosene at around Rs.40/- cheaper than the market price. The kerosene distributed

only for 9 months from the month of September to May. Therefore, the maximum amount benefited by the motorised fishing boat owners is Rs.90, 000/ per year.

M. The scheme is implemented by the Food & Civil Supplies Department of the State Government. The fishermen in the lean season apply for the kerosene permit with a copy of the registration certificate and fishing license of the fishing boat issued by the fisheries department. On the basis of the registration certificate and the fishing license, the department of food & civil supplies issues the kerosene permit. By producing the same, the authorised kerosene outlets distribute the entire quantity of subsidised kerosene eligible per month at once. (All the quantity at once).

N. As in the case of diesel engine operated fishing boats here also boat registration is once. Once it is registered it is final. This may be reviewed because most of the boats become obsolete and abandoned after 8-10 years. **To keep the correct record of the fishing boats, the registration of the fishing boats is required to be renewed once in 5 years.** The fishing license is issued every year and is justified and may be continued.

O. The average catch per effort and gross return are shown in the table provided. Table No. 2.02. Almost all the motorised boats are provided with kerosene permit and therefore it is not possible to compare this with that of motorised boats not receiving subsidised kerosene.

P. In the implementation of the kerosene subsidy scheme, the following discrepancies are observed.

a. The kerosene is distributed to the authorized outlets in the middle of the month and they have to distribute the same to the beneficiaries within 7-10 days. If the beneficiary is not able to collect the subsidised kerosene within such time due to any reasons, the quota allotted to such boat lapses. **It is recommended to supply the subsidised kerosene to the authorised outlets in the beginning of the month and continue up to the last week of the month. (Up to 28th of the month)**

b. Presently the kerosene permits are issued by the food and supplies department on the basis of the registration certificate & fishing license of the fishing boats issued by the department of fisheries. Sometimes there is a delay in issuing the permits due to many reasons. Further, the food & civil supplies department don't have any control over the fishing boats. **As such it is recommended to issue the kerosene permit by the fisheries department.** In some of the

cases the new motorised boats are not getting the Kerosene permit as the department has to allot the kerosene quota from the existing allotted quota only.

c. As the kerosene is supplied from the Oil Companies of the Central Government, no complaints on the quality of the kerosene is observed. The kerosene is supplied to the authorised outlets by the private tankers. Therefore the problem with the quantity is not ruled out. However, the outlets receive the kerosene only after taking DIP reading of the kerosene in the tanker. If there is any shortage, the same will be reported to the Oil Companies and they make good the shortage. In most of the cases the kerosene is taken in Jerry cans manually and possibility of shortage to the beneficiary cannot be ruled out. Therefore the authorised outlets should have kerosene pumps as in the case of diesel distribution system.

Q. The authorised outlets have to distribute the subsidised kerosene only to the permit holders. The permit is issued only to those who are having registration certificate and fishing license. Therefore the question of distribution of kerosene to those not having permit does not arise. But there is a possibility that subsidised kerosene is used by the intensely active fishing motorised fishing boats in the name of a casually qualified motorised boat. There is no mechanism to check this. By strengthening the supervision by the fisheries department officials at the outlet level this can be stopped. While fishing in the sea it is very difficult to check this aspect.

R. The subsidised kerosene used by fishing boats is blue in color and blue color kerosene is not available in the open market. Therefore, it is very easy to catch hold of those who sells blue kerosene in the market. These measures are enough to stop the misuse, but the supervision by the concerned department has to be tightened.

S. There are no complaints received from any of the fishermen on the misuse of the subsidised kerosene. The scheme is implemented by the food & civil supplies department. This department is not having sufficient staff to check the implementation of the scheme in the field. As the activity is related to the fisheries sector and already the fisheries department officials are supervising the implementation of the subsidised diesel scheme, this scheme also may be transferred to fisheries department for the proper implementation of the scheme.

T. Fisher folk are of the opinion that the scheme has to be continued because without the subsidised kerosene they will not be able to go for fishing because the operational cost becomes more than the income and they incur huge loss and the fishing will not become viable.

The alternative fuel for kerosene is diesel. But they have to replace the kerosene operated outboard engine with inboard engine. It is observed that the diesel engines are slow when compared to the outboard engines. The method of fishing requires the motorised engines having good speed for the boat. Therefore the alternative fuel as diesel is ruled out.

U. The subsidised kerosene to the motorised boats is justified because the normal cost of the kerosene is very high and with this high cost they will not be able to go for fishing. Therefore, there is a need to continue the scheme. The implementation part may be handed over to the fisheries department for better control.

V. The system of transferring kerosene subsidy to the beneficiary account is a good system. In the subsidised diesel scheme, this system is adopted in this year and it is working well. The same may be applied to susidised kerosene also. The fishermen agree for this system and their request is to transfer the subsidy to their bank account without much delay.

W. The officers of the department of fisheries check the process of supply of tax exempted diesel once in a month. The officers check the quota allotted to the particular authorised outlet and the diesel supplied by the Oil Companies. Further the subsidised diesel distributed to the registered fishing boats is also checked as per the quota allotted to them. The passbooks are also checked for the entry. If there is any discrepancy, the same will be brought to the knowledge of the outlet management and they will rectify the same immediately. The scheme of subsidised kerosene is supervised by the food &civil supplied department. They frequently visit the kerosene outlets which distribute the kerosene and check all the registers related to the subsidised kerosene. Sometimes they surprisingly visit the outlets which sell the subsidised kerosene and initiates legal action if the norms are violated.

X. The Director of Fisheries has entrusted a particular authorized bunk to one of the assistant director of fisheries (grade-1 / grade-2) of the coastal area. These Officers visit that particular bunk usually once in a month. The visit is surprise and they check the subsidised diesel drawn in a month and distributed to the passbook holders as per the quantity of diesel fixed in the passbooks. The passbook of the fishing boat is also checked randomly for the entry. If any discrepancy is observed, the same will be communicated to the authorised diesel bunks either in writing or orally and the bunks rectify the same.

Y. **In the states of Goa, Kerala, Tamilnadu and Andhrapradhesh the susidised diesel and kerosene for fishing purpose.** It is leant that the Tamilnadu Government is assisting the fishermen for the subsidy of Diesel and Kerosene used for fishing as follows:

The sales tax portion of 15,000 litre/year of diesel used for fishing boats are exempted and 3,000 litre/year of kerosene used by the motorised boats is exempted.

In Goa State, the subsidised diesel permitted for the fishing boats is as follows:

Engine with 6 cylinders -8000 litres per year, engine with 4 cylinders -6000 litres per year and engine with 3 cylinders -5000 litres per year. The rate of subsidy per litre is Rs.1.50/-

The maximum quantum of subsidy on the kerosene is Rs.50, 000 per annum.

Up to 2000 liters Rs.50, 000/- per annum.

1500 to 1999 liters Rs.37, 500/- per annum.

1000 to 1499 litres Rs.25, 000/- per annum.

500 to 999 litres Rs.12, 500/- per annum.

In goa state, the use of petrol in the outboard motors is also subsidised. Rs.30/- per litre (maximum 1,200 litres per annum is eligible)

In Kerala state 475 liters of subsidized Kerosene per boat was distributed earlier and now the quantity is reduced to 129 liters.

It is leant that in the state of Andhra Pradesh 80% is culture fisheries/aquaculture and it is learnt that they are extending financial support for the culture fisheries only.

Chapter XI

REFLECTION AND CONCLUTION

The scheme of subsidized diesel and kerosene for the fishing boats started in the year 1985-86 to improve the economic realization by mechanised / motorised fishing vessels and with a view to encourage fishermen to go to deeper waters for fishing. Presently the subsidy on the liter of diesel is around Rs.8/- per liter with a maximum quantity of 90,000 liters per annum and kerosene subsidy is Rs.40/- per liter with a maximum quantity of 2250 liters.

The study team has visited all the three districts and interviewed 325 beneficiaries of mechanised fishing boats, 600 beneficiaries of motorised fishing boats, all the diesel outlets, majority of the kerosene outlets and 100 people from the non-fishermen, fish merchants, fish labourers and retired government officials and academicians from the different fisheries institutions. They are all of the opinion that the subsidised scheme has to be continued further with modifications or additional guidelines to see that the schemes are fool proof.

The Government allots quota of subsidised diesel for the entire year. The Director of Fisheries allots the quota for the authorised diesel bunks. The authorised diesel bunks owned by either co-operative societies or government companies distributes the subsidised diesel to the fishing boats on the basis of the passbooks issued by the Deputy Director of Fisheries. The boats should have registration certificate and license to get the pass books. The supervision on the scheme is made by the assistant director of fisheries (grade-1, grade-2). The present set up in the department is not able to supervise the scheme effectively. For this additional staff is suggested.

The economics of the fishing boats suggest that the scheme has impacted on the earnings. Due to this employment, earnings and levels of fishermen improved. Though the subsidised diesel has not improved fish production, the income of the fishing boat is increased considerably over the years.

It is felt by the team that other measures like zonation of fishing, mesh size regulation, ban on bull trawling, catching cuttle fish by unnatural methods and other management measures are to be integrated for checking the over exploitation of fishery resources. Only subsidised diesel/kerosene alone will not stop the over exploitation of fishery resources.

It is observed by the team that at present fishing boats owned by all the family members are eligible for subsidised diesel/kerosene. Government may think of introducing one family-one subsidy in the years to come.

At present the registration certificate issued to fishing boats is permanent. Many of the fishing boats are abandoned after 8 to 10 years. As such there is a probability of misusing the obsolete fishing boats and therefore the registration of the fishing boats has to be renewed at least once in five years.

There is a possibility that sales tax exempted diesel is used by the intensely active fishing boat in the name of a casually qualified boat. At present there is no mechanism to check this. By strengthening the staff of the department of fisheries this may be checked at bunk level.

The cost of the multiday fishing boat is more than Rs.60.00 lakhs. But the fishermen are not able to finance these boats from their own fund. Mostly they borrow the fund from the fish merchants and some amount from the bank. Therefore the fishermen are of the opinion that multiday fishing is not a commercial activity. Just to conserve the diesel they go for fishing for 10 to 12 days. The commercial fishing boats have freezing facilities on board the vessel to preserve the fish. Whereas the multiday fishing boats are carrying crushed ice for preserving the fish.

From 2015-16 on wards the mode of payment of subsidy is on the buyback system and the subsidy amount is directly deposited to the bank account of the beneficiary. The fishermen are happy with the system. Their only worry is releasing of subsidy amount to their account in time. In the case of kerosene subsidy also this system may be adopted.

The subsidised kerosene scheme is implemented by the Food & Civil supplies department. For better control this scheme also may be transferred to fisheries department. As there is some procedural delay in the distribution of kerosene, it is recommended to supply the kerosene to the authorised outlets in the beginning of the month and permit the beneficiaries to draw the kerosene up to the end of the month.

The subsidised kerosene is blue in color and therefore it is very easy to find out the misuse of subsidised kerosene in the open market.

In the nearby states also subsidy on the diesel and kerosene is extended but the quantum of subsidy is less when compared to Karnataka State. This is because of the fact that these states have other subsidy schemes for encouraging the fisheries.

The team after carrying out the evaluation of the distribution of tax exempted diesel and kerosene to the fishing boats are of the opinion that, these 2 schemes needs to be continued with the above modifications on the schemes.

Chapter XII

THE FUEL SUBSIDY POLICY AND RECOMMENDATIONS

Short term

1. **Equity and fairness**

At present the distribution of diesel subsidy is not equitable and fair. It is important that the subsidy should encourage and promote ecological, economic and social efficiency criteria. Ecologically, subsidies should promote sustainable fishing practices and discourage unsustainable fishing practices. The government in consultations with fisher organizations and experts should identify the sustainable fishing practices and those who adopt such practices may enjoy the progressively higher subsidy. This is in line with WTO guidelines (***Annexure VIII)***

Economically the subsidy should promote most efficient gears and equitable. Economically efficiency may be based on cost of harvesting fish per tone and /or fuel cost per ton of fish harvested. Due weightage may be given for the gears which should be operate only in deeper waters to harvest deep sea fishes.

2. Low cost of administration: The cost of operating fuel subsidy should be assessed and alternative methods which are cost effective in implementation need to be developed.
3. Non competence: While availing fuel subsidy the department imposes several conditions. Non compliance of the conditions should be viewed seriously and subsidy should be stopped permanently.

Long term

1. The subsidy should be linked to resource stock which should be scientifically assessed through GIS by involving R & D or any community representatives.
2. Allocate funds for certification for sustainable fishing practices and monitoring by minimizing fuel subsidy
3. Provide incentives to reduce fishing efforts on declining stocks.
4. Promote more decentralized management through community based-management systems.
5. Adopt progressive subsidy scheme in which rate of fuel subsidy decreases with increase in fishing capacity and intensity

Recommendations

Provision for operational subsidy for primary sector such as agriculture, horticulture, animal husbandry and fisheries are common in order to minimize the vulnerability of the families to natural risks of uncertain catch and risks of adopting capital intensive technologies for augmenting production. Hence, it is suggested that the diesel subsidy may be continued in a modified manner to promote sustainable fishing practices. We recommend following suggestions for implementation by the state:

1. The gross income from fishing has been stagnating in spite of increased exports and increase in price index. The results indicate that nearly 60 % of the fishing income is now realized from exporting 40 % of the total production in Karnataka. Hence, removal of diesel subsidy could affect the income and employment in fishing and fishery related sectors.

2. The diesel subsidy should not lead to over-exploitation of the resources and indiscriminate use of un-sustainable fishing practices. Hence, we recommend that the fuel subsidy may be linked to the adaptation of the existing management regulations as per the Karnataka Marine Fisheries Regulation Act. Thus those fishing boats which adopt the management regulations such as mesh size, zoning of fishing areas, closed seasons (monsoon ban) strict adherence to limits to fishing capacity (HP and size) may be given incentives and subsidies rather than giving subsidy to each and every licensed boats.

3. At present as per the fuel subsidy policy of the government discrimination is not made between approved method of fishing and prohibited method of fishing. Highly destructive fishing practices such as bull-trawling, night fishing and other un-sustainable practices should be discouraged by completely withdrawing the subsidy to these fishing units.

4. As the fishing intensity increases (horse power of the engine and size of the boat greater) the demand for subsidy also increases since the operation becomes more energy oriented. On an average a deep sea vessel with greater than 130 HP receives Rs. 7.50 lakh rupees as fuel subsidy @ Rs. 8.00 per litre. On the other hand a small scale fishing unit with less fuel demand is eligible for smaller subsidy and receives Rs80, 000-100,000 as fuel subsidy. We recommend that the government may follow the principles of progressive subsidy in which the rate of subsidy decreases with increase in fishing intensity. Thus the fuel subsidy for a fishing boat with greater than 130 HP engine capacities would be limited to Rs. 4.50 lakh @ Rs 5.00 litres and a small fishing boat would continue to get the diesel subsidy @Rs. 8.00 per litre.

5. The use of kerosene by small engine boats is mainly limited to reach the fishing ground and their capacity to pull the fishing nets is not enough. Thus the kerosene is a viable fuel only

for smaller outboard engine boats within 10-15 hp engines. The present availability of kerosene is only around 220-250 litres per boat per month which is hardly enough to meet the requirements. Hence the restrictions on the supply of kerosene could be relaxed and released through open market operations.

Appendix 1

Table 1.a: Economics of multi-day fishing trawler (> 130 hp)

S.N.	Particulars			Amount (Rs.)
A	**Cost details of the fishing trawler:**			
	(a) 23M OAL hull cost (Steel/wood)			45,00,000
	(b) Engine cost (350 H.P)			15,00,000
	(c) Stern gear (Tail shaft, propeller etc.)			6,00,000
	(d) Lifesaving equipments (GPS, VHF, Echo Sounder & DAT)			2,50,000
	(e) Fishing gear (Net, steel rope, etc.)			8,00,000
	(f) Wiring, Battery, Hand pump, etc.			4,00,000
	(g) Insurance to the boat			2,00,000
	(h) Initial expenses on diesel, ice, etc.			7,50,000
	TOTAL costs			**90,00,000**
B	**Expenses details:**			
	(a) Crew share @ 25% of the total catch value			4501250
	(b) Fuel cost (90,000 liters @Rs.53.41 per liter)			4806900
	(c) Lubricants (mobile oil, grease, etc.)			300000
	(d) Repairs to engine, painting to hull, etc.			1400000
	(e) Repairs to nets, replacing wire ropes, etc.			1000000
	(f) Cost of ice			500000
	(g) Misc. expenses			500000
	(h) Interest on capital expenditure			1080000
	(i) Interest on working capital			1560978
	(j) Depreciation			1417857
	TOTAL expenditure			**17066985**
C	**Income details (from different fish catch):**	**Total quantity (kg)**	**Average price (Rs. /Kg)**	
	(a) Cuttlefish	25,000	140	3500000
	(b) Squid	20,000	110	2200000
	(c) Shrimps	8,000	160	1280000
	(d) Pink perch	70,000	50	3500000
	(e) Seer fish	15,000	270	4125000
	(f) Mackerel	20,000	60	1200000
	(g) Ribbon fish	40,000	40	1600000
	(h) Misc. fish	40,000	15	600000
	TOTAL income			**18005000**
D	**Surplus (C-B)**			**938015**
E	Sales Tax subsidy on the diesel (@ Rs. 8.00 per liter)			720000
F	**Gross surplus available for bank installment and other expenses**			**1658015**

Table 1.b: Economics of fishing trawler (91 to 130 hp)

S. N.	Particulars			Amount (Rs.)
A	**Cost details of the Fishing trawler:**			
	(a) 15M OAL hull cost (steel/wood)			3000000
	(b) Engine cost (130 hp)			1000000
	(c) Stern gear (tail shaft, propeller, etc.)			500000
	(d) Lifesaving equipments (GPS, VHF, Echo Sounder & DAT)			250000
	(e) Fishing gear (net, steel rope, etc.)			500000
	(f) Wiring, battery, hand pump, etc.			200000
	(g) Insurance to the boat			100000
	(h) Initial expenses on diesel, ice, etc.			500000
	TOTAL costs			**6050000**
B	**Expenses details:**			
	(a) Details of expenses			
	(b) Crew share @ 25% of the total catch value			2880000
	(c) Fuel cost (75000 liters @ Rs. 53.41 per liter)			4005750
	(d) Lubricants (Mobile oil, grease, etc.			300000
	(e) Repairs to engine, painting to hull, etc.			400000
	(f) Repairs to nets, replacing wire ropes, etc.			400000
	(g) Cost of ice			300000
	(h) Misc. expenses			300000
	(i) Interest on Capital expenditure			726000
	(j) Interest on working capital			1030290
	(k) Depreciation			650000
	TOTAL expenses			**10992040**
C	**Income details (from different fish catch):**	**Total quantity (Kg)**	**Average price (Rupees/Kg)**	
	(a) Cuttlefish	10,000	140	1400000
	(b) Squid	9,000	110	990000
	(c) Shrimps	20,000	160	3200000
	(d) Pink perch	50,000	50	2500000
	(e) Soles	20,000	60	1200000
	(f) Scianieds	15,000	60	900000
	(g) Ribbon fish	22,000	40	880000
	(h) Misc. fish	30,000	15	450000
	TOTAL income			**11520000**
D	Surplus (C - B)			**527960**
E	Sales tax subsidy on the diesel (@ Rs. 8.00 per liter)			600000
F	Gross surplus available for Bank Installment and other expenses			**1127960**

Table 1.c: Economics of fishing trawler (71 to 90 hp)

S.N.	Particulars			Amount (Rs.)
A	**Cost details of the Fishing trawler:**			
	(a) 12.5M OAL hull cost (wood)			15,00,000
	(b) Engine cost (90 hp)			4,00,000
	(c) Stern gear (tail shaft, propeller, etc.)			3,00,000
	(d) Lifesaving equipments (GPS, VHF, Echo Sounder & DAT)			2,50,000
	(e) Fishing gear (net, mono-filament rope, etc.)			3,00,000
	(f) Wiring, battery, hand pump, etc.			2,00,000
	(g) Insurance to the boat			80000
	(h) Initial expenses on diesel, ice, etc.			2,50,000
	TOTAL costs			**32,30,000**
B	**Expenses details:**			
	(a) Crew share @ 25% of the total catch value			1765000
	(b) Fuel cost (45,000 liters @ Rs. 53.41 per liter)			2403450
	(c) Lubricants (mobile oil, grease, etc.)			100000
	(d) Repairs to engine, painting to hull, etc.			400000
	(e) Repairs to nets, replacing wire ropes, etc.			400000
	(f) Cost of ice			200000
	(g) Misc. expenses			100000
	(h) Interest on capital expenditure			387600
	(i) Interest on working capital			644214
	(j) Depreciation			340000
	TOTAL expenses			**6740264**
C	**Income details (from different fish catch):**	**Total quantity (Kg)**	**Average price (Rs. /Kg)**	
	(a) Cuttlefish	8,000	140	1120000
	(b) Squid	9,000	110	990000
	(c) Shrimps	7,000	160	1120000
	(d) Pink perch	25,000	50	1250000
	(e) Sole fish	80,000	60	1080000
	(f) Scainaieds	10,000	60	600000
	(g) Ribbon fish	15,000	40	600000
	(h) Misc. fish	20,000	15	300000
	TOTAL income			**7060000**
D	Surplus (C - B)			**319736**
E	Sales Tax subsidy on the diesel (@ Rs. 8.50 per liter)			360000
F	Gross surplus available for bank installment and other expenses			**679736**

Table 1.d: Economics of fishing trawler (40 to 70 hp)

S.N.	Particulars			Amount (Rs.)
A	**Cost details of the fishing trawler:**			
	(a) 11M OAL Hull cost (steel/wood)			1000000
	(b) Engine cost (70 hp)			400000
	(c) Stern gear (tail shaft, propeller, etc.)			200000
	(d) Lifesaving equipments (GPS, VHF, Echo Sounder & DAT)			0
	(e) Fishing gear (net, mono-filament rope, etc.)			200000
	(f) Wiring, battery, hand pump, etc.			100000
	(g) Insurance to the boat			50000
	(h) Initial expenses on diesel, ice, etc.			150000
	TOTAL costs			**2100000**
B	**Expenses:**			
	(a) Crew share @ 25% of the total catch value			935000
	(b) Fuel cost (27,000 liters @ Rs. 53.41 per liter)			1442070
	(c) Lubricants (mobile oil, grease, etc.)			50000
	(d) Repairs to engine, painting to hull, etc.			100000
	(e) Repairs to nets, replacing ropes etc.,			100000
	(f) Cost of ice			50000
	(g) Misc. expenses			50000
	(h) Interest on capital expenditure			252000
	(i) Interest on working capital			327248
	(j) Depreciation			240000
	TOTAL expenses			**3546318**
C	**Income details (from different fish catch):**	**Total quantity (Kg)**	**Average price (Rs. /Kg)**	
	(a) Cuttlefish	2,000	140	280000
	(b) Squid	2,000	110	220000
	(c) Shrimps	8,000	100	800000
	(d) Pink perch	-	50	0
	(e) Sole fish	18,000	60	1080000
	(f) Scianieds	13,000	60	780000
	(g) Ribbon fish	7,000	40	280000
	(h) Misc. fish	20,000	15	300000
	TOTAL income			**3740000**
D	Surplus			**193682**
E	Sales tax subsidy on the diesel (@ Rs. 8.50 per liter)			216000
F	Gross surplus available for other expenses			**409682**

Table 1.e: Economics of purse-seine fishing boat (≥ 131 hp)

	Particulars		Amount (Rs.)	
A	**Cost details of the fishing trawler:**			
	(a) 18 M OAL hull cost (steel/wood)		35,00,000	
	(b) Engine cost (> 130 hp)		10,00.000	
	(c) Stern gear (tail shaft, propeller, etc.)		4,50,000	
	(d) Lifesaving equipments (GPS, VHF, Echo Sounder & DAT)		2,50,000	
	(e) Fishing gear (net, etc.)		28,00,000	
	(f) Wiring, battery, hand pump, etc.		3,00,000	
	(g) Insurance to the boat		2,00,000	
	(h) Initial expenses on diesel, ice, etc.		5,00,000	
	TOTAL costs		**90,00,000**	
B	**Expenses details:**			
	(a) Crew share @ 25% of the total catch value		3993750	
	(b) Fuel cost (90,000 liters @ Rs. 53.41 per liter)		4806900	
	(c) Lubricants (Mobile oil, grease, etc.)		200000	
	(d) Repairs to engine, painting to hull, etc.		1000000	
	(e) Repairs to nets, replacing nets, etc.		1000000	
	(f) Cost of ice		200000	
	(g) Misc. expenses		400000	
	(h) Interest on capital expenditure		1080000	
	(i) Interest on working capital		1392078	
	(j) Depreciation		1010000	
	TOTAL expenses		**15082728**	
C	**Income details (from different fish catch):** The multiday fishing trawler on an average operated 9 months in a year (season). The main catch was—cuttlefish/squid, shrimps, pink perch, seer fish, mackerel, etc. The catch details are as follows:	**Total quantity (Kg)**	**Average price (Rs. /Kg)**	
	(a) Mackerel	55000	60	3300000
	(b) Sardine	200000	18	3600000
	(c) Seer fish	18000	200	3600000
	(d) Black Pomfrets	18000	200	3600000
	(e) Anchovies	15000	75	1125000
	(f) Misc. fish	50000	15	750000
	TOTAL income			**15975000**
D	Surplus			**892272**
E	Sales tax subsidy on the diesel (@ Rs. 8.50 per liter)			720000
F	Gross surplus available for bank installment and other expenses			**1612272**

Table 1.f: Economics of gill-net boats (motorized)

	Particulars			Amount (Rs.)
A	**Cost details of the fishing boat:**			
	(a) 18 M OAL hull cost (fiberglass)			5,00,000
	(b) Engine cost (> 130 hp)			2,00.000
	(c) Stern gear (tail shaft, propeller, etc.)			1,00,000
	(d) Lifesaving equipments (GPS, VHF)			1,00,000
	(e) Fishing gear (net, etc.)			4,00,000
	(f) Wiring, battery, hand pump, etc.			50,000
	(g) Insurance to the boat			50,000
	(h) Initial expenses on diesel, ice, etc.			1,00,000
	TOTAL costs			15,00,000
B	**Expenses details:**			
	(a) Crew share @ 25% of the total catch value			293750
	(b) Fuel cost (230×9×15)			31050
	(c) Lubricants (mobile oil, grease, etc.			25000
	(d) Repairs to engine, painting to hull, etc.			25000
	(e) Repairs to nets, replacing nets, etc.			50000
	(f) Cost of ice			30000
	(g) Misc. expenses			50000
	(h) Interest on capital expenditure			180000
	(i) Interest on working capital			60576
	(j) Depreciation			150000
	TOTAL expenses			**895376**
C	**Income details (from different fish catch):** The multiday fishing trawler on an average operated 9 months in a year (season). The main catch was—cuttlefish/squid, shrimps, pink perch, seer fish, mackerel, etc. The catch details are as follows:	**Total quantity (Kg)**	**Average price (Rs. / Kg)**	
	(a) Seer fish	3000	200	600000
	(b) Black Pomfrets	1000	200	200000
	(c) Catfish, small shark, tuna, etc.	2500	100	250000
	(d) Misc. fish	5000	25	125000
	TOTAL income			**1175000**
D	Surplus including subsidy from the point of purchase (C - B)			**279624**

Annexure-I

List of references cited in the report

1. Karnataka at a Glance 2012-13(Provisional): Directorate of Economics and Statistics, Bangalore
2. Marine Fisheries Census 2010 Central Marine Fisheries Research Institute, Kochi
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Annexure-II

Terms of Reference (ToR) for the Evaluation of Distribution of tax exempted Diesel and Kerosene to fishing boats in Karnataka

1. Title of the study:

The study is titled "*Distribution of tax exempted diesel and kerosene to fishing boats in Karnataka*"

1. Department implementing scheme:

The department of Fisheries of the Government of Karnataka implements the scheme.

2. Background:

A) **Distribution of tax exempted diesel**: Having a continental shelf of 27000square kms, 300 kms of coastline and 14.8 lakh hectors of inland waters(rivers and canals excluded), the State is rich in fisheries resources.The total fish production in the State was 575.30 thousand tonnes in 2012-13, of which 373.17thousand tonnes was marine fish. The State's fish productionaccounts for 5.8% of India's total fish production. The current level of percapita fish availability in the state is 6.8 kg. Karnataka ranks 5th in marine fish production and 9th the inland fish production of India. The total fish folk population of the State is 8.72 lakhs. Of these, 3.11 lakh persons are related to marine fishing area and 5.65 lakh persons to inland fishing.

Marine fisheries being capture fishery, needs to be exploited with efficient methods of fishing. Prior to 1960, marine fishing was carried out with traditional methods, nearer to shore. Fishermen did not possess propervessels, gears and mechanical measures of propulsion to go deep into the sea.Due to this, the bottom fauna and shoal fishes in open waters were not efficiently caught. Thus, the Government decided to encourage mechanisation of fishing vessels with liberal subsidy in mid-sixties. This resulted in increasein number of trawlers and purse-seiners, and by early 1980s, sufficientnumber of trawlers and purse-seine boats (As per the paper "Marine fisheries of Karnataka State, India, published in Naga, The ICLARM Quarterly April- June 1998 on pages 10 to 15 Karnataka has the highest number of purse-seine boats in the Country) started operating in the coastal waters. This firstresulted in increased catch, but later in overexploitation, so much so that the catch per boat started declining (The State's year wise marine fish productionis given in ***Annexure-1***and Wholesale Price Index for marine fishes with1970 as base year is in ***Annexure-2)***. Also, increase in cost of diesel used bymechanised fishing boats, resulted in less income realization per unit effort. The department stopped encouragement for further mechanisation of fishingvessels.

In order to improve the income realisation by mechanized fishing vessels, and with a view to encourage fishermen to go to deeper waters forfishing, the Government felt the need to subsidise the diesel being used bythese fishing vessels. Hence, in 1985-86, the State

Government introduced ascheme of providing subsidy on diesel purchased by exempting the Statesales tax which was about Rs.0.52 per litre (now the subsidy due to exemption of sales tax is close to Rs 7 per litre), and capped on eligible maximum subsidy per mechanised boat as detailed below:

Sl.no.	Category of Boat	Maximum subsidy permitted per year
1	Purse-seiners	Rs.9000
2	Trawlers	Rs.3000
3	Gill netters	Rs.1000

The relief was being released to mechanised fishing boats through backend subsidy. The Deputy Directors of Fisheries of Mangalore and Karwar were given powers to countersign the subsidy bills. This schemeprevailed from 1985-86 to 1998-99.

Subsequently, on the demand from fisher folk, the Government decided to do away with back end subsidy and instead provided "*at sourcesales tax exemption"* for the diesel being purchased for mechanised fishing boats. In order to cater to these needs, the Government facilitated establishment of department approved diesel outlets (bunks) in fishingharbours and fish landing centers. These bunks are supplied sales tax exempted diesel from oil companies, based on the permission letter issued bythe fisheries department.

The finance department annually releases certain quantity of State sales tax exempted diesel under Section 5 of Karnataka Sales Tax Act 1957.To this effect every year, a Government order is issued by the finance Department.

Initially, in the year 1999-2000, 40000 kilolitres (KL) of sales tax exempted diesel was released. With the passage of years, the demand fordiesel increased and at present 150000 KL of sales tax exempted diesel hasbeen allocated for 2014-15.The number of mechanized boats registered andhaving fishing license availing the benefit of the Scheme is given in ***Annexure-3.***

The Diesel quota allotment and consumption during the last five years is given below:

Year	Quota allotted (in KL)	Diesel consumed (in KL)	Number of mechanized fishing boat	Marine Fish Production (Mt Tonnes)
2009-10	85000	84118	2353	248728
2010-11	95000	94799	2500	340571
2011-12	115000	114560	3193	347383
2012-13	125000	120758	3152	357325
2013-14	150000	126092	2912	357000
2014-15	150000	119768*	3777	323876

**** Upto January 2015***

Presently 30 approved Diesel Bunks are located in fishing harbours and fish landing centers. The list is enclosed as***Annexure-4***. These bunks areprocuring diesel from Indian Oil Corporation (IOC), Bharat Petroleum Company (BPC) and Hindustan Petroleum (HP) oil companies and supplying the same to mechanised fishing vessels as per guidelines issued by thedepartment of Fisheries.

1)**Measures taken at Fisheries Department level**:

a) The Director of Fisheries releases the required diesel quota every quarter to the Deputy Directors of Fisheries Mangalore and Karwar, who in turn release the monthly quota to department approved diesel bunks within their jurisdiction, based on consumption.
b) Monthly diesel quota released and consumed is monitored by the respectiveDeputy Directors.
c) The Deputy Directors every year issue diesel pass books to the registeredmechanised fishing vessels, which are to be produced by the boat owners for entries when procuring the sales tax exempted diesel from the diesel bunks.
d) The Department of Fisheries, based on boat engine horse power(HP) hasfixed daily diesel quota, to be released per boat, as given below:

Horse power of the Boat Engine	Diesel released/day (litres)	Diesel released/month (litres)
Up to 40 HP	70	2100
41-70 HP	90	2700
71-90 HP	150	4500
91-130 HP	250	7500
Above 130 HP	300	9000

3) Procedure for distribution of tax free diesel to fishing boats as per office order No.MEF/36/2003-04, dated: 06.01.2005 of Director of Fisheries.

a) This scheme is implemented through Fisheries Co-operative Societies, District Co-operative Fish Marketing Federations and Karnataka Fisheries Development Corporation Ltd.
b) As per Karnataka Marine Fisheries Act 1986, the benefit of tax exemption isgiven to boats having fishing license and identity cards. The diesel is to beprocured from any of the department approved bunks.
c) Sales tax free diesel can be procured by Karnataka Fisheries Development Corporation, District Co-operation Fish Marketing Federation and PrimaryFisheries Co-operative Societies from the 30 department approved bunksonly.
d) The diesel is to be distributed to boats as per maximum limit fixed based on the engine capacity (HP) of the boats.
e) The tax exempted to diesel can be purchased on payment of cash, not oncredit.
f) Tax exemption is not permitted to those boats which go for fishing when it is

prohibited. In case, fishing is done during the prohibited period the benefit oftax free diesel supply to such boats is stopped.

g) The diesel cannot be supplied to fishing boats of other States.

h) The transfer of the diesel from one boat to another is not permitted. The procured diesel cannot be sold to anybody and use other than for which itwas purchased is prohibited.

i) The distribution of diesel can be done to those pass book holders who haveregistered as per the Fisheries Act and certified by the fisheries department.

j) The responsibility of printing pass books is entrusted to the Karnataka Co-operative Fisheries Marketing Federations.

k) The owner of boat should authorise a person to sign the cash bill and get thesales tax free diesel.

l) The person authorised to get the diesel should get the signature of manager of the petrol bunk in the pass book.

m) The Fisheries Co-operative Society, District Co-operative Fish Marketing Federation and Karnataka Fisheries Development Corporation Ltd. should certify about the utilisation of the sales tax free diesel by the boats by way ofverification by the bunks or by enquiry etc, and send a certification to districtofficers of Fisheries department regarding proper utilisation of diesel of theprevious month.

n) In case it is found that misappropriation of diesel has taken place by any boat, the pass books of such boat will be cancelled and diesel supply stopped.

o) The Deputy Directors of Fisheries of coastal districts and other officersshould make surprise visits to the bunks every now and then, and examinethe process and supply to see that no misappropriation takes place.

p) It is the responsibility of the approved diesel bunks to record the quantity ofsales tax free diesel distributed with dates in the passbook.

q) The pass books are to be provided to the departmental (fisheries) officersduring the course of inspection.

The Bunk wise diesel supply during the last 3 years in enclosed at ***Annexure-5.***

B) Supply of Subsidized kerosene to the fishing boats:

In coastal Karnataka, marine fisheries are mainly done through capture of natural resources. Prior to introduction of mechanisation, fishing was done in thetraditional way by gill nets and *rampani* (Shore-seine). This method of fishing could be used only in near shore waters. A large fishery wealth in open anddeeper waters within littoral zone remained untapped.

The Department of Fisheries introduced mechanisation of fishing vessels by providing financial assistance, training, infrastructure etc. Rich fisher folk made use of this programme and built bigger boats, fitted with mechanical means ofoperating nets, thus resulting in coming into operation of purse seiners, trawlersand bigger gill net boats.

But the poor fishers who could not afford mechanisation, continued to fish in near shore water using wooden boats with manual power for movement. In order to uplift these fisher folk, who operated mainly gill nets/*matubale* the Government introduced a scheme for providing subsidy for fitting motorisedengines. The engine capacity varied between 9.8 to 20 HP. The fuel used bythese engines is mainly kerosene.

As kerosene has become a scarce commodity in open market, the Government felt the need to provide subsidised kerosene through PublicDistribution System (PDS) of the Department of Food and Civil Supplies. In theyear 2007, 200 litres of Kerosene per boat per month was being supplied to 3265 motorised boats under PDS. The total quantity of kerosene supplied was about660 KL per month. As the monthly quota of 200 litre was not sufficient, theGovernment of Karnataka by order no. C£Á¸À 119 rDgïJ 2013 dated 23-10-2013 increased the monthly quota to 300 litres per boat.

There are 4514 motorised boats of which 990 are there in Uttara Kannada 2610 in Dakshina Kannada and 914 in Udupi districts. The kerosene is given tothese boats at the rate of Rs. 16.50 per ltd. This is distributed through 25 fair price shops and other institutions shown in Annexure-3.

The number of motorised boats operating in the district is identified by conducting a joint inspection by officers of the Department of Fisheries andFood and Civil Supplies Department. After this, each motorised boat is provided with a permit for procuring subsidized kerosene through PDS.

3. Background Material relevant to the study:

A. The paper "*Fuel price increase, subsidies, overcapacity and resourcesustainability* "authored by Ussif Rashid Sumaila, Louise Teh, Reg Watson, Peter Tyedmers, and Daniel Pauly source www.researchgate.net..Fuel...subsidies.../0912f4febc983655e9000000.

B. The Handbook of Fisheries Statistics 2008, published by the Ministry of Agriculture, Government of India.

C. The study "*Changing fish utilization and its impact on poverty inKarnataka*" funded under DFID post harvest fisheries research programme in March 2003.

D. The paper "Marine fisheries of Karnataka State, India, published in Naga, The ICLARM Quarterly April-June 1998 on pages 10 to 15.

E. The paper "*Depleted and Collapsed marine fish stocks along southwest coast of India- A simple criteria to assess the status*" of K S Mohamed,T V Santhlanandanet. al.

4. Evaluation Scope and Purpose:

The scope of evaluation is confined to the three costal districts of namely Dakshina Kannada, Uttar Kannada and Udupi. The purpose of evaluation i s :

a) To evaluate the need and utility of the Scheme.
b) To evaluate the process of implementation of the entire Scheme.
c) To study the organizational and administrative problems and loopholes, if any, in the implementation of the Scheme.
d) To study the economics and operational efficiency of mechanised boats after the implementation of the Scheme.
e) To assess whether the Scheme has impacted on employment, earningsand levels of the fisher folk.
f) Need of continuance of the Scheme and modifications/ improvements if any in the Scheme if it is recommended for continuation.
g) Overall impact of the Scheme on the marine fish production and fish population of Karnataka.

5. Evaluation Questions (inclusive not exhaustive):

For the Diesel distribution part only

A. The Scheme provides for sales tax exempted diesel to all registeredmechanized boats having fishing licenses. What is the average subsidy(in Rupees per year) provided to a mechanized boat for powers classified in Annexure 3? Are there cases wherein more than one mechanized boat qualifies for subsidy within the same family?
B. What are the documents required to avail the benefit of this scheme?
C. What is the frequency of renewal of boat license and fishing license as of now? What is the frequency of these renewals suggested?
D. What is the average catch per effort and gross return per effort in respect of mechanised boats? How does it compare with mechanized boats notreceiving sales tax free diesel?
E. Whether the scheme has been effectively implemented with respect tofollowing-
a. Procurement of diesel,
b. Distribution of diesel,
c. Issue of diesel pass book, and,
d. Quality and quantity of diesel supplied?
F. What measures are in place to ensure that sales tax exempted diesel isnot used by an unregistered and/or fishing license lacking mechanized boat in the name of a mechanized boat that is qualified to get sales taxfree diesel? What measures are in place to ensure that sales t a x exempted diesel is not used by an intensely active fishing boat in thename of a casually fishing qualified boat? Are these measures enough? Can measures be suggested for checking these at bunk level as well as

when fishing in the sea?

G. What measures are in place to ensure that sales tax exempted diesel isnot used for any use other than what it is intended for? Are these measures enough? Can measures be suggested for checking these atbunk level?

H. Are there any complaints received in the department regarding misuse of sales tax free diesel? How many complaints were received in fisheries department? What type of misuse done and by whom? What action hasbeen taken by the department on it?

I. What is the opinion of the fisher folk about the Scheme?

J. Considering the following points-

i. The price of marine fish has risen by more than 15 times between 1985-86 and today,

ii. As per paper cited at serial number E of paragraph 4 above and also it being common knowledge that marine fishes have andare being overexploited, so much so that yield is getting affected,

iii. The mechanized boats being provided diesel subsidy do notcost less than Rs 60 lakhs, and,

iv. Marine fishing done by mechanized boats is an commercial activity rather than meant for sustenance,

How far and on what grounds is the provision of sales tax freediesel to mechanized boats justifiable? Thus what is the inference regarding continuation/ continuation with modification of the Scheme?

K. Irrespective of the inference of continuation of the Scheme, how muchimportant and justified is the proposition of the department to have the sales tax subsidy benefit given buy back end direct benefit transfer to theaccounts of the boat owners through RTGS.

For the Kerosene distribution part only

L. The Scheme provides for subsidized Kerosene to all registered small motorized boats having fishing licences. What is the average subsidyprovided (in Rupees per year) to one such boat? Are there cases wherein more than one mechanized boat qualifies for subsidy within the samefamily?

M. What are the documents required to avail the benefit of this scheme?

N. What is the frequency of renewal of boat license and fishing license as of now? What is the frequency of these renewals suggested?

O. What is the average catch per effort and gross return per effort in respect of motorized boats? How does it compare with motorized boats not receiving subsidized kerosene?

P. Whether the scheme has been effectively implemented with respect tofollowing-,

a. Timely distribution,

b. Issue of kerosene pass book, and,

c. Quality and quantity of kerosene supplied?

Q. What measures are in place to ensure that subsidized kerosene is not used by an unregistered and/or fishing licence lacking motorized boat in the name of a motorized boat that is qualified to get subsidized kerosene? What measures are in place to ensure that excess subsidizedkerosene is not purchased by a motorized boat by attaching the sameboat to a number of engines? Are these measures enough? Can more andbetter measures be suggested for checking these?

R. What measures are in place to ensure that subsidized kerosene is not used for any use other than what it is intended for? Are these measuresenough? Can more and better measures be suggested for checking these?

S. Are there any complaints received in the department regarding misuse ofsubsidized kerosene? How many complaints were received in fisheriesdepartment? What type of misuse done and by whom? What action hasbeen taken by the department on it?

T. What is the opinion of the fisher folk about the Scheme?

U. How far and on what grounds is the provision of subsidized kerosene tomotorized boats justifiable? What is the inference regarding continuation/ continuation with modification of the Scheme?

V. Irrespective of the inference of continuation of the Scheme, how muchimportant and justified is the proposition of the department to have thesubsidy benefit given by back end direct benefit transfer to the accounts of the boat owners through RTGS.

Question common to the scheme for diesel as well as kerosene

W. What is the review mechanism by the District officers to check the process of supply of tax free diesel and kerosene to boats? What is thefrequency of review?

X. What are the main features of this scheme as being implemented in the States of Goa, Kerala, Tamilnadu and Andhra Pradesh? How are wheredoes the Karnataka scheme differ with them? Based upon these, is the scheme recommended for continuation? If no, why so and If yes, withwhat changes?

6. Sampling and Evaluation Methodology:

The Consultant Evaluation Organization selected to do the study should answer questions A,C, J and L by studying the list of boats (in real craft software to be provided by the department), pass books and 10% of the bunks(for diesel)and PDS centres (for kerosene) and after field verification anddiscreet discussions with fisher folk and departmental staff. To answerquestions B K,G and P, the data should be gathered from at least 10% of theboat owners (in mechanized this should be boat power wise) in each of the threedistricts under the Scheme, and final figures arrived at vetted by DeputyDirectors of Fisheries of the concerned districts. All other questions are to be answered after discussions and personal interviews of Scheme benefitted boat owners, Boat owners not covered under the Scheme, discreet personal interviews of departmental staff, retired employees and knowledgeableScientists of Central Marine

Fisheries Research Institute and/ or the Fisheries College in Cochin (one office is in Karwar) and Mangalore respectively. Inputscan also be taken from Academicians of the department of Marine Biology, Karnatak University, based in Karwar.

8. **Qualifications of the consultants and method of selection:**

Consultant Evaluation Organizations should have and provide details of evaluation team members having minimum technical qualifications/capability asbelow-

i. B.F.Sc with 5 years' experience in related field,
ii. Marine/ Mechanical/Automobile Engineer, and,
iii. Research assistant/Statistician.

Consultant Evaluation Organizations not having these kind of personnel will not be considered as competent for evaluation.

9. Deliverables and time schedule:

The Director of Fisheries will provide the guidelines of the scheme a n d details on process of sanctions etc. which are available at the head office level and issue necessary instructions to the concerned Deputy Directors of DakshinaKannada, Uttar Kannada and Udupi district officers of Fisheries department andFood and Civil Supplies Department to provide the details required to the consultant organisation and co-operate in completion of the study in the stipulated time. It isexpected to complete the study in 4 months' time, excluding the time taken forapproval. The evaluating agency is expected to adhere to the following timelinesand deliverables.

The Consultant Evaluation Organization should complete the study in 4 months' time, excluding the time taken for approval. They are expected to adhere tothe following timelines and deliverables or be quicker than the f o l l o w s

a. Work plan submission : One month after signing the agreement.
b. Field Data Collection : One months from date of Work Plan Approval.
c. Draft report Submission : One month after field data collection.
d. Final Report Submission : One month from draft report approval.
e. Total duration : 4 months.

10. Qualities Expected from the Evaluation Report:

The following are the points, only inclusive and not exhaustive, which need to be mandatorily followed in the preparation of evaluation report:-

1. By the very look of the evaluation report it should be evident that the study isthat of the Director of Fisheries Department and Karnataka Evaluation Authority (KEA)

which has been done by the Consultant. It should not intend to convey that the study was the initiative and work of the Consultant, merely financed by the Fisheries Department.

2. Evaluation is a serious professional task and its presentation should exhibit it accordingly.
3. The Terms of Reference (ToR) of the study should form the first Appendix or Addenda of the report.
4. The results should first correspond to the ToR. In the results chapter, eachquestion of the ToR should be answered. It is only after all questionsframed in the ToR are answered, that results over and above these candetailed.
5. In the matter of recommendations, the number of recommendations is nomeasure of the quality of evaluation. Evaluation has to be done with a purpose to be practicable to implement the recommendations

11. Cost and schedule of budget releases:

Output based budget release will be as follows-

a. The **first installment** of Consultation fee amounting to 30% of the total feeshall be payable as advance to the Consultant after the approval of the inception report, but only on execution of a bank guarantee of a schedulednationalized bank, valid for a period of at least 12 months from the date ofissuance of advance.

b. The **second installment** of Consultation fee amounting to 50% of the totalfee shall be payable to the Consultant after the approval of the Draft report.

c. The **third and final installment** of Consultation fee amounting to 20% ofthe total fee shall be payable to the Consultant after the receipt of the hardand soft copies of the final report in such format and number as prescribed inthe agreement, along with all original documents containing primary and secondary data, processed data outputs, study report and soft copies of allliterature used in the final report.

Taxes will be deducted from each payment, as per rates in force. In addition, the evaluating agency/consultant is expected to pay service tax attheir end.

12. Selection of Consultant Agency for Evaluation:

The selection of evaluation agency should be finalized as per provisions of KTPP Act and rules without compromising on the quality.

13. Contact person for further details:

Sri. H.S.VeerappaGowda, Director of Fisheries Department, 3rd Floor, Podium Block, Sir.M.VisveswarayaTower, Dr. B.R.Ambedkar Veedhi, Bangalore-01. Land Line Ph.: 22864681, Sri NaseemAfsar, Deputy Director, And (Marine Fisheries) Ph: 22864661 &Mobile: 9886952944, ddpoultry@gmail.com, will be the contact persons for giving information and details for this study.

The entire process of evaluation shall be subject to and conform to the letter and spirit of the contents of the Government of Karnataka Order no. PD/8/EVN(2)/2011 dated 11th July 2011 and orders made there under.

The Terms of Reference were approved by the Technical Committee of KEA in its 18th Meeting held on 04th May 2015.

Sd/-

Chief Evaluation Officer Karnataka
Evaluation Authority

Annexure 1

Marine Fish production of Karnataka from 1992-93

Sl. No.	Year	Marine Fish production in thousand metric tonnes
1	1992-93	234.19
2	1993-34	204.52
3	1994-95	203.75
4	1995-96	247.51
5	1996-97	252.78
6	1997-98	219.86
7	1998-99	190.61
8	1999-2000	195.63
9	2000-01	205.90
10	2001-02	128.42
11	2002-03	180.16
12	2003-04	187.00
13	2004-05	171.23
14	2005-06	176.97
15	2006-07	168.54
16	2007-08	175.57
17	2008-09	218.13
18	2009-10	248.72
19	2010-11	340.57

Source: Director of Fisheries, Karnataka

Annexure 2
Marine Fish Wholesale Price Index of Karnataka from 1971
Base year 1970 = 100

Sl. No.	Year	Marine Fish price index
1	1971	103.1
2	1972	115.5
3	1973	133.8
4	1974	159.3
5	1975	157.8
6	1976	172.7
7	1977	192.3
8	1978	228.8
9	1979	252.7
10	1980	267.0
11	1981	246.6
12	1982	292.7
13	1983	314.9
14	1984	304.1
15	1985	347.2
16	1986	371.1
17	1987	385.2
18	1988	405.1
19	1989	419.4
20	1990	477.2
21	1991	533.6
22	1992	732.4
23	1993	816.7
24	1994	1088.5
25	1995	1319.6
26	1996	1448.0
27	1997	1785.8
28	1998	1971.3
29	1999	1973.4
30	2000	2300.4
31	2001	2305.1
32	2002	2527.2
33	2003	2484.5
34	2004	2499.9
35	2005	3785.7
36	2006	3027.1
37	2007	3070.9

***Source**: Table H-1, Indices of Wholesale Prices, Handbook of Fisheries Statistics 2008.*

Annexure-III

Inception report of the study along with the data collection instruments

***Study title*:**

Title of the proposed study is "***Evaluation of Distribution of tax exempted Diesel and Kerosene to fishing boats in Karnataka***" of the Department of Fisheries, GOK.

Background information:

Karnataka has continental shelf of 27000 square kms, 300 kms of coastline. The State is rich in marine fishery resources. The total marine fish production in the State in 2012-13 was 373.17 thousand tones. Karnataka ranks 5th in marine fish production. The total marine fisher folk population of the State is 3.11 lakh.

Marine fisheries being capture fishery, needs to be exploited with efficient methods of fishing. Prior to 1960, marine fishing was carried out with traditional methods, nearer to the shore. Fishermen did not possess proper vessels, gears and mechanical measures of propulsion to go deep into the sea. Due to this, the bottom fauna and shoal fishes in open waters were not efficiently exploited.

Thus, the Government decided to encourage mechanization of fishing vessels with liberal subsidy in mid-sixties. This resulted in increase in number of trawlers and purse-seiners during that period.

In order to improve the income realization by mechanized fishing vessels, and with a view to encourage fishermen to go to deeper waters for fishing, the Government felt the need to subsidise the diesel being used by these fishing vessels. Hence, in 1985-86 the State Government introduced a scheme of providing subsidy on diesel purchased for the fishing purpose by exempting the State sales tax which was about Rs.0.52 per litre. Subsequently, on the demand from the fisher folk, the Government decided to do away with back end subsidy and instead provided *"at source sales tax exemption''* for the diesel being purchased for mechanised fishing boats.

In order to cater to these needs, the Government facilitated establishment of department approved diesel outlets (bunks) in fishing harbours and fish landing centers. These bunks are supplied with sales tax exempted diesel from Oil companies based on the permission letter issued by the fisheries department. At present the sales tax exemption on the diesel comes to around Rs.7 per litre.

The scope of evaluation of sales tax exempted diesel to fishing boats is confined to the three costal districts, viz., Dakshina Kannada, Udupi and Uttar Kannada. The Karnataka map showing the locations of the authorized diesel pumps at coastal districts are enclosed to this report for perusal.

***The objectives of the evaluation are*:**

- To evaluate the need and utility of the Scheme.
- To evaluate the process of implementation of the entire Scheme.
- To study the organizational and administrative problems and loopholes, if any, in the implementation of the Scheme.
- To study the economics and operational efficiency of mechanised boats after the implementation of the Scheme.
- To assess whether the Scheme has impacted on employment, earnings and levels of the fisher folk.
- Need of continuance of the Scheme and modifications/ improvements if any in the Scheme if it is recommended for continuation.
- Overall impact of the Scheme on the marine fish production and fish population of Karnataka.
- Whether the scheme has been effectively implemented with respect to Procurement of diesel, distribution of diesel, Quality & Quantity supplied, issue of passbooks etc.,

Scope and purpose of the Scheme

The authorized diesel bunks are owned by either co-operative societies or Government companies. The diesel required for the authorised diesel bunks are supplied by the Oil Companies owned by the Government of India, on the basis of the indent placed by the respective Deputy Director of Fisheries.

The effectiveness of the diesel supplied will be observed by the evaluation team from the starting point i.e., from the Diesel Distribution Terminal to the authorized Diesel bunks.

All the authorized diesel bunks are situated alongside the fishing harbours/landing centres. Therefore generally the diesel is supplied directly into the tanks of the fishing boats.

- Distribution of diesel to the mechanized fishing boats is based on the limits fixed by the Department of Fisheries and the passbook issued by the Department of Fisheries.
- 10% of the fishing boats will be observed on the distribution of diesel from the diesel bunks to the tank of the fishing boats and proper observation will be made by the Evaluation team.
- There is a separate check on the quality and quantity of the diesel supplied by the Oil Companies as per the norms fixed by the Petroleum Ministry.
- The authorized diesel bunks also check the quality and quantity as per the norms fixed by the Oil Companies. Further, all the diesel bunks are stamped for the accuracy by the Weights and Measurement Department.
- Therefore there should not be any variation in the quality and quantity of diesel supplied to the fishing boats.

- In some of the diesel pumps, the Oil companies have provided Automation Instruments for the online checking of the diesel supplied to the bunks and distribution to the fishing boats.

The review team will study the entire process of tax exempted diesel to the authorized diesel bunks and its distribution to the fishing boats and the functioning of Automation Instruments and come up with suitable recommendations.

The diesel passbooks are issued by the Department of Fisheries on the basis of valid registration certificate and the fishing license. The evaluation team will verify physically the registration certificates, licenses and pass books issued by the fisheries Dept.

In addition, the evaluation team will find out what measures are there in place to ensure that sales tax exempted diesel is not used by an unregistered and/or fishing license lacking mechanized boat in the name of a mechanized boat that is qualified to get sales tax free diesel.

Team will also find out what measures are in place to ensure that sales tax exempted diesel is not used by an intensely active fishing boat in the name of a casually fishing qualified boat.

Further, additional measures will also be suggested for checking these at bunk level as well as when fishing in the sea. The measures employed in place to ensure that sales tax exempted diesel is not used for any use other than what it is intended for will also be studied and recommended for additional measures if any.

The complaints received in the department regarding misuse of sales tax free diesel will be studied on the documentary evidence. If any complaints are there, what type of misuse, the remedial action taken by the Department of Fisheries will be studied.

The price of the fish has increased 15 times between 1985-86 and today. It is understood that the fish is over exploited and the yield is getting affected. This aspect will be studied in consultation with the Fisheries Departmental Officers; academicians from the College of Fisheries, Mangalore; Dept. of Marine College, Karwar; Central Marine Fisheries Research Station, Mangalore/Karwar, local fishermen, fish merchants and related people.

The cost of the mechanized fishing boats of OAL 20-24 M is around Rs. 80 to 90 Lakhs and therefore it is felt by the department that the marine fishing is a commercial activity rather than it is meant for sustenance. Therefore the provision of sales tax free diesel to mechanized fishing boats is justifiable or not will be studied and inference regarding the continuation / continuation with modifications of the scheme will be made.

This Scheme provides for subsidized Kerosene to all registered small motorized boats having fishing licenses. The average subsidy provided (in Rupees per year) to one such boat will be studied. The cases of more than one mechanized boat qualify for subsidy within the same family will also be studied.

The Food & Civil supplies department issues the permit to the motorized boats after joint inspection of the boats along with the fisheries department officials. Baring monsoon months Kerosene is supplied for 9 months.

The study on the effective implementation of the scheme with respect to Timely distribution of Kerosene, Kerosene permits issued by Food & Civil supplies department, Quality and quantity of Kerosene supplied will be made.

Research methodology used in this study:

The study will be made based on the evaluation questions by studying the list of boats (in real craft software to be provided by the department), pass books and 10% of the bunks (for diesel) and PDS centres (for kerosene) with field verification and discreet discussions with fisher folk and departmental staff.

With the permission of the Department of Fisheries it is possible to access the real craft software. As per the real craft software (as on 23-09-2015) total of 19,439 fishing boats are registered. Of which 280 are the purse-seiners, 3600 are the different type of trawlers and 185 are the gillnetters which are using diesel as fuel for running and 7097 boats are fitted with outboard motors and use kerosene as fuel for running. District-wise details are shown below:

	Category of boats	**Districts**			**T O T A L**
		Dakshina Kannada	**Udupi**	**Uttara Kannada**	
A	Purse-seiners	59	104	117	280
B	Trawlers-Small	192	295	360	847
C	Trawlers-4 night	270	670	377	1317
D	Trawlers-Multiday	457	735	244	1436
E	T O T A L (A+B+C+D)	**978**	**1804**	**1098**	**3880**
F	Gillnetters	5	0	180	185
G	Canoe type Outboard Motor fitted vessels	1346	3943	1808	7097
H	T O T A L (F+G)	**1351**	**3943**	**1988**	**7282**
I	Non-Motorised boats	**509**	**1864**	**5904**	**8277**
GRAND TOTAL(E+H+I)		**2838**	**7611**	**8990**	**19439**

During the fishing season 2014-15 total of 3137 passbooks are issued in 3 districts. In D.K. District 789, Udupi District 1523 and Uttara Kannada District 825. The HP wise details of the passbooks issued are shown below:

District	Upto 40HP	41-70HP	71-90HP	91-130HP	Above 130 HP	TOTAL
D.K	5	49	24	239	472	**789**
UDUPI	8	136	108	552	719	**1523**
U.K	104	176	47	304	194	**825**
TOTAL	**117**	**361**	**179**	**1095**	**1385**	**3137**

The above figures are collected from the local officers of the fisheries department and local people who are in the job. It is not possible to find out the category wise fishing boats by looking at the "real craft" software. The present category wise figures are obtained from the departmental staff, which is maintained in their offices. However, the exact figures will be arrived at when the actual study will be taken up by the Evaluation team. Of these minimum of 10% percent of boat owners i.e., Gillnetters (less than 40 HP) 15 samples, purse-seiners (which are usually between 91-130 HP) 30samples, small trawlers (between 41-90 HP) 60 samples, 4 night trawlers (in the range of 91-130 HP) 90 samples, multiday trawlers (having more than 130 HP) 150 samples will be covered during sampling.

Total of 7097 boats which use kerosene for their running is registered with the department of fisheries and total of 5996 permits are issued in the last fishing season for drawing subsidized kerosene. The district wise distribution of permits are shown below:

DISTRICTS	No. of permits issued for drawing subsidized Kerosene
Dakshina Kannada	1198
Udupi	3619
Uttara Kannada	1179
T O T A L	**5996**

Of the above minimum of 10% of the boats i.e., 600 boats will be used for sampling by the evaluation team.

The fishing centres where tax free diesel is distributed are: Mangalore, Hejmadi-Kodi, Malpe, Hangarkatta, Gangolli, Bhatkal Bunder, Thenginagundi, Honavar, Tadri, Gangavali, Belekeri, Mudga-Amadalli and Karwar. All the 13 fishing centres mentioned above will be covered for

sampling individual beneficiaries and diesel outlets at all the 13 fishing centres will be covered based on the number of boats in each centres.

For the subsidized kerosene distribution, samples will be taken at all the bases viz., Mangalore, Suratkal, Hejmady Kodi, Padubidri, Malpe, Gangolli, Bhatkal, Honavar, Tadri, Ankola and Karwar.

The sampling on the discussions with fishery professional, fisheries department officers and staff, non-fishermen, retired officials and other related persons will be made at the major landing centres viz., Mangalore, Malpe, Gangolli, Honavar, Tadri and Karwar where more of fishing efforts are there. Minimum of 100 personnel will be covered for sampling under this category.

As detailed above, the data will be gathered from at least 10% of the boat owners (in mechanized this should be boat power wise) in each of the three districts under the scheme and final figures maintained at the office of the Deputy Directors of Fisheries of the concerned districts.

The questionnaire for the sampling is prepared and furnished to this report. The following criteria were employed while preparing the Questionnaire.

- Discussions and personal interviews with the benefitted boat owners,
- Boat owners not covered under the Scheme,
- Discreet personal interviews of departmental staff, retired employees
- Knowledgeable Scientists of Central Marine Fisheries Research Institute in Karwar and Mangalore respectively.
- Inputs will also be taken from Academicians of the department of Marine Biology, Karnataka University, based at Karwar.

The evaluation report will be made by making applicability of the following 5 studies made earlier as mentioned in the background material.

1) The paper "*Fuel price increase, subsidies, overcapacity and resource sustainability"* authored by Ussif Rashid Sumaila & others.
2) *"The Handbook of Fisheries Statistics -2008"* published by the Ministry of Agriculture, Government of India.
3) The study *"Changing fish utilization and its impact on poverty in Karnataka"*
4) The paper"*Marine fisheries of Karnataka State, India* published in Naga, The ICLARM Quarterly April-June 1998 on page 10-15.
5) The paper *"Depleted and Collapsed marine fish stocks along southwest coast of India- A sample criteria to assess the status"* of K.S. Mohammed, T.V. Santhalanandanet. Al.

Staffing and training arrangement for the study:

The study team will consist of:

- Principal investigator – Suresh Kumar Ullal
- Mechanical Engineer – Sharanappa Pani
- Data analyst/Statistician – Madhusudan Zalki
- Field investigators – 24
- Orientation training to be imparted to field investigators for collection of primary and secondary data.
- FGDs with stakeholders will be carried out by experienced personnel

  Experienced researcher/ statistician for data analysis

***Deliverables and time Frame*:**

HKCAL will commence the work immediately on approval of Inception Report (Work Plan). HKCAL in consultation with Fisheries Department will select the sample to be evaluated.

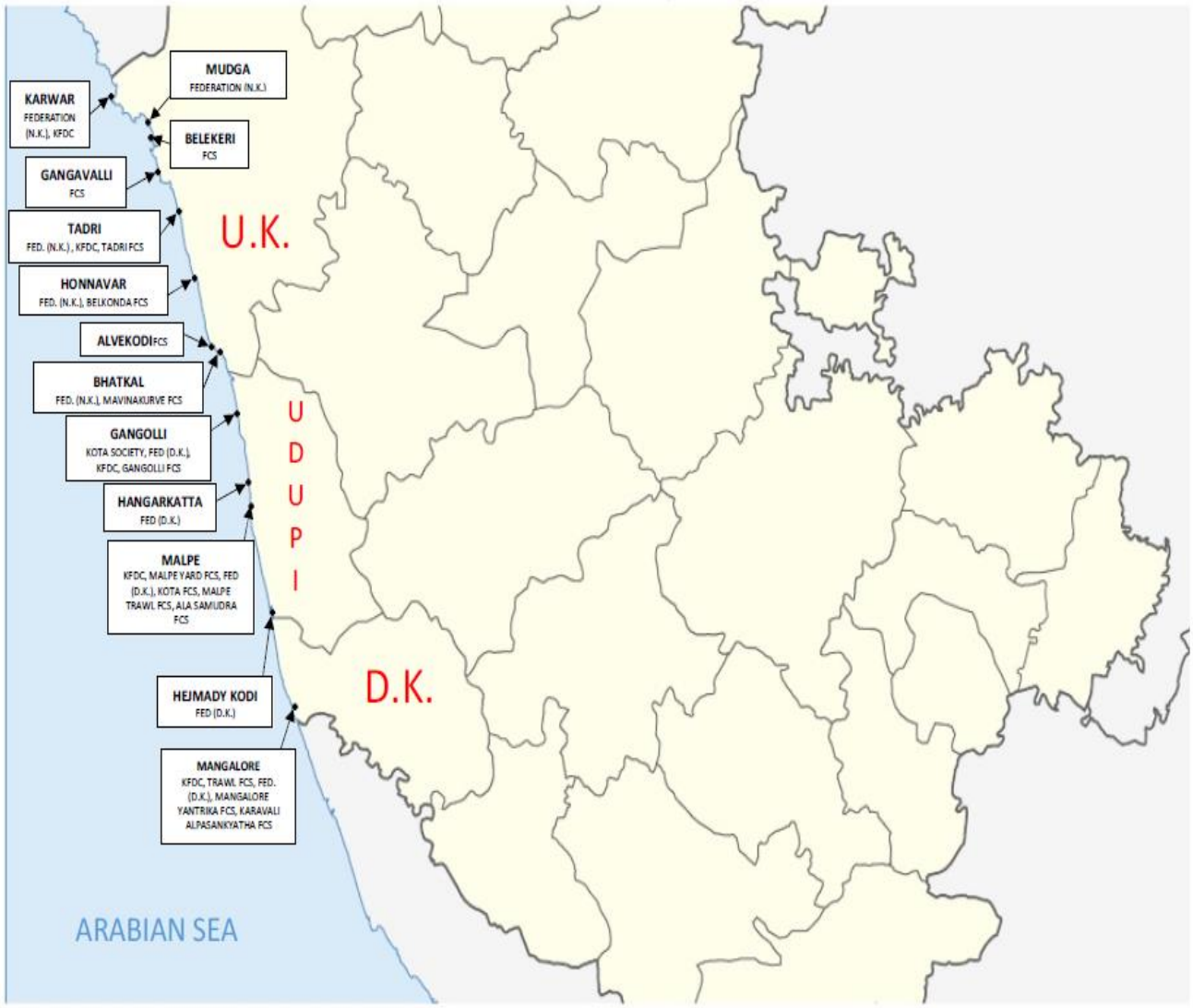
Fisheries Department will provide the required information & data to the consultant who is expected to adhere to the following time lines and deliverable.

Excluding the time taken for approval, the evaluation study shall be completed within 4 months time.

Time Frame:

Work plan submission	Within one month after the release of first installment of the contract sum.
Primary data collection (Field level)	Will be completed within one month after the work plan is approved by KEA.
Draft evaluation report submission	Within one month after completing filed data collection for approval by a joint team of KEA and line department/agency officers.
Final report submission	Within one month after the draft report is approved.

MAP SHOWING LOCATIONS OF AUTHORISED DIESEL BUNKS AT COASTAL KARNATAKA



Questionnaires

Questionnaire for the evaluation of distribution of tax exempted diesel to the fishing boats.

(Beneficiaries)

1	Name & address of the boat owner ಬೋಟು ಮಾಲಕರ ಹೆಸರು ಮತ್ತು ವಿಳಾಸ	
2	Base of operation ಮೀನುಗಾರಿಕೆ ನಡೆಸುವ ಕೇಂದ್ರ (ಸ್ಥಳ)	
3	Name & registration number of the boat ಬೋಟಿನ ಹೆಸರು ಮತ್ತು ನೊಂದಣಿ ಸಂಖ್ಯೆ	
4	Length of the mechanized boat ಯಾಂತ್ರೀಕೃತ ದೋಣಿಯ ಉದ್ದ	
5	Boat is made of ಬೋಟನ್ನು ಯಾವುದರಿಂದ ನಿರ್ಮಿಸಲಾಗಿದೆ	Steel/wood/fibre glass ಸ್ಟೀಲ್/ಮರ/ಫೈಬರ್ ಗ್ಲಾಸ್
6	Make & Model of the engine with engine no. ಇಂಜಿನ್‌ನ ತಯಾರಕರು ಮತ್ತು ಮಾದರಿ ಮತ್ತು ಇಂಜಿನ್‌ನ ಕ್ರಮ ಸಂಖ್ಯೆ	
7	Horse power of the engine ಇಂಜಿನ್‌ನ ಅಶ್ವ ಶಕ್ತಿ	
8	Year of construction of the boat ಬೋಟು ನಿರ್ಮಾಣ ಮಾಡಿದ ವರ್ಷ	
9	Name & Code no. of the authorized diesel pump where the diesel is usually drawn ಹೆಚ್ಚಾಗಿ ಡೀಸೆಲ್ ಪಡೆದುಕೊಳ್ಳುತ್ತಿರುವ ಅಧಿಕೃತ ಡೀಸೆಲ್ ಪಂಪಿನ ಹೆಸರು ಮತ್ತು ಕೋಡ್ ನಂ.	
10	Quantity of subsidized diesel eligible per month ಪ್ರತೀ ತಿಂಗಳು ಪಡೆಯಲು ಅರ್ಹವಾಗಿರುವ ಸರಾಸರಿ ತೆರಿಗೆ ರಹಿತ ಡೀಸೆಲ್ ಪ್ರಮಾಣ	
11	Quantity of subsidized diesel actually drawn in a month (average) ಪ್ರತೀ ತಿಂಗಳು ಪಡೆದ ಸರಾಸರಿ ತೆರಿಗೆ ರಹಿತ ಡೀಸೆಲ್ ಪ್ರಮಾಣ	
12	Quantity of subsidized diesel drawn in a fishing season ಮೀನುಗಾರಿಕಾ ಸೀಸನ್‌ನಲ್ಲಿ ಪಡೆದ ಒಟ್ಟು ತೆರಿಗೆ ರಹಿತ ಡೀಸೆಲ್ ಪ್ರಮಾಣ	
13	No. of fishing days in a year ವರ್ಷದಲ್ಲಿ ಒಟ್ಟು ಮೀನುಗಾರಿಕಾ ದಿನಗಳು	
14	Average quantity of fish caught in a year (variety-wise) ಸರಾಸರಿ ಹಿಡಿದ ಮೀನಿನ ವಿವರ (ವಿವಿಧ ಜಾತಿವಾರು)	
15	In your family how many fishing boats you have? (including wife and children) ನಿಮ್ಮ ಕುಟುಂಬದಲ್ಲಿ ಎಷ್ಟು ಬೋಟುಗಳು ಇವೆ. (ಹೆಂಡತಿ ಮತ್ತು ಮಕ್ಕಳು ಸೇರಿ)	
16	What is the average expenditure in a season for the purchase of diesel? ಒಂದು ಮೀನುಗಾರಿಕಾ ಸೀಸನ್‌ನಲ್ಲಿ ಡೀಸೆಲ್ ಖರೀದಿ ಬಗ್ಗೆ ಆಗುವ ವೆಚ್ಚ ಎಷ್ಟು?	

17	Whether the Techometer reading is observed and recorded in the passbooks? ಟೆಕೋಮೀಟರ್ ರೀಡಿಂಗ್‌ನ್ನು ಪರಿಶೀಲಿಸಲಾಗುತ್ತಿದೆಯಾ ಮತ್ತು ಅದನ್ನು ಪಾಸುಪುಸ್ತಕದಲ್ಲಿ ಬರೆಯಲಾಗುತ್ತಿದೆಯಾ?	
18	Whether the owner is aware of the quantum of subsidy per litre of diesel purchased and total subsidy amount in a year ಪ್ರತೀ ಲೀಟರ್ ಡೀಸೆಲ್ ಮೇಲೆ ನೀಡಲಾಗಿರುವ ಸಹಾಯಧನ ಹಾಗೂ ಒಂದು ವರ್ಷದಲ್ಲಿ ಪಡೆದ ಸಹಾಯಧನದ ಒಟ್ಟು ಮೊತ್ತದ ಬಗ್ಗೆ ಬೋಟು ಮಾಲಕರಿಗೆ ಮಾಹಿತಿ ಇದೆಯಾ ?	
19	Whether the quantity of subsidized diesel fixed per boat on the basis of H.P. of the engine is adequate? ಇಂಜಿನ್‌ನ ಅಶ್ವಶಕ್ತಿ ಮೇಲೆ ನಿಗಧಿ ಪಡಿಸಿದ ಸಹಾಯಧನದ ಡೀಸೆಲ್ ಪ್ರಮಾಣ ಸಾಕಾಗುತ್ತದೆಯಾ?	
20	What is the frequency of renewal of boat registration ಬೋಟಿನ ನೊಂದಣಿಯನ್ನು ನವೀಕರಿಸುವ ಅವಧಿ ಏನು?	
21	What is the frequency of renewal of fishing license? ಮೀನುಗಾರಿಕೆ ಮಾಡಲು ಪಡೆದ ಪರವಾನಗಿಯನ್ನು ನವೀಕರಿಸುವ ಅವಧಿ ಏನು?	
22	What is the average catch per effort? ಪ್ರತೀ ಬಾರಿ ಮೀನು ಹಿಡಿಯುವಾಗ ಸರಾಸರಿ ಹಿಡಿಯುವ ಮೀನಿನ ಪ್ರಮಾಣ?	
23	What is the average gross return per effort? ಪ್ರತೀ ಬಾರಿ ಮೀನು ಹಿಡಿಯುವಾಗ ಸಿಗುವ ಸರಾಸರಿ ಆದಾಯ?	
24	In the revised scheme, back-end subsidy on the diesel is directly transferred to the Bank account of the beneficiary. Your opinion / experience on the modified scheme. ಪರಿಷ್ಕೃತ ಯೋಜನೆಯಡಿ ಡೀಸೆಲ್ ಖರೀದಿ ಮಾಡಿದ ನಂತರ ಡೀಸೆಲ್ ಮೇಲಿನ ಸಹಾಯಧನವನ್ನು ಫಲಾನುಭವಿಗಳ ಬ್ಯಾಂಕ್ ಖಾತೆಗೆ ನೇರವಾಗಿ ವರ್ಗಾಯಿಸಲಾಗುತ್ತಿದೆ. ಈ ಬಗ್ಗೆ ನಿಮ್ಮ ಅಭಿಪ್ರಾಯ / ಅನುಭವವನ್ನು ತಿಳಿಸುವುದು.	
25	Whether the diesel pumps supply exact quantity of subsidized diesel. (Shortage if any) ಡೀಸೆಲ್ ಪಂಪಿನವರು ಸರಿಯಾದ ಪ್ರಮಾಣದ ಡೀಸೆಲ್ ಪೂರೈಸುತ್ತಿದ್ದಾರಾ?	
26	Any complaints lodged on the quality and quantity of diesel supplied so far ಪೂರೈಸುತ್ತಿರುವ ತೆರಿಗೆ ರಹಿತ ಡೀಸೆಲ್‌ನ ಗುಣಮಟ್ಟದ ಹಾಗೂ ಪ್ರಮಾಣದ ಮೇಲೆ ಯಾವುದಾದರೂ ದೂರು ದಾಖಲಿಸಲಾಗಿದೆಯಾ ?	
27	Are the complaints solved by the concerned department ಸದ್ರಿ ದೂರುಗಳನ್ನು ಸಂಬಂಧಪಟ್ಟ ಇಲಾಖೆಗಳು ಸರಿಪಡಿಸಿ	

	ಕೊಂಡಿದ್ದಾರೋ ?	
28	Whether you have observed distribution of subsidized diesel to unregistered boats without a passbook? ನೊಂದಣಿಯಾಗದ ಹಾಗೂ ಪಾಸುಪುಸ್ತಕ ಇಲ್ಲದ ಬೋಟುಗಳಿಗೆ ತೆರಿಗೆ ರಹಿತ ಡೀಸೆಲ್ ಪೂರೈಸುವ ಬಗ್ಗೆ ನಿಮ್ಮ ಗಮನಕ್ಕೆ ಬಂದಿದೆಯಾ ?	
29	Whether the subsidized diesel is supplied to other than fishing purposes? ತೆರಿಗೆ ರಹಿತ ಡೀಸೆಲ್‌ನ್ನು ಮೀನುಗಾರಿಕೆಗೆ ಹೊರತು ಪಡಿಸಿ ಇತರ ಉದ್ದೇಶಗಳಿಗೆ ಪೂರೈಸಲಾಗುತ್ತಿದೆಯಾ	
30	Diesel is purchased on credit basis or cash basis ಡೀಸೆಲ್‌ನ್ನು ಸಾಲವಾಗಿ (ಉದ್ರಿ) ಅಥವಾ ಕ್ಯಾಷ್ ಮೂಲಕ ಖರೀದಿ ಮಾಡುತ್ತೀದ್ದೀರಿ.	
31	Who goes to purchase the diesel? (Owner or his representative) ಡೀಸೆಲ್ ಖರೀದಿಸುವರೆ ಯಾರು ಹೋಗುತ್ತಾರೆ? (ಮಾಲಕರು ಅಥವಾ ಅವರ ಪ್ರತಿನಿಧಿ)	
32	If owner is not going for purchase of diesel, what is the reason? ಮಾಲಕರು ಡೀಸೆಲ್ ಖರೀದಿಸುವರೆ ಹೋಗುವುದಿಲ್ಲ–ವೆಂದಾದರೆ, ಅದಕ್ಕೆ ಕಾರಣವೇನು?	
33	For every purchase, whether the owner or his representative carrying diesel passbook for necessary entries or he leaves the diesel passbook with the diesel bunks. ಮಾಲಕರು ಆಥವಾ ಅವರ ಪ್ರತಿನಿಧಿಗಳು ಪ್ರತೀ ಸಲ ಡೀಸೆಲ್ ಖರೀದಿಸುವಾಗ ಡೀಸೆಲ್ ಪಾಸು ಪುಸ್ತಕವನ್ನು ವಿವರಗಳನ್ನು ನಮೂದಿಸಲು ತೆಗೆದು ಕೊಂಡು ಹೋಗುತ್ತೀರಾ ಅಥವಾ ಡೀಸೆಲ್ ಬಂಕ್‌ನಲ್ಲೇ ಇಟ್ಟು ಹೋಗುತ್ತೀರಾ?	
34	During maintenance / repairs to your boat, how do you ensure that subsidized diesel is not supplied to other boats in your diesel passbook. ನಿಮ್ಮ ಬೋಟಿಗೆ ದುರಸ್ತಿ ಅಥವಾ ನಿರ್ವಹಣೆ ಇದ್ದಾಗ ನಿಮ್ಮ ಬೋಟಿನ ಪಾಸುಪುಸ್ತಕದಲ್ಲಿ ಇತರ ಬೋಟಿನವರಿಗೆ ಕರರಹಿತ ಡೀಸೆಲ್ ಪೂರೈಸುವುದಿಲ್ಲವೆಂದು ನೀವು ಹೇಗೆ ದೃಢಪಡಿಸಿ ಕೊಳ್ಳುತ್ತೀರಿ.	
35	Your suggestions to improve the implementation of the scheme to ensure that diesel is supplied to only authorized boats. ಕರರಹಿತ ಡೀಸೆಲ್‌ನ್ನು ಅಧಿಕೃತ ಬೋಟಿಗೆ ಮಾತ್ರ ಪೂರೈಸುವ ಯೋಜನೆಯನ್ನು ಸಮರ್ಪಕವಾಗಿ ಅನುಷ್ಠಾನ ಗೊಳಿಸುವ ಬಗ್ಗೆ ನಿಮ್ಮ ಅಭಿಪ್ರಾಯವೇನು.	
36	In what way the subsidized diesel has helped you in fishing; ಕರರಹಿತ ಡೀಸೆಲ್ ಯೋಜನೆ ನಿಮಗೆ ಯಾವ ರೀತಿಯಲ್ಲಿ ಮೀನುಗಾರಿಕೆಗೆ ಸಹಾಯವಾಗಿದೆ.	

37	Should the scheme of supplying subsidised diesel to be continued? ಕರರಹಿತ ಡೀಸೆಲ್‌ನ್ನು ಪೂರೈಸುವ ಯೋಜನೆಯನ್ನು ಮುಂದುವರಿಸುವ ಅಗತ್ಯ ಇದೆಯಾ?	
38	If yes, for how many years? Justify. ಹೌದೆಂದಾದರೆ ಎಷ್ಟು ವರ್ಷಗಳು? ನಿಮ್ಮ ಅಭಿಪಾಯವನ್ನು ಸ್ಪಷ್ಟೀಕರಿಸಿ.	

Questionnaire for the evaluation of distribution of tax exempted diesel to the fishing boats.

(Diesel bunks)

1	Name & address of the authorized diesel Bunk with code no. ಅಧಿಕೃತ ಡೀಸೆಲ್ ಪಂಪಿನ ಹೆಸರು, ವಿಳಾಸ ಮತ್ತು ಕೋಡ್ ನಂ.	
2	Name of the oil company to which it is attached ಯಾವ ಆಯಿಲ್ ಕಂಪೆನಿಯಿಂದ ಡೀಸೆಲ್ ಪೂರೈಸಲಾಗುತ್ತಿದೆ.	
3	Whether a dealer pump or a consumer pump ಡೀಲರ್ ಪಂಪ್ ಅಥವಾ ಕನ್ಸ್ಯೂಮರ್ ಪಂಪ್	
4	Average number of fishermen purchasing diesel from the pump (passbook wise) ಸಾಧಾರಣ ಎಷ್ಟು ಮೀನುಗಾರರು ಪಂಪಿನಿಂದ ಡೀಸೆಲ್ ಖರೀದಿಸುತ್ತಾರೆ? (ಪಾಸುಪುಸ್ತಕ ಪ್ರಕಾರ)	
5	How do you ascertain the registration of the boat before supplying the subsidized diesel? ಕರರಹಿತ ಡೀಸೆಲ್ ಸರಬರಾಜು ಮಾಡುವ ಮೊದಲು ನೀವು ಬೋಟಿನ ನೊಂದಣಿಯನ್ನು ಹೇಗೆ ಖಚಿತ ಪಡಿಸಿಗೊಳಿಸುತ್ತೀರಿ?	
6	Do you cross check the engine no. with respect to the entry in diesel passbook? ಡೀಸೆಲ್ ಪಾಸುಪುಸ್ತಕದಲ್ಲಿ ನಮೂದಿಸಿದ ಇಂಜಿನ್ ಸಂಖ್ಯೆಯನ್ನು ನೀವು ಖಚಿತ ಪಡಿಸಿಕೊಳ್ಳುತ್ತೀರಾ?	
7	Who keeps the diesel passbook? ಪಾಸು ಪುಸ್ತಕವನ್ನು ಯಾರು ಇಟ್ಟು ಕೊಳ್ಳುತ್ತಾರೆ.	
8	Whether the owner of the boat comes to the bunk for the purchase and sign the passbook? ಬೋಟಿನ ಮಾಲಕರು ಡೀಸೆಲ್ ಖರೀದಿಸಲು ಮತ್ತು ಪಾಸುಪುಸ್ತಕದಲ್ಲಿ ಸಹಿ ಮಾಡಲು ಡೀಸೆಲ್ ಬಂಕ್‌ಗೆ ಬರುತ್ತಾರಾ?	
9	How regular the owner comes in the season for purchase of diesel? ಮೀನುಗಾರಿಕಾ ಸೀಸನ್‌ನಲ್ಲಿ ಎಷ್ಟು ಬಾರಿ ಬೋಟಿನ ಮಾಲಕರು ಡೀಸೆಲ್ ಖರೀದಿ ಮಾಡಲು ಬರುತ್ತಾರೆ.	

10	Do you provide credit facility for the purchase of subsidized diesel? If yes why? ಕರರಹಿತ ಡೀಸೆಲ್ ಖರೀದಿ ಬಗ್ಗೆ ನೀವು ಸಾಲ ನೀಡುತ್ತೀರಾ? ಹೌದೆಂದಾರೆ ಯಾಕೆ?	
11	If the unregistered boats comes seeking subsidized diesel, do you sell the diesel to improve your turn over? ನೊಂದಣಿ ಮಾಡದ ಬೋಟುಗಳು ಕರರಹಿತ ಡೀಸೆಲ್‌ಗಾಗಿ ನಿಮ್ಮಲ್ಲಿ ಬಂದಾಗ, ನಿಮ್ಮ ವ್ಯವಹಾರವನ್ನು ವೃದ್ಧಿಸುವ ಸಲುವಾಗಿ ನೀವು ಅವರಿಗೆ ಕರರಹಿತ ಡೀಸೆಲ್ ಪೂರೈಸುತ್ತೀರಾ?	
12	If yes. What is the additional sale by this in a month. ಹೌದೆಂದಾದರೆ ಎಷ್ಟು ಪ್ರಮಾಣದ ಹೆಚ್ಚುವರಿ ಡೀಸೆಲ್‌ನ್ನು ಒಂದು ತಿಂಗಳಲ್ಲಿ ಮಾರಾಟ ಮಾಡುತ್ತೀರಿ?	
13	If some of the boats, exhaust their allotted quota, whether these boats are supplied diesel from the boats having unutilized quota by billing in the name of such boats? ಕೆಲವು ಬೋಟುಗಳ ನಿಗಧಿ ಪಡಿಸಿದ ಡೀಸೆಲ್ ಕೋಟಾ ಮುಗಿದು ಹೋದಲ್ಲಿ, ಡೀಸೆಲ್ ಕೋಟಾ ಉಪಯೋಗಿಸದೇ ಇರುವ ಬೋಟಿನ ಹೆಸರಿಗೆ ಬಿಲ್ ಮಾಡಿ ಅವರಿಗೆ ಡೀಸೆಲ್ ಪೂರೈಸಲಾಗುತ್ತಿದೆಯಾ?	
14	For the supply of tax exempted diesel whether the diesel bunks use their own diesel transport tankers or hired tankers. ಓಯಿಲ್ ಕಂಪೆನಿಯಿಂದ ಪಂಪಿಗೆ ಡೀಸೆಲ್ ಪೂರೈಸಲು ಸ್ವಂತ ಡೀಸೆಲ್ ಟ್ಯಾಂಕರ್‌ನ್ನು ಉಪಯೋಗಿಸುತ್ತೀರಾ ಅಥವಾ ಬಾಡಿಗೆ ಟ್ಯಾಂಕರ್‌ನ್ನು ಉಪಯೋಗಿಸುತ್ತೀರಾ?.	
15	What are the measures employed to check the quality of diesel supplied by the oil companies? ಓಯಿಲ್ ಕಂಪೆನಿಯಿಂದ ಪೂರೈಸುವ ಡೀಸೆಲ್ ಗುಣಮಟ್ಟವನ್ನು ಪರಿಶೀಲಿಸಲು ಯಾವ ಮಾನದಂಡವನ್ನು ಅಳವಡಿಸಲಾಗಿದೆ.	
16	What are the measures employed to check the quantity of diesel supplied by the Oil Companies. ಓಯಿಲ್ ಕಂಪೆನಿಯಿಂದ ಪೂರೈಸುವ ಡೀಸೆಲ್ ಪ್ರಮಾಣವನ್ನು ಪರಿಶೀಲಿಸಲು ಯಾವ ಮಾನದಂಡವನ್ನು ಅಳವಡಿಸಲಾಗಿದೆ.	
17	What are the pre-requisites required to supply the tax exempted diesel to the fishing boats. ಮೀನುಗಾರಿಕಾ ದೋಣಿಗಳಿಗೆ ತೆರಿಗೆ ರಹಿತ ಡೀಸೆಲ್ ಪೂರೈಸಲು ಯಾವ ಮಾನದಂಡ ಅಳವಡಿಸಲಾಗಿದೆ.	

18	What are the measures adopted to supply the diesel to the genuine beneficiaries ನಿಜವಾದ ಫಲಾನುಭವಿಗೆ ತೆರಿಗೆ ರಹಿತ ಡೀಸೆಲ್ ಪೂರೈಕೆ ಆಗಿದೆ ಎಂದು ಹೇಗೆ ದೃಢೀಕರಿಸುತ್ತೀರಿ?	
19	What are the measures adopted to supply the correct quantity of tax exempted diesel to the fishing boats ಸರಿಯಾದ ಪ್ರಮಾಣದ ತೆರಿಗೆ ರಹಿತ ಡೀಸೆಲ್‌ನ್ನು ಮೀನುಗಾರಿಕಾ ದೋಣಿಗಳಿಗೆ ಪೂರೈಸಲು ತೆಗೆದು ಕೊಂಡ ಕ್ರಮಗಳು	
20	Is there any mechanism to verify that the fishing boats supplied with the subsidized diesel carried out fishing? ಕರರಹಿತ ಡೀಸೆಲ್ ಪೂರೈಸಿದ ಮೀನುಗಾರಿಕಾ ಬೋಟುಗಳು ಮೀನುಗಾರಿಕೆ ಮಾಡಿವೆ ಎಂಬುದನ್ನು ದೃಢೀಕರಿಸಲು ಯಾವ ಮಾನದಂಡ ಇವೆ.	
21	Whether the Tachometer reading is observed and recorded in the passbooks ? ಬೋಟು ಚಲಾವಣೆಯಾದ ಬಗ್ಗೆ ಟೆಕೋ ಮೀಟರ್ ರೀಡಿಂಗ್‌ನ್ನು ಪರಿಶೀಲಿಸಲಾಗುತ್ತಿದೆಯಾ ಹಾಗೂ ಅದನ್ನು ಪಾಸುಪುಸ್ತಕದಲ್ಲಿ ಬರೆಯಲಾಗುತ್ತಿದೆಯಾ?	
22	Is there any record maintained at the Bunks? ಈ ಬಗ್ಗೆ ಡೀಸೆಲ್ ಪಂಪ್‌ಗಳಲ್ಲಿ ವಿವರಗಳನ್ನು ಬರೆದಿಡಲಾಗುತ್ತಿದೆಯೋ?	
23	Any complaints received from the fishermen on the quality and quantity of the diesel supplied. ಸರಬರಾಜು ಮಾಡಲಾದ ಡೀಸೆಲ್‌ನ ಗುಣಮಟ್ಟ ಮತ್ತು ಪ್ರಮಾಣದ ಬಗ್ಗೆ ಯಾರಿಂದಾದರೂ ದೂರುಗಳು ಬಂದಿವೆಯಾ?	
24	What are the frequencies of inspection made by the authorized officers?. ತೆರಿಗೆ ರಹಿತ ಡೀಸೆಲ್ ವಿತರಣೆ ಬಗ್ಗೆ ವೀಕ್ಷಿಸಲು ಅಧಿಕೃತ ಅಧಿಕಾರಿಗಳು ಎಷ್ಟು ಬಾರಿ ಬರುತ್ತಾರೆ.	
25	What are the frequency of inspection made by the concerned Deputy Director of Fisheries and other Senior Officers ತೆರಿಗೆ ರಹಿತ ಡೀಸೆಲ್ ವಿತರಣೆ ಬಗ್ಗೆ ವೀಕ್ಷಿಸಲು ಮೀನುಗಾರಿಕಾ ಉಪನಿರ್ದೇಶಕರು ಮತ್ತು ಇತರ ಹಿರಿಯ ಅಧಿಕಾರಿಗಳು ಎಷ್ಟು ಬಾರಿ ಬರುತ್ತಾರೆ.	
26	Any observations made by the inspecting agencies ಪರಿವೀಕ್ಷಣಾ ಅಧಿಕಾರಿಗಳು ಏನಾದರೂ ನ್ಯೂನತೆಗಳ ಬಗ್ಗೆ ವರದಿ ನೀಡಿರುತ್ತಾರಾ?	
27	If yes, what are the measures taken to rectify the observations ಹೌದೆಂದಾದರೆ ಸದ್ರಿ ಪರಿಶೀಲನಾ ವರದಿಯಲ್ಲಿ ನಮೂದಿಸಿದ ನ್ಯೂನತೆಗಳ ಬಗ್ಗೆ ತೆಗೆದುಕೊಂಡ ಕ್ರಮಗಳೇನು	

28	In the revised scheme, back-end subsidy on the diesel is directly transferred to the Bank Account of the beneficiary. How the diesel bunks react on this. ಪರಿಷ್ಕೃತ ಯೋಜನೆಯಡಿ ಡೀಸೆಲ್ ಖರೀದಿ ಮಾಡಿದ ನಂತರ ಡೀಸೆಲ್ ಮೇಲಿನ ಸಹಾಯಧನವನ್ನು ಫಲಾನುಭವಿಗಳ ಬ್ಯಾಂಕ್ ಖಾತೆಗೆ ನೇರವಾಗಿ ವರ್ಗಾಯಿಸಲಾಗುತ್ತಿದೆ. ಈ ಬಗ್ಗೆ ಡೀಸೆಲ್ ಬಂಕ್‌ನವರ ಪ್ರತಿಕ್ರಿಯ ಏನು?	
29	In your opinion whether there is a need to continue the scheme? ನಿಮ್ಮ ಅಭಿಪ್ರಾಯದಂತೆ ಈ ಯೋಜನೆಯನ್ನು ಮುಂದುವರಿಸುವ ಅಗತ್ಯ ಇದೆಯಾ	
30	If YES, substantiate it. ಹೌದೆಂದಾರೆ ಅದನ್ನು ಹೇಗೆ ಪ್ರತಿಪಾದಿಸುತ್ತೀರಿ.	

Questionnaire for the evaluation of distribution of Subsidized Kerosene to the motorized fishing boats.

(Beneficiaries)

1	Name & address of the boat owner ಬೋಟು ಮಾಲಕರ ಹೆಸರು ಮತ್ತು ವಿಳಾಸ	
2	Base of operation ಮೀನುಗಾರಿಕೆ ನಡೆಸುವ ಕೇಂದ್ರ ಸ್ಥಳ	
3	Name & registration number of the boat ಬೋಟಿನ ಹೆಸರು ಮತ್ತು ನೊಂದಣಿ ಸಂಖ್ಯೆ	
4	Length of the motorized boat ಮೋಟರೀಕೃತ ದೋಣಿಯ ಉದ್ದ	
5	Boat is made of ಬೋಟನ್ನು ಯಾವುದರಿಂದ ನಿರ್ಮಿಸಲಾಗಿದೆ	wood/fibre glass ಮರ/ಫೈಬರ್ ಗ್ಲಾಸ್
6	Horse power of the engine ಇಂಜಿನಿನ ಅಶ್ವಶಕ್ತಿ	
7	Make of the engine ಇಂಜಿನಿನ ತಯಾರಕರು ಮತ್ತು ಮಾದರಿ	
8	Year of construction of the boat ಬೋಟು ನಿರ್ಮಾಣದ ವರ್ಷ	
9	Name of the authorized Kerosene dealer ಸೀಮೆ ಎಣ್ಣೆ ವಿತರಣೆ ಮಾಡುತ್ತಿರುವ ಅಧಿಕೃತ ವಿತರಕರ ಹೆಸರು	
10	Quantity of subsidized Kerosene eligible per month (average) ಸರಾಸರಿ ಅರ್ಹವಾದ ಸಹಾಯಧನದ ಸೀಮೆಎಣ್ಣೆಯ ಪ್ರಮಾಣ ಪ್ರತೀ ತಿಂಗಳಿಗೆ	

11	Quantity of subsidized Kerosene actually drawn in a month (average) ಸಹಾಯಧನದ ಸೀಮೆಎಣ್ಣೆಯನ್ನು ಪ್ರತೀ ತಿಂಗಳು ಪಡೆದ ಪ್ರಮಾಣ.(ಸರಾಸರಿ)	
12	Quantity of subsidized Kerosene drawn in a fishing season (9 months) ಮೀನುಗಾರಿಕಾ ಸೀಸನ್‌ನಲ್ಲಿ (9 ತಿಂಗಳು) ಪಡೆದ ಸಹಾಯಧನದ ಸೀಮೆ ಎಣ್ಣೆ.	
13	Whether the Tachometer reading is observed and recorded in the passbooks ? ಬೋಟು ಚಲಾಯಿಸಿದ ಬಗ್ಗೆ ಟೆಕೋ ಮೀಟರ್ ರೀಡಿಂಗ್‌ನ್ನು ಪರಿಶೀಲಿಸಿ ಪಾಸುಪುಸ್ತಕದಲ್ಲಿ ಬರೆಯಲಾಗುತ್ತಿದೆಯೋ	
14	How many days you go for fishing in a year/season. ಒಂದು ವರ್ಷದಲ್ಲಿ/ಮೀನುಗಾರಿಕಾ ಸೀಸನ್‌ನಲ್ಲಿ ಎಷ್ಟು ದಿನಗಳು ಮೀನುಗಾರಿಕೆಗೆ ಹೋಗುತ್ತೀರಿ.?	
15	What is the average consumption of kerosene per trip? ಪ್ರತೀ ಟ್ರಿಪ್‌ಗೆ ತಗಲುವ ಸರಾಸರಿ ಸೀಮೆ ಎಣ್ಣೆ ಪ್ರಮಾಣ ಎಷ್ಟು?	
16	What is the storage capacity of tank in the boat? ಬೋಟಿನಲ್ಲಿರುವ ಟ್ಯಾಂಕ್‌ನ ಶೇಖರಣಾ ಸಾಮಾರ್ಥ್ಯ ಎಷ್ಟು?	
17	In your family how many boats you have? (including wife and children) ನಿಮ್ಮ ಕುಟುಂಬದಲ್ಲಿ ಎಷ್ಟು ಬೋಟುಗಳು ಇವೆ. (ಹೆಂಡತಿ ಮತ್ತು ಮಕ್ಕಳು ಸೇರಿ)	
18	Do you have any spare engine? If yes whether it is registered? ನಿಮ್ಮಲ್ಲಿ ಹೆಚ್ಚುವರಿ ಇಂಜಿನ್ ಇದೆಯಾ? ಹೌದೆಂದಾರೆ ಅದನ್ನು ನೊಂದಣಿ ಮಾಡಲಾಗಿದೆಯಾ?	
19	How do you procure monthly quota of kerosene? Is it as per the requirement or monthly quota is purchased at onetime and stored in the house /godown? ನಿಮ್ಮ ಮಾಸಿಕ ಸೀಮೆ ಎಣ್ಣೆ ಕೋಟಾವನ್ನು ಹೇಗೆ ಪಡೆಯಾಲಾಗುತ್ತಿದೆ? ಅವಶ್ಯಕತೆಗೆ ಅನುಗುಣವಾಗಿಯೋ ಅಥವಾ ಒಂದು ತಿಂಗಳ ಕೋಟಾವನ್ನು ಒಂದೇ ಬಾರಿ ಪಡೆದು ಮನೆಯಲ್ಲಿ ಅಥವಾ ಗೋಡಾನ್‌ನಲ್ಲಿ ಶೇಖರಿಸಿಡುತ್ತೀರೋ.	
20	Are any boats selling surplus kerosene to others? ಯಾರಾದರೂ ತಮ್ಮಲ್ಲಿರುವ ಹೆಚ್ಚುವರಿ ಸೀಮೆಎಣ್ಣೆಯನ್ನು ಇತರರಿಗೆ ಮಾರಾಟ ಮಾಡತ್ತಾರೋ?	
21	What is the average life of the engine? ಒಂದು ಇಂಜಿನ್‌ನಿನ ಸರಾಸರಿ ಅವಧಿ ಎಷ್ಟು?	

22	Any suggestions to improve the distribution system. ಸರಬರಾಜು ವ್ಯವಸ್ಥೆಯನ್ನು ಸುಧಾರಿಸುವ ಬಗ್ಗೆ ನಿಮ್ಮ ಅಭಿಪ್ರಾಯವೇನು?	
23	Any suggestions to ensure that the kerosene supplied is not used for any other purpose. ಸರಬರಾಜು ಮಾಡಲಾದ ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ಇತರ ಉದ್ದೇಶಗಳಿಗೆ ಉಪಯೋಗಿಸಲಾಗುತ್ತಿಲ್ಲ ಎಂದು ಹೇಗೆ ಖಾತರಿ ಪಡಿಸಿಕೊಳ್ಳ ಬಹುದಾಗಿದೆ?	
24	Whether the owner is aware of the quantum of subsidy per litre of Kerosene purchased ಪ್ರತೀ ಲೀಟರ್ ಸೀಮೆ ಎಣ್ಣೆ ಖರೀದಿಗೆ ಎಷ್ಟು ಸಹಾಯಧನ ಬರುತ್ತದೆ ಎಂದು ಬೋಟು ಮಾಲಕರಿಗೆ ಗೊತ್ತಿದೆಯಾ?	
25	Whether the susidised kerosene fixed per boat is adequate? ಪ್ರತೀ ಬೋಟಿಗೆ ನಿಗಧಿಪಡಿಸಲಾದ ಸೀಮೆ ಎಣ್ಣೆ ಪ್ರಮಾಣ ಸಾಕಾಗುತ್ತಿದೆಯಾ?	
26	What is the frequency of renewal of boat registration ಬೋಟಿನ ನೊಂದಣಿಯನ್ನು ನವೀಕರಿಸುವ ಅವಧಿ ಏನು?	
27	What is the frequency of renewal of fishing license? ಮೀನುಗಾರಿಕೆ ಮಾಡಲು ಪಡೆದ ಪರವಾನಗಿಯನ್ನು ನವೀಕರಿಸುವ ಅವಧಿ ಏನು?	
28	What is the average catch per effort? ಪ್ರತೀ ಬಾರಿ ಮೀನು ಹಿಡಿಯುವಾಗ ಸರಾಸರಿ ಹಿಡಿಯುವ ಮೀನಿನ ಪ್ರಮಾಣ?	
29	What is the average gross return per effort? ಪ್ರತೀ ಬಾರಿ ಮೀನು ಹಿಡಿಯುವಾಗ ಸಿಗುವ ಸರಾಸರಿ ಆದಾಯ?	
30	It is proposed to transfer back-end subsidy on the kerosene directly to the Bank account of the beneficiary. What is your opinion on the modified scheme. ಪರಿಷ್ಕೃತ ಯೋಜನೆಯಡಿ ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ಖರೀದಿ ಮಾಡಿದ ನಂತರ ಸೀಮೆ ಎಣ್ಣೆಯ ಮೇಲಿನ ಸಹಾಯಧನವನ್ನು ಫಲಾನುಭವಿಗಳ ಬ್ಯಾಂಕ್ ಖಾತೆಗೆ ನೇರವಾಗಿ ವರ್ಗಾಯಿಸುವ ಯೋಜನೆಯನ್ನು ಪ್ರಸ್ತಾಪಿಸಲಾಗಿದೆ. ಈ ಬಗ್ಗೆ ನಿಮ್ಮ ಅಭಿಪ್ರಾಯ ಏನು?	
31	Whether the Kerosene dealers supply the exact quantity of subsidized Kerosene ಅಧಿಕೃತ ಸೀಮೆಎಣ್ಣೆ ವಿತರಕರು ಸರಿಯಾದ ಪ್ರಮಾಣದಲ್ಲಿ ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ನೀಡುತ್ತಿದ್ದಾರಾ	

32	Is there any shortage of supply. If yes, how much? ಸೀಮೆ ಎಣ್ಣೆ ಸರಬರಾಜಿನಲ್ಲಿ ಕಡಿಮೆ ಬರುವುದಿದೆಯೋ. ಇದ್ದಲ್ಲಿ ಎಷ್ಟು ಪ್ರಮಾಣ ಕಡಿಮೆ.	
33	Any complaints lodged on the quality and quantity of Kerosene supplied ಪೂರೈಸುತ್ತಿರುವ ಸಹಾಯಧನದ ಸೀಮೆಎಣ್ಣೆಯ ಗುಣಮಟ್ಟದ ಹಾಗೂ ಪ್ರಮಾಣದ ಬಗ್ಗೆ ಯಾವುದಾದರೂ ದೂರು ದಾಖಲಿಸಲಾಗಿದೆಯಾ	
34	Whether the Kerosene dealers are supplying the Kerosene manually or through pumps. ಅಧಿಕೃತ ಸರಬರಾಜುದಾರರು ಕೈಯಿಂದ ಅಥವಾ ಪಂಪ್ ಮೂಲಕ ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ನೀಡುತ್ತಿದ್ದಾರೆ	
35	Without a permit issued by the Food & Civil supplies Dept., whether the dealers supply kerosene to the unregistered boats. ಆಹಾರ ಮತ್ತು ನಾಗರಿಕ ಸರಬರಾಜು ಇಲಾಖೆಯವರು ನೀಡಿರುವ ಪರ್ಮಿಟ್ ಹೊರತಾಗಿ ಇತರರಿಗೆ ಸಹಾಧನದ ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ವಿತರಕರು ವಿತರಿಸಿರುವುದು ನಿಮ್ಮ ಗಮನಕ್ಕೆ ಬಂದಿದೆಯಾ?	
36	Whether the subsidized Kerosene is supplied to other than fishing purpose ಸಹಾಧನದ ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ಮೀನುಗಾರಿಕೆಗೆ ಹೊರತು ಪಡಿಸಿ ಇತರ ಉದ್ದೇಶಗಳಿಗೆ ನೀಡಿರುವುದು ನಿಮ್ಮ ಗಮನಕ್ಕೆ ಬಂದಿದೆಯಾ	
37	Any complaint on the quality and quantity of Kerosene supplied ವಿತರಿಸಿದ ಸಹಾಧನದ ಸೀಮೆ ಎಣ್ಣೆಯ ಗುಣಮಟ್ಟ ಮತ್ತು ಪ್ರಮಾಣದ ಬಗ್ಗೆ ಏನಾದರೂ ದೂರು ಇದೆಯಾ	
38	After the use of subsidized Kerosene whether the fish production has increased considerably? ಸಹಾಧನದ ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ಉಪಯೋಗಿಸಿದ ನಂತರ ಮೀನಿನ ಹಿಡುವಳಿಯಲ್ಲಿ ಗಣನೀಯವಾದ ಹೆಚ್ಚಳ ಆಗಿದೆಯಾ	
39	In your opinion whether there is a need to continue the scheme ನಿಮ್ಮ ಅಭಿಪ್ರಾಯದಲ್ಲಿ ಈ ಯೋಜನೆಯನ್ನು ಮುಂದುವರಿಸುವ ಅಗತ್ಯ ಇದೆಯಾ	
40	If YES, substantiate it. ಹೌದೆಂದಾರೆ ಅದನ್ನು ಹೇಗೆ ಪ್ರತಿಪಾದಿಸುತ್ತೀರಿ.	

Questionnaire for the evaluation of distribution of Subsidized Kerosene to the motorized fishing boats.

(Dealers)

1	Name and address of the authorized dealer for distribution of subsidized Kerosene for fishing boats. Regd., no. if any. ಸಹಾಯಧನದ ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ವಿತರಿಸುತ್ತಿರುವ ಅಧಿಕೃತ ವಿತರಕರ ಹೆಸರು, ವಿಳಾಸ ಮತ್ತು ನೊಂದಣಿ ಸಂಖ್ಯೆ.	
2	Name of the oil company from where the subsidized Kerosene is drawn. ಸಹಾಯಧನದ ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ಪೂರೈಸುವ ಓಯಿಲ್ ಕಂಪೆನಿಯ ಹೆಸರು	
3	Average no. of fishermen purchasing kerosene from the dealer (permit wise) ಸುಮಾರು ಎಷ್ಟು ಮೀನುಗಾರರು ನಿಮ್ಮ ಪಂಪಿನಿಂದ ಸೀಮೆ ಎಣ್ಣೆ ಖರೀದಿಸುತ್ತಾರೆ	
4	Whether the authorized dealer owns a Kerosene transport tanker for the supply of subsidized Kerosene ಸಹಾಯಧನದ ಸೀಮೆ ಎಣ್ಣೆ ಸರಬರಾಜು ಮಾಡಲು ಸೀಮೆ ಎಣ್ಣೆ ಟ್ಯಾಂಕರ್ ಹೊಂದಿರುವುರೋ?	
5	What are the measures employed to check the quality of Kerosene supplied by the private transporters. ಖಾಸಗಿ ಸರಬರಾಜುದಾರರು ಸರಬರಾಜು ಮಾಡುವ ಸೀಮೆ ಎಣ್ಣೆಯ ಗುಣಮಟ್ಟವನ್ನು ಹೇಗೆ ಪರೀಕ್ಷಿಸಲಾಗುತ್ತಿದೆ?	
6	What are the measures employed to check the quantity of Kerosene supplied by the private transporters. ಖಾಸಗಿ ಸರಬರಾಜುದಾರರು ಸರಬರಾಜು ಮಾಡುವ ಸೀಮೆ ಎಣ್ಣೆಯ ಪ್ರಮಾಣವನ್ನು ಹೇಗೆ ಪರೀಕ್ಷಿಸಲಾಗುತ್ತಿದೆ?	
7	What are the pre-requisites required to supply the subsidized Kerosene to the fishing boats. ಸಹಾಯಧನದ ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ಮೀನುಗಾರಿಕಾ ದೋಣಿಗಳಿಗೆ ವಿತರಿಸಲು ಬೇಕಾದ ಅರ್ಹತೆಗಳೇನು?	
8	What are the measures adopted to supply the Kerosene to the genuine beneficiaries. ಡೀಸೆಲ್ ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ನಿಜವಾದ ಫಲಾನುಭವಿಗಳಿಗೆ ವಿತರಿಸುವ ಬಗ್ಗೆ ಹೇಗೆ ಖಾತರಿಸಿ ಮಾಡಲಾಗುತ್ತಿದೆ?	
9	What are the measures to supply correct quantity of subsidized Kerosene to the fishing boats ಸರಿಯಾದ ಪ್ರಮಾಣದ ಸಹಾಯಧನದ ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ಮೀನುಗಾರಿಕಾ ದೋಣಿಗಳಿಗೆ ವಿತರಿಸಲು ತೆಗೆದು ಕೊಂಡ ಕ್ರಮಗಳೇನು?	

10	Is there any mechanism to verify that the fishing boats supplied with subsidized kerosene has carried out fishing ಸಹಾಯಧನದ ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ವಿತರಿಸಿದ ಮೀನುಗಾರಿಕಾ ದೋಣಿಗಳು ಮೀನುಗಾರಿಕೆಗೆ ತೆರಳಿವೆ ಎಂಬುದನ್ನು ಹೇಗೆ ಖಾತರಿ ಪಡಿಸಿ ಕೊಳ್ಳುತ್ತೀರಿ.	
11	Whether the Tachometer reading is observed and recorded in the permit ಪ್ರತೀ ಸಲ ಸಹಾಯಧನದ ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ನೀಡುವಾಗ ಟಿಕೋಮೀಟರ್ ರೀಡಿಂಗ್‌ನ್ನು ಪರಿಶೀಲಿಸಿ ಪರ್ಮಿಟ್‌ನಲ್ಲಿ ನಮೂದಿಸಲಾಗುತ್ತಿದೆಯಾ?	
12	What are the measures taken by the fisheries department to ensure that the kerosene supplied for fishing is not misused? ಮೀನುಗಾರಿಕೆಗೆ ನೀಡಲಾದ ಸೀಮೆ ಎಣ್ಣೆಯು ದುರ್ಬಳಕೆ ಆಗದಂತೆ ಮೀನುಗಾರಿಕಾ ಇಲಾಖೆಯವರು ತೆಗೆದು ಕೊಂಡ ಕ್ರಮಗಳೇನು?	
13	What are the measures taken by the Food & civil Supplies Department to ensure that the kerosene supplied is not sold in open market/black market? ಮೀನುಗಾರಿಕೆಗೆ ನೀಡಲಾದ ಸಹಾಯಧನದ ಸೀಮೆ ಎಣ್ಣೆಯು ಮುಕ್ತ ಮಾರ್ಕೆಟ್‌ನಲ್ಲಿ ಮಾರಾಟ ಮಾಡುವುದನ್ನು ತಡೆಯಲು ಆಹಾರ ಮತ್ತು ನಾಗರಿಕಾ ಪೂರೈಕೆ ಇಲಾಖೆಯವರು ಕೈಗೊಂಡ ಕ್ರಮಗಳೇನು?	
14	Whether the kerosene quota is supplied monthly or daily as per requirement. ಸೀಮೆ ಎಣ್ಣೆ ಕೋಟಾವನ್ನು ಪ್ರತೀ ದಿನ ಅಥವಾ ಮಾಸಿಕವಾಗಿಅಗತ್ಯಕ್ಕೆ ತಕ್ಕಂತೆ ಪೂರೈಸಲಾಗುತ್ತಿದೆಯಾ?	
15	What is the mode of delivery. Is it at depot on cans or you have kerosene pump in line with diesel pumps? ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ಡಿಪೋಗಳಿಂದ ಕ್ಯಾನ್ ಮೂಲಕ ಸರಬರಾಜು ಮಾಡಲಾಗುತ್ತಿವೆಯಾ ಅಥವಾ ಡೀಸೆಲ್ ಪಂಪ್‌ಗಳಂತೆ ನೇರವಾಗಿ ಬೋಟುಗಳಿಗೆ ನೀಡಲಾಗುತ್ತಿದೆಯಾ?	
16	It is proposed to transfer back-end subsidy on the kerosene directly to the Bank account of the beneficiary. What is your opinion on the modified scheme. ಪರಿಷ್ಕೃತ ಯೋಜನೆಯಡಿ ಸೀಮೆ ಎಣ್ಣೆ ಖರೀದಿ ಮಾಡಿದ ನಂತರ ಸೀಮೆ ಎಣ್ಣೆ ಮೇಲಿನ ಸಹಾಯಧನವನ್ನು ಫಲಾನುಭವಿಗಳ ಬ್ಯಾಂಕ್ ಖಾತೆಗೆ ನೇರವಾಗಿ ವರ್ಗಾಯಿಸಲಾಗುವ ಆಲೋಚನೆ ಇದೆ. ಈ ಬಗ್ಗೆ ನಿಮ್ಮ ಅಭಿಪ್ರಾಯ ಏನು?	

17	Any complaints received from the beneficiaries on the quality and quantity of subsidized kerosene supplied ,ಸಹಾಯಧನದ ಸೀಮೆಎಣ್ಣೆಯ ಗುಣಮಟ್ಟ ಮತ್ತು ಪ್ರಮಾಣದ ಬಗ್ಗೆ ಫಲಾನುಭವಿಗಳಿಂದ ಯಾವುದಾದರೂ ದೂರುಗಳು ಬಂದಿವಿಯೋ?	
18	What are the frequency of inspection made by the Officials of the Food & Civil supplies Dept and Fisheries Department? ಆಹಾರ ಮತ್ತು ನಾಗರಿಕ ಪೂರೈಕೆ ಇಲಾಖೆಯ ಅಧಿಕಾರಿಗಳು ಮತ್ತು ಮೀನುಗಾರಿಕಾ ಇಲಾಖಾ ಅಧಿಕಾರಿಗಳು ಪರಿವೀಕ್ಷಣೆ ಮಾಡುವ ಅವಧಿ ಏನು?	
19	Any observations made by the inspecting agencies ಪರಿವೀಕ್ಷಣಾ ಅಧಿಕಾರಿಗಳು ಏನಾದರೂ ಅವಲೋಕನೆ ಮಾಡಿರುತ್ತಾರೋ?	
20	If so, what are the measures taken to rectify the observations. ಹೌದೆಂದಾರೆ ಅವುಗಳನ್ನು ಸರಿಪಡಿಸಲು ತೆಗೆದುಕೊಂಡ ಸರಿಯಾದ ಕ್ರಮ ಜರಗಿಸಲಾಗಿದೆಯಾ?	
21	Your suggestion to streamline the distribution kerosene for effective benefit to fishers only. ಸೀಮೆ ಎಣ್ಣೆ ವಿತರಣೆ ಮೀನುಗಾರರಿಗೆ ಮಾತ್ರ ಉಪಯೋಗವಾಗುವಂತೆ ಮಾಡಲು ನಿಮ್ಮ ಸಲಹೆ ಏನು?	
22	In your opinion whether there is a need to continue the scheme? ನಿಮ್ಮ ಅಭಿಪ್ರಾಯದಲ್ಲಿ ಈ ಯೋಜನೆಯನ್ನು ಮುಂದುವರಿಸುವ ಅಗತ್ಯ ಇದೆಯಾ	
23	If yes, substantiate. ಹೌದೆಂದಾರೆ ಅದನ್ನು ಹೇಗೆ ಪ್ರತಿಪಾದಿಸುತ್ತೀರಿ.	

Questionnaire for the evaluation of tax exempted diesel and subsidized Kerosene to the fisheries sector.

(Non-fishermen, Retired employees of fisheries department, academicians from College of fisheries, CMFRI & Dept., of Marine Biology, Karnataka University at Karwar)

1	Name & Designation of the officials / persons interviewed ಸಂದರ್ಶನ ಮಾಡಿದ ಅಧಿಕಾರಿಗಳ/ವ್ಯಕ್ತಿಗಳ ಹೆಸರು ಮತ್ತು ಹುದ್ದೆ	
2	Whether they are aware of the scheme of distribution of sales tax exempted Diesel & subsidized Kerosene to the fishing boats ಮೀನುಗಾರಿಕಾ ದೋಣಿಗಳಿಗೆ ತೆರಿಗೆ ರಹಿತ ಡೀಸೆಲ್ ಮತ್ತು ಸಹಾಯಧನದ ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ವಿತರಿಸುವ ಯೋಜನೆಯ ಬಗ್ಗೆ ಅರಿವು ಇದೆಯಾ?	
3	In their opinion/knowledge how is the scheme functioning. ಅವರ ತಿಳುವಳಿಕೆ/ಅಭಿಪ್ರಾಯದಂತೆ ಸದ್ರಿ ಯೋಜನೆಗಳು ಹೇಗೆ ಕಾರ್ಯ ನಿರ್ವಹಿಸುತ್ತಿದೆ.	
4	Whether the fishermen are benefitted under the schemes ಸದ್ರಿ ಯೋಜನೆಗಳ ಲಾಭವನ್ನು ಮೀನುಗಾರರು ಪಡೆದಿರುವರೋ?	
5	Whether the fishermen are able to catch more fish by availing these benefits under the schemes ಈ ಯೋಜನೆಗಳ ಲಾಭವನ್ನು ಪಡೆದು ಮೀನುಗಾರರು ಹೆಚ್ಚಿನ ಮೀನುಗಳನ್ನು ಹಿಡಿಯಲು ಶಕ್ತರಾಗಿದ್ದಾರೋ?	
6	Whether the susidised disel/kerosene fixed per boat is adequate? ಪ್ರತೀ ಬೋಟಿಗೆ ನಿಗಧಿಪಡಿಸಲಾದ ಸಹಾಯಧನದ ಡೀಸೆಲ್/ಸೀಮೆ ಎಣ್ಣೆ ಪ್ರಮಾಣ ಸಾಕಷ್ಟು ಇದೆಯಾ?	
7	What is the average catch per effort? ಪ್ರತೀ ಶ್ರಮಕ್ಕೆ ಸಿಗುವ ಸರಾಸರಿ ಮೀನಿನ ಪ್ರಮಾಣ	
8	What is the average gross return per effort? ಪ್ರತೀ ಬಾರಿ ಮೀನು ಹಿಡಿಯುವಾಗ ಸಿಗುವ ಸರಾಸರಿ ಆದಾಯ?	
9	Any loopholes observed in the schemes ಯೋಜನೆಯಲ್ಲಿ ಯಾವುದೇ ತೊಂದರೆಗಳನ್ನು ಕಾಣಲಾಗಿದೆಯಾ?	
10	If so how it can be rectified or modified ಹೌದೆಂದಾರೆ ಅವುಗಳನ್ನು ಹೇಗೆ ಸರಿಪಡಿಸ ಬಹುದು ಅಥವಾ ಮಾರ್ಪಾಡು ಮಾಡ ಬಹುದು.	
11	Whether the scheme has really helped the poor fishermen to carryout fishing economically ಈ ಯೋಜನೆಗಳು ಬಡ ಮೀನುಗಾರರಿಗೆ ಆರ್ಥಿಕವಾಗಿ ಮೀನುಗಾರಿಕೆ ಮಾಡಲು ನಿಜವಾಗಿಯೂ ಸಹಾಯವಾಗಿದೆಯಾ?	
12	Modifications and any improvement needed if the scheme is continued	

	ಯೋಜನೆಯನ್ನು ಮುಂದುವರಿಸುವುದಾದರೆ ಯೋಜನೆಗೆ ಬೇಕಾದ ಅಗತ್ಯ ಪರಿಷ್ಕರಣೆ ಮತ್ತು ಸುಧಾರಣೆ ಏನು?	
13	Operational efficiency of mechanized boats after the scheme has been implemented. ಈ ಯೋಜನೆಗಳನ್ನು ಅನುಷ್ಠಾನ ಗೊಳಿಸಿದ ನಂತರ ಮೀನುಗಾರಿಕಾ ಯಾಂತ್ರೀಕೃತ ದೋಣಿಗಳ ಕಾರ್ಯ ಸಮರ್ಥತೆ ಹೇಗೇ?	
14	Increase in the price level has made any impact and its effectiveness. ಮೀನಿನ ದರದಲ್ಲಿ ಗಣನೀಯವಾದ ಏರಿಕೆ ಆದ ಹಿನ್ನಲೆಯಲ್ಲಿ ಮೀನುಗಾರಿಕೆಯಲ್ಲಿ ಆದ ಪರಿಣಾಮ ಮತ್ತು ಅದರ ಪ್ರಯೋಜನಗಳೇನು?	
15	As per the studies, the fish catch is over exploited. In this context how the subsidy on the diesel & kerosene to the fishing boats is justified? ಅಧ್ಯಯನದ ಪ್ರಕಾರ ಮೀನುಹಿಡುವಳಿಯು ಲೆಕ್ಕಕ್ಕಿಂತ ಅಧಿಕವಾಗಿದೆ. ಈ ಹಿನ್ನಲೆಯಲ್ಲಿ ಸಹಾಯಧನದ ಡೀಸೆಲ್ ಮತ್ತು ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ಮೀನುಗಾರಿಕಾ ದೋಣಿಗಳಿಗೆ ವಿತರಿಸುವುದು ಎಷ್ಟು ಸಮಂಜಸವಾಗಿದೆ?	
16	The marine fish catching is a commercial activity rather than meant for sustenance. In this context how the subsidy on the diesel & kerosene to the fishing boats is justified? ಸಮುದ್ರ ಮೀನುಗಾರಿಕೆಯು ಬದಕಲು ಇರುವ ಒಂದು ಉದ್ಯೋಗವಾಗಿರದೆ ಅದು ವಾಣಿಜ್ಯಯುತ ಕಾರ್ಯಕ್ರಮವಾಗಿದೆ. ಈ ಹಿನ್ನಲೆಯಲ್ಲಿ ಸಹಾಯಧನದ ಡೀಸೆಲ್ ಮತ್ತು ಸೀಮೆ ಎಣ್ಣೆಯನ್ನು ಮೀನುಗಾರಿಕಾ ದೋಣಿಗಳಿಗೆ ವಿತರಿಸುವುದು ಎಷ್ಟು ಸಮಂಜಸವಾಗಿದೆ?	
17	In the revised scheme the back-end subsidy on the diesel is transferred directly to the Bank account of the beneficiary and it is proposed to transfer back-end subsidy on the Kerosene directly to the Bank account of the beneficiary. What is your opinion on the modified scheme. ಪರಿಷ್ಕೃತ ಯೋಜನೆಯಡಿ ಡೀಸೆಲ್ ಖರೀದಿ ಮಾಡಿದ ನಂತರ ಡೀಸೆಲ್ ಮೇಲಿನ ಸಹಾಯಧನವನ್ನು ಫಲಾನುಭವಿಗಳ ಬ್ಯಾಂಕ್ ಖಾತೆಗೆ ನೇರವಾಗಿ ವರ್ಗಾಯಿಸಲಾಗುತ್ತಿದೆ. ಹಾಗೂ ಸೀಮೆ ಎಣ್ಣೆಯ ಮೇಲಿನ ಸಹಾಯಧನವನ್ನು ಕೂಡಾ ಫಲಾನುಭವಿಗಳ ಬ್ಯಾಂಕ್ ಖಾತೆಗೆ ನೇರವಾಗಿ ವರ್ಗಾಯಿಸುವ ಪ್ರಸ್ತಾವವಿದೆ. ಈ ಪರಿಷ್ಕೃತ ಯೋಜನೆಯ ಬಗ್ಗೆ ನಿಮ್ಮ ಅಭಿಪ್ರಾಯವೇನು?	
18	Since the schemes are existing for the last few years, whether there is a need to continue these schemes further ಈ ಯೋಜನೆಗಳು ಬಹಳ ವರ್ಷಗಳಿಂದ ಅನುಷ್ಟಾನದಲ್ಲಿದ್ದು, ಸದ್ರಿ ಯೋಜನೆಗಳನ್ನು ಮುಂದುವರಿಸುವ ಅಗತ್ಯ ಇದೆಯಾ?	
20	If YES, substantiate ಹೌದೆಂದಾರೆ ಅದನ್ನು ಹೇಗೆ ಪ್ರತಿಪಾದಿಸುತ್ತೀರಿ.	

Annexure-IV

List of individuals of groups interviewed / consulted and sited visited

Structured interview- Boat Owners/ Beneficiaries availing both Diesel and Kerosene subsidy scheme

Secondary data collection- From all diesel (30) and Kerosene outlet (21)

Observation – At bunk level, verification of passbook and registration details of beneficiaries

Personal open ended discussion - Retired employees, Departmental staffs, Scientists of CMFRI in Karwar and Mangalore, inputs from the academicians of the department of Marine Biology, Karwar and boat owners not covered under the scheme

Annexure-V

Dissenting views by evaluation team member or client if any

No such Dissenting views

Annexure-VI

Short biographies of the principal investigators

Mr. Suresh Kumar, Dy. Director of Fisheries (Retd.,) Mangalore.

- Born on 1st June 1956 in the fishermen family at Ullal, Mangalore a traditional fishing village of Karnataka.
- Basic education at Ullal in the school managed by the fishermen Organisation.
- Did his graduation at St. Aloysius College, Mangalore and post-graduation in Bio-Sciences from the Mysore University.
- Joined Department of Fisheries in the year 1982 as Assistant Director of Fisheries.
- Put in 32 ½ years of service in different capacities in the Department of Fisheries in Karnataka State.
- Started his service in the Indo-Danish Fisheries Project, a Danish Collaborated project in Tadri, near Gokarna a fishing village of Uttara Kannada District of Karnataka State.
- The programmes undertaken in the said project was creation of fishing harbor, creation of ice-cum-freezing plant, mechanical workshop for the servicing of the boats, gear shed, survey of fishery resources offshore in the Karnataka coast and socio-economic activities for the welfare of the fishermen in the project area. Mr. Suresh Kumar was the important man in the implementation of the said project. He was in the team consists of Danish experts who have planned and executed the project components. Having fisheries background with him, he gave many suggestions in the implementation of the project activities.
- When the project was started, the marine capture fishery in Karnataka was in very bad shape. The landings were very low and the income of the fishermen was very less. During that time the fishermen were exploiting the fishery resources in the shallow waters up to 50 Meters depth. They were not going beyond 50 Meters as they had no knowledge of the area in the sea beyond 50 Meters depth. During 1990, exploratory fishing vessel of 18.25 M OAL was built to explore the fishery resources between 50 Meters to 100 Meters depth. The survey yielded very good results and fishing chart was prepared showing the availability of different species of fish in the deeper waters. Mr. Suresh Kumar was in charge of the project at that time and he was the Co-Ordinator for preparing the fishing chart.
- The local fishermen were taken in the project boat to the area beyond 50 meters depth and they were shown the type of fish available in that ground. Designs of fishing boats for catching fish in the deeper waters were provided to the local fishermen. Fishermen were also trained how to use the navigational equipments for fishing. In the College of Fisheries, Mangalore they were trained in using such equipments.
- As a result, the local fishermen were provided with plans and designs to modify their existing fishing boats to venture into deep sea to catch the unexploited species.

- Today the Karnataka coast is flooded with more than 1800 multiday fishing trawlers fitted with modern navigational equipments and fishing gear and these boats can venture into any depth or distance to catch the fish. All this developments is definitely the outcome of the Indo-Danish Fisheries Project.
- Mr. Suresh Kumar was instrumental in all these activities. He had close relation with the Danish Officials who were working in the project. In recognition of the work carried out by Mr. Suresh Kumar, he was given opportunity by the Danish Government to visit Denmark for 2 months in the year 1986. By this visit Mr. Suresh Kumar could learn the fishing boats of Denmark, their method of catching fish, fishing regulations, handling of fish etc. When he returned from Denmark he introduced improvements in handling of fish.
- Socio-economic activities for the welfare of the fishermen were the other important component of the project. Mr. Suresh Kumar took keen interest in this activity. He visited all the fishing villages of the project area and studied their life style and taken steps to improve their living by making them educative in all the fields. Now the fishermen of the project area are educative and living with some respect from the other communities.
- When Mr. Suresh Kumar was working in the Fish Marketing Federation in Karwar, he has improved the marketing of fish catch. He has introduced the system of fixing price for the exportable items like Shrimp, Cuttle fish, Squid etc., once in fifteen days. This has helped the fishermen to get good price even when the catch was in glut. He brought the Federation from loss to the profit.
- When he was working in the Karnataka Fisheries Development Corporation as Managing Director, he has further improved the purse-seine fish catch marketing by taking up fish marketing at different fish landing centers of Karnataka Coast.
- Mr. Suresh Kumar has worked as Zonal Deputy Director of Fisheries in Mangalore. After he took over charge in Mangalore he has mooted the fishermen to go for Multiday fishing boats to exploit the fishery resources of deep sea. Due to this the Trawlers of Mangalore and Malpe area could go to deep sea for 15 days voyage and made very good profit.
- During his tenure as Deputy Director of Fisheries, the Government has sanctioned many infrastructure facilities to fisheries in Mangalore, Malpe, Gangolli, Maravanthe, Koderi and Shiroor-Alvegadde at an estimated cost of Rs.185.00 crores.
- Mr. Suresh Kumar helped the fishermen to start ice plants & cold storages in the Coastal districts of Karnataka by availing subsidy from the Government of India. Around 40 new ice plants come up under this project. This has taken care of the needs of the ice for the fishing sector.
- Mr. Suresh Kumar has worked as Honorary Secretary of Indian Red Cross Society in the district for the last 5 years and in his tenure he has handled a project sponsored by Canadian Red Cross on imparting awareness on HIV/AIDS among the school & College students.
- Mr. Suresh Kumar is also an active member of the District Administration and helps during the flood and other disasters. He has organized many festivals in the beach so as to popularize fish among the common man.

- In recognition of the work carried out in the field of Fisheries and other fields, he was awarded with best Government Officer on the occasion of Karnataka Rajyothsava Day by the Government of Karnataka in the year 2006.

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Annexure-VII

EVALUATION QUESTIONS AND ANSWERS MATRIX

	Evaluation question	Answer
1.	The Scheme provides for sales tax exempted diesel to all registeredmechanized boats having fishing licenses. What is the average subsidy(in Rupees per year) provided to a mechanized boat for powers classified in Annexure 3? Are there cases wherein more than one mechanized boat qualifies for subsidy within the same family?	The annual quantity of diesel drawn was 6376 liters per unit which was highest in Malpe with 7860 liters per unit. At present all the family members owned by fishing boats are eligible for subsidized diesel. In the existing modalities of the scheme, there is no mention of one family-one subsidy. **Government may think of introducing one family-one subsidy in the years to come.**
2.	What are the documents required to avail the benefit of this scheme?	To avail the diesel subsidy, the passbook issued by the Department of Fisheries is a must. The Department of Fisheries issues the passbook on the basis of the registration certificate and fishing license of the fishing boat. In the registration certificate all the information regarding the OAL of the boat, Horse power of the engine and other particulars are mentioned. In the passbooks the quantity of subsidised diesel eligible for that particular boat per day/month is also mentioned.
3	What is the frequency of renewal of boat license and fishing license as of now? What is the frequency of these renewals suggested?	The Registration certificate is issued only once and at present there is no renewal for the registration. But the fishing license is issued once in a year and it has to be renewed every year. The fishing license is renewed every year and it is justified. Whereas the registration certificate issued once is permanent. We feel that this is not a proper procedure because many of the boats are abandoned after 8 to 10 years. **The public and experts in the field are of the opinion that there is a probability of misusing the obsolete fishing boats and therefore registration has to be renewed once in 5 years.**

4	What is the average catch per effort and gross return per effort in respect of mechanized boats? How does it compare with mechanized boats not receiving sales tax free diesel?	The average catch per effort and gross return per effort in respect of mechanised boats are given in the table 2.02. It was not possible to compare with mechanised boats not receiving sales tax free diesel because all the operational fishing boats are registered and eligible for subsidised diesel.
5.	Whether the scheme has been effectively implemented with respect to following- a. Procurement of diesel, b. Distribution of diesel, c. Issue of diesel pass book, and, d. Quality and quantity of diesel supplied?	As far as the quantity and quality of the diesel concerned, there is a check from the Oil Companies as well as at the authorised bunks. Besides, the dispensing pumps are stamped by the government departments for the accuracy of the quantity. The passbooks are issued every year (season) by the department of fisheries on the basis of the registration certificate and fishing license of the fishing boats. There is absolutely no problem on these issues.
6.	What measures are in place to ensure that sales tax exempted diesel is not used by an unregistered and/or fishing license lacking mechanized boat in the name of a mechanized boat that is qualified to get sales tax free diesel? What measures are in place to ensure that sales tax exempted diesel is not used by an intensely active fishing boat in the name of a casually fishing qualified boat? Are these measures enough? Can measures be suggested for checking these at bunk level as well as when fishing in the sea?	The authorized outlets have to distribute the subsidized diesel only to the valid passbook holders. The passbook is issued only to those who are having registration certificate and fishing license. Therefore the question of distribution of diesel to those not having passbook does not arise. **But there is a possibility that sales tax exempted diesel is used by the intensely active fishing boat in the name of a casually qualified boat. At present there is no mechanism to check this.** By strengthening the supervision by the fisheries department officials at the outlet level, this can be stopped. While fishing in the sea it is very difficult to check this possibility.
7.	What measures are in place to ensure that sales tax exempted diesel is not used for any use other than what it is intended for? Are these measures enough? Can measures be suggested for checking these at bunk level?	I in majority of the cases the subsidized diesel is directly distributed to the storage tanks of the fishing boats which are fitted underneath the deck. Therefore, the possibility of subsidized diesel being used for other purpose is remote. The other transport vehicles or passenger vehicles

		are prohibited to come inside the outlet. **We suggest to barricade the entire area of the outlet to prohibit any vehicles (other than diesel tankers) entering the area.**
8.	Are there any complaints received in the department regarding misuse of sales tax free diesel? How many complaints were received in fisheries department? What type of misuse done and by whom? What action has been taken by the department on it?	The records of complaints received are not maintained in the fisheries office. It was reported by some people that multiday fishing boats require additional quantity of diesel and therefore, they procure the additional diesel from the open market. It is true that the quota fixed for the multiday fishing boats are not sufficient. But how they procure the additional quantity of diesel is not sure and it is very difficult to assess this.
9.	What is the opinion of the fisher folk about the Scheme?	All the fishermen are of the opinion that the scheme on the exemption of sales tax on the diesel distributed to the fishing boats has to be continued at least for a period of next 20 years. The reason given by most of the fishermen is that the cost of diesel is increasing every year and therefore it is very difficult to bear the additional cost of the diesel. Further, if the diesel subsidy is removed, most of the fishing boats stop going for fishing as they cannot meet the additional cost of the diesel and as a result the fishermen employed (crew members), the fish merchants and fishery related laborers become jobless and there will be huge cry in the fisheries sector. Further, if the fishing boats stop going for fishing, the export of valuable fishes will be stopped and the foreign exchange will be affected enormously. Therefore, the fishermen are of opinion that the subsidy on the diesel has to be continued for a minimum period of 20 years, till the practice of fishing is made self-sustainable.

10.	Considering the following points- v. The price of marine fish has risen by more than 15 times between 1985-86 and today, vi. As per paper cited at serial number E of paragraph 4 above and also it being common knowledge that marine fishes have and are being overexploited, so much so that yield is getting affected,	It is said that though the price of the fish is 15 times today as compared with the year 1985-86 and the fish is over exploited and yield is getting affected. The fishermen and the experts in the field say that even though the price is increased, the cost of expenditure is also increased and therefore this factor cannot be considered for discontinuing the sales tax subsidy. Over the years the number of fishing boats increased and this is due to the fishing boats venturing into very deep in the sea and for many days and therefore exploited the deep sea resources. These multiday fishing boats bring mostly quality fishes preserved in ice. Therefore, the quantity appears to be decreased but the income in terms of value is increased over the years. Therefore the expert in the fishing field are of the opinion that though the fishing boats go for 10-12 days voyage this cannot be termed as commercial fisheries. The commercial fishing boats have freezing facilities on board, whereas in this case crushed ice are taken on board the fishing boats to preserve the fish.
11.	Irrespective of the inference of continuation of the Scheme, how muchimportant and justified is the proposition of the department to have the sales tax subsidy benefit given buyback end direct benefit transfer to theaccounts of the boat owners through RTGS.	From 2015-16 onwards the mode of payment of sales tax subsidy is on the buyback system. The subsidy on the diesel is directly transferred to the bank accounts of the beneficiaries. The fishermen are of the opinion that this is a good move and they are satisfied with the present system. Only their request is to see that the subsidy is transferred to their bank account without much delay.
12.	***For the Kerosene distribution part only*** The Scheme provides for subsidized Kerosene to all registered small motorized boats having fishing licenses. What is the average subsidy	The average quantity of subidised kerosene distributed per month per boat is 250 liters. Each district is distributing different quantity of kerosene depending on the kerosene quota they get from the public distribution system. In the open

	provided (in Rupees per year) to one such boat? Are there cases wherein more than one mechanized boat qualifies for subsidy within the samefamily?	market the white kerosene is sold at around Rs.60/- per liter. The subsidised kerosene costs around Rs.20/- per liter. As a result the fishing boats get kerosene at around Rs.40/- cheaper than the market price. The kerosene distributed only for 9 months from the month of September to May. Therefore, the maximum amount benefited by the motorised fishing boat owners is Rs.90, 000/ per year.
13.	What are the documents required to avail the benefit of this scheme?	The scheme is implemented by the Food & Civil Supplies Department of the State Government. The fishermen in the lean season apply for the kerosene permit with a copy of the registration certificate and fishing license of the fishing boat issued by the fisheries department. On the basis of the registration certificate and the fishing license, the department of food & civil supplies issues the kerosene permit. By producing the same, the authorised kerosene outlets distribute the entire quantity of subsidised kerosene eligible per month at once. (All the quantity at once).
14.	What is the frequency of renewal of boat license and fishing license asof now? What is the frequency of these renewals suggested?	As in the case of diesel engine operated fishing boats here also boat registration is once. Once it is registered it is final. This may be reviewed because most of the boats become obsolete and abandoned after 8-10 years. **To keep the correct record of the fishing boats, the registration of the fishing boats is required to be renewed once in 5 years.** The fishing license is issued every year and is justified and may be continued.
15.	What is the average catch per effort and gross return per effort in respect of motorized boats? How does it compare with motorized boats not receiving subsidized kerosene?	The average catch per effort and gross return are shown in the table provided. Table No. 2.02. Almost all the motorised boats are provided with kerosene permit and therefore it is not possible to compare this with that of motorised boats not receiving subsidised kerosene.

16.	Whether the scheme has been effectively implemented with respect tofollowing-, a. Timely distribution, b. Issue of kerosene pass book, and, c. Quality and quantity of kerosene supplied?	In the implementation of the kerosene subsidy scheme, the following discrepancies are observed. a. The kerosene is distributed to the authorized outlets in the middle of the month and they have to distribute the same to the beneficiaries within 7-10 days. If the beneficiary is not able to collect the subsidised kerosene within such time due to any reasons, the quota allotted to such boat lapses. **It is recommended to supply the subsidised kerosene to the authorised outlets in the beginning of the month and continue up to the last week of the month. (Up to 28th of the month)** b. Presently the kerosene permits are issued by the food and supplies department on the basis of the registration certificate & fishing license of the fishing boats issued by the department of fisheries. Sometimes there is a delay in issuing the permits due to many reasons. Further, the food & civil supplies department don't have any control over the fishing boats. **As such it is recommended to issue the kerosene permit by the fisheries department.** In some of the cases the new motorised boats are not getting the Kerosene permit as the department has to allot the kerosene quota from the existing allotted quota only. c. As the kerosene is supplied from the Oil Companies of the Central Government, no complaints on the quality of the kerosene is observed. The kerosene is supplied to the authorised outlets by the private tankers. Therefore the problem with the quantity is not ruled out. However, the outlets receive the kerosene only after taking DIP reading of the kerosene in the tanker. If there is any shortage, the same will be reported to the

		Oil Companies and they make good the shortage. In most of the cases the kerosene is taken in Jerry cans manually and possibility of shortage to the beneficiary cannot be ruled out. Therefore the authorised outlets should have kerosene pumps as in the case of diesel distribution system.
17.	What measures are in place to ensure that subsidized kerosene is not used by an unregistered and/or fishing license lacking motorized boat in the name of a motorized boat that is qualified to get subsidized kerosene? What measures are in place to ensure that excess subsidized kerosene is not purchased by a motorized boat by attaching the same boat to a number of engines? Are these measures enough? Can more and better measures be suggested for checking these?	The authorised outlets have to distribute the subsidised kerosene only to the permit holders. The permit is issued only to those who are having registration certificate and fishing license. Therefore the question of distribution of kerosene to those not having permit does not arise. But there is a possibility that subsidised kerosene is used by the intensely active fishing motorised fishing boats in the name of a casually qualified motorised boat. There is no mechanism to check this. By strengthening the supervision by the fisheries department officials at the outlet level this can be stopped. While fishing in the sea it is very difficult to check this aspect.
18	What measures are in place to ensure that subsidized kerosene is not used for any use other than what it is intended for? Are these measures enough? Can more and better measures be suggested for checking these?	The subsidised kerosene used by fishing boats is blue in color and blue color kerosene is not available in the open market. Therefore, it is very easy to catch hold of those who sells blue kerosene in the market. These measures are enough to stop the misuse, but the supervision by the concerned department has to be tightened.
19	Are there any complaints received in the department regarding misuse of subsidized kerosene? How many complaints were received in fisheries department? What type of misuse done and by whom? What action has been taken by the department on it?	There are no complaints received from any of the fishermen on the misuse of the subsidised kerosene. The scheme is implemented by the food & civil supplies department. This department is not having sufficient staff to check the implementation of the scheme in the field. As the activity is related to the fisheries sector and already the fisheries department officials are supervising the

		implementation of the subsidised diesel scheme, this scheme also may be transferred to fisheries department for the proper implementation of the scheme.
20	What is the opinion of the fisher folk about the Scheme?	Fisher folk are of the opinion that the scheme has to be continued because without the subsidised kerosene they will not be able to go for fishing because the operational cost becomes more than the income and they incur huge loss and the fishing will not become viable.
21	How far and on what grounds is the provision of subsidized kerosene to motorized boats justifiable? What is the inference regarding continuation/ continuation with modification of the Scheme?	The subsidised kerosene to the motorised boats is justified because the normal cost of the kerosene is very high and with this high cost they will not be able to go for fishing. Therefore, there is a need to continue the scheme. The implementation part may be handed over to the fisheries department for better control.
22	Irrespective of the inference of continuation of the Scheme, how muchimportant and justified is the proposition of the department to have the subsidy benefit given by back end direct benefit transfer to the accounts of the boat owners through RTGS.	The system of transferring kerosene subsidy to the beneficiary account is a good system. In the subsidised diesel scheme, this system is adopted in this year and it is working well. The same may be applied to susidised kerosene also. The fishermen agree for this system and their request is to transfer the subsidy to their bank account without much delay.
23	What is the review mechanism by the District officers to check theprocess of supply of tax free diesel and kerosene to boats? What is the frequency of review?	The Director of Fisheries has entrusted a particular authorized bunk to one of the assistant director of fisheries (grade-1 / grade-2) of the coastal area. These Officers visit that particular bunk usually once in a month. The visit is surprise and they check the subsidised diesel drawn in a month and distributed to the passbook holders as per the quantity of diesel fixed in the passbooks. The passbook of the fishing boat is also checked randomly for the entry. If any discrepancy is observed, the same will be communicated to the authorised diesel bunks either in writing or orally and the bunks rectify the same.

24	What are the main features of this scheme as being implemented in theStates of Goa, Kerala, Tamilnadu and Andhra Pradesh? How are where does the Karnataka scheme differ with them? Based upon these, is the scheme recommended for continuation? If no, why so and If yes, withwhat changes?	. **In the states of Goa, Kerala, Tamilnadu and Andhrapradhesh the susidised diesel and kerosene for fishing purpose.** It is leant that the Tamilnadu Government is assisting the fishermen for the subsidy of Diesel and Kerosene used for fishing as follows: The sales tax portion of 15,000 litre/year of diesel used for fishing boats are exempted and 3,000 litre/year of kerosene used by the motorised boats is exempted. In Goa State, the subsidised diesel permitted for the fishing boats is as follows: Engine with 6 cylinders -8000 litres per year, engine with 4 cylinders -6000 litres per year and engine with 3 cylinders -5000 litres per year. The rate of subsidy per litre is Rs.1.50/- The maximum quantum of subsidy on the kerosene is Rs.50, 000 per annum. Up to 2000 liters Rs.50, 000/- per annum. 1500 to 1999 liters Rs.37,500/-per annum. 1000 to 1499 litres Rs.25, 000/- per annum. 500 to 999 litres Rs.12, 500/- per annum. In goa state, the use of petrol in the outboard motors is also subsidised. Rs.30/- per litre (maximum 1,200 litres per annum is eligible) In Kerala state 475 liters of subsidized Kerosene per boat was distributed earlier and now the quantity is reduced to 129 liters. It is leant that in the state of Andhra Pradesh 80% is culture fisheries/aquaculture and it is learnt that they are extending financial support for the culture fisheries only. The cost of operating fuel subsidy should be assessed and alternative methods which are cost effective in implementation need to be developed.

Annexure-VIII

WTO Guidelines foe fisheries subsidies discipline

WORLD TRADE ORGANIZATION

TN/RL/GEN/184

22 December 2016

(16-7042) Page: 1/2

Negotiating Group on Rules Original: English/French

LDC GROUP SUBMISSION ON ELEMENTS FOR WTO FISHERIES SUBSIDIES DISCIPLINES

SUBMISSION BY BENIN ON BEHALF OF THE LDC GROUP

The following communication, dated 21 December 2016, is being circulated at the request of the Delegation of Benin on behalf of the LDC Group.

The present submission, circulated on behalf of the LDC Group, proposes elements of discussion on fisheries subsidies disciplines. It furnishes and builds upon the principles pronounced by the LDC Group in its earlier submission this year.[1]

1 INTRODUCTION

1.1 Fisheries are a crucial source of livelihood, rural development and economic growth in LDCs. The sector also represents a vital source of export earnings for many LDCs and contributes directly to food and nutrition security. According to the FAO, fish is one of the most important sources of animal protein, accounting for about 17 % of per capita intake at the global level, but exceeding 50 % in many least-developed countries. In Africa alone, the sector provides employment to nearly 13 million people.

1.2 Ineffective fisheries management and the incentives created by cost reducing subsidies – particularly those granted to large-scale industrial fishing - have led to overcapacity and overfishing, undermining LDCs food security and development prospects. The FAO estimates that 58 % of the commercial fish are fished at maximum levels and 31 % are already overfished. According to the World Bank the cost of overfishing is estimated at USD 80 billion a year.

1.3 With limited fishing capacity and largely under-developed fishing fleets, LDCs' share of global wild catches has remained small and the group has not been responsible for overfishing. Yet LDCs are directly affected by the depletion of global fish stocks and harmful subsidies provided to large industrial fleets fishing beyond their national jurisdiction in or close to LDCs' Exclusive Economic Zones.

1.4 The mandates for WTO fisheries subsidies negotiations are found in the Doha Declaration (paragraph 28) and the 2005 Hong Kong Ministerial Declaration, Annex D, paragraph 9. The Nairobi Declaration, paragraph 24 calls upon Members to prioritize issues of importance to LDCs and paragraph 31 states the strong commitment of all Members to advance negotiations on the remaining Doha issues including rules. In addition to the WTO mandates, Goal 14.6 of the 2030 Sustainable Development Agenda aims strengthen disciplines on fisheries subsidies by 2020.

2 SCOPE OF THE DISCIPLINES

2.1 Overall, negotiations should aim to discipline fisheries subsidies[2] which contribute to overcapacity and overfishing, and eliminate subsidies to illegal, unreported and unregulated (IUU) fishing.[3]

[1] Paragraphs 3.8 – 3.11 of WT/GC/W/717; TN/C/W/73; WT/COMTD/LDC/W/63 (24 June 2016).
[2] Negotiations should cover subsidies as defined in paragraph 1 and 2 of Article 1 of the ASCM. They should be confined to wild marine capture and should not apply to inland fisheries or aquaculture.

2.2 The scope of the disciplines should target primarily industrial fishing on a large scale. While recalling the importance for Members to establish effective and sustainable management schemes of fisheries resources, disciplines should not apply to subsidies supporting the following activities:

a. Coastal fishing activities related exclusively to artisanal, traditional, or small scale fisheries within the Member's territorial waters;

b. Fishing activities, which exclusively exploit domestic fish stocks whose ranges are confined to the Members' EEZ.

c. Fishing activities, which exclusively exploit quotas or any other rights established by a regional fisheries management organization (RFMO) or a regional fisheries management arrangement.

3 PROHIBITED SUBSIDIES

3.1 Disciplines should aim to prohibit, inter alia, the following types of subsidies:

a. Subsidies to fishing vessels or fishing activity negatively impacting fish stocks that are overfished;

b. Subsidies provided to vessels or operators engaged in illegal, unreported and unregulated fishing (the prohibition should also apply to illegal transshipment at sea); and

c. Subsidies to capital and operating costs which contribute to overcapacity and overfishing.

4 TRANSPARENCY AND NOTIFICATION CONSIDERATIONS

4.1 While recognising the advantages of enhanced transparency, the LDC Group considers that any additional requirements on transparency and notification should remain proportional to the global objective and should not be burdensome for LDCs.

5 SPECIAL AND DIFFERENTIAL TREATMENT FOR LDCS

5.1 The prohibitions under 3.1 (a) and (b) should apply to all Members without exception. However, technical assistance and transition periods should be provided to address LDCs' institutional and financial constraints in implementing the disciplines including the fight against IUU fishing.

5.2 Prohibitions other than those outlined in 3.1 (a) and (b) above should not apply to LDCs.

5.3 Capacity building should be provided to help LDCs develop their fishing capacity in a sustainable manner, to assess and monitor stocks, and control fishing activities.

6 CONCLUSION

6.1 The LDC Group urges Members to take this submission into account to achieve a concrete developmental and multilateral outcome on fisheries subsidies rules for the Eleventh Ministerial Conference.

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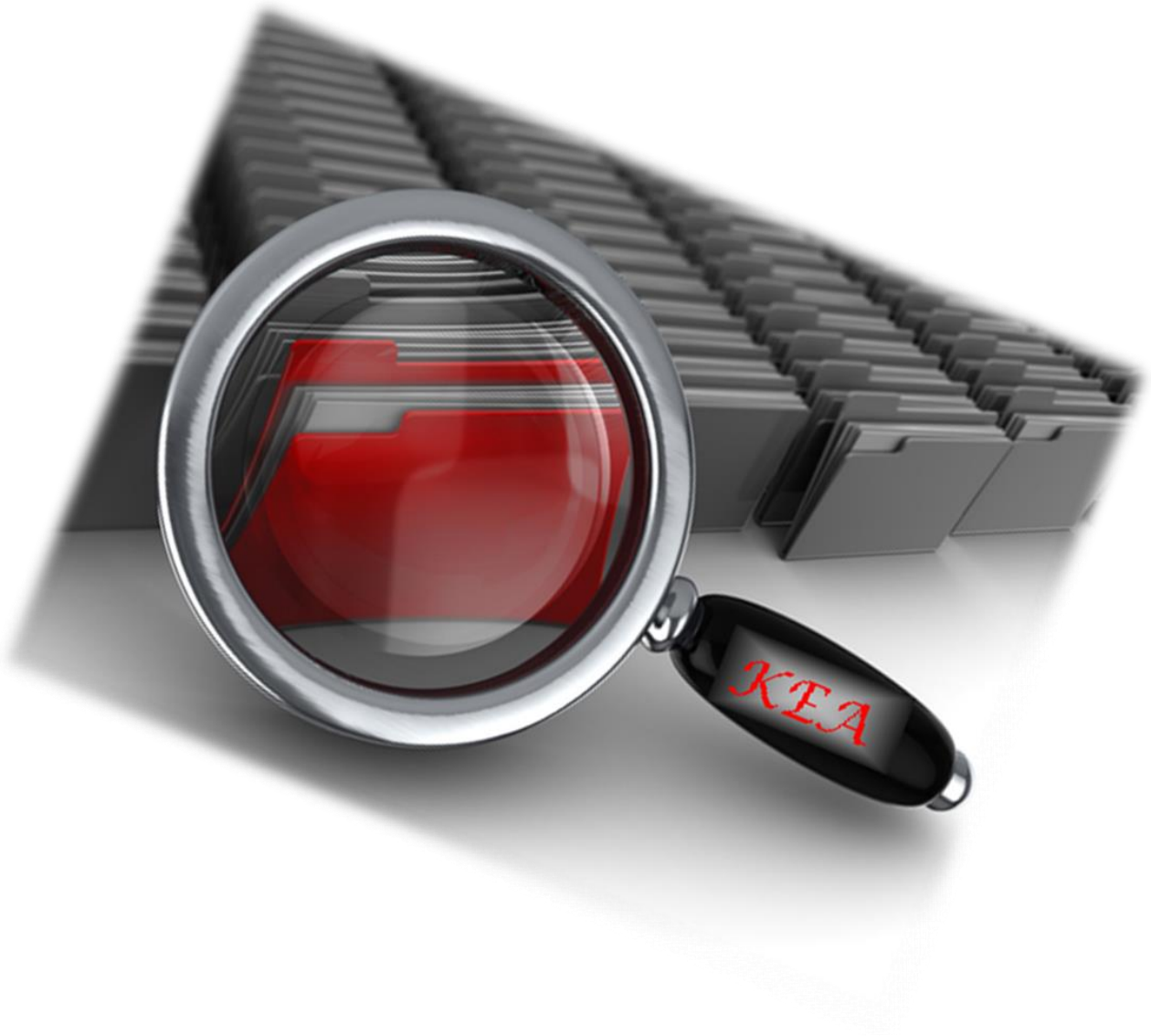
[3] The terms "illegal fishing", "unreported fishing" and "unregulated fishing" should have the same meaning as in paragraph 3 of the International Plan of Action to Prevent, Deter and Eliminate Illegal Unreported and Unregulated Fishing of the United Nations Food and Agricultural Organization (FAO).

Annexure-IX

Observation by KEA team and Evaluation team response against the observations

Observations by KEA team	Evaluation team response
1. Can kerosene boats substitute for the diesel boats?	It is not recommended due to the following points • Inadequate capacity of kerosene boats • Incapability of kerosene boats to attain the desired speed • Replacement of inboard engine with outboard engine not effective • The technology and high depreciation rate of kerosene boats is not favourable
2. The recommendations made-short term and long terms are not based on statistical analysis. Data analysis needs to be in detail	Statistical substantiation of long term and short term recommendations • Our recommendations are based on our findings from quantitative structured interviews(With beneficiaries) as well as FGDs(Fisherman and non fisher man community) and In-depth interviews(Fisher man, non fisher man, They also encompass • Expert consultation • Reference to ongoing best practices measures across India and world Some reference Literature : ➢ *Untangling Subsidies, Supporting Fisheries: The WTO Fisheries Subsidies Debate and Developing-country Priorities. Author(s):John Kurien Year of Publication:2006 No of Pages:86* ➢ *N.Venugopalan. 2015. Tamil Nadu Responsible Fishing: Challenges and Issues Date:2015-09-28* ➢ *Discussion Panel A: Fisheries and their Contribution to Sustainable Development, Sebastian Mathew Date:2005-06 Conference: Sixth Meeting of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea, New York, 6-10 June 2005*
3. Whether payments are aadhar Linked? Claiming of subsidy whether found to be as per rule?	➢ Based on our study, we recommend that there is great scope for Aadhar linkage and Under DBTs, Bank account should be linked to Aadhar for hassle free transfer of benefits ➢ Data triangulation through structured

	questionnaire, observation at bunks, cross verification of beneficiary passbook and registration certificate, and also cross verification at fishery department repository enforces our finding that there is compliance to rule at all levels
4. Observation from line department	➢ The major study findings and recommendations were in line with expectation of the Department of Fishery and appreciated. Also the additional feedbacks from them in regards to presentation of the final study findings and report were duly incorporated by the evaluation agency
5. Whether benefits are quantified and detailed with indicators	➢ Findings on impact of the scheme on socio economic indicator such as livelihood, household assets and standard of living etc is substantiated through findings of FGDs(13) with beneficiaries and IDIs(100)across Retired Govt. Official and academician and experts ➢ Cost and economics of all categories of mechanised boats vis a vis multiday fishing trawler, fishing trawler(40-70HP, 71-90HP,91-130HP),Purse seine >131HP and motorized gill net boats from our study finding further substantiates the finding that there has been great impact on benefits and improvement of socio economic indicator of beneficiaries ➢ Also 12% of diesel subsidy beneficiary opined that there is increase in catch of fish while 87% were of opinion that it has increased their income (Table 2.06 n=301)
All these above points are already explained in detail, in our study recommendations chaptered XII	



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Evaluation of Distribution of tax exempted diesel and kerosene to fishing boats in Karnataka