NABARD

Unit cost for Investment Activities in Agricultural and Allied Activities 2021-22

राज्य – केरल

State – Kerala

राष्ट्रिय कृषि और ग्रामीण विकास बैंक

National Bank for Agriculture and Rural Development

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NABARD does not accept any financial liability to anyone using this report for any purpose. The costs and parameters suggested are based on information available with NABARD. All the unit costs are indicative in nature and there may be variations based on field/ local conditions. Banks/ Government agencies may asses the credit, requirement, considering the field level situations and keeping in view the technical feasibility, financial viability and the bankability of the investments.

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Foreword

Investment in agriculture for acquiring physical assets result in the creation of a stream of incremental income over a period of time. “Doubling Farmers Income by 2022”, a priority of the GOI, demands increased capital formation in agriculture. NABARD, has been promoting investment opportunities in agriculture & allied sectors for increased capital formation and also to achieve sustainable development in agriculture through various promotional & developmental initiatives and refinance support to banks. It is, in this endeavor, NABARD convenes a State Level Unit Cost Committee (SLUCC) meeting every year for fixing /revision of unit costs in respect of all the major investment credit activities under Farm Sector. This process facilitates adequate credit flow to technically feasible, economically viable and bankable investments/projects.

The revision in unit costs in respect of all major investment credit activities for the year 2021-22 for Kerala was carried out after a consultation process involving Bankers, Research institutions, Commodity Boards, Govt. Departments, farmers through our DDMs and technical officers of NABARD. This exercise enables the SLUCC to arrive at realistic and contemporary unit cost for various activities in the state of Kerala, which is acceptable to all stakeholders. These costs approved by the Committee are indicative in nature and the Financial Institutions/Government Agencies may refine the costs considering the field level situations and keeping in view the technical feasibility, financial viability and also the bankability of the investments.

I would also like to acknowledge the support and cooperation extended by different line departments, banks, farmers, technical officers of NABARD and all others who have contributed in bringing out this Hand Book. I am sure that the booklet will serve as a ready reckoner to the financing banks, various Government Departments, development agencies etc. in identifying new areas of investment and formation of Area Development Schemes leading to increased ground level credit flow to agriculture and allied activities in the State.

P Balachandran
Chief General Manager

Introduction

With a view to giving a fillip to investment credit under agriculture sector in the State, NABARD had re-started the practice of fixing Unit Costs (UCs) for major activities during 2012-13. This year also NABARD has initiated the process of fixing / finalising Unit Costs for major agriculture and allied activities in the State. The basic objective of the exercise is to make available, benchmark costs under various investment activities to financial institutions and line departments and thereby help these agencies in deciding appropriate levels of financing for each activity, which in turn can help obviate “under” or "over" financing. In addition to the above, these Unit Costs also provided an indication of the expected benefits from each activity under ideal conditions. More importantly, the unit cost computations also provide a detailed breakup of various components / parameters, which influence costs under various activities.

The process of annual revision in Unit Costs is carried out through a consultative process that involves various stakeholders like Banks, Government departments, Commodity Boards, Farmers and NGOs in the districts of the State through a panel of Technical Officers/members of the Regional Technical Advisory Group identified in NABARD and DDMs in the district.

Keeping the requirements of the stakeholders in view, NABARD, Kerala Regional office, has formulated Unit Costs for major activities under various farm sector activities for FY 2021-22. The Unit Costs were drawn up after detailed discussions with the concerned line departments, commodity boards, consultations with dealers / vendors engaged in trading agricultural implements / components, conduct of ground level studies and consultations with farmers in some instances.

Further, the economics for various activities are also worked out to ensure that investments made under such activities with suggested Unit Costs, are financially/economically viable.

It is reiterated that the Unit Cost finalised / fixed by the SLUCC is only indicative / illustrative, serving more as a pointer, for bankers and Government agencies engaged in supporting term lending under agriculture and allied activities.

1. Water Resources

	Particulars	Specifications	Unit cost	Remarks
1	Dugwell	Dia: 1.5 m, using Depth: 5 m (RCC rings)	48500	• Repayment period – 11 to 15 years with 11 months gestation period (GP). Suitable for Alluvial formations. • Small land holdings upto 0.4 ha. • Cash crops should be grown at least for one season.
2	Dug Well	Dia: 2.0m Depth: 6m (RCC Rings)	66500	• Suitable for Alluvial formations. • Land holding should be more than 0.4 ha. • Cash crops should be grown at least for one season.
3	Dug Well (Hard rock areas)	Dia: 6.0m Depth: 12 m (Thickness of steining - 0.45m - 3m)	350000	• Suitable for land holdings more than 1.0 ha. • Cash crops should be grown at least for one season.
4	Deepening / Renovation of Wells by excavation (with RCC rings)	Depth: 3 m Dia: 3.0m	25500	• Repayment period – 05 years with 11 months' gestation period (GP)
		Depth: 3 m Dia: 2.0m	21000	
5	Filter Points	Dia: 4.5 inch, Depth: 9m (Filter length 3m)	17000	• Small land holdings upto 0.4 ha.
6	Bore Wells	Dia: 150 mm Depth: 80m	71000	• Repayment period – 11 to 15 years with 11 months' gestation period (GP). • Suitable for Hard rock areas. • Rs.800/m for each additional 1 m depth.
		Dia: 150 mm Depth: 100m	85000	

	Particulars	Specifications	Unit cost	Remarks
Pumping Systems				
1	Electrical Monoblock	1 hp	13000	• Repayment period – 9 years with 11 months' gestation period (GP)
		3 hp	24000	
		5 hp	27500	
2	Diesel Engines/ Pumpsets	3 hp	25000	• Repayment period – 9 years with 11 months' gestation period (GP)
		5 hp	28500	
Submersible Pumpsets				
1	SPS	3 hp	41000	• Repayment period – 09 years with 11 months gestation period (GP)
		5 hp	45000	
2	Pumphouse	2mx2mx2.1m - (with A.C roof and 60 cm x 90 cm ventilation)	25000	
3	Pipeline Distribution system	For well command (per ha)	25000	
4	Storage Tank	3mx3mx1.5m	30000	
Drip Irrigation				
1	Coconut	8 x 8 m- spacing	31500	• Repayment period 10 years including 11 months GP). • Cost norms of Central & State sponsored schemes to be adopted wherever such schemes are in operation.
2	Banana	1.5 x 1.5 m	85400	
3	Arecanut	2.7 x 2.7m	67500	
4	Mango	10 x 10 m	27500	
Sprinkler Irrigation				
1	Tea	Per ha	66000	• Repayment period 10 years including 11 months GP). • Cost norms of Central & State sponsored schemes to be adopted wherever such schemes are in operation.
2	Various other crops	Per ha	53000	• Repayment period 10 years including 11 months GP

Others				
1	Small Lift Irrigation schemes	Per ha	70000	Repayment period – 7 to 9 years with 11 months' gestation period (GP)
2	Artificial recharge structures for Open/ B.W (Roof Top type)	Per structure (collection area of about 1000 sq. ft)	25000	Repayment period – 5 years with 11 months' gestation period (GP)
3	Rain Water Harvesting Structures	Per structure	50000	Repayment period – 5 years with 11 months' gestation period (GP)

Terms & Conditions

1. Ground Water Structures

(Construction of dug wells, bore wells and deepening of dug wells)

a) Availability of ground water has been assessed for each block in the state/ district and this data should be collected by Banks from Ground Water Dept.

b) Bank shall ensure that the ground water development programmes are implemented in *'safe'* category blocks. In case of schemes for ground water extraction in *'semi- critical' and 'critical'* blocks, it shall ensure that application is submitted along with a favourable technical feasibility study report issued for same by competent authority of State Ground Water Department.

2. Spacing of wells

The following minimum spacing to be observed between wells while implementing the scheme.

a) Between two dug wells in high range region (Hilly tract) : 75 m
b) Between two dug wells/ filter points in midland and coastal area : 100 m
c) Between two bore wells : 200 m

3. Renovation/ Deepening of Wells

a) Renovation should cover only deepening (to a maximum of 3 metres) and incidental lining/ erection of rings (if necessary). Construction of parapet

wall, plastering of parapet wall, etc. should not be considered for financing.

b) Only those wells having insufficient water column during summer and need deepening to ensure adequate yield for meeting the water requirement of the crop shall be covered under the programme.

c) The spacing norms (as indicated at para 2 above) between wells (including wells for drinking purpose) may be adhered to under DoW also.

4. Electric Power supply

Before issuing loans for electrical pump set, the bank shall satisfy itself that timely power supply would be available to the beneficiary for operation of the pump set.

5. Minimum acreage and sale of water

It is necessary that the beneficiary has certain minimum area of land to be brought under irrigation to ensure financial viability of investment and repayment of loans within the prescribed period.

Structure	Benefiting Area (ha.)
Dug well with Pump set	1.0
Bore well with SIP	1.6

If the beneficiary's own cultivated area is smaller than that which can be irrigated by well/ tube well/ bore well, the bank may advise the beneficiary that he can sell surplus water to other farmers. Income from sale of water, if any, may be reckoned for purpose of viability of investments up to a maximum of 50% of the loan repayment instalment.

6. Selection and Installation of Pump sets

a) The bank shall ensure that the pump sets financed under the scheme are selected and installed as per BIS 10804-1994 or latest edition.

b) Wherever loan is advanced for replacement of existing pump set by new pump set or for replacement of diesel pump set by electric pump set, the

bank shall ensure that there is no change in the HP of the pump set and that the new pump set installed is as per BIS 10804-1994, or latest edition.

c) Bank shall ensure that the spacing criteria, as stipulated at Para.2 above, are adhered to, for the loans extended for pump sets also.

d) Wherever loans are advanced for standby pump set, the bank may ensure that the standby unit is also selected as per BIS 10804-1994 and that the loans, both for existing pump set and standby unit, are recovered together within the normal recommended repayment period.

e) Where higher HP pump set is required for use other than irrigation, with common prime mover, total HP of the pump set selected for agricultural use shall not exceed 1.5 times the HP required for irrigation purpose, subject to a maximum of 10 HP.

f) In case of second hand pump sets financed under the scheme, if any, the bank shall ensure that the balance serviceable life of the second hand pump set is adequate to cover the repayment period of the loan for pump set.

g) Capacitors: The electric motor financed should always be provided with a starter and a capacitor matching the motor. The following KVAR rating capacitors are recommended for use:

Below 3 HP	- 1 KVAR
3 HP to 5 HP	- 2 KVAR
5 HP to 7.5 HP	- 3 KVAR

7. After-Sales Services

The bank shall ensure that adequate after-sales services and repair facilities are provided by the manufacturers / dealers installing the pump set on beneficiaries' wells and that such service is provided free of charge during the first year of installation.

Before advancing loans for underground pipelines for distribution system, bank shall verify the invoice order in regard to the quantity and quality of pipes required by the farmer and shall also ensure that the entire length of pipeline for which loans are advanced, are actually laid down.

8. Water Lifting Permission

Wherever financing pump sets for lifting water from river/ canal is involved, a letter from the competent authority of the Department/ Agency concerned of the State Govt. permitting the beneficiary to lift water from river/ canal and indicating the period up to which such permission is provided should be obtained and furnished to the financing bank before sanctioning the loan. The bank may ensure that water lifting permission is available for a period which will cover at least three more years longer than the repayment period of such loan sanctioned.

MICRO IRRIGATION SYSTEMS

a. DRIP & Sprinkler Irrigation Systems

1. The bank should ensure that only a technically competent and approved firm or person designs and installs the system at the field level.

2. The installing agency should assess the water requirement of each plant optimum crop geometry, etc. and design the efficient system accordingly. The bank should insist for a field layout map showing the benefiting area and item- wise cost estimate.

3. Availability of design discharge of suitable chemical and physical quality on a long-term basis should be ensured for smooth operation of the system. Water should be free from pollution and suspended particle to avoid chocking in the drips/ emitter nozzles.

4. The installing agency should furnish performance guarantee for the efficient operation of the system for a minimum of 3 years period as also ensure timely and adequate post sales-service for trouble-free working of the system. The system components to be installed should confirm to the BIS Specification.

5. Bank should ensure to safeguard the pipes (main and lateral drips), emitters, etc., against theft, robbery, fire, etc.

6. The bank should carry out periodic monitoring of the implementation and assess the performance of the system at the field level.

b. Sprinkler Irrigation

1. The bank should ensure that adequate water of suitable quality to cover the envisaged area is available at the nearest location. Water should be free from pollution and suspended particle to avoid chocking in sprinkler nozzles.

2. The design of sprinkler system for the proposed cropping pattern should be done by a technically competent agency/person taking into consideration the source and availability of water, wind velocity in different seasons, soil conditions, agro-climatic situations, etc. to ensure installation of most economical and efficient system at the farm level.

3. A plan of the area showing field layout and cost estimate of the system should be prepared by the implementing agency and appraised by the bank.

4. The components of the system including pipes should conform to BIS standards.

5. The implementing agency/manufacturers should offer performance guarantee for the operation of the system for a reasonably longer period against any defect either manufacturing/ working or installation. The firm should extend regular post sales service for maintenance.

6. The sprinkler pipes, accessories, motor, etc., should be safeguarded against theft, fire, burglary, etc.

7. The bank should conduct periodic monitoring visits to assess the working performance of the system and take corrective steps, wherever required.

2. Land Development

	Activity	Slope Class / Sub Activities	Unit cost (Rs. Per Ha)	
1	Reclamation of waterlogged soils by drainage			181335
2	Reclamation of Marshy and waterlogged land for Coconut and Banana			
		Depth of Water less than 1.0 m		906675
		Depth of Water above 1.0 M		226380
3	On Farm Development in Major/ Minor/ Medium Irrigation Commands			
		0.51-1.5%		94710
		1.5-2.5%		146685
		2.5-3.5%		177870
4	Puertorican type Contour Terrace with stone pitching to Risers / Contour bund		Without quarrying	With quarrying
		05.1-10.0	80700	101000
		10.1-15.0	98340	123000
		15.1-20.0	108400	135500
		20.1-25.0	114800	143500
		25.1-30.0	119300	149200
		30.1-35.0	122800	153500
		35.1-40.0	125400	156800
		40.1-45.0	127500	159300
5	Extension of Height of old Stone Pitched Contour Bunds		Without quarrying	With quarrying
		05.1-10.0	41000	51000
		10.1-15.0	49500	61500
		15.1-20.0	54000	68000
		20.1-25.0	58000	72000
		25.1-30.0	60000	75000
		30.1-35.0	62000	77000
		35.1-40.0	63000	78500
		40.1-45.0	64000	80000
6	Earthen Contour Bund			
		1.0-05.0		20790
		5.1-10.0		39270

		10.1-15.0		48510
		15.1-20.0		53130
7	Renovation of Earthen Contour Bund			
		1.0-05.0		10395
		5.1-10.0		19635
		10.1-15.0		24255
		15.1-20.0		26565
8	Bench Terracing		Without Stone Pitching	With Stone Pitching
		05.1-10.0	265650	332640
		10.1-15.0	319935	400785
9	Contour Trenches & Embankments			
		05.1-10.0		23100
		10.1-15.0		28875
		15.1-20.0		31185
		20.1-25.0		33495
		25.1-30.0		34650
		30.1-35.0		35805
		35.1-40.0		36960
		40.1-45.0		36960
10	Fencing			75000
11	Humus/Clay/Silt application in Coastal Sandy soils for Coconut Rehabilitation			
		0.9 cum / palm for 175 palms per year		66990
		For 3 years		200970

Terms and Conditions

1. Necessary technical guidance and supervision have to be provided by the banks staff and wherever possible the technical guidance may be made available from the state Soil Conservation Department.

2. The bank should ensure that the contour bunds are constructed as per the specification prescribed by the State Soil Conservation Department.

3. The cost approved in the scheme is for the average slope and loan amount for soil conservation/land development works should be restricted with reference to actual slope of the land.

4. The bank should maintain the details regarding the type of land development work(s) proposed along with cost estimates in individual cases financed under the scheme.

5. The Bank's technical officer along with District Soil Conservation authorities may take up a monitoring study to ascertain whether the soil conservation works have been carried out as per the specifications or not.

6. Banks/Department may enthuse farmers to take up agronomical measures on the engineering structures so as to increase their life.

7. Depth of fresh earth filling particularly in areca nut gardens may be ensured through pre and post sanction inspections, so that the exact amount pending on the depth could be provided.

8. While financing for reclamation of marshy and water logged lands, care may be taken to ensure its end use strictly for agricultural purposes.

9. Details such as contour map, estimate, designs, of structures etc. may be insisted, while financing land development, soil conservation activities in a contiguous area.

10. On farm development/systematic land development works on the irrigated commands may be considered on the outlet/source basis. In the case of contiguous area, separate estimates for the earth works, irrigation/drainage channels, drips etc. may be insisted upon.

3. Farm Mechanization

	Activity	Amount (Rs)
1	**Tractor – 40 HP**	625000
a	Trailer	120000
b	2 Bottom Reversible Mould Board Plough	65000
c	Rotavator - 36 blades Chain and sprocket driven	115000
d	Fertiliser cum Seed Drill	45000
e	Cultivator - 9 Tyne spring loaded	39000
f	Cage Wheels with stand and leveller	52000
	Sub Total	1061000
2	**Power tiller**	170000
a	Trailer (Only inside farm)	84000
b	2 Bottom Reversible MB Plough cum Ridge Former	42000
c	Cage Wheels - 2 Nos.	17500
	Sub Total	313500
3	**Sprayers**	
a	Tractor/Power tiller Operated Boom Sprayer - 1000 Ltr	50000
b	Power Sprayer	22000
c	Knapsack Sprayer	5000
4	**Harvester**	
a	Self-Propelled Combined Harvester	2600000
b	Tractor Mounted Combined Harvester	1600000
5	**Other Equipments**	
a	Vertical Conveyer Reaper	97000
b	Transplanter – Walk behind 4 row	250000
c	Transplanter – 4 wheel, 8 row	1800000
d	Transplanter – 4 wheel, 6 row	1300000
e	Power Thresher	150000
f	Garden Tiller	55000
g	Straw Bailer - Round	350000
h	Bush cutter	23000
i	Coconut climbing machine	2750

Terms and Conditions

1. The bank shall satisfy itself regarding cost of machine, cost of implements etc. by verification of quotations, invoice and bills.

2. The machinery along with accessories shall be insured against accident risk, risk against fire and theft, covering entire loan period and relevant policy shall be assigned in bank's favour and assignment duly registered with insurance company.

3. The bank may satisfy itself with the selection of capacity of machinery and type of implements, based on estimated operational area of machinery, land holding of barrower, cropping pattern in the area, type of soil etc.

4. The bank may satisfy itself that infrastructural facilities such as service and repair centers, supply of spare parts, fuel and lubricants are adequate in the area.

5. The bank shall ensure that its supervisory staff undertake visits at periodical intervals and keep a record of their observations on the operation of machinery and implements.

4. Plantation and Horticulture

	Activity	No. of plants/ ha	Unit Cost (Rs.)/ha	Remarks
1	Arecanut	1350	810500	
2	Cardamom	1100	600000	Repayment period- 08 years with 03 years GP
3	Cashew	175	235750	Repayment period- 10 years with 06 years GP
4	Cocoa	400	121000	
5	Coconut (Rainfed)	175	224250	Repayment period- 12 years with 07 years GP
6	Coconut (Irrigated)	175	300000	-do-
7	Coconut + Neera	175	459750	-do-
8	Coffee (Arabica)	3000	179000	Repayment period- 12 years with 05 years GP
9	Mango	175	149500	Repayment period- 10 years with 05 years GP
10	Rubber	450	423750	
11	Tea estates	10800	356000	
12	Vanilla	1600	355500	
13	Pepper	1000	177000	
14	Hi-Tech Farming with and without green house			
I	Naturally ventilated poly house	10 cents	538000	
II	Rain Shelter House	100 sq.mt.	85000	
15	RAMBUTAN	100	422500	
16	Nutmeg	160	486500	
17	Beekeeping with cerana indica	25 + 25 colonies	151900	
18	Stingless Bee Culture	10+10 colonies in home steads in forest ecosystem	28000	

Terms and Conditions

1. While selecting villages / areas for financing, the bank shall ensure compactness of areas to facilitate supervision. The bank may identify suitable areas in consultation with the concerned department of the State Government or Commodity Boards etc., as in the case may be.

2. Loans under the scheme shall be given to those beneficiaries who have assured water supply facilities to irrigate plants in areas where rain-fed cultivation is not possible.

3. Loans shall be issued in respect of investment for raising plants in first year and maintenance in subsequent years till the plant comes to bearing stage. However, where loans are proposed to be availed of, only in the first year of planting and not for its maintenance during the subsequent years, the bank shall satisfy itself that the beneficiaries have their own resources to meet expenditure for maintenance of garden in the subsequent years. The bank shall satisfy itself that the planting materials of the required quantity and quality are procured by beneficiary from reliable sources such as nurseries of Universities or State Government or any other nurseries approved by the concerned department of the State Government etc.

4. The bank shall ensure that the beneficiary observes the following technical norms:

   a) The pit dug will be of standard size and with recommended spacing and number of plants as indicated by Kerala Agricultural University.
   b) The pits will be filled with top soil, cattle manure and fertilizers before planting is done.
   c) Only high yielding recommended varieties should be planted in place of traditional varieties.
   d) The young saplings will be staked immediately after planting and shade cover provided wherever necessary and irrigated.
   e) Adequate fencing arrangements will have to be provided as per local practices with a view to protecting the garden from cattle and trespassers.
   f) Watering of plantations done during dry months of first 2 to 3 seasons in respect of plants

g) The recommended fertilisation and plant protection schedules Commodity Boards / KAU shall be followed.
h) Mixed cropping will be done wherever possible as in the case of coffee, areca nut, coconut, rubber, cocoa and cashew nut especially in the initial years of planting.
i) Financing for development of the said plantation shall invariably be combined with development of suitable intercrops.
j) The beneficiaries under the scheme will raise intercrops preferably leguminous crops during the first 4 to 5 years so as to improve returns from main investments.
k) Adequate shade may be developed for protection of crops like coffee, tea, coconut, cardamom etc., and a minimum number of shade trees will have to be retained per acre. Planting of fast growing trees may also be taken up wherever necessary.
l) Proper and adequate soil conservation and drainage arrangements shall be ensured.
m) Installation of processing equipment, civil engineering works shall be carried out according to approved plans and designs.
n) In case of Hi-Tech farming, relevant technology suitable for the project area / proposed crop is available and the borrower has the capacity to manage the unit.

5. The Bank's staff may provide all necessary technical guidance and supervision. If this is not possible the bank shall satisfy itself that the required technical guidance and supervision is made available by the concerned department of the State Government or Commodity Board etc.

6. The suggested soil conservation measures such as contour bunding, etc., should be completed before the layout and digging for planting are taken up.

7. Necessary arrangements should be made for marketing of the produce so that the beneficiaries get fair prices. Bank shall make necessary tie up arrangements with the concerned marketing agencies for recovering the loan instalments through sale proceeds payable by beneficiaries and for this purpose bank shall enter into necessary agreements with the beneficiaries also wherever possible.

8. The bank shall grant loans to individual beneficiaries based on a case by case appraisal and assessment of the repayment capacity of the borrowers.

9. Working Capital may be issued through KCC as per the revised guidelines of KCC.

5. Forestry and Waste Land Development

	Activity	Unit size	Unit cost (Rs)
1	Teak Plant	Ha.	395400
2	Bamboo	Ha.	248100
3	Mahagony	Ha.	287400
4	Matti (ailanthus)	Ha.	285800
5	Melia Dubia - Pulpwood	Ha.	278900
6	Melia Dubia - Plywood	Ha.	189400

Terms and Conditions

1. While selecting villages / areas for financing, the bank shall ensure compactness of areas to facilitate supervision. The bank may identify suitable areas in consultation with the concerned department of the State Government.

2. Loans shall be issued in respect of investment for raising plants in first year and maintenance in subsequent years till the plant comes to bearing stage. However, where loans are proposed to be availed of, only in the first year of planting and not for its maintenance during the subsequent years, the bank shall satisfy itself that the beneficiaries have their own resources to meet expenditure for maintenance of plantation in the subsequent years.

3. The bank shall satisfy itself that the planting materials of the required quantity and quality are procured by beneficiary from reliable sources such as nurseries of Universities or State Govt or any other nurseries approved by the concerned department of the State Govt etc.

4. The bank shall ensure that the beneficiary observes the following norms:

   i. The size of the pit and spacing may be adopted as per the standard practices prevailing, depending upon the tree species.
   ii. The pits will be filled with top soil, cattle manure and fertilizers before

planting is done.

iii. Only high yielding (e.g.: Teak varieties which give high girth of the stem recommended varieties should be planted in place of traditional varieties.
iv. The young saplings will be staked immediately after planting and shade cover provided wherever necessary and irrigated.
v. Adequate fencing arrangements will have to be provided as per local practices with a view to protect the plantation from cattle and trespassers.
vi. Watering of plantations done during dry months of first 2 to 3 seasons in respect of plants.
vii. The recommended fertilization and plant protection schedules State forest department/ KAU shall be followed.
viii. Mixed cropping will be done wherever possible as in case of teak and bamboo in the initial years of planting.
ix. Financing for development of the said plantation shall invariably be combined with development of suitable intercrops.
x. The beneficiaries under the scheme will raise intercrops preferably leguminous crops during the first 4 to 5 years so as to improve returns from main investments.
xi. Proper and adequate soil conservation and drainage arrangements shall be ensured.
xii. Installation of processing equipment, civil engineering works shall be carried out according to approved plans and designs.

5. The Bank's staff may provide all necessary technical guidance and supervision. If this is not possible the bank shall satisfy itself that the required technical guidance and supervision is made available by the concerned department of the State Government.

6. The suggested soil conservation measures such as contour bunding etc., should be completed before the layout and digging for planting are taken up.

7. Necessary arrangements should be made for marketing of the produce so that the beneficiaries get fair prices. Bank shall make necessary tie up arrangements with the concerned marketing agencies for recovering the loan instalments through sale proceeds payable by beneficiaries and for this purpose bank shall enter into necessary agreements with the beneficiaries also wherever possible.

8. The bank shall grant loans to individual beneficiaries based on a case appraisal and assessment of the repayment capacity of the borrowers.

9. Working Capital may be issued through KCC as per the revised guidelines of KCC.

10. Bank may ensure that necessary clearances are available from Forest Department and also that Plantations are raised as per prevailing rules and regulations of the Forest Dept.

6. Animal Husbandry –Dairy Development

	Particulars	Amount (Rs)
1	**Cross Bred Cows - 1 cow unit**	
	Cost of 1 CBCs (Rs.@6000 per litre of milk)	60000
	Transportation cost @Rs 1500/- per animal	1500
	Shed 65 sqft/animal, Rs 500/sqft	32500
	Equipment	1500
	Feed Cost for 1 month (I animal)	4800
	Covered dung pit	0
	Insurance (@7.0% cost)	4200
	Veterinary Aid	1000
	Total	**105500**
	Rounded off to	**106000**
	*Unit cost for one cow unit has been indicated for the purpose of purchase of additional cow.	
2	**Cross Bred Cows - 2 cow unit (1+1 unit)**	
	Cost of 2 CBCs (Rs.@6000 per litre of milk)	120000
	Transportation cost @Rs 1500/- per animal	3000
	Shed 65 sqft/animal, Rs 500/sqft	65000
	Equipment	3500
	Feed Cost for 1 month (I batch)	9600
	Insurance (@7.0% cost)	8400
	Veterinary Aid	1000
	Total	**210500**
	Rounded off to	**211000**
	Unit cost without shed cost	146000
	Bio gas unit- 1cub m@ Rs 15000	**15000**
3	**Cross Bred Cows - 5 cows (3+2 unit)**	
	Cost of 5 CBCs (Rs.@6000 per litre of milk)	300000
	Transportation cost @Rs 1500/- per animal	7500
	Shed 65 sqft/animal, Rs 500/sqft	162500

	Equipment	4000
	Feed Cost for 1 month (I batch)	24000
	Insurance (@7.0% cost)	21000
	Dung pit	15000
	Veterinary Aid	1000
	Biogas- 2cub meter volume	20000
	Fodder cultivation - 25 cents	5450
	Total	**560450**
	Rounded off to	**560000**
	Unit cost without shed cost	397500
4	**Cross Bred Cows - 10 cows (5+5 unit)**	
	Cost of 10 CBCs (Rs.@6000 per litre of milk)	600000
	Transportation cost @Rs 1500/- per animal	15000
	Shed 65 sqft/animal, Rs 500/sqft	325000
	Equipment & milking machine, chaff cutter	75000
	Feed Cost for 1 month (I batch)	48000
	Biogas plant- 2cub. M volume	20000
	Dung pit (12*8*5m)	20000
	Insurance (@7.0% cost)	42000
	Veterinary Aid	5000
	Fodder cultivation- 50 cents	10900
	Total	**1160900**
	Rounded off to	**1161000**
	Unit cost without shed cost	836000
5	**Graded Murrah Buffalo - 2 Murrah unit (1+1 unit)**	
	Cost of 2 Gr. Murrah (Rs.65,000/- per animal)	130000
	Transportation cost @ Rs 2000 per animal	4000
	Shed 75 sqft/animal, Rs 500/sqft	75000
	Equipment	4000
	Feed Cost for 1 month (I batch)	12000
	Insurance (@7% cost)	9100
	Veterinary Aid	1300

	Total	**235400**
	Rounded off to	**235000**
	Unit cost without shed cost	160000
6	**Buffalo Male calf rearing**	
	Cost of calf – 6 months old	10000
	Transportation cost	1000
	Shed 65 sqft/animal, Rs 500/sqft	32500
	Cost of feed for 12 months- 540 kg@ Rs 15/kg	8100
	Insurance (@7% cost)	700
	Veterinary care	1000
	Total	**53300**
	Rounded off to	**53000**
	Unit cost without shed cost	20500
7	**Rearing of female crossbred calf – 1 calf**	
	Cost of calf (3-6 month old @ Rs 10000/- per calf)	10000
	Cost of feed for 29 months- 1808 kg @ Rs.20 per kg	40000
	Fodder cost @ Rs 10/day	10440
	Insurance (master policy up to calving)	700
	Health cover, vaccination, de-worming charges etc.	860
	Total	**62000**
	Rounded off to	**62000**
8	Cattle Shed – 1 No. for 1 cow- 65 sqft@ Rs 500per sq ft	**32500**
9	**Heifer – 5 Heifer unit**	
	Cost of heifer @ Rs 29000/- per calf)	145000
	Transportation cost @ Rs.1500/ Heifer	7500
	Cattle shed, Store room, Dung pit etc	38000
	Feed cost for 1 month @ 1.5 Kg/animal/day @ Rs 19/Kg	4275
	Insurance for 1 year @ 3.6%	5220
	Fodder cultivation (25 cents)	5450
	Veterinary care, de worming, feed supplements	2000

	Miscellaneous	1000
	Total	**208445**
	Rounded off to	**208000**
10	**Heifer – 10 Heifer unit**	
	Cost of heifer @ Rs 29000/- per calf)	290000
	Transportation cost @ Rs.1500/ Heifer	15000
	Cattle shed, Store room, Dung pit etc	70000
	Fodder cost for 1 month @ 1.5 Kg/animal/day @ Rs 19/Kg	8550
	Insurance for 1 year @ 3.6%	10440
	Fodder cultivation (50 cents)	10900
	Veterinary care, de worming, feed supplements	4000
	Miscellaneous	1000
	Total	**409890**
	Rounded off to	**410000**
11	**1 Milch cow+ 1 Heifer animal**	
	Cost of heifer @ Rs 29000/- per calf)	29000
	Cost of milch cow @ Rs.6000 per liter of milk	60000
	Transportation cost @ Rs.1500/ animal	3000
	Cattle shed	34450
	Feed cost - Heifer : for 1 month @ 1.5 Kg/animal/day @ Rs 19/Kg	855
	Feed cost - Milch cow : for 1 month	4800
	Insurance for heifer for 1 year @ 3.6%	1044
	Insurance for milch cow for 1 year @ 7%	4200
	Veterinary care, de worming, feed supplements	1000
	Equipment	1500
	Miscellaneous	1000
	Total	**140849**
	Rounded off to	**141000**
12	**3 Milch cow+ 2 Heifer animal**	
	Cost of heifer @ Rs 29000/- per calf)	58000
	Cost of milch cow @ Rs.6000 per liter of milk	180000

	Transportation cost @ Rs.1500/ animal	7500
	Cattle shed	101400
	Dung pit	15000
	Feed cost - Heifer : for 1 month @ 1.5 Kg/animal/day @ Rs 19/Kg	1710
	Feed cost - Milch cow : for 1 month	14400
	Insurance for heifer for 1 year @ 3.6%	2088
	Insurance for milch cow for 1 year @ 7%	12600
	Veterinary care, de worming, feed supplements	2000
	Equipment	4000
	Miscellaneous	1000
	Total	**399698**
	Rounded off to	**400000**
13	**6 Milch cow+ 4 Heifer animal**	
	Cost of heifer @ Rs 29000/- per calf)	116000
	Cost of milch cow @ Rs.6000 per litre of milk	360000
	Transportation cost @ Rs.1500/ animal	15000
	Cattle shed	202800
	Dung pit	15000
	Feed cost - Heifer : for 1 month @ 1.5 Kg/animal/day @ Rs 19/Kg	3420
	Feed cost - Milch cow : for 1 month	28800
	Insurance for heifer for 1 year @ 3.6%	4176
	Insurance for milch cow for 1 year @ 7%	25200
	Veterinary care, de worming, feed supplements	4000
	Equipment	4000
	Miscellaneous	2000
	Total	**780396**
	Rounded off to	**780000**

Terms and Conditions

(i) The bank shall select villages keeping in view compactness of the area to facilitate supervision and nearness of village to veterinary dispensaries animal breeding centers and milk marketing facilities.

(ii) The bank shall ensure that a unit of 2 milch animals is financed, each animal is purchased with an interval of about 6-8 months to ensure continuity in milk production.

(iii) Animals shall be purchased by a committee comprising a representative of the bank, a qualified Veterinary Surgeon and the beneficiary.

(iv) The bank shall finance under the scheme only good quality animals preferably freshly calved animals in second or third lactation, yielding an average 7-8 litres of milk per day.

(v) Immediately after purchase, suitable arrangements for identification of animals by branding, tattooing or ear tagging shall be made. In addition to this, the record of particulars of the animal identification (colour, birthmarks etc.) shall be maintained.

(vi) Whenever loans for cattle shed are not given, the bank shall ensure, before sanction of loan for purchase of milch animals that beneficiary has a cattle shed or facilities to provide shelter or will be able to provide a cattle shed from out of his own resources.

(vii) The bank shall satisfy itself that suitable and satisfactory arrangements exist for marketing of milk. Such arrangements shall be either be in the nature of organized marketing through milk collection centres or satisfactory outlet for direct sale of milk at remunerative prices.

(viii) In cases where cross bred /indigenous cows are financed, the bank shall satisfy itself that breeding service with high quality semen of exotic/cross bred pedigreed bulls is available at the artificial insemination centres in the scheme area.

(ix) The animals financed under the scheme shall be insured immediately after the purchase for full value and the insurance documents shall be assigned in favour of the bank. The bank may preferably cover all animals under the same by a long-term master policy.

(x) Beneficiaries shall be asked to maintain basic records.

(xi) For two cow unit and 5 cow unit, Bio gas plant is optional.

7. Animal Husbandry – Poultry Development

	Particulars	Amount (Rs)
I	**Broiler units (500 birds)**	
1	Cost of Shed Construction 500 sq.ft @ Rs.250/sq.ft (light roofing)	125000
2	Equipment - Rs. 32/bird	16000
3	Cost of DOC – 525 birds (mortality rate – 5%) @ Rs. 35 /- per bird	18375
4	Insurance @ 6% of cost of bird	1050
5	Cost of Feed - Rs. 35/- per kg (4.0kg /bird)	70000
6	Cost of Misc. Expenses(medicine, vaccine, labour etc.) - Rs.25/bird	12500
	Total	**242925**
	Rounded off to	**243000**
II	**Broiler units (250 birds)**	
1	Cost of Shed Construction 250 sq.ft @ Rs.250/sq.ft (light roofing)	62500
2	Equipment - Rs. 32/bird	8000
3	Cost of DOC – 263 birds (mortality rate – 5%) @ Rs. 35 /- per bird	9205
4	Cost of Feed - Rs. 35/- per kg (4.0kg /bird)	35000
5	Insurance @ 6% of cost of bird	525
6	Cost of Misc. Expenses(medicine, vaccine, labour etc.) - Rs.25/bird	6250
	Total	**121480**
	Rounded off to	**121500**
III	**Broiler units (1000 birds)**	
1	Cost of Shed Construction 1000 sq.ft @ Rs.250/sq.ft (light roofing)	250000
2	Equipment - Rs. 32/bird	32000
3	Cost of DOC – 1053 birds (mortality rate – 5%) @ Rs. 35 /- per bird	36855
4	Cost of Feed - Rs. 35/- per kg (4.0kg /bird)	140000
5	Insurance @ 6% of cost of bird	2100

6	Cost of Misc. Expenses(medicine, vaccine, labour etc.) - Rs.20/bird	25000
	Total	**485955**
	Rounded off to	**486000**
IV	**Backyard poultry (15 birds)**	
1	Cost of Bird (100/- per bird)	1500
2	Shed 20 sq.ft @ Rs.250/sq.ft	5000
3	Feed (5 kg for 15 birds @ 27/-per kg)	135
4	Insurance cost @ 6% of cost of bird	90
5	Miscellaneous	1000
	Total	**7725**
	Rounded off to	**7700**
V	**Duck Rearing (500 Females and 75 Males)**	
1	Ducklings – 3 months old at Rs.140/- each – 575 Nos.	80500
2	Portable enclosures & feeding equipments	2500
3	Concentrate feed @ 4.5 Kg/Bird @ Rs.35/Kg.	90563
4	Veterinary aid, transporation and other expenses	2500
	Total	**176063**
	Rounded off to	**176100**
VI	**Duck Rearing (200 Females and 35 Males)**	
1	Ducklings – 3 months age at is.140/- each – 235 Nos.	32900
2	Portable enclosures & feeding equipments	2000
3	Concentrate feed @ 4.5 Kg/Bird @ Rs.35/Kg.	37013
4	Veterinary aid, transporation and other expenses	2000
	Total	**73913**
	Rounded off to	**73900**
VII	**Duck Nursery (5000 Ducks)**	
1	Day old Ducklings – at Rs. 15/- each – 5500 Nos.	99000
2	Portable enclosures & feeding equipments	15000
3	Shed - 3 silpolin sheets	11000
4	Fibre Boat	15000

5	Concentrate feed	68750
6	2 labours @ Rs.500/- per day per person for 60 days	60000
7	Veterinary aid, transporation and other expenses	5000
	Total	**273750**
	Rounded off to	**273800**
VIII	**Micro Cage Broiler (100 Birds) Only for JLGs & SHGs**	
1	Cost of Bird - 105 birds (mortality rate – 5%) @ Rs.35/- per bird - DOC	3675
2	Cost of cage (single tier 1 sq.ft/ bird @ Rs.300/- per sq.ft)	30000
3	Construction of shed for cages 50 sq.ft for 100 birds @ 250/- per sq.ft)	12500
4	Cost of feed (3.5 Kg / Bird @ Rs.35/ per Kg)	12250
5	Insurance cost @ 6% of cost of bird	220.5
6	Miscellaneous @ Rs.20/- per Bird	2000
	Total	**60645.5**
	Rounded off to	**60600**
	Unit cost recommended (less shed cost)	48100

Terms and Conditions – Poultry

(i) The Bank shall satisfy itself that firm arrangements are made by beneficiaries for getting regular supply of quality chicks as per schedule from the reputed hatchery, duly protected with prophylactic vaccinations. The Bank should enter into tie-up arrangements with the hatcheries in this regard wherever possible for the continuity of supply.

(ii) The Bank shall satisfy itself that the beneficiaries observe among others, the following specifications in designing the poultry sheds.

1. The end walls of shed shall face east west direction.
2. The floor level shall be about I foot above ground level.

3. A minimum overhand of 3-5 feet be given to the roof to avoid entry of rain water inside the shed.
4. The shed shall be made rat proof using wire nets.
5. Feeding space of 4" and watering space of 2" per bird shall be ensured. Preferably 'A' type design may be explained to the borrowers.

(iii) The Bank shall disburse loans after satisfying itself that there are adequate facilities for veterinary aid and marketing of broiler.

(iv) During periodical inspection, the bank shall satisfy itself about the following requirements:

1. Utmost cleanliness and hygienic conditions are maintained in the poultry farm. The houses are cleaned and disinfected before housing new flock.
2. Fresh, clean and dry litter material such as saw dust, paddy husk, groundnut husk is placed on the floor of the poultry house before poultry birds are introduced in the shed. In case deep litter system, litter is kept clean and dry by turning it at least once a week.
3. Balanced concentrated feed is always available to the birds.
4. Fresh and clean water is always available and water is cleaned at least twice daily

(v) Loan component in case of chicks, feed etc. shall be disbursed in kind and direct payment shall be made to the suppliers.

(vi) Loan for construction of sheds shall be made in two instalments and within three months after disbursement of each instalment, utilization shall be verified invariably in all cases.

(vii) Before disbursement of loan, beneficiaries shall be exposed to a short course of elements of broiler rearing. This could be arranged with Department of Animal Husbandry.

(viii) Every unit shall exhibit a small board indicating the financing bank to avoid double financing.

(ix) Beneficiaries shall be asked to maintain basic records.

(x) Repayment period of loan will depend on the nature of activity and will vary between 5-9 years including grace period from 6 months 1 year.

(xi) Wherever possible, the beneficiaries shall be helped to get their sheds/birds insured. The option for insurance of poultry birds (layer or broiler) could, however, be left to the borrower.

(xii) In respect of Micro Cage, Commercial Layer birds available in market may be used.

(xiii) Feed utilized in respect of Micro Cage Layer should meet specifications mentioned by the strain developer.

(xiv) Too many units in a concentrated are may be avoided which may affect marketing prospects and price of the eggs.

(xv) Bank may ensure that a proper marketing arrangement has been made for the marketing of the eggs in case of Micro cage layer units.

Terms and Conditions – Duck Rearing

i) The bank shall satisfy itself that firm arrangements are made by beneficiaries for getting supply of high quality ducklings from a reputed hatchery.

ii) The bank shall disburse loans after satisfying that there are adequate facilities for veterinary aid and marketing of chicks (in the case of hatchery schemes)/eggs/culled birds.

iii) During periodical inspections, the bank shall satisfy itself about the following requirements.

iv) Utmost cleanliness and hygienic conditions are maintained in the rearing farm. The houses are cleaned and disinfected before housing new flock.

v) Balanced concentrate feed is always available to the birds.

vi) The bank shall undertake a monitoring study regarding implementation of

the scheme one year after commencement of sanction of loans under the scheme.

vii) Before disbursement of loan, beneficiaries shall be exposed to a short course on elements of duck rearing.

viii) A collective arrangement shall be made to buy feed or medicine in bulk to reduce the cost, wherever possible.

ix) Every unit shall exhibit a small board indicating the financing bank to avoid double financing.

x) Beneficiaries shall be asked to maintain basic records.

xi) An undertaking from the beneficiary may be obtained to remit the loan instalments in time through the branches at places where the birds are maintained, after migration.

xii) As far as possible day old ducklings should only be purchased and reared.

8. Animal Husbandry – Sheep, Goat and Piggery Development

	Particulars	Amount (Rs)
I	**Goat rearing (5 does + 1 Buck)**	
	Cost of 5 does (Adult 1year old) (10000*5)	50000
	Cost of 1 buck (Adult 1year old)	12000
	Shed – wooden (70 sq ft @ Rs.650/- per sq ft) 10 s.ft /animal – Does, 20 sq, ft per animal for buck	45500
	Insurance @ 6% per year (to be renewed every year)	3120
	Feed cost for 7 months (@ 300g per animal per day @ Rs.24 per kg)	9072
	Medicines and de worming @ Rs 218/ animal	1308
	Total	**121000**
	Rounded off to	**120000**
	Unit Cost recommended (Less shed Cost)	74500
II	**Goat rearing (10 does + 1 Buck)**	
	Cost of 10 does (Adult 1year old) (10000*10)	100000
	Cost of 1 buck (Adult 1year old)	12000
	Shed – wooden (120 sq ft @ Rs.650/- per sq ft) 10 s.ft /animal – Does, 20 sq, ft per animal for buck	78000
	Insurance @ 6% per year (to be renewed every year)	5520
	Feed cost for 7 months (@ 300g per animal @ Rs.24 per kg)	16632
	Medicines and de worming @ Rs.259 per animal	2848
	Total	**215000**
	Rounded off to	**215000**
	Unit Cost recommended (Less shed Cost)	137000
III	**Goat rearing (100 does + 7 Buck)**	
	Cost of 100 does (Adult 1 year old @ Rs.10000 per doe)	1000000
	Cost of 7 bucks (Adult 1 year old @ RS.12000/- per buck)	84000
	Shed wooden (1140 Sq ft @ RS.650/- per sq ft @ 10sq ft per doe and 20 sqft per buck	741000

	Insurance @ 6%	53040
	Feed cost for 7 months @ 300 g per animal per day @ Rs.24 per Kg	161784
	Labour charges @Rs.10000/- per month for 2 months	20000
	Dung pit	30000
	Bio gas plant	35000
	Medicines and de worming @Rs.235 per animal	25176
	Total	**2150000**
	Say	**2150000**
	Unit Cost recommended (Less shed Cost)	1409000
IV	**Goat rearing (3 does)**	
	Cost of 3 does (Adult 1 year old @ Rs.10000 per doe)	30000
	Shed wooden (30 Sq ft @ Rs.650/- per sq ft @ 10sq ft per doe	19500
	Insurance @ 6%	1440
	Feed cost for 7 months @ 300 g per animal per day @ Rs.24 per Kg	4536
	Artificial Insemination charges (Rs.100/- per animal)	300
	Medicines and de worming @ Rs.208 per animal	624
	Total	**56400**
	Say	**56400**
	Unit Cost recommended (Less shed Cost)	36900
V	**Goat rearing (19 does + 1 Buck)**	
	Cost of 19 does (Adult 1year old) (10000*19)	190000
	Cost of 1 buck (Adult 1year old)	12000
	Shed – wooden (210 sq ft @ Rs.650/- per sq ft) 10 s.ft /animal – Does, 20 sq, ft per animal for buck	136500
	Insurance @ 6% per year (to be renewed every year)	9840
	Feed cost for 7 months (@ 300g per animal @ Rs.24 per kg)	30240
	Medicines and de worming @ Rs.221 per animal	4420
	Total	**383000**
	Say	**383000**
	Unit Cost recommended (Less shed Cost)	246500

VI	**Pig fattener unit (10 piglets)**	
	Pig fattener shed 150sq.ft @ Rs.600/sq.ft	90000
	Piglets – 10 Nos. (3 months old) @ Rs.5500/animal (including transportation cost)	55000
	Feeding cost	
	Concentrate feed – 900 Kg for 6 months @ Rs.22/Kg (0.5 Kg/day/animal)	19800
	Hotel waste (2100 Kg. @ Rs.1.50/Kg./day/animal	4200
	Insurance	2250
	Medicine & Misc. @ Rs.100/Piglet	1000
	Biogas plant	22500
	Total	**194750**
	Say	**194800**
	Unit Cost recommended (Less shed Cost)	104800
VII	**Breeder Unit (9F + 1M)**	
	Cost of 9 Breeder females of 3 month old @ Rs.13570 per animal and 1 male piglet of 3 months old @ Rs.22430 /animal)	144560
	Pig sty 315 sq.ft. @ Rs.700/Sq.ft.	220500
	Feeding Charges	
	Concentrate Feed @ Rs.22 per Kg.	55396
	Male – 218 Kg.(+1.5 Kg/day for 500 days) Female – 632 Kg.(+1.5 Kg/day for 500 days) , Piglet – 168 Kg.	
	Garbage / Kitchen Waste @ Rs.2 /Kg.	3970
	Male – 508 Kg., Female - 1477 Kg.	
	Insurance (6% for 1 year) & Misc. Expenses	8674
	Medicine Rs.200/animal	2000
	Biogas plant	22500
	Total	**457600**
	Say	**457600**
	Unit Cost recommended (Less shed Cost)	237100

VIII	Rabbit Rearing	
	Cost of 10 female and 2 male breeder rabbits @ Rs.500/animal (4-5 months)	6000
	Shed 100 sq.ft @ Rs.300/ sq.ft	30000
	Hutches 12 Nos.(2'x2'x1.5') at Rs.1200 each	14400
	Cages for bunnies (3'x5'x1.5') for 12 Nos. @ Rs.2250/cage (1 sq.ft. = Rs.150/-)	6750
	Feed cost (@Rs.28/kg)(150 g/per day)	5833
	Insurance, Veterinary, aid etc.	1000
	Total	**63983**
	Say	**64000**
	Unit Cost recommended (Less shed Cost)	34000

Terms and Conditions – Goat rearing

i) The Bank shall finance under the scheme, only good quality animals of about 6 months to 1 year old.

ii) Immediately after purchase, suitable arrangements for identification of animals by ear tagging shall be made with the help of District Animal Husbandry Department. In addition to this, the record of particulars of the animal identification (colour, birth marks etc.) shall be maintained.

iii) The animal financed under the scheme shall be insured immediately after the purchase for full value and the insurance documents shall be assigned in favour of the bank. The bank may be preferably cover all the animals under the scheme by a Master Policy of long term.

iv) Certificate regarding age and health of animals financed shall be obtained from a qualified Veterinary Assistant Surgeon.

v) Animals shall be got vaccinated against diseases with the help of Veterinary Department.

vi) The units may be periodically visited by the Veterinary Officer who should maintain a follow up register on maintenance of animals given and young ones produced.

vii) The animals should be stall-fed. Hence the Bank should satisfy itself that beneficiaries have fodder trees/ Grasses in the farm to meet the green fodder requirements.

viii) Bank shall satisfy itself that adequate facilities for veterinary aid are available from Government Department to the beneficiary in the vicinity of scheme area.

ix) The implementing agency may be advised to release instalments for veterinary aid, cost of feed etc. only on actual purchase of animal.

x) Beneficiaries shall be asked to maintain basic records.

xi) Bank shall also finance for construction of Shed (area @ 10 sq.ft /animal for Does and 20 sq, ft per animal for buck) @ Rs.650/- per sq. feet over and above the unit cost.

Terms and Conditions - Piggery

i) The Bank shall finance under the scheme, the purchase of only good quality piglets of exotic breeds like large white Yorkshire etc. in the age group of 2 months from reputed farms.

ii) Bio gas plant should be insisted upon with piggery units

iii) Immediately after purchase, suitable arrangements for identification of animals by ear tagging shall be made with the help of District Animal Husbandry Department. In addition to this, the record of particulars of the animal identification shall be maintained.

iv) The unit shall be insured immediately after the purchase of piglets and the documents assigned in favour of the Bank

v) Certificate regarding age and health of piglets financed shall be obtained from a qualified Veterinary Assistant Surgeon.

vi) Animals shall be got vaccinated against diseases like Swine fever etc. with the help of Veterinary Department.

vii) The units may be periodically visited by the Veterinary Officer who should maintain a follow up register on maintenance of animals given and young ones produced.

viii) The Bank shall satisfy itself that adequate facilities are available for transporting the garbage to the farm site on regular basis.

ix) Bank shall satisfy itself that adequate facilities for veterinary aid are available from Government Department to the beneficiary in the vicinity of scheme area.

x) The Bank shall satisfy itself that adequate marketing arrangements are available for selling the fattened pigs at a remunerative price.

xi) Beneficiaries should be trained properly.

xii) The Bank shall satisfy itself that the source for procurement of waste for feeding the pigs are already identified by the beneficiaries.

xiii) The implementing agency may be advised to release the loan only after construction of the shed.

xiv) Bank shall also finance, over and above the unit cost, for construction of Bio-gas plant (according to the size of farm) for the proper waste disposal from the piggery farm.

xv) Bank shall also finance for construction of Shed (15 sq.ft per animal @ Rs.600/sq.ft in case of fattener unit) or pig sty (315 sq.ft @ Rs.700/sq ft for a 9+1 breeder unit) over and above the unit cost.

xvi) The implementing agency may be advised to release instalments for veterinary aid, cost of feed etc. only on actual purchase of animal.

xvii) During periodical inspection, the bank shall satisfy itself that utmost cleanliness and hygienic conditions are maintained in the piggery farm.

xviii) Beneficiaries shall be asked to maintain basic records.

9. Fisheries Development

A. Freshwater fisheries

	Particulars	Specification/ Unit Size/Rate	Amount (Rs)
1	**Country boat for fishing**		24000
2	**Composite fish culture – New pond**	1 Ha	
i	**Capital cost**		
	Construction of pond including digging, bund construction and compaction (using earth moving equipments)		200000
	Sluice/pipes		10000
	Diesel pumpset (5 HP)		30000
	Store Room/pump room		25000
	Nets, cage. Happa and other implements		40000
	Total Capital cost (A)		305000
ii	**Recurring cost for one crop**		
	Lime	500 kg	6000
	Single Super Phosphate	250 kg	2250
	Urea	125 kg	1125
	Cow dung	6 T	24000
	Fish Seed Catla (2000), Rohu(1500) and Mrigal (1500) – advanced fingerlings	5000 Nos	3000
	Fish feed	3750 kg	120000
	Charges for pumping, harvesting, miscellaneous etc.		25000
	Total Recurring Cost (B)		181375
	Unit Cost (A)+(B)		**486375**
	Rounded off		**486000**
3	**Fresh water Prawn farming in Ponds**	1 Ha	
i	**Capital cost**		
	Earth work-excavation*		260000
	Sluice gates	15000x2	30000
	Pumpset	5 HP	30000
	Watchman shed/Feed store		50000
	Miscellaneous		10000
	Total capital cost (A)		380000

ii	**Recurring cost for one crop**		
	Lime	300 kg	3600
	Cow dung	2 ton	8000
	Inorganic fertilizer	75 kg	1125
	Prawn seed	50000	40000
	Feed	1800 kg	90000
	Pumping charges		10000
	Watch & ward	5 months	30000
	Harvesting charges		8000
	Total recurring cost (B)		190725
	Unit Cost (A+B)		**571000**
	*Mechanical excavation		
4	**Paddy cum Fish farming (with coconut & banana)**	1 Ha + 100 coconut + 160 banana	
i	**Capital cost**		
	Strengthening of bunds	400 cum	91200
	Construction of nursery bund	150 cum	34200
	Sluice gate	1	8000
	Net & Miscellaneous		2000
	Total capital cost (A)		**135400**
ii	**Recurring cost for one crop**		
	Lime	250 kg	3000
	Cow dung	2 ton	4000
	Fish seed	6000	4800
	Feed	1000 kg	40000
	Harvesting charges		5000
	Cost of cultivation of coconut/banana		10000
	Total recurring cost (B)		70800
	Unit Cost (A+B)		**206200**
5	**Coconut-cum-Prawn farming in existing coconut groves with canals**	1 Ha	
i	**Capital cost**		
	Formation of mounds, bunds	175 mounds 12 bunds 11 trenches	120000
	Sluice gates	2 Nos	15000
	Pumpset		30000
	Net & Miscellaneous		3000
	Total capital cost (A)		168000

ii	**Recurring Cost**		
	Cost of cultivation of coconut-175 palms*		48000
	Cost of cultivation of banana-350 plants*		30000
	Recurring cost for one crop of prawn (1st crop)		75000
	Total recurring cost (B)		153000
	Unit Cost (A)+(B)		**321000**
6	**Prawn farming in Kole lands**	1 Ha	
i	**Capital cost**		
	Strengthening of bunds	600 cum	136800
	Construction of nursery bund	150 cum	34200
	Sluice gate	1	25000
	Net & Miscellaneous		20000
	Total capital cost (A)		216000
ii	**Recurring cost for one crop**		
	Pond preparation		10000
	Lime	250 kg	3000
	Cow dung	2 ton	8000
	Inorganic fertilizer	75 kg	1125
	Prawn seed	50000	40000
	Feed	1800 kg	90000
	Harvesting charges		20000
	Total recurring cost (B)		172125
	Unit Cost (A)+(B)		**388125**
	Rounded off		**388000**
7	**One Paddy One Fish in Kuttanad and Kole areas**	1 ha	
i	**Capital cost**		
	Strengthening of bunds		100000
	Net & Miscellaneous		20000
	Total capital cost (A)		120000
ii	**Recurring cost for one crop of fish**		
	Pond preparation		5000
	Lime	500 kg	6000
	Cow dung	2 ton	8000
	Inorganic fertilizer		3500
	Fish fingerlings	5000	25000
	Feed	3250 kg	104000
	Harvesting charges		10000

	Total recurring cost (B)		161500
	Unit Cost (A+B)		**281500**
8	**One Paddy One Fish in Kuttanad and Kole padasekharams**	100 ha	
i	**Capital cost**		
	Bund construction for nursery	4800 cum	1104000
	Pump, motor, lighting and accessories		30000
	Bird cover net for nursery		50000
	Watchman shed		15000
	Net & Miscellaneous		20000
	Total capital cost (A)		1219000
ii	**Recurring cost for one crop of fish**		
	Nursery preparation		10000
	Lime	5000 kg	60000
	Cow dung	60 ton	240000
	Fish seed	300000	180000
	Feed	14000 kg	448000
	Medicines, test etc.		3000
	Harvesting charges		20000
	Total recurring cost (B)		961000
	Unit Cost (A+B)		**2180000**
9	**Re-Circulatory Aquaculture System (RAS)**	**40 m³** (5mx5mx1.6m)	
i	**Capital Cost**		
	Fish tank and bed with polythene lining & bio-fencing with PVC roof sheet and side orchid netting		197132
	Bio filtration with clarifier		17000
	Plumbing and airline		35000
	Electrification		20000
	Water pump (80 w)	2 nos.	16000
	Air pump (90 w)	2 nos.	16000
	Inverter (2 KVA) and tubular battery (150 AH)		35000
	Generator (1 KV)		76000
	Water quality test equipment, nets, utensils etc.		7000
	Setting up of tank – labour charges		34400
	Miscellaneous		6468
	Total Capital Cost (A)		460000

ii	**Recurring cost for one crop**		
	Fish seed – GIFT	4000 nos.	32000
	Vegetable seedlings		2000
	Pellet feed (FCR 1.5:1)	2400 kg	76800
	Fuel & electricity		18000
	Chemicals, probiotics, medicines etc.		5000
	Miscellaneous		6200
	Total recurring cost (B)		140000
	Unit Cost (A+B)		**600000**
10	**Cage Farming of Fish in Freshwater**	60 m^3 (2 cages) (4mx3mx2.5m)	
i	**Capital Cost**		
	HDPE outer and inner cages (4m X 3m X 2.5 m)	2 nos.	48000
	Substitute net cage for exchange and keeping fry	1 no.	11000
	GI pipe, floating materials and other accessories	2 nos.	35000
	Fixing and fabrication of the cage	2 nos.	20000
	Canoe, watchman shed, solar lighting etc.		70000
	Miscellaneous		5000
	Total Capital Cost (A)		189000
ii	**Recurring cost for one crop**		
	Cost of fish seed	4800 nos.	38400
	Cost of pellet feed (FCR 1.5 : 1)	2800 kg	109440
	Disinfectants, medicines		5000
	Miscellaneous		5660
	Total Recurring Cost (A)		158500
	Unit cost (A + B)		**347500**
11	**Ornamental Fish Breeding**	Models as per NFDB norms	
a)	**Ornamental fish breeding -Backyard hatchery**		100000
b)	**Ornamental fish breeding-Medium scale unit**		800000
	Note : Cost is indicative only ; actual cost to be based on quotation		
	Above rate is as per the norms of NFDB		
12	**Indigenous Catfish Farming in pond**	1 Ha	
i	**Capital Cost**		
	Repair and strengthening of bund		149500

	Bird cover, lighting, bio fencing, rearing cages etc.		90000
	Lighting, electrification		2500
	Water pump (3 HP)		30000
	Cage/pen/happa for nursery rearing		20000
	Miscellaneous including CCTV, weighing machine, water quality testing kit etc.		58000
	Total Capital Cost (A)		350000
ii	**Recurring cost for one crop**		
	Pond preparation		
	Bleaching powder	300 kg	10500
	Lime	1000 kg	6000
	Dolomite	400 kg	4800
	Manuring	5 ton	40000
	Fish Seed	100000 nos.	450000
	Live fish		8800
	Pellet feed (FCR 1.2:1)	12000 kg	450000
	Fuel & electricity charges		14000
	Miscellaneous		15900
	Total Recurring Cost (B)		1000000
	Unit Cost (A+B)		**1350000**
13	**Backyard seed production of Murrel**	(0.1 million capacity)	
i	**Capital Cost**		
	Brood stock cum rearing pond (4 m dia, 4x4 m)		20000
	Broodstock cum Moina culture pond (1000 sq.m)		20000
	Forage Fish culture pond (400 sq m)		12000
	Water pump - portable type		25000
	Cement/FRP tank (1.5 m dia., 0.75 m height)		20000
	Water supply arrangements		3000
	Bird net cover, side nets		10800
	Happa (2x2x1.5m)		6000
	Nets, utensils, breeding substrate, oxygen cylinder etc.		2000
	Miscellaneous		1200
	Total Capital Cost (A)		120000
ii	**Recurring cost for one crop**		
	Agri lime, dolomite, bleaching powder, cow dung etc.		6550
	Brood fish	20 kg	10000

	Advanced fingerlings	1000 Nos.	20000
	Live feed inoculums		5000
	Live forage fish	2000 No.	2000
	Pro-biotics	2 litre	400
	Pellet feed	150 Kg	13500
	Chopped trash fish		15000
	Fuel & electricity charges		3000
	Packing materials		1800
	Labour, Miscellaneous		2750
	Total Recurring Cost (A)		80000
	Unit cost (A + B)		**200000**
14	**Nile Tilapia Farming in Bio-secured pond**	1 Ha	
i	**Capital Cost**		
	Repair and strengthening of bund		80500
	Bird cover, lighting, bio fencing, rearing cages etc.		90000
	Electrification		2500
	Water pump (3 HP)		30000
	Aerator (2 HP)	2 nos.	80000
	Labour charges		10560
	Miscellaneous including CCTV, weighing machine, water quality testing kit, etc.		56440
	Total Capital Cost (A)		350000
ii	**Recurring cost for one crop**		
	Pond preparation		
	Bleaching powder	300 kg	10500
	Lime	1000 kg	6000
	Dolomite	400 kg	4800
	Manuring	5 ton	16000
	Fish Seed	30000 nos.	240000
	Pellet feed (FCR 1.5:1)	18000 kg	684000
	Pro-biotics	20 litres	4000
	Fuel & electricity charges		20000
	Miscellaneous		14700
	Total Recurring Cost (B)		1000000
	Unit Cost (A+B)		**1350000**
15	**Pangassius Farming in Bio-secured pond**	1 Ha	
i	**Capital Cost**		
	Repair and strengthening of bund		180000

	Bird cover, lighting, bio fencing, rearing cages etc.		45000
	Water pump (3 HP)		25000
	Aerator (2 HP)	2 nos.	90000
	Total Capital Cost (A)		340000
ii	**Recurring cost for one crop**		
	Pond preparation		10000
	Bleaching powder	300 kg	6000
	Lime	1000 kg	12000
	Dolomite	400 kg	4800
	Manuring	5 ton	20000
	Fish Seed	25000 nos.	100000
	Pellet feed (FCR 1.1:1)	44000 kg	1408000
	Fuel & electricity charges		20000
	Miscellaneous		20000
	Total Recurring Cost (B)		1600800
	Unit Cost (A+B)		**1940800**
16	**Fresh water fish culture with Biofloc Unit**	5 m x 1.5 m	
i	**Capital Cost**		
	Biofloc tank - 550 GSM (PVC coated HDPE sheet 5 m dia & 1.5 m height)		35000
	Roofing		5600
	Electrification, Plumbing and Aeration		5000
	Air pump (120 -140 litre/min)	2 Nos.	15000
	Generator		20000
	Biofloc cone, water quality testing kit		5000
	Miscellaneous		10000
	Total Capital Cost (A)		95600
ii	**Recurring cost for one crop**		
	Fish seed	1250 Nos.	10000
	Fish feed (40% protein)	50 Kg	2600
	Fish feed (24-32% protein)	450 Kg	20700
	Medicines, Probiotics		1500
	Carbon source (Maize, rice, wheat, molasses, sugar, jaggery), culture media		5500
	Fuel and electricity charges		5000
	Miscellaneous		15000
	Total Recurring Cost (B)		60300
	Unit Cost (A+B)		**156000**
17	**Homestad Fish Farming**	2 cents	

i	**Capital Cost**		
	Excavation of pond and bund construction	80 cum	18400
	Polythene sheet (>550 micron) and accessories	1 No.	38000
	Water pump 0.5 HP or central drain	1 No.	4000
	Venturi pump	1 No.	10000
	Covering net	5 Kg	1800
	Miscellaneous		1800
	Total Capital Cost (A)		74000
ii	**Recurring cost for one crop**		
	Fish seed	1000 Nos.	6000
	Fish feed (for fingerlings)	60 Kg	3000
	Fish feed	1000 Kg	38000
	Probiotic, medicines etc.		2000
	Total Recurring Cost (B)		49000
	Unit Cost (A+B)		**123000**
18	**Fish cum Pig Integrated Farming**	1 acre - 10 pigs	99000
i	**Capital cost**		
	Construction of pig shed	150 sq.ft	15000
	Improvement/repair of bund		10000
	Net & Miscellaneous		5000
	Total capital cost (A)		30000
ii	**Recurring cost-Piggery**		
	Cost of piglets	10	12000
	Feed concentrate	900	22500
	Feed hotel waste	200 kg	2000
	Insurance	50	500
	Medicine & Miscellaneous	50	500
	Total recurring cost piggery		**37500**
iii	**Recurring cost-Fish culture**		
	Pond preparation & liming		15000
	Fish fingerlings	2500	1500
	Harvesting/watch & ward		15000
	Total Recurring cost fish		31500
	Total recurring cost (B)		69000
	Unit Cost (A+B)		**99000**

19	**Fish-cum-Duck Farming**	1 Ha - 300 ducks	
i	**Capital cost**		
	Construction of duck house	3 sq.ft x 300	90000
	Improvement/repair of bund		20000
	Net & Miscellaneous		5000
	Feeding equipment's & misc.		1000
	Total capital cost (A)		116000
ii	**Recurring cost-Duckery**		
	Ducklings	315	31500
	Supplementary Feed	6 kg	36000
	Veterinary aid		1000
	Total recurring cost-duckery		68500
ii	**Recurring cost-Fish culture**		
	Pond preparation & liming		15000
	Fish fingerlings	6000 Nos.	3600
	Harvesting/watch & ward		20000
	Recurring cost-fish Total		38600
	Total recurring cost (B)		107100
	Unit Cost (A+B)		**223100**

B. Brackish Water Fisheries

	Particulars	Specification/ Unit Size/ Rate	Amount (Rs)
1	**Modified Extensive Shrimp farming**	1 Ha	
i	**Capital cost**		
	Repair and strengthening of bund	1500 cum	210000
	Sluice gate		30000
	Pumpset 5 HP		30000
	Diesel pumpset standby 5 HP		30000
	Watchman shed		20000
	Electrification		10000
	Miscellaneous		20000
	Total Capital cost (A)		350000
ii	**Recurring cost for one crop**		
	Pond preparation		10000
	Pisciside		8000

	Lime	1000 kg	12000
	Dolomite	400 kg	4800
	Yeast	500 kg	5000
	Cow dung	1 ton	4000
	Probiotics	200 litre	4000
	Shrimp seed	60000	36000
	Feed (FCR 1:1.5)	1950 kg	195000
	Fuel & electricity charges		10000
	Watch & ward		20000
	Harvesting & marketing		20000
	Total recurring cost (B)		328800
	Unit Cost (A+B)		**678800**
2	**Modified Extensive Shrimp farming with zero water exchange**	1 Ha	
i	**Capital cost**		
	Repair and strengthening of bund	1500 cum	210000
	Bird cover, lighting, Bio fencing		25000
	Pumpset 3 HP		25000
	Aerator (2 HP)	2 nos.	90000
	Watchman shed		20000
	Total Capital cost (A)		370000
ii	**Recurring cost for one crop**		
	Pond preparation		10000
	Bleaching powder	300 kg	6000
	Lime	1000 kg	12000
	Dolomite	400 kg	4800
	Yeast	500 kg	5000
	Probiotics – type A	200 litre	4000
	Probiotics – type B	2725 litre	16350
	Shrimp seed	60000	36000
	Feed (FCR 1:1.5)	1950 kg	195000
	Fuel & electricity charges		10000
	Watch & ward		20000
	Harvesting & marketing		20000
	Total recurring cost (B)		339150
	Unit Cost (A+B)		**709200**

3	**Vannamei Shrimp Farming (Zero water exchange)**	**1 Ha**	
i	**Capital cost**		
	Repair and strengthening of bund including PE lining & ETP		250000
	Bird cover, lighting, Bio fencing		50000
	Pumpset 5 HP	2 nos.	85000
	Aerator (2 HP)	4 nos.	180000
	Watchman shed, store, pump house, canoe, electrical installation etc.		120000
	Total Capital cost (A)		685000
ii	**Recurring cost for one crop**		
	Pond preparation		10000
	Bleaching powder	300 kg	6000
	Lime	1000 kg	12000
	Dolomite	400 kg	4800
	Yeast	500 kg	5000
	Probiotics – type A	200 litre	4000
	Probiotics – type B	2725 litre	16350
	Shrimp seed	500000 Nos.	250000
	Seed quality test		4000
	Feed (FCR -1:1.15)	9600 kg	768000
	Fuel & electricity charges		25000
	Watch & ward		20000
	Harvesting & marketing		20000
	Total recurring cost (B)		1145150
	Unit Cost (A+B)		**1830200**
4	**Brackish water Fish Farming**	1 Ha	
i	**Capital Cost**		
	Renovation of pond		150000
	Aerator & accessories	2 nos.	90000
	Pumpset 3 HP		25000
	Watchman shed, pump house, electrical installation etc.		45000
	Cost of cage/happa for rearing fingerlings		40000
	Total Capital cost (A)		350000
ii	**Recurring cost for one crop**		
	Pond preparation including liming and manuring		10000
	Cost fish seed – Milk fish, Mullet & Pearlspot	5000 nos.	40000

	Supplementary feed	3375 kg	135000
	Electricity charges		10000
	Miscellaneous		5000
	Total Recurring expenses (B)		200000
	Unit Cost (A+B)		**550000**
5	**Cage Farming of Fish in Brackish water**	4m x 3m x 2.5m	
i	**Capital Cost**		
	Cost of cage 1.25" B class pipe one cage frame (4x3x2.5m) and two HDPE outer and inner nets (3x2.5x2m)		50000
	Substitute cage net for exchange	3 set	12000
	Mooring, ballast and floats		40000
	Canoe		25000
	Shed cum store		25000
	Equipment/tools/accessories		21000
	Total Capital Cost (A)		173000
ii	**Recurring cost for one crop**		
	Cost of fish seed	Sea bass - 300 nos. Pearlspot – 3800 nos.	52800
	Nursery rearing happa		2000
	Cost of feed (floating feed for pearlspot)	1140 kg	85500
	Cost of feed (trash fish)	1080 kg	27000
	Labour cost for 8 months		0
	Miscellaneous		9700
	Total Recurring Cost (A)		177000
	Unit cost (A + B)		**350000**
6	**Backyard hatchery for Pearlspot – Model I**		
i	**Capital Cost**		
	Construction of tank - 4m X 2m X 1m	4 nos.	84000
	Net, Happa		3000
	Water supply arrangement		3000
	Miscellaneous		2000
	Total Capital Cost (A)		92000
ii	**Recurring cost for one crop**		
	Brood fish	8 kg	3200
	Fish feed	30 kg	3000
	Medicines, disinfectants		1000
	Miscellaneous		800

	Total Recurring Cost (A)		8000
	Unit cost (A + B)		**100000**
7	**Backyard hatchery for Pearlspot - Model II**		
i	**Capital Cost**		
	Brood stock pond	200 sq m	5750
	Breeding cum nursery rearing pond	400 sq.m	12000
	Cement/FRP tank	2 Nos.	40000
	Water supply arrangements		1500
	Bird net cover, side nets	30 kg	10800
	Happa (2x2c1.5)	10 Nos.	15000
	Nets, utensils, breeding substrate, oxygen cylinder etc.		23000
	Miscellaneous		1950
	Total Capital Cost (A)		110000
ii	**Recurring cost for one crop**		
	Agri lime, dolomite, bleaching powder, cow dung etc.		2510
	Brood fish	80 kg	32000
	Fish feed inoculums	1200 kg	90000
	Live food (stock solution)		5000
	Packing materials		3600
	Labour, Miscellaneous		6890
	Total Recurring Cost (A)		**140000**
	Unit cost (A + B)		**250000**
8	**Crab culture**	0.5 Ha	
i	**Capital Cost**		
	Pond construction including PE side fencing, bird cover and hide out		120000
	Pump & pipelines	3 HP	25000
	Store, canoe, equipment, electrical installation etc.		30000
	Total capital cost (A)		175000
ii	**Recurring cost for one crop**		
	Pond preparation		5000
	Crab-lets	5000	100000
	Chopped fish/pellet feed	6250 kg	187500
	Electricity charges, etc.		5000
	Harvesting		5000

	Total recurring cost (B)		302500
	Unit Cost (A + B)		**477500**
9	**Crab culture (Crab fattening Unit)**	0.5 Ha	
i	**Capital Cost**		
	Renovation of Pond including PE side fencing, bird cover and hide out		120000
	Pump & pipelines	3 HP	25000
	Store, canoe, equipment, electrical installation etc.		30000
	Total capital cost (A)		175000
ii	**Recurring cost for one crop**		
	Pond preparation		5000
	Crab-lets	5000	100000
	Chopped fish/pellet feed	6250 kg	187500
	Electricity charges etc		5000
	Harvesting		5000
	Total recurring cost (B)		302500
	Unit Cost (A+B)		**477500**
10	**Mussel farming**	25 sq.m raft 100 m seed length	
i	**Capital cost**		
	Bamboo poles	16 Nos	2000
	Rope for construction	1.5 kg	360
	Seeding Rope	12 kg	2880
	Contingency		600
	Total capital cost		5840
ii	**Recurring cost**		
	Cotton netting material	25 m	300
	Nylon rope for attaching sinkers and mussel ropes	1.5 kg	360
	Mussel seed	200 kg	2400
	Canoe hiring	3days	6000
	Labour for seeding	10 days x 600	6000
	Transportation, marketing		5000
	Total recurring cost (B)		14660
	Unit Cost (A+B)		**20500**

11	**Eco friendly Shrimp farming in Pokkali/kaipad areas**	**5 ha**	
i	**Capital Cost (A)**		
	Repair and strengthening of bund		1000000

	Sluice gate	2 nos.	200000
	Pumpsets, farm equipment Electrification etc.		120000
	Watchman shed		25000
	Total Capital cost (A)		1345000
ii	**Recurring cost**		
	Pond preparation		30000
	Shrimp seed	250000 Nos.	150000
	Feed (FCR 1:1.5)	6000 kg	600000
	Fuel & electricity charges		20000
	Watch & ward		20000
	Harvesting & marketing		20000
	Total recurring cost (B)		840000
	Unit Cost (A+B)		**2185000**
12	**Pearlspot Farming**	0.2 Ha	
i	**Capital Cost**		
	Repair and strengthening of bund		16100
	Nets for covering	50 Kg	18000
	Plumbing		12000
	Pen for keeping brood fish		13000
	Water quality testing kits, Name Board, etc.		1940
	Labour charges		3960
	Total Capital Cost (A)		65000
ii	**Recurring cost for one crop**		
	Bleaching powder	60 Kg	2100
	Lime	100 kg	1200
	Dolomite	80 Kg	960
	Manure	3000 Kg	12000
	Brood fishes (200 gm)	6 Kg	3000
	Fish Seed	1500 Nos.	15000
	Pellet feed (FCR 1.5:1)	1000 Kg	50000
	Miscellaneous		740
	Total Recurring Cost (B)		85000
	Unit Cost (A+B)		**150000**

Terms and Conditions – Fresh water Fisheries /Brackish fisheries

i) The area shall be inspected/lay out plan prepared by FFDA/MPEDA/Fisheries Department of Government of Kerala and their suitability report obtained before sanction of loans.

ii) Only good variety of prawn/ fish fingerlings as recommended by MPEDA/FFDA/Fisheries Dept. of Govt. of Kerala shall be grown by the beneficiaries under the scheme.

iii) The ponds shall be prepared as per the technical guidelines from MPEDA/FFDA/Fisheries Department of Government of Kerala and adequate water level (approximately between 1.0 and 1.5 metres) shall be maintained

iv) Proper arrangements for desilting, deepening and strengthening of the peripheral bunds shall be made. Sufficient number of sluices shall be provided with proper meshing for efficient management and to prevent entry of predators.

v) Application of lime/organic and inorganic fertilizers and supplementary feed shall be as per the recommendations of FFDA/State Fisheries Department/MPEDA to ensure optimum prawn/fish production.

vi) Proper arrangements shall be made to divert flood water away from the area of brackish water culture ponds in order to maintain sufficient salinity.

vii) Long stalked grass with long blades commonly occurring in intertidal belts and succulent grass shall be planted in the marginal waters to help the production of periphytic diatoms (prawn food) on them and to provide shelter to moulting individuals

viii) At the time of harvest, arrangement shall be made for marketing, processing and preserving fish/prawn.

ix) The Marine Product Export Development Authority, Central Marine Fisheries Research Institute, Fish Farmers Development Agency and Fisheries Department of Government of Kerala shall render all necessary assistance to the borrowers for successful implementation of the scheme

x) The technical officers of the bank shall be assisted by qualified technical staff in Fisheries Discipline, who will be posted by the Director of Fisheries, Government of Kerala.

C. Marine Fisheries

	Particulars	Specification/ Unit Size/Rate	Amount (Rs)
1	**Country Boat (Catamaran)**		
i	**Capital cost**		
	Catamaran (4 logs)		30000
	Net		20000
	Insurance		1200
	Total Capital Cost (A)		51200
ii	**Recurring Cost (for one month)**		
	Food expenses		25000
	craft/net repair		10000
	Auction commission		10000
	Total recurring cost (B)		45000
	Unit Cost (A+B)		**96200**
2	**Fibre Glass Catamaran**		
i	**Capital Cost**		
	Catamaran (4 logs)		105000
	Out Board Motor 9.9 HP		117000
	Net & accessories		30000
	Insurance		8900
	Total Capital Cost (A)		260900
ii	**Recurring Cost (for one month)**		
	Fuel expenses		35000
	Food expenses		25000
	OBM/craft repair		10000
	Auction commission		10000
	Total recurring cost (B)		80000
	Unit Cost (A+B)		**340900**

3	**Out Board Motor**		
	OBM	9.9 HP as per quotation	125000
	Above rates are as per details given by Dept. of fisheries		
	Note : Cost is indicative only; actual cost to be based on quotation		
4	**Fishing gear**		300000
5	**Inboard engine 120 to 400 HP**		1500000
	Note : Cost is indicative only; actual cost to be based on quotation		
6	**Marine Plywood canoe (30' OAL)**		
i	Marine Plywood canoe	30 ft size	175000
	OBM		125000
	Net & other accessories		150000
	Insurance		12000
	Total Capital Cost (A)		462000
ii	**Recurring Cost (for one month)**		
	Fuel expenses		35000
	Food expenses		25000
	OBM/craft repair		10000
	Auction commission		10000
	Total recurring cost (B)		80000
	Unit Cost (A+B)		**542000**
7	**Fibre glass boat**	33 ft	
i	**Capital Cost**		
	Fibre glass Cattamaram (33' OAL)		200000
	Out Board Motor	as per quotation	140000
	Webbings & Accessories		160000
	Insurance		13600
	Total capital cost (A)		513600
ii	**Recurring Cost (for one month)**		
	Fuel expenses		35000
	Food & Travel expenses		25000
	OBM/craft repair		10000
	Auction commission		10000
	Total recurring cost (B)		80000
	Unit Cost (A + B)		**593600**
	Rounded off		**594000**

8	**Thanguvallam with inboard engine**	70 ft	
i	**Capital cost**		
	Thanguvallam (70' OAL) - MPC with fibre coating		4000000
	In Board motor	280 - 410 HP as per quotation	3000000
	Webbings (3000 kg) & Accessories		4000000
	Insurance		280000
	Total capital cost (A)		11280000
	Recurring Cost (for one month)		
	Fuel expenses		300000
	Food & Travel expenses		75000
	OBM/craft repair		50000
	Auction commission		50000
	Total recurring cost (B)		475000
	Unit Cost (A+B)		**11755000**
9	**FRP Tuna Longliner**		
i	**Capital cost**		
	FRP craft with insulated fishhold		410000
	Out Board motor (9.9 HP, 25 HP)	as per quotation	346000
	Webbings and accessories		330000
	GPS, Echosounder, Life jackets		77500
	Insurance		30000
	Total capital cost (A)		1193500
ii	**Recurring cost (for one month)**		
	Fuel expenses		35000
	Food & Travel expenses		25000
	OBM/craft repair		10000
	Auction commission		10000
	Total recurring cost (B)		80000
	Unit Cost (A+B)		**1273500**
10	**FRP boat with Choodavala**	36 ft	
i	**Capital cost**		
	FRP craft (36' OAL) with insulated fishhold		700000
	Out Board motor (9.9 HP, 25 HP)	as per quotation	346000
	Webbings and accessories		1420000
	Carrier boat with OBM		180000
	Insurance		42000

	Total capital cost (A)		2688000
ii	**Recurring cost (for one month)**		
	Fuel expenses		175000
	Food & Travel expenses		125000
	OBM/craft repair		25000
	Auction commission		25000
	Total recurring cost (B)		350000
	Unit Cost (A+B)		**3038000**

Terms and Conditions - Marine Fisheries

i) The bank shall satisfy itself regarding cost of construction of boats, cost of hull, cost of engine and other accessories etc., by verification of quotations, vouchers and bills and that the equipment so mentioned is actually installed on the boats.

ii) Mechanised fishing boats should be registered with DG Shipping through Dept. of Fisheries.

iii) The mechanized boats accessories shall be insured against marine risk and risk against fire and theft covering entire loan period and relevant policy shall be assigned in bank's favour and assignment duly registered with Insurance Company.

iv) The bank shall satisfy itself that beneficiaries financed under the scheme are conversant with the operation of fishing boats.

v) The operational area of boats shall be clearly demarcated by the bank in consultation with the State Fisheries Department in order to ensure proper supervision and monitoring of the operation. The boats may be permitted to shift their operational basis depending upon fishing season only with prior consent of the bank in writing.

vi) The bank shall satisfy itself that infrastructural facilities such as supply of ice, cold storage, service stations, berthing facilities, etc., are adequate at the landing centers.

vii) The bank shall ensure that its supervisory staff undertake visits at periodical intervals and keep a record of their observations on the operation of boats.

viii) The bank shall satisfy itself that technical guidance in the operation of boats, if so needed by the beneficiary, is available from the State Fisheries Department.

ix) The bank shall satisfy itself that the arrangements for marketing and processing of fish are satisfactory. Such arrangements shall be reviewed from time to time.

10. Integrated Farming System

i. Rice based IFS model (0.2 ha or 200 m² or 50 cents)

Components	Cost (Rs.)		Gross Returns (Rs)	Remarks	Period accounted
	Capital	Maintenance			
Rice (0.15 ha/ 1500 m²/ 37.5 cents)	-	30,000 (production inputs and labour)	38400	First (*virippu*) and second (*mundakan*) crop, each in an area of 0.15 ha (2 x 0.15 = 0.3 ha total)	Returns calculated as total for 2 seasons. 1200 kg paddy sold @Rs.27/kg and 1200 kg straw sold @Rs5/kg from two crops of paddy
Vegetable (Bhindi) (0.05 ha/500 m²/12.5 cents)	-	10000 (Land preparation, raising beds, weeding, harvesting)	19000	As third crop in rice field (500 m²).	As third crop in rice fields. Bhindi fruits 470 kg sold @Rs.40/kg
Fodder maize (0.05 ha/500 m² /12.5 cents)	-	6000 (Cost incurred for raising beds ,cost of seeds, manures)	17500	As third crop in rice field (500 m2). 3500 plants accommodated at a spacing of 60cm x 23cm. Fodder and baby corn obtained	@100 g of baby corn/plant, a total of 350 kg corn sold @Rs.50/kg
Daincha (0.05 ha)	-	2000 (Cost incurred on seeds, labour for sowing, incorporation of green manure)	3000	As third crop in rice field (500 m²). Seeds @ Rs.150/kg. Seed rate 1kg seed/10 cents	1500kg daincha, accounted Rs.2/kg

Fish (Pond of 5 cents/200 m^2)	70000 (Capital cost for making 2m deep pond of 200 m^2 area)	30000 (Cost of fingerlings, feed, lime for pH correction etc)	162000	Rs.18000 for 3000 fingerlings released initially (@ 6/fingerling (accounting 30 - 40 % mortality). Total 190 kg fish feed (10kg feed for first 2 months, followed by 1 kg/day for 1800 fish maintained ie. 30 kg feed/month = 180 kg feed for 6 months. Total 190 kg@Rs.35/kg	GIFT life cycle 6-8 months. 540 kg fish harvest@ Rs.300 (1800 nos x300g)
Vegetables					
a. Trailed over fish pond (5 cents/200 m^2)	Rs.10000 Poles (20nos @ Rs.100/ pole), nylon nets (7kg, @Rs.400/ kg), labour for erecting poles and fixing nets	Rs.1000 (Seeds, organic manures)	40,000	Medicinal ash gourd trailed over the fish pond using nylon nets. Casuarina poles erected intermittently in the periphery of pond to support the nylon net.	2 crops of ashgourd a year 400 kg fruits sold at Rs.50/kg in each harvest
b. Vegetables in dyke area of fish pond (4 cents/160 m^2)		4000 (labour and inputs)	11000	Vegetables *viz*.amaranth, chilli, brinjal, bhindi, tomato etc	3 crops of vegetables /year (365 kg vegetables sold at Rs.30/kg

Duck unit (20 m^2) (80 Female +20 male)	30,000 (Capital cost of duck house erected over fish pond)	65000 Cost of feed	156000	Initial stocking 150 ducks@Rs18/bird 1.8 kg feed /bird upto 2 months (@Rs.29/kg), 5.4 kg /bird upto 6 months (@Rs.24/kg). From 6th month @ 13.5 kg/bird, for 100 birds (@Rs.24/kg feed)	For one year cycle Approx. 50 nos (male) culled at 6 months (1kg meat /bird,@Rs.160/kg) Rest culled at 1 year stage (1.25 kg meat/bird @Rs.160/kg) Average160 eggs/bird, Rs10/egg
Cow (1+1)	90000 (Construction of a shed of 20 m^2), Purchase of 1 milch cow and 1 calf - Rs.40000/-	50000 (Feed, medicines)	75000	Concentrate @ 6kg/day/adult animal (at milking phase).During non-milking phase 4 kg/adult animal	Cow purchased at three year stage and can be maintained for 10 years On an average, 8 litres of milk obtained for six months a year and sold @ Rs.46/ litre; @ 5 kg dried cow dung obtained daily from the unit is sold @ Rs.5/kg

Mushroom	20,000 (Cost of structure/ room)	4800 (160 bags x Rs.30 as production cost)	28800		20 bags/month, for 8months = 160 bags @ Rs.180/bag,160x180 (725g mushroom /bag. Rate - Rs.250/kg)
Total	**220000**	**202800**	**550700**		

ii) Banana based IFS model (0.2 ha or 200 m² or 50 cents)

Component	Cost (Rs.)		Gross returns (Rs.)	Remarks	Period accounted
	Capital	Maintenance			
Banana (225 nos.)	30000 (Initial field layout and digging of trenches)	40000 (Manures, fertilizers, plant protection chemicals, propping, labour)	90000	Rs.20/sucker Variety *Nendran* Casuarina poles @100/pole for propping Yield @ 8 kg/plant, sold @Rs.50/kg	One year
Tuber crops (8 cents or 320 m²)	-	5000 (planting materials, manures, labour)	14000	Cassava, sweet potato, colocasia, dioscorea, and elephant foot yam.350 kg tubers sold at an average price of Rs.40/kg	Annual crops (One year)
Vegetables (3 cents or 120 m²)	-	5000 (planting material, manures, labour)	12000	In the interspaces of banana during initial period of banana establishment - amaranthus, bhindi,	First 6 months after planting banana every year

				pumpkin, bitter gourd	
Pineapple (200 nos.)	-	3000 (planting material, manures, labour)	7000	@ Rs.12/pineapple sucker @ 1kg fruit/plant sold @ Rs.35/kg	1 ½ years
Fodder crop (4 cents or 160 m^2) As fringe crop and in additional area	-	2000 (planting materials, manures, labour)	6000	Guinea grass, Hybrid Napier and fodder cowpea	Fodder cow pea (annual); others are perennials and maintained for three years. Yield obtained every 2 months
Cow (1+1)	90000 (Construction of a shed of 20 m^2), Purchase of 1 milch cow and 1 calf - Rs.40000/-	50000 (Feed, medicines)	75000	Concentrate @ 6 kg/day/adult animal (at milking phase). During non-milking phase 4 kg/adult animal	Cow purchased at three years age and can be maintained for 10 years On an average, 8 litres of milk obtained for six months a year and sold @ Rs.46/litre; @ 5 kg dried cow dung obtained daily from the unit is sold @ Rs.5/kg
Vermicompost (75 m^2)	50000 (Construction of vermiyard,	10000 (labour for periodical turning of	30000	1500 kg vermicompost sold @ Rs.20/ kg	New earthworms may be introduced

	@ Rs.700 for 1000 earthworm	residues)			once in three years
Fish (Pearl spot) (in trenches of 350 m² between bunds on which banana and intercrops are raised)	66000 Construction of trenches (350 m²), 2000 fingerlings @Rs.8/ fingerling)	10000 Maintenance cost includes fish feed 200 kg @ Rs.40/kg, harvesting;	70000	2000 fingerlings initially released (expecting 30 % mortality). Later it multiplies. 175 kg fish harvest annually @ Rs.400/ kg.	9 -12 months
Total	**236000**	**125000**	**304000**		

iii) Coconut based IFS model (0.2 ha or 50 cents)

Components	Cost (Rs.)		Gross Returns (Rs)	Remarks	Gross returns expected & maintenance cost for one life cycle
	Capital	Maintenance			
Coconut (30 nos)	22000	8000	20,500	@Rs250/seedling, Rs.275/pit + production inputs	Upto 30 years
Teak trees (15 nos.)	1000	1000		@Rs.20/stump, pits, manures; periodic lopping	For 60 years
Multitier cropping in interspaces of coconut					
Papaya (6)	100	100	3000	Rs.10/seedling, 20 kg fruits/plant, Rs25/kg fruit	For two years
Garcinia (1),	200	100	0	Yet to bear, seedling stage	Graft starts yielding from third year (2 kg/ plant), by 10 th year (16 kg) @ Rs.260/ kg – Rs.4200 expected per tree per year, yields upto 45 yrs.

Nutmeg (1)	200	100	0	Yet to bear, seedling stage	Starts yielding from fifth year (3kg fruits /tree), by 15th year 15 kg fruits/ tree @ Rs.200 /kg/tree for 40 years
Clove (1)	200	100	0	Yet to bear, seedling stage	Starts yielding from seventh year (1.5 kg/tree), by 12th year 6 kg/ tree@ Rs.750/kg/tree-Rs.4500 expected per tree per year
Cocoa (1),	200	100	0	Yet to bear, seedling stage	Starts yielding from third year; 35 pods per plant at third year and reaches upto 100 pods by fifth year (Gross returns approximately Rs.100/ plant in third year and reaches to Rs.350/plant in fifth year)
Rose apple (1)	50	100	150	Rs.25/ layer, pits, manures	Starts yielding from third year; average 5 kg fruits/ plant and sold at @ Rs.30/ kg.
Ginger (120 grow bags)	6000	2400	5000	Rs.40 kg/ media filled bag, Rs.160 for seed rhizomes, bio-inoculant - Trichoderma. 60 kg rhizomes sold @Rs.80/kg	Crop duration one year; poly bags can be used for three years
Turmeric (120 grow bags)	6000	2400	10000	72 kg turmeric value added as 20 kg turmeric	Crop duration one year; poly bags can be used

				powder and sold @Rs.500/kg	for three years
Tuber crops (5 cents)	5000	3000	8000	Coleus, dioscorea, cassava and EFY. Capital cost includes initial land preparation, planting materials and manures. Yield accounted as 200 kg; average sales price Rs.40/kg	Annual crops
Fodder crops (2 cents)	1000	1000	3000	Hybrid Napier, Guinea and Para grass	Perennials and can be maintained for three years
Vegetables (1 cent)	4000	2000	12000	Amaranthus, chilli and remunerative crops like medicinal ash gourd included	Annual returns
Fruit trees					
Mango (1)	300	500	2500	50 kg fruits sold @ Rs.50/kg	For 60 years
Bread fruit (1)	500	1000	15000	Maintenance include periodic harvest and application of manures. 300 kg fruits @Rs 50/kg	For 35 years
Jack (1)	150	100	2000	@20 fruits each of 5 kg sold at Rs20/kg	For 40 years
Azolla (2 units each of 2 m^2)	3000	1000	10000	100 kg annually from 2 m^2 unit (200 kg from 2 units); @Rs.50/kg,	Can be continuously maintained

Apiculture (Stingless bee one unit)	2000	250	3000	Rs.250 for wooden boxes for separating hives every year	Yearly splitting of bee hive and honey extraction
Cow (1+1)	90000	50000	100000	One milch cow and a calf- construction of shed (20 m^2), capital cost for milch cow and calf- Rs.40000/-, concentrate @4 kg for first six months and @6 kg for next six months + medicines; on an average 8 litres of milk obtained for eight months and sold @ Rs.46/litre; @ 5 kg dried cow dung/ cow sold @ Rs.5/kg	Two year old cow maintained for 10 years
Fish (GIFT)	70000	20000	135000	Rs.50,000 as labour cost for making 1.5 m deep trenches, Rs. 12,000 for 2000 fingerlings (@ 6/fingerling - released initially), fish feed 180 kg @Rs.35/kg, other inputs like lime, fishing net etc. Maintenance includes cost of fingerlings,	GIFT life cycle 6-8 months

				feed, and labour for harvesting fish. 450 kg fish harvest @ Rs. Rs.300/kg	
Total	**211900**	**93250**	**329150**		

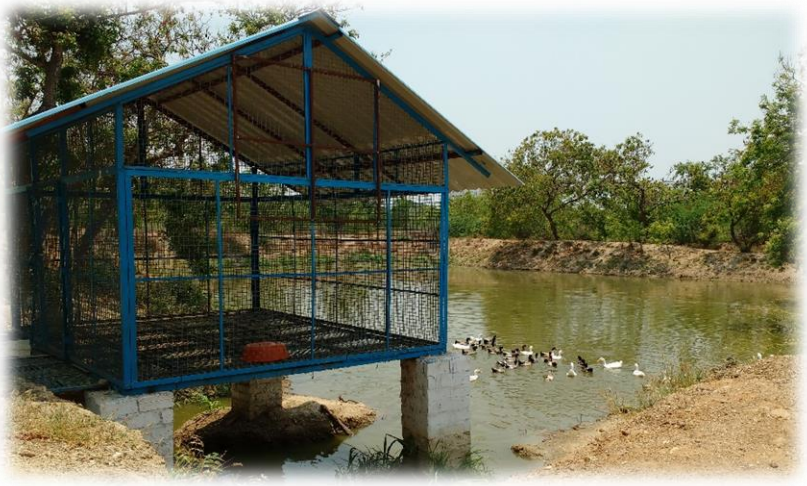
iv) Homestead based IFS (0.20 ha or 50 cents)

Component	Cost (Rs.)		Gross returns (Rs.)	Remarks	Gross returns expected & maintenance cost for one life cycle
	Capital	Maintenance			
Coconut (17 No.)	12000	4500	11560	@Rs.250/ seedling; Rs.275/pit + production inputs	Upto 30 years
Fruit trees (open area)					
Mango (4 No.)	1200	2000	10000	50 kg fruits /plant and sold @ Rs.50/kg	For a period of 40 years
Jack (4 No.)	600	400	8000	20 fruits/plant @ 5 kg/ fruit and sold @ Rs.20/kg	For 40 years
Papaya (2 No.)	40	40	1000	20 kg fruits /plant and sold @ Rs.25/kg	For two years
Pomegranate (2)	100	100	600	3 kg fruits/ plant and sold @Rs.100/ kg.	For 20 years
Other trees (interspaces)					
Teak (25 No.)	1800	1600		Rs.20/- per stump + cost of inputs and labour charge; periodical lopping of branches	For 60 years
Neem (2 No.)	100	400		Rs.20/ seedling + manures; periodical lopping	For 60 years
Sapota (1 No.)	100	100	1000	Rs. 50/ graft; 20 kg fruits/ plant & Rs.50/ kg	For 20 years
West Indian Cherry (1)	100	100	400	Rs.40/ layer; 2 kg fruits/ plant &	For 15 years

				Rs.200/ kg.	
Indian Gooseberry ((1)	100	800	2250	Rs.50/ graft; 30 kg fruits/ plant & Rs.75/ kg.	For 60 years
Glyricidia (2)					For 15 years
Apiculture unit (stingless bee-one unit)	2000	250	3000	During lean season, bee hive can be split into two and cost involved in the wooden frame	Yearly splitting of bee hive and honey extraction
Kitchen garden					
Medicinal plants (20)	600	200		Planting material + input cost	Seasonal and perennials included
Papaya (5 No.)	100	100	2500	20 kg fruits /plant and sold @ Rs.25/kg	For two years
Curry leaf (10 No.)	500	100	300	Rs.25/ cutting; 1 kg/ plant & Rs.30/ kg	20 years
Turmeric (50 grow bags)	2500	1000	4000	Rs.40/ potting media filled grow bag + inputs; 30 kg rhizomes sold as value added turmeric powder (8 kg) @ Rs.500/kg	Crop duration one year; poly bags can be used for three years
Ginger (50 grow bags)	2500	1000	2000	Rs.40/ potting media filled grow bag + inputs; 25kg rhizomes sold @ Rs.80/kg	Crop duration one year; poly bags can be used for three years
Vegetables (50 grow bags)	2500	1500	6000	Rs.40/ potting media filled grow bag + inputs; amaranthus, bhindi, chilli, brinjal etc. included	Crop duration one year; poly bags can be used for three years
Poultry unit (50 No.)	30000	7500	54500	Construction of shed (3x3m), Rs.50/ bird, maintenance cost include cost of feed and medicines; 6000 eggs (@150	Culling of birds can be done after 2.5 years,

				eggs from 40 birds) sold @ Rs.7/ egg; 100 kg (@2 kg per bird) meat sold @ Rs.125	
Vermicompost unit (30 m^2)	20000	5000	12000	Construction of vermiyard (30 m^2), earthworms @Rs.700/ 1000 No., sieving machine; vermicompost sold @ Rs.20/ kg.	New earthworms can be introduced once in three years
Biodigestor (15 m^2)	23000	1000	4800	1 m^3 plant having capacity to generate gas equivalent to 6 LPG cylinders	20 years
Cow unit: cross bred [20 m^2]	90000	50000	100000	One milch cow and a calf- construction of shed (20 m^2), capital cost for milch cow and calf- Rs.40000/-, concentrate @4 kg for first six months and @6 kg for next six months + medicines; on an average 8 litres of milk obtained for eight months and sold @ Rs.46/litre	Two year old cow maintained for 10 years
Fodder grass (80 m^2)	1000	1000	3000	Adjacent to cattle shed- hybrid napier,/guinea grass	Perennial and can be maintained for three years
Recirculatory aquaculture unit (15 m^2)	10000	5000	9000	Tank for rearing fish (500 L), plastic bins holding gravel, charcoal and cotton acting as filter unit, 100 fingerlings (GIFT) @ Rs.6/-, fish feed @ 10 kg/ fish and Rs.35/ kg;	Filer unit may be replaced once in two years; GIFT life cycle 6-8 months

				300 g per fish resulting in a yield of 30 kg and sold @ Rs.300/ kg..	
Terrace garden + water harvesting (150 m²)	12000	4000	10500	100 polybags @ Rs.40/ potting media filled bag + inputs, vertical structures, 350 kg vegetables sold at an average price of Rs.35/ kg	Vegetables for one year; poly bags can be used for three years
Total	**212840**	**87690**	**246410**		



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