



FEASIBILITY REPORT

Establishment of fishing net manufacturing unit



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EXECUTIVE SUMMARY

Name of Project	Establishment of Fishing Net Manufacturing Unit	
Project Details	Fishing is one of the major occupations of people in Kerala. The state stood second in terms of annual fish production and contributed about 12% to total exports in the year 2008-09. Unavailability of good quality fishing nets at affordable prices coupled with other reasons restricts the capacity utilization of the sector to 75%. Visible supply - demand gap exists in the market. Aiming at enhanced capacity utilization and prevalent market growth, the gap is bound to widen. The proposal is to set up HDPE & Nylon fishing net manufacturing unit with 25 fishnet making machines along with auxiliary equipment.	
Location	Possible location identified in Kollam and Kozhikode port area	
Proposed Capacity	500 tones per annum	
Period of implementation	24 months	
Financials		
a.	Investment	Rs 1651.08 lakh
b.	Revenue Stream	Rs 2081.00 lakh
c.	Internal Rate of Return	19.64%
d.	Payback Period	6 years & 8 months
Benefits		
Better utilization of available potential, wide scope for export market for fish & fish products, improved livelihood of fishermen.		

CHAPTER - I

INTRODUCTION

Tucked away in the south-west corner of India, Kerala is a land blessed with the nature's best. Kerala has a long coastal line of 590 km, studded with golden beaches and palm lined shores. The coastal Kerala is bestowed with a vast network of backwaters, lagoons, natural lakes, rivers and canals. The State has a total of 217 wetlands.

The economy of Kerala is largely dependent on agriculture. Rice is the staple food of the State and thus is grown in abundance. Other crops being grown in the State are coconut, tea, coffee, cashew, and spices such as cardamom, vanilla, cinnamon and nutmeg.

As the land is surrounded by backwaters and sea shore, fishing is also one of the major occupations of the people in Kerala. Forty one rivers flow into the Arabian Sea, facilitating inland navigation through rivers, lakes and backwaters. These rivers harbor a number of fresh water fishes which support the livelihood of tribals and non-tribals alike. The marine, brackish and freshwater fisheries are important for the state's economy. Kerala's coastal waters are rich with large variety of fishes like pearl spot, shrimp, prawn, mullet, catfish etc. Kerala has many fishery harbors and fishermen enclaves.

The most fertile region for fisheries is the shallow seabed surrounding the State, which is around 3919 square kilometers. In addition to contributing to the economy, the fisheries sector of Kerala also ropes in a lot of Foreign exchange and goodwill. The fisheries of the state are famous all over the world and are exported to Europe and America among other parts of the globe. At present the state of Kerala produces about 6 lakh tones of marine fishes every year.

The long coastline and the productive continental shelf gave fisheries the status of a sector that can accelerate the economic growth of the

rural population of India. There has been immense growth in the sector owing to the constant backing of the State Government and the relentless efforts of the fishermen community. With a gradually sloping continental shelf, Kerala possesses all that is needed to make it a perfect place for fishing to flourish. Kerala is blessed with an immense measure of fresh water fishery resource as well. These inland water resources also contribute extensively to the growth of the industry.

The characteristic feature of the fisheries sector in India is that it is represented by the socially and economically backward fishermen who utilize the common resources but nevertheless contribute to the foreign exchange of the country. The sector has a high amount of untapped potential both in domestic and export areas.

In current world scenario, the per capita consumption of fish has reached about 12 kg per year. This trend is bound to increase as the land based agriculture is limiting and also because fish has been identified as the best source for protein intake.

In India around 2 million people find employment in fishery and allied activities and the country ranks second among the fish producing countries of the world. Fisheries contribute 1.1% to GDP and 4.7% to the agricultural GDP.

Even though the sector has immense scope and potential, it is a known fact that poverty in marine fisheries sector is much higher than any other backward sectors in the country. Fisher families in Kerala living below poverty line are estimated about 90 %, which is far higher than the national average of 26 %. This can be attributed to the seasonal nature of employment in the field, exploitation of fishermen by middlemen, over exploitation of marine resources etc.

It is high time that the focus be shifted to increasing the net income of fishermen. This can be achieved by providing quality inputs to the fishermen. One option is to provide the fishermen with quality fishing nets at reasonable price.

CHAPTER - II

PROJECT RATIONAL

2.1 FISHERIES SECTOR- AN OVERVIEW

2.1.1 Indian Context

Fisheries sector occupies a very important place in the socio-economic development of the country. It has been recognized as a powerful income and employment generator as it stimulates growth of a number of subsidiary industries and is a source of cheap and nutritious food besides being a foreign exchange earner. Most importantly, it is the source of livelihood for a large section of economically backward population of the country.

Marine Fisheries contributes to food security and provides direct employment to over 1.5 million fisher people besides others indirectly dependent on the sector. The total marine fisherfolk population of 3.57 mn is in 3,305 marine fishing villages spread across the coastal States and Union Territories (including islands). Of these, 0.90 million are active fisher people, and another 0.76 million fisher people are involved in other fisheries-related activities. The country's fresh water resources consist of 195210 kilometers of rivers and canals, 2.9million hectares of minor and major reservoirs, 2.4 million hectares of ponds and lakes and about 0.8 million hectares of flood plain lakes and derelict water bodies. At present it contributes almost 13 % of the total fish production in the country. Significant contributions also come from freshwater and brackish- water aquaculture.

Figure No. 2.1 depicts the trend in fish production in lakh tones (marine and inland) from 2000-2009 in the country.

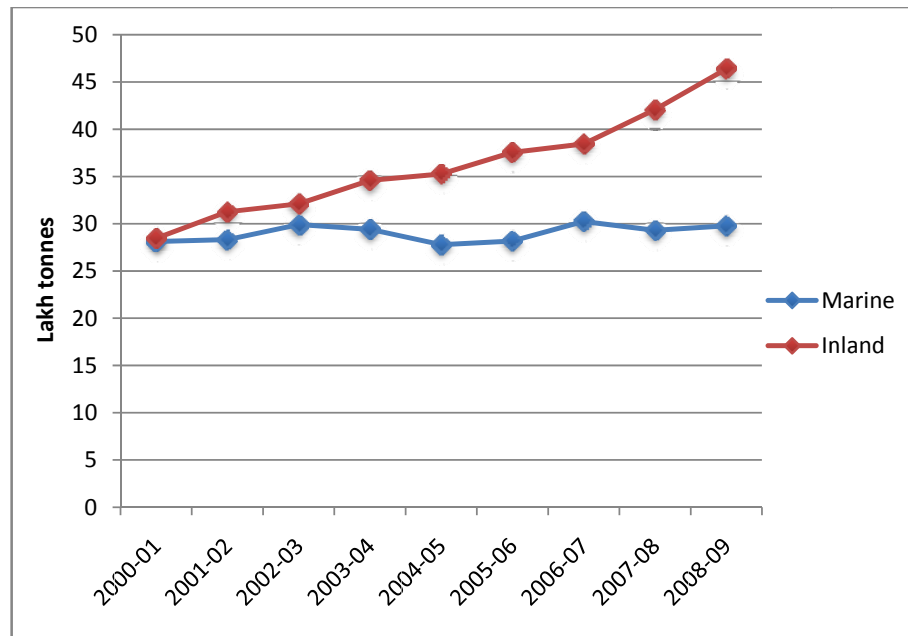


Figure No. 2.1 – Fish production in lakh tonnes from 2000-2009 in the country

There has been significant growth in fish production in the country in the recent years. India is now the third largest producer of fish and second largest producer of fresh water fish in the world. Fish production during the year 2008-09 was 76.2 lakh tonnes comprising 29.8 lakh tonnes of marine fish and 46.4 lakh tonnes of inland fish.

2.1.2 Kerala Context

The fishermen population in Kerala is estimated to be approximately 9 Lakh living in more than 1,00,000 households in 222 villages along the coastline of Kerala. Fishery industries occupy an important role in the economy of Kerala. Kerala's share in the national marine fish production is about 20 to 25% and in marine fish exports is about 20 %. Figure No.2.2 depicts the capacity of fish production in the State of Kerala during the year 2008-09. It stands second, next to Gujarat in terms of annual production in lakh tonnes.

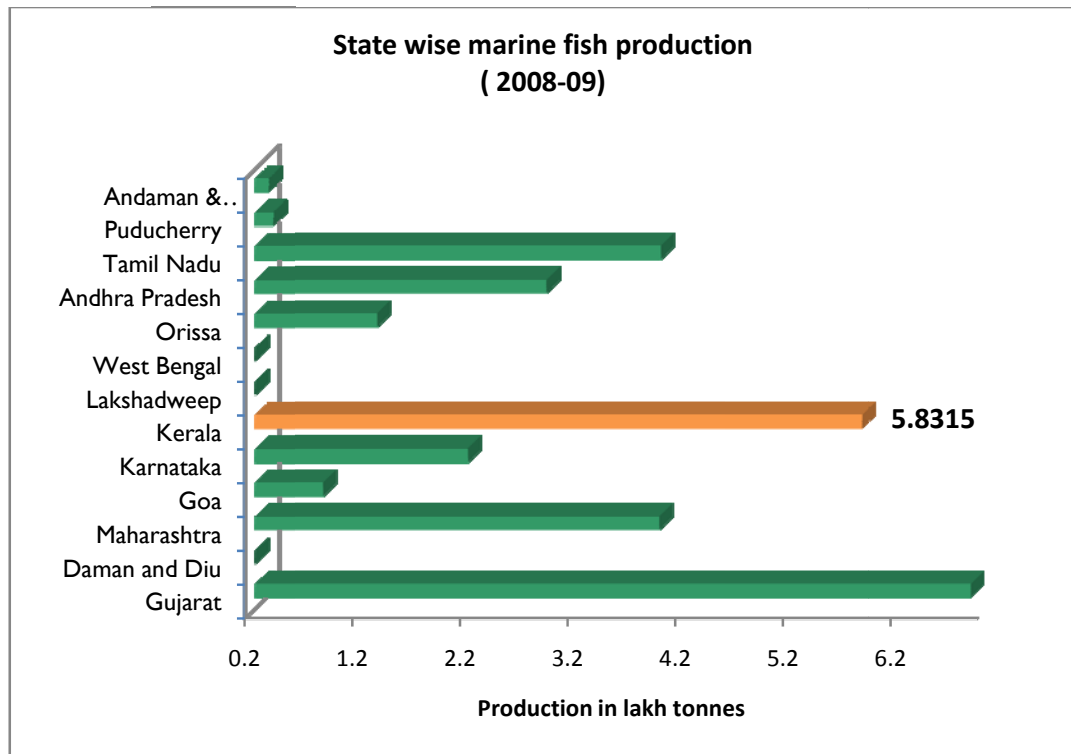


Figure No. 2.2 – State wise marine fish production in the year 2008-09

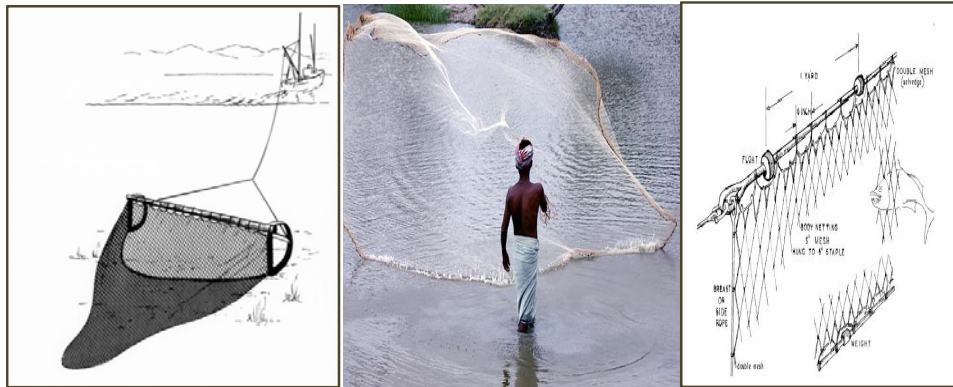
2.1.3 Export potential

There has been steady growth in the export of fish products from the country. During 2009-10 the country exported 6.64 lakh tonnes of marine products, which resulted in export earnings of 9921.46 crore. As far as Kerala is concerned, the state exports fish products worth approximately Rs. 1,200 crores. Kerala contributes about 12 % to the total export of fish products from the country.

2.1.4 Types of fishing nets

Trawl nets are pulled through water behind one or more boats. Ground fish, cod fish, squid etc. are captured using these nets. The drift net is not anchored, but is drifting with the current, commonly used in coastal waters. A cast net also called a throw net is circular with

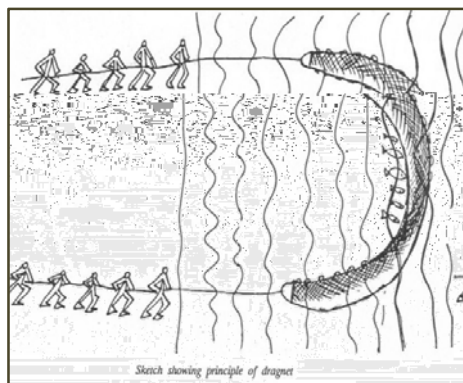
small weights distributed around its edge. The net is cast or thrown by hand in such a manner that it spreads out on the water and sinks. Fish are caught as the net is hauled back in. The gillnet catches fish which try to pass through it by snagging on the gill covers. The nets are anchored to the sea floor and allowed to float at the surface. The purse seine is an evolution of the seine net and is widely used by commercial fishermen. A large net is used to surround fish. The bottom of the net is pulled close to push the fish to the middle. Largely used in schooling of fish.



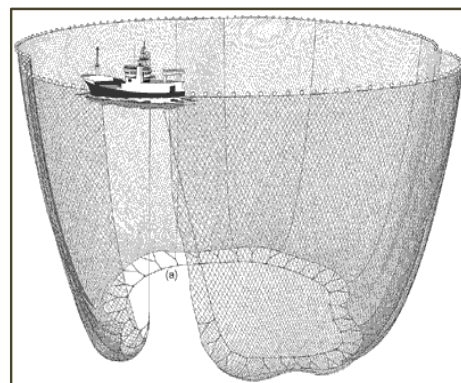
Bottom trawl

Cast net

Gill net



Drag net



Purse seine

Figure No. 2.3 – Different types of fishing nets

2.1.4 Infrastructure

The Indian boat type ranges from the traditional catamarans, masula boats, plank-built boats, dug out canoes, machwas, dhonis to the present day motorized fibre-glass boats, mechanized trawlers and gillnetters. The marine sector in India includes the traditional, mechanized and the modern sub sectors. The traditional sector involves fishing in the inland waters with country crafts within 42-50 km of the coastline and accounts for 65% of the total marine production with a fleet strength of more than 200,000 traditional canoes; the mechanized sector with strength of about 34000 small mechanized boats accounts for 25%. The modern sector comprise of less than 200 vessels accounting for less than 10% of landings.

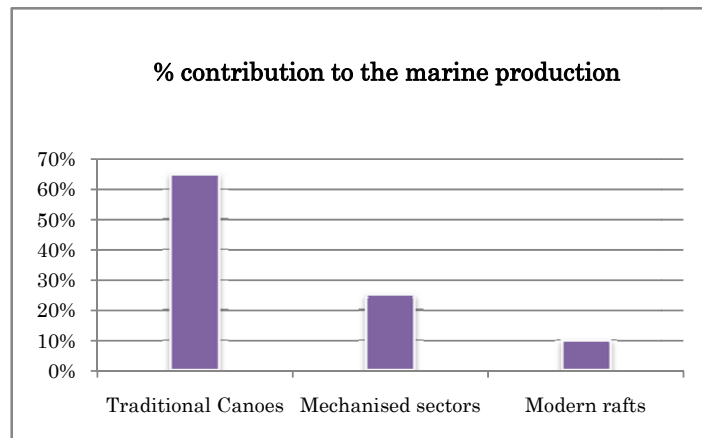


Figure No. 2.4 – % contribution to the marine landings

In Kerala, the total registered fishing fleet consists of about 4,510 mechanized fishing vessels and 50,000 traditional crafts. Among the traditional crafts, 20,000 crafts are motorised. Kerala is the pioneer state in the field of mechanized fishing. Based on the type of gear and method of operation, mechanized fishing is classified into Trawling, Gill Netting, Hooks and Lines, Purse-Seining etc. Generally large

mechanized boats are used for trawling. Gill Netting is generally done by smaller FRP vessels of 8-meter size. The traditional sector includes Dugout Canoes, Plank Built Canoes, Marine Plywood Canoes, Cattamaram and large Kettuvalloms. The common types of gear used are gill nets, purse seines and shore seines. The operations of traditional crafts are confined within a range of 20 kms off the coast.

2.1.5 Potential v/s Production

Blessed with an extensive coastal stretch of 8129 km, India presents itself as a prime candidate as a country for fisheries to flourish. In contrary, the fisheries sector in India has a long way to go in order to reach its ultimate potential. The potential of fish production from Indian Exclusive Economic Zone (EEZ) is estimated as 3.93 million mt and as against present level of harvesting at 2.94 million mt. The production can be increased to 3.37 million mt by intensifying the tapping operations in offshore and deep-sea grounds making use of the modern technologies and techniques. These data clearly indicate the need for technological advancements in the sector.

According to the available estimates of the potential fishery resources of the West Coast, particularly in the south-west coasts, Kerala possesses the richest fishing grounds in the region. Table No. 2.1 summarizes the resource potential of Kerala.

Table No. 2.1 – Resource in tonnes

Stock	Depth Zones			
	0-20 m	21-80 m	81-200 m	Total
Demersal	37, 935	90,432	17,040	1,45,407
Pelagic	3,07,539	7,32,908	1,37,863	11,78,310
Total	3,45,490	8,23,352	1,54,875	13,23,717

As against the maximum sustainable yield of about 8 lakh tonnes average landing by traditional crafts is about 35,000 tonnes and that by mechanised crafts is 6,00,000 tonnes based on the available data on annual landing. The actual landing efforts of the traditional crafts are virtually confined to 0 to 20 m and mechanised crafts upto 50 m.

The present level of fish production in the state is about 6 lakh tonnes per annum. Hence about 2 lakh tonnes of fish within the maximum sustainable yield is still left un-harvested. This can be harvested only by increasing the number of fishing days, by providing safe landing facilities, improving the fishing gears, improving the operating range of vessels by providing safe berthing facilities wherever possible.

Majority of fishing is still done by traditional crafts which are often improperly equipped. The insufficiency of fishing gear coupled with exploitation of middlemen points towards the urgency for technological improvements in the sector. This also brings out the tremendous scope of growth in the area.

Taking into consideration the plight of the fishermen due to the non – availability of good quality fishing nets at affordable prices, this project for the establishment of fishing net manufacturing unit clearly has immense potential.

CHAPTER – III

DEMAND AND SUPPLY

3.1 NEED FOR FISHING NETS

Fishing net is the major gear in use by fishermen, next to fishing boats. The type of fishing net used differs greatly and mainly depends on the season, the type of landings, convenience etc. Fish net making is a flexible as well as consumer oriented industry. The type of nets to be manufactured, in terms of mesh size, largely depends on the demand of the fishermen.

Machine made nets are preferred in the place of hand-made nets as machine made nets are more efficient, have better life and provide better catch thus better returns to the fisherman.

3.2 FISHING NET MANUFACTURE

Despite the enormous demand for fishing nets, the development of the fishing net making industry in India has been very slow and has not kept pace with the development of fisheries.

The short supply of fishing net affects the traditional fishermen very badly in getting good quality nets in time during the season. There is great discrepancy in the quality and price between the imported and indigenous machines and products and this fact has restricted the expansion of the sector considerably during the last few years.

Japanese have a strong foothold in the fish net making industry all over the world. This is mainly because of their superior quality machines and products. The global fish net making industry is dominated by China and machine making is dominated by Japan

followed by South Korea, Thailand, Thai wan and China. Even after 50 years of existence in the field, none of the Indian manufacturers have been successful in curbing the market or in supplying good quality products. In Kerala there are 32 net making machine in the private sector and 50 machines in the cooperative sector.

3.3 SUPPLY – DEMAND GAP

The estimated demand of the fishnet for the country is 18000 tonnes per annum and which grows at the rate of 10% per annum. The existing production capacity in the country is 14300 tonnes which visibly leaves a supply demand gap of 3700 tonnes. The supply-demand gap can be summarized as given in Table No. 3.1:

Table No. 3.1 Supply – demand gap

Sl. No.	Item	Capacity (in tonnes)	Demand (in tonnes)	Supply shortage (in tonnes)
1.	Nylon Multifilament net	4500	6000	1900
2.	Nylon Monofilament	4800	5500	700
3.	HDPE Nets	5000	6500	1500
	Total	14300	18000	3700

The estimated demand for fishnet in Kerala is 2600 tonnes of which nylon multifilament contribute 1500 tonnes HDPE nets 900 tonnes and nylon monofilament 200 tonnes. At present the market is growing more than 10% per annum because of new investment in the seine nets in traditional sector.

In traditional sector introduction of seine nets and bigger boats with higher horsepower in board and outboard motors created the

requirement of larger and improved nets in considerable quantities. In the inland areas the introduction of monofilament nets provided better return even though the life of the net is for a very short period. Growing mechanization has also increased the demands for thicker mesh webbings which also aim at improved production.

As projected in chapter – 2, about 2 lakh tonnes of fish out of the 8 lakh tonnes of the maximum sustainable yield is left un-harvested. The capacity utilization is only 75 %. Considering the market growth of 10 %, and aiming at 85 % capacity utilization, the demand for fishing net goes up to 20400 tonnes. This clearly indicates a supply-demand gap of about 6100 tonnes , almost double of the prevailing gap.

There is visible supply – demand gap in the market. Also with longer fishing days, better equipments and fishing in deeper waters, the demand for fishing nets is bound to increase.

CHAPTER – IV

PROJECT PARTICULARS

4.1 THE PROJECT

Fishing net is one of the most important gears used by fishermen. The unavailability of good quality fishing nets at affordable prices, especially during peak season is increasing the plight of fishermen in the state. This is one of the reasons behind the inability of the fisheries sector to sustainably exploit the resource potential of the state. Hence it is proposed to establish a 500 tonnes per annum capacity fishing net manufacturing unit. As projected in the previous chapters, there is prevalent supply- demand gap existing in the market and also with an aim of enhanced capacity utilization, this gap sure to widen. The infrastructure required for the project is mentioned in the paragraphs below.

4.1.1 Manufacturing Process

The fishnet twine or yarn is available in bobbins. This yarn is loaded on to the creel stand of the fishnet machine. The same type of yarn is also filled into spool by means of spool winder machine. The filled spools are then loaded into the machine.

The yarn on creel stand forms the warp. The yarn on the spool forms the weft. The fish net making machine knots these together and the net is produced. This is wound on to a roller. When net of predetermined length is produced it is cut. The net is then unwound from the roller. It is then checked for any breakage of yarn on a mending stand. Any breakage found is mended/ rectified by hand. The net is then washed in tank. It is then stretched lengthwise in a length stretching machine. Here the net is heated to about 120 to 150 degree

centigrade and ironed to fix the knots. The net is then bundled on a bundling machine, weighted and then packed.

4.2 FACILITIES REQUIRED

4.2.1 Land and Building

A possible location for the establishment of the unit has been identified in Kollam and Kozhikode port areas. As the industry is proposed to be set up in the land available to the port, no cost has been considered for the same. The optimum capacity of the proposed plant is 500 tonnes per annum. The area of land required for the purpose is 2 acres. In order to house the equipments necessary to produce the proposed capacity, a building of 30, 000 sq.ft is needed in accordance with the factory regulations. The cost of the building is estimated as Rs.418.00 lakh

4.2.2 Plant and Machinery

There is a requirement of 25 fishnet making machines, along with necessary auxiliary machines to produce the required capacity. The list of machinery proposed to be installed is given in Table No. 4.1 :

Table No. 4.1 Required machinery

Sl. No.	Item	
1.	Net making machines	25 nos
2.	Bobbin winder	25 nos
3.	Length stretching machine	1 no
4	Dying machine	1 no
5	Centrifugal separator	1 no
6.	Boiler	1 no

7.	Electric overhead crane	
8.	Spares	
9.	Accessories	
10.	Electrical installations	
11.	Safety Equipments	

4.2.3 Miscellaneous Fixed Assets

The other major miscellaneous fixed assets for the project are air conditioners, electrification, computers, furniture, structural supports, office equipments and fire extinguishers, the cost of which works out to Rs. 30.00 lakh. Diesel generator to be used for critical loads in case of power failures is also considered.

4.2.4 Raw Materials

The major raw material required for the unit is nylon and HDPE fibre. The total cost of the fibres amount to Rs. 1221 lakh.

4.2.5 Consumables

Provision is also made for consumables which envisage an outlay of Rs 1.80 lakh.

4.2.6 Annual Sales Realisation

The proposed factory for the manufacture of fishing nets is proposed to function for 24 hrs a day on a 3 shift basis. The income for the project is the revenue from the sale of the fishing nets produced. The total income is expected to be Rs.2081.00lakh per annum.

4.2.7 Utilities

The connected load requirement of the project will be 250 kW. The annual power charges work out to Rs.63 lakh approx.

4.2.8 Manpower Requirement and Emoluments

The manpower requirement of the centre will be 152 persons. The total cost of salaries and wages works out to Rs. 192.00 lakh per annum.

4.2.9 Schedule of Implementation

The various operations for implementing the project along with duration required are given in the bar chart given below. The project is proposed to be completed in 24 months.

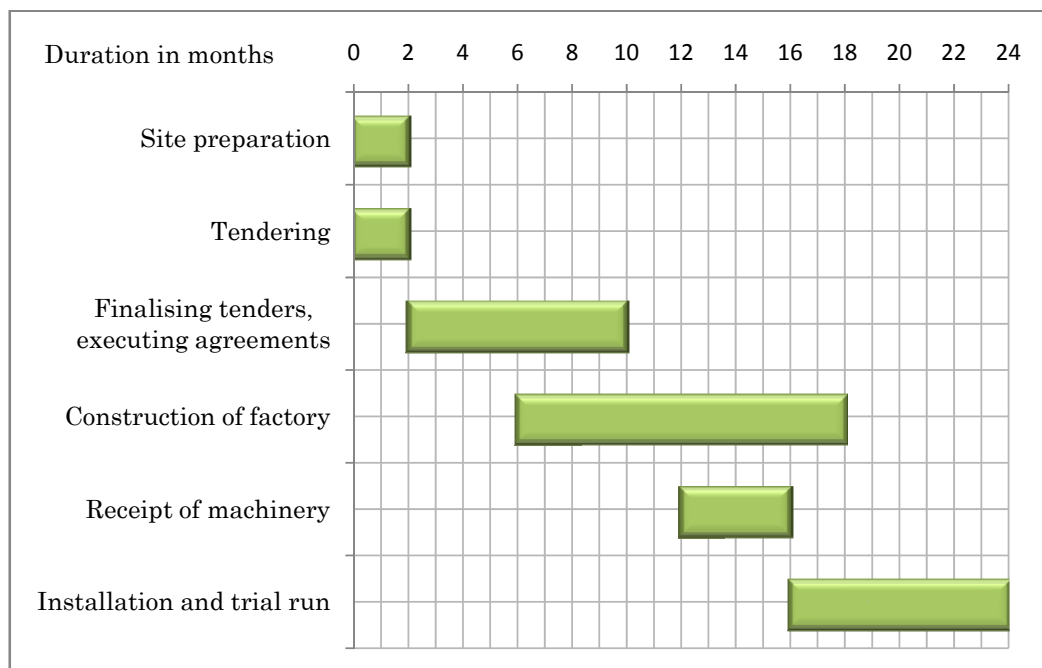


Figure No. 4.1 Schedule of implementation

CHAPTER – V

PROJECT COST

5.1 PROJECT COST

The estimated total project cost is 1651.08 lakh as given in Table No 5.1.

Table No. 5.1 Project cost

Sl. No	Item	Rs. Lakh
1	Land development	20.00
2	Building	418.00
3	Plant and machinery	1000.00
4	Miscellaneous fixed assets	30.00
5	Contingency	28.96
6	Preliminary/Pre-operative expenses	70.00
7	Margin money for working capital	48.12
	Total	1651.08

5.1.1 Land Development

A lumpsum amount of Rs. 20.00 lakh is envisaged under land development head.

5.1.2 Building and Civil works

The unit requires a 30,000 sq ft building, the cost of which amounts to Rs. 418.00 lakh

5.1.3 Machinery and Equipment

There is a requirement of 25 fish net making machines for producing the required capacity of 500 tonnes of net per annum. The cost of the plant and machinery is estimated to be around Rs.1000 lakh.

5.1.4 Miscellaneous Fixed Assets

The miscellaneous fixed assets including air conditioners, electrification, computers, furniture, structural supports, office equipments and fire extinguishers are expected to cost Rs.30.00 lakh

5.1.5 Contingency

In order to meet any unforeseen escalation in any of the direct expenses other than raw materials and consumables, a contingency provision at the rate of 5% is included in the cost.

5.1.6 Preliminary/Pre-operative Expenses

The expenses under this head include electricity connection charges, consultancy fees, office expenses, publicity charges, etc and are estimated at Rs.70.00 lakh.

5.1.7 Margin Money for Working Capital

The computation of working capital requirement is given in Annexure No.IX. Working capital loan will be availed from financial institutions at 14% interest rate. The margin money for working capital requirement for the second year of operation viz., Rs.48.12 lakh is included in the project cost.

5.2 MEANS OF FINANCE

The total project cost for setting up the Unit is Rs.1615.08 lakh and is proposed to be financed as follows:

Table No. 5.2 Means of finance

Sl. No.	Source	Amount (Rs. lakh)
1.	Promoter Contribution	865.08
2.	Term Loan	750.00
	Total	1615.08

5.2.1 Term Loan

Term loan of Rs 750 lakh has been envisaged for the project. An interest rate of 14% has been considered.

CHAPTER – VI

FINANCIAL FEASIBILITY

6.1 COST OF PRODUCTION AND PROFITABILITY

A detailed projected profitability statement for the first 10 years after the commencement of production is attached as Annexure No.I. The statement has been worked out on the basis of the following assumptions.

1. The details of sales realisation are given in Annexure No.I. Possible fluctuations in the selling price of products are not taken into consideration.
2. It is expected that any increase in the cost of raw materials, consumables and packing materials will be offset by corresponding increase in the sales revenue. However, the selling prices and the cost of various inputs are based on prevailing market rates.
3. The unit is expected to work for 300 days on a three shift basis.
4. The unit is expected to work at 70% cent of the installed capacity during the first year, 80% during the second year and 90% from the third year onwards.
5. Computation of raw materials and consumables is worked out on the basis given in Annexure No.II.

6. Full salary and wages have been taken into account during the first year of operation.
7. In order to meet any unforeseen escalation in any of the direct expenses other than raw materials and consumables, a contingency provision at the rate of 5% is included in the cost.
8. Depreciation is charged in the profitability statement under straight line method. But for the purpose of computation of income tax, adequate adjustments have been made in the computation so that depreciation is charged under the written down value method. The computation is attached as Annexure No.III.
9. Administrative overhead is worked out at 1% of sales revenue.
10. Selling overhead is worked out at 2% of sales revenue.
11. Interest on working capital loan is worked out at 14%.
12. Possible changes in cost/revenue on account of inflation have been ignored.

On the basis of the above assumptions, the gross income of the unit will increase from Rs.1456.70 lakh in the first year to Rs.1664.80 lakh in the second year and to Rs.1872.90 lakh in the third year. The operations will generate a loss of Rs.42.63 lakh in the first year of operation and profit before tax of Rs.61.43 lakh and Rs.173.26 lakh during the second and third year of operation respectively.

6.2 BREAK-EVEN ANALYSIS

The unit will break-even at 66% of the installed capacity. Further, it will generate cash surplus at any level above 44% of the installed capacity. The detailed computation is attached as Annexure No.IV.

6.3 CASH FLOW

Cash flow statement for a period of 10 years on the basis of the above profitability statement is furnished as Annexure No. V and VI. The cash balance at the end of 10th year of operation is projected at Rs.1783.45 lakh.

6.4 PAY BACK PERIOD

The pay back period (non-discounted) for the project is 6 Years and 8 Months. Detailed computation is given as Annexure No. VII

6.5 INTERNAL RATE OF RETURN

The Internal Rate of Return (IRR) of the project is 19.64%, which is good. Detailed computation is given in Annexure No.VIII.

CHAPTER – VII

CONCLUSION

Fisheries play a critical role in the economic, employment and nutritional aspects of development. There has been spectacular growth in the marine fisheries sector of the state due to fisheries friendly government policies and the undeterred efforts of the fishermen community .A growing demand for fish has fuelled a rapid increase of fishing efforts in the State. The non- availability of good quality fishing nets is one among the many constraints which hinder the growth of the industry.

With the prevailing supply – demand gap in the industry and an estimated capacity utilization of 85 %, the establishment of a fishing net manufacturing unit is the need of the hour. The preliminary study revealed, beyond doubt, the potential of the venture and the established its technical viability.

The total project cost is estimated at Rs.1615.08 lakh. The payback period of the project is 6 years and 8 months.

The project is technically feasible and financially viable.

ANNEXURES

Projected Profitability Statement

(Rs. lakhs)

Particulars	Year									
	I	II	III	IV	V	VI	VII	VIII	IX	X
No. of working days	300	300	300	300	300	300	300	300	300	300
No. of shifts	3	3	3	3	3	3	3	3	3	3
Capacity utilisation	70	80	90	90	90	90	90	90	90	90
A. INCOME										
Sales (A)	1456.70	1664.80	1872.90	1872.90	1872.90	1872.90	1872.90	1872.90	1872.90	1872.90
B. OPERATING COST										
Raw materials	854.70	976.80	1098.90	1098.90	1098.90	1098.90	1098.90	1098.90	1098.90	1098.90
Consumables & packing materials	1.40	1.60	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
Utilities	63.00	63.00	63.00	63.00	63.00	63.00	63.00	63.00	63.00	63.00
Rent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Employee remuneration including benefits	192.00	192.00	192.00	192.00	192.00	192.00	192.00	192.00	192.00	192.00
Repairs, maintenance & insurance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Contingency	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75
Depreciation	198.70	171.18	147.56	127.27	109.85	94.87	81.99	70.90	61.36	53.14
Total (B)	1322.55	1417.33	1516.01	1495.72	1478.30	1463.32	1450.44	1439.35	1429.81	1421.59

Annexure contd...

Projected Profitability Statement

(Rs. lakhs)

Particulars	Year									
	I	II	III	IV	V	VI	VII	VIII	IX	X
C. ADMINISTRATIVE EXPENSES										
Salary including benefits	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Administrative overheads	14.57	16.65	18.73	18.73	18.73	18.73	18.73	18.73	18.73	18.73
Marketing expenses	29.13	33.30	37.46	37.46	37.46	37.46	37.46	37.46	37.46	37.46
Excise duty	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (C)	43.70	49.95	56.19	56.19	56.19	56.19	56.19	56.19	56.19	56.19
D. FINANCIAL EXPENSES										
Interest on term loan	105.00	105.00	93.33	81.67	70.00	58.33	46.67	35.00	23.33	11.67
Interest on working capital loan	21.08	24.09	27.11	27.11	27.11	27.11	27.11	27.11	27.11	27.11
Total (D)	126.08	129.09	120.44	108.78	97.11	85.44	73.78	62.11	50.44	38.78
E. Total expenses (B+C+D)	1492.33	1596.37	1692.64	1660.69	1631.60	1604.95	1580.41	1557.65	1536.44	1516.56
F. Profit (A-E)	-35.63	68.43	180.26	212.21	241.30	267.95	292.49	315.25	336.46	356.34
G. Preliminary expenses written-off	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
H. Profit before tax (F-G)	-42.63	61.43	173.26	205.21	234.30	260.95	285.49	308.25	329.46	349.34
I. Income tax	0.00	22.61	63.76	75.52	86.23	96.03	105.06	113.44	121.24	128.56
J. Profit after tax (H-I)	-42.63	38.82	109.50	129.69	148.07	164.92	180.43	194.81	208.22	220.78
K. Withdrawal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L. Retained profit (J-K)	-42.63	38.82	109.50	129.69	148.07	164.92	180.43	194.81	208.22	220.78

Annexure No. II

Computation of raw material cost

Nylon nets produced	-	325.00	tonnes per annum
Nylon fibre required	-	335.00	(considering 3 % wastage)
Cost of fibre	-	Rs. 285.00	per kg
Cost of nylon fibre required for 325 tonnes of net	-	Rs. 954.75	lakh
HDPE nets produced	-	175.00	tonnes per annum
HDPE fibre required	-	180.00	(considering 3 % wastage)
Cost of fibre	-	Rs. 148.00	per kg
Cost of HDPE fibre required for 175 tonnes of net	-	Rs. 266.40	lakh
Total cost of raw materials	-	Rs. 1221.00	lakh
Total cost of consumables	-	Rs. 1.83	(0.15 % of raw material cost)

Computation of Depreciation (Straight line method)

(Rs. lakhs)

Particulars	Year									
	I	II	III	IV	V	VI	VII	VIII	IX	X
<u>Land</u>	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
<u>Building</u>										
Opening Balance	426.36	383.72	345.35	310.82	279.74	251.77	226.59	203.93	183.54	165.19
Less: Depreciation	42.64	38.37	34.54	31.08	27.97	25.18	22.66	20.39	18.35	16.52
Closing Balance	383.72	345.35	310.82	279.74	251.77	226.59	203.93	183.54	165.19	148.67
<u>Plant & Machinery</u>										
Opening Balance	1020.00	867.00	736.95	626.41	532.45	452.58	384.69	326.99	277.94	236.25
Less: Depreciation	153.00	130.05	110.54	93.96	79.87	67.89	57.70	49.05	41.69	35.44
Closing Balance	867.00	736.95	626.41	532.45	452.58	384.69	326.99	277.94	236.25	200.81
<u>Electrification, Piping, Etc.</u>										
Opening Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Less: Depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Closing Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<u>Miscellaneous Fixed Assets</u>										
Opening Balance	30.60	27.54	24.79	22.31	20.08	18.07	16.26	14.63	13.17	11.85
Less: Depreciation	3.06	2.75	2.48	2.23	2.01	1.81	1.63	1.46	1.32	1.19
Closing Balance	27.54	24.79	22.31	20.08	18.07	16.26	14.63	13.17	11.85	10.67
<u>Others</u>										
Opening Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Less: Depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Closing Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<u>Summary</u>										
Opening Balance	1496.96	1298.26	1127.09	979.54	852.27	742.42	647.54	565.55	494.65	433.29
Less: Depreciation	198.70	171.18	147.56	127.27	109.85	94.87	81.99	70.90	61.36	53.14
Closing Balance	1298.26	1127.08	979.53	852.27	742.42	647.55	565.55	494.65	433.29	380.15

Annexure contd...

Computation of Break even Level of Operation

(Based on III year's operation)

(Rs. lakhs)

A. CAPACITY UTILISATION	90	%
B. GROSS INCOME	1872.90	
C. VARIABLE EXPENSESES		
1. Raw materials	1098.90	
2. Consumables	1.80	
3. Utilities	63.00	
4. Interest on working capital loan	27.11	
5. Marketing expenses	37.46	
6. Excise duty	0.00	1228.27
D. CONTRIBUTION (C-B)	644.63	
E. CASH FIXED OVERHEADS		
1. Employee remuneration	192.00	
2. Repairs, maintenance & insurance	0.00	
3. Rent	0.00	
4. Contingency	12.75	
5. Salary	0.00	
6. Administrative overheads	18.73	
7. Interest on term loan	93.33	316.81
F. NON-CASH FIXED OVERHEADS		
1. Depreciation	147.56	
2. Preliminary expenses written-off	7.00	154.56
G. TOTAL FIXED OVERHEADS (E+F)	471.37	
H. BREAK EVEN POINT = [Total Fixed Overheads/(Contribution/Capacity)]	66.00%	%
I. CASH BREAK EVEN POINT = [Cash Fixed Overheads/(Contribution/Capacity]	44.00%	%

Projected Cash Flow Statement

(Rs. lakhs)

Particulars	Pre-operative period	Year									
		I	II	III	IV	V	VI	VII	VIII	IX	X
A. SOURCE OF FUNDS											
Profit before tax & preliminary	0.00	-35.63	68.43	180.26	212.21	241.30	267.95	292.49	315.25	336.46	356.34
Add: Depreciation (SL)	0.00	198.70	171.18	147.56	127.27	109.85	94.87	81.99	70.90	61.36	53.14
Add: Interest on term loan	0.00	105.00	105.00	93.33	81.67	70.00	58.33	46.67	35.00	23.33	11.67
Total generation of funds	0.00	268.07	344.61	421.15	421.15	421.15	421.15	421.15	421.15	421.15	421.15
Equity capital	865.08										
Term loan	750.00										
Government subsidy	0.00										
Increase in working capital loan		150.58	21.50	21.53							
Total (A)	1615.08	418.65	366.11	442.68	421.15	421.15	421.15	421.15	421.15	421.15	421.15

Annexure contd...

Projected Cash Flow Statement

(Rs. lakhs)

Particulars	Pre-operative period	Year										
		I	II	III	IV	V	VI	VII	VIII	IX	X	
B. APPLICATION OF FUNDS												
Fixed assets	1496.96											
Preli./Pre-operative expenses	70.00											
Increase in working capital		192.68	27.52	27.54								
Repayment of term loan		0.00	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33	
Interest on term loan		105.00	105.00	93.33	81.67	70.00	58.33	46.67	35.00	23.33	11.67	
Income tax		0.00	22.61	63.76	75.52	86.23	96.03	105.06	113.44	121.24	128.56	
Dividend/Withdrawal		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total (B)	1566.96	297.68	238.46	267.96	240.52	239.56	237.69	235.06	231.77	227.90	223.56	
Opening balance	0.00	48.12	169.09	296.74	471.46	652.09	833.68	1017.14	1203.23	1392.61	1585.86	
Difference (A-B)	48.12	120.97	127.65	174.72	180.63	181.59	183.46	186.09	189.38	193.25	197.59	
Closing balance	48.12	169.09	296.74	471.46	652.09	833.68	1017.14	1203.23	1392.61	1585.86	1783.45	

Annexure No.VII

Computation of Pay Back Period

(Rs. lakh)

Particulars	Pre-operative period	I	II	III	IV	Year					
						V	VI	VII	VIII	IX	X
Profit after tax	0.00	-42.63	38.82	109.50	129.69	148.07	164.92	180.43	194.81	208.22	220.78
Non Cash Expenses											
Depreciation (SL)	0.00	198.70	171.18	147.56	127.27	109.85	94.87	81.99	70.90	61.36	53.14
Preliminary expenses written off	0.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Total non cash expenses	0.00	205.70	178.18	154.56	134.27	116.85	101.87	88.99	77.90	68.36	60.14
Total inflow	0.00	163.07	217.00	264.06	263.96	264.92	266.79	269.42	272.71	276.58	280.92
Total project cost	1615.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Balance	-1615.08	-1452.01	-1235.01	-970.95	-706.99	-442.07	-175.28	94.14	366.85	643.43	924.35
Pay back period											10.00
	say	PAY BACK PERIOD =				6 Years 8 Months					

Annexure No. VIII

(Rs. lakhs)

Computation of Internal Rate of Return

Year	Cash Inflow	Cash Outflow	Net Flow	Discounting Factor 20.00	Discounted Value	Discounting Factor 30.00	Discounted Value
0		1566.96	-1566.96	1.00	-1566.96	1.00	-1566.96
1	268.07	42.10	225.97	0.83	187.56	0.77	174.00
2	322.00	6.02	315.98	0.69	218.03	0.59	186.43
3	357.39	6.01	351.38	0.58	203.80	0.46	161.63
4	345.63		345.63	0.48	165.90	0.35	120.97
5	334.92		334.92	0.40	133.97	0.27	90.43
6	325.12		325.12	0.33	107.29	0.21	68.28
7	316.09		316.09	0.28	88.51	0.16	50.57
8	307.71		307.71	0.23	70.77	0.12	36.93
9	299.91		299.91	0.19	56.98	0.09	26.99
10	292.59	0.00	292.59	0.16	46.81	0.07	20.48
					-287.34		-630.25
Net flows		3169.43					
Internal Rate of Return (IRR) =					19.64%		

Computation of Working Capital and Margin Money Requirements

(Rs. lakhs)

Particulars	Requirement (Months)	Bank Finance (%)	I year			II Year			III Year		
			Working Capital	Bank Finance	Margin Money	Working Capital	Bank Finance	Margin Money	Working Capital	Bank Finance	Margin Money
Raw materials	1.00	75	71.23	53.42	17.81	81.40	61.05	20.35	91.58	68.69	22.89
Other materials	0.50	75	0.06	0.05	0.01	0.07	0.05	0.02	0.08	0.06	0.02
Work-in-progress	0.00	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Finished goods	0.00	75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Receivables	1.00	80	121.39	97.11	24.28	138.73	110.98	27.75	156.08	124.86	31.22
Working expenses	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total			192.68	150.58	42.10	220.20	172.08	48.12	247.74	193.61	54.13

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