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NO. NB. MEGH/ 288 /DOR/UNIT COST/2021-22
30 October 2021

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Convener, SLBC, State Bank of India, Administrative Office, Shillong-793001	The Director, Fisheries Department, Fish Dale Farm, Opposite St Edmund College, Jowai Road, Laitumkhrah, Shillong - 793003
The Managing Director, MCAB, Head Office, M G Road, Shillong-793001	The Chairman, MRB, Head Office, MTC Building Shillong -793001
The Director, Soil & Water Conservation Department, Govt. of Meghalaya, Lower Lachumiere, Shillong – 793 003	The Director, Agriculture Department, Govt. of Meghalaya, Cleave Colony, Shillong – 793 003
The Director, Horticulture Department, Govt. of Meghalaya, Cleave Colony, Shillong – 793 003	The Director, Animal Husbandry & Vety Department, Govt. of Meghalaya, Shillong - 793001
The Director, Water Resource Department, Govt. of Meghalaya, Cleave Colony, Shillong-793003	

महोदया/ महोदय,

इकाई लागत पुस्तिका/ Unit Cost Booklet 2021-22

हम आपकी सूचना और अभिलेख हेतु वर्ष 2021-22 के लिए इकाई लागत पुस्तिका संलग्न कर रहे हैं जिसमें कृषि और अनुषंगी गतिविधियों की इकाई लागत शामिल हैं.

We attach herewith the Unit Cost Booklet for the year 2021-22 containing the unit costs of the Agriculture allied activities for your kind information and record pl.

सादर

(एल देउरी L. Deori)
सहायक महाप्रबंधक Asst. General Manager

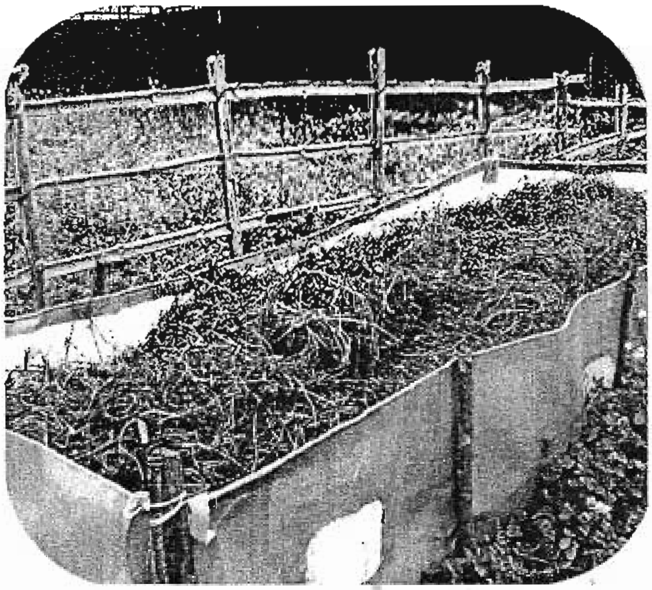
Memo No.MVD/Dev-8/NABARD/2015/92-A **Dated Shillong, the 29th Nov, 2021**
Copy to:

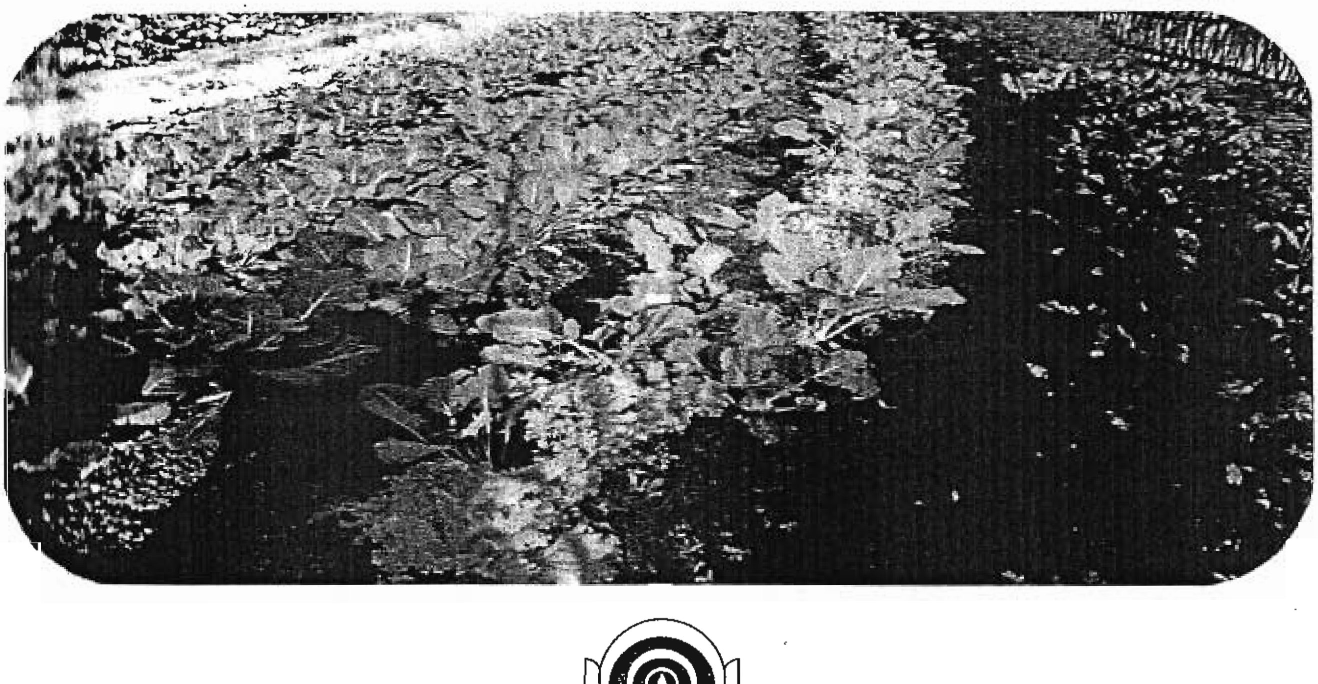
1-4) Assistant Director Piggery/ Poultry/ Fodder/ VI&PR, Directorate of A.H & Veterinary Shillong for information and necessary action.

5) Office Copy

Joint Director (AHP)
Directorate of A.H & Veterinary,
Meghalaya, Shillong.

UNIT COSTS OF FARM SECTOR INVESTMENTS IN MEGHALAYA 2021-22





NABARD

राष्ट्रीय कृषि और ग्रामीण विकास बैंक

मेघालय क्षेत्रीय कार्यालय, शिलांग-793003

National Bank for Agriculture and Rural Development

Meghalaya Regional Office, Shillong-793003

कॉर्पोरेट मिशन

प्रभावी ऋण सहायता, संबंधित सेवाओं, संस्था और अन्य नवोमेंषी पहलों के माध्यम से कृषि और ग्रामीण समृद्धि का दीर्घकालीन एवं सम्यक संवर्धन

CORPORATE MISSION

Promote sustainable and equitable agriculture and rural prosperity through effective credit support, related services, institutional development and other innovative initiatives

DISCLAIMER

The costs and parameters suggested are based on the information available to NABARD. User discretion is strongly advised. NABARD is not responsible in any way whatsoever, for any act/s of commission or omission on the part of the user/s, relying on or referring to the unit costs mentioned in NABARD's communication/ publication.

NABARD

Foreword

As a part of the credit planning process, NABARD updates the unit cost for various investment activities under farm sector periodically. The unit cost updation exercise is conducted through an intensive consultative approach with inputs from the concerned line departments of the State Government, viz., Agriculture, Horticulture, Animal Husbandry & Veterinary, Forest & Environment, Soil & Water Conservation, Water Resources, Fisheries, SLBC Convenor and various banks.

It gives me immense pleasure to bring out this booklet containing the unit cost in respect of various farm sector investment activities for 2021-22 that may be supported through term loan from the banking system in Meghalaya state. It may be indicated that term loans are in the nature of capital investment to create assets capable of providing income to farmers/ agri- entrepreneurs over a period of time. The unit cost indicated in the booklet may be utilized by Bankers as a reference material for considering the term loan proposals.

I sincerely acknowledge the contributions and cooperation extended by the concerned line departments of the State Government, Convenor SLBC - State Bank of India, Meghalaya Rural Bank and The Meghalaya Cooperative Apex Bank Ltd, which have facilitated the updation of unit costs. Apart from the activities mentioned, other new activities based on the ground level potential may also be considered for financing by banks.

N. Guite
General Manager/Officer-in-charge

Contents

1. Water Resources Management

SL No	Item of Investment	Unit Size	Specification	Unit Cost (₹)	Repayment Period (Yea₹)
1	**Motor pump**				
i	Diesel pump set	1	5 HP heavy weight	50700	9 years
ii	Diesel pump set	1	5 HP light weight	41800	9 years
iii	Diesel pump set	1	3 HP	36000	9 years
iv	Electrical pump set	1	2 HP	18000	9 years
2	**Low Lift Irrigation system without distribution system with a design discharge of 3.0 lps, suction head of 3.60 mtr. with 5.0 HP lift pump-1ha**				
i	Source Management	1	01 No	23650	9 years
ii	Rising Main of 65 mm dia MSERW pipe with all accessories	1	142 mtr	120400	9 years
iii	Main deliver tank of 1m3 of brick wall & cement concrete	1	01 No	10500	9 years
iv	5 HP pump Jyoti/Kirloskar etc with all fittings	1	5 HP	53750	9 years
v	Provision of SOP & electric works	1	01 No	18000	9 years
3	**Sprinkler Irrigation System**	1ha	HDPE Pipe – 63mm x 3.2 kgs, with service saddle, sprinkler	73,600	9 years

Note:

- All the pump sets include accessories; taxes etc. are as per complete pumping system of IS 10804-95 or latest edition.
- Banks may finance flexible pipe (suction pipe & delivery pipe) as per beneficiary's requirement.

2. Land Development

S.N	Item of Investment	Unit size	Specification	Unit Cost (₹)	Repayment period (yrs.)
1	**Organic Compost**				
i	**NADEP Compost Unit**	1	3m X 2m X 1m	23,000	5 years
ii	**Vermi-Compost Unit**	1	3m X 2m X 1m	25,000	5 years
2	**OFD Work**	1	1Ha (100 m X 100m)	25,100	4 years
3	**Farm Pond(For ordinary Soil)**	1	10m X 10m X 3m	56,650	5 years
4	**Farm Pond(For Rocky Soil)**	1	10m X 10m X 3m	67,000	5 years

2.1.1 NADEP Compost Unit : Unit Specifications

1	Size of tank	3m X 2m X 1m
2	Thickness of wall	12.5 cm
3	Capacity of tank	6 m^3

Unit Cost

Sl. No.	Particulars	Rate	Quantity	Amount (₹)
1	**Construction cost**			
i	Bricks including transportation cost	₹ 9.5/brick	1000 bricks	9500
ii	Cement including transportation cost	₹ 7/kg	200 kg	1400
iii	Sand including transportation cost	₹ 790/m^3	$3m^3$	2370
iv	Mason	₹ 495/day	3 no	1485
v	Labour — Skilled	LS		510
	Labour — Unskilled			1370
vi	Light thatched roof (Straw, Bamboo, Labour)	LS		2600
	Sub total			**19235**
2	Operational cost (per cycle)			
i	Cow dung	1.50/kg	150 kg	225
ii	Agro waste	0.5/kg	1350 kg	675
iii	Soil	Cost of digging Cost of transportation	LS	790
iv	Water sprinkling charge once in 4 days	LS		1650
V	Cost of tank filling			
vi	Cost of screening compost			
	Sub total			**3340**
3	Maintenance cost (per cycle)			550
			Grand Total	**23125**
			Say (Rounded off)	**23,000**

2.1.2 Vermi Compost Unit: Unit Specifications

1	Size of tank	3m X 2m X 1m
2	Thickness of wall	12.5 cm
3	Capacity of tank	6 m^3

Unit Cost

Sr. No.	Particulars		Rate	Quantity	Amount (₹)
1	Construction cost				
i	Brick work in cement (1:4)		2500/m^3	2m^3	5000
ii	Plastering 6 mm(1:3)		220/m^3	6m^3	1320
iii	Bottom Plan cement concrete(1:3:6)		2400/m^3	1m^3	2400
iv	Light thatched roof	Straw, rope	LS		
		Bamboo			2970
		Labour			
v	Vermi bed (broken bed, stone and soil)				650
vi	Soil working implements				1600
	Sub total				**13940**
2	**Operational cost (per cycle)**				
i	Animal excreta		1.5/kg	2000 kg	3000
ii	Agro waste		0.5/kg	2000 kg	1000
iii	Cost of earth worm		10/ Kg	100 kg	1000
iv	Cost of digging soil		2 man day		500
v	Water sprinkling charge once in 4 days		3 man day		650
vi	Cost of Polythene bag etc.				570
vii	Cost of tank filling		2 man day		
viii	Cost of spreading		2 man day		
ix	Cost of turning		2 man day		2750
x	Cost of harvesting compost		6 man day		
xi	Cost of packing compost				1200
	Sub total				**10470**
3	**Maintenance cost (per cycle)**				**550**
	Grand Total				**24960**
	Say (Rounded off)				**25000**

2.2 On Farm Development Work(OFD): Unit Specifications

1	Farm Area	1 Ha
2	Bunds Cross section	
i	Base width	1.5 m
ii	Top width	0.5 m
iii	Height	0.5 m
iv	Side slope	01:01
3	Drainage Channel	
I	Channel slope	0.01
ii	Channel top width	0.6 m
iii	Channel bottom width	0.3 m
iv	Channel depth	0.3 m
v	Channel side slope	02:01

Unit Cost

S. No.	Particulars	Rate	Quantity	Amount (₹)
1	Land Clearing	360/ day for 6 days		2160
2	Bunding	190/ m^3	65 m^3	12,350
3	Ploughing	420/ hr	5 h₹	2,100
4	Leveling	1,250/ hr	1 hr	1,250
5	Fencing	8/m	400	3,200
6	Drainage channel	190/ m3	21 m3	3,990
			Total	**25,050**
			Say (Rounded off)	**25,100**

2.3 Farm Pond: Unit specifications

1	Farm area	1 ha
2	Size of Pond	10m X 10m X 3m
i	Top width	10m X 10m X 3m
ii	Bottom width	4m
iii	Depth	3m
iv	Side slope	01:01
3	Size of embankment	
i	Top width	1m
ii	Bottom width	2m
iii	Depth	0.5m
iv	Side slope	01:01

Unit cost: For ordinary soil				
S.No.	Particulars	Rate	Quantity	Amount (₹)
1	Site clearance	₹ 360/day	2 man days	720
2	Excavation (ordinary soil)	₹.190/ m^3	210 m^3	39,900
3	Embankment	₹ 350/ m^3	30m^3	10,500
4	Grass Turfing	55/ m^2	100 m^2	5,500
			Total	56,620
			Say (Rounded off)	56,650

Unit cost : For rocky soil				
S.No.	Particulars	Rate	Quantity	Amount (₹)
1	Site clearance	₹ 400/day	2 man days	800
2	Excavation (ordinary rock)	₹240/ m^3	210 m^3	50,400
3	Embankment	₹350/ m^3	30 m^3	10,500
4	Grass Turfing	₹55/ m^2	100 m^2	5,500
			Total	67,200
			Say (Rounded off)	67,000

Model estimate for construction of bench terracing Unit Specifications

S. No	Technical Parameters	Slope		
	Range	6 to 10%	10 to 20%	20 to 33%
	Average	8%	15%	26.50%
1	Average terrace width recommended (m)	12	8	5
2	Vertical interval VI = WX S/100-S	**1.04**	**1.41**	**1.8**
3	Terrace length (m) = A/W =VI	767	1063	1471
4	Earth work = 12.5 X W X SM3	1200	1500	1656.25
5	Shoulder bund length	779	1071	1476
6	Shoulder bund cross section (m^2)	0.08	0.08	0.08
7	Earth work for shoulder bund (m^3)	62.32	85.68	118.08
8	Area available for cultivation (ha)	0.87	0.79	0.65
	Cost estimate			
1	Jungle clearance including uprooting of stumps	6000	6000	6000
2	Cost of terracing @₹30/m^3	36000	45000	49700
3	Cost of shoulder @₹12/m^3	748	1028	1416
4	Dressing, shaping and grading of bench terraces	770	770	770
5	Water disposal structure (LS)	1870	2100	2300
		45388	**54898**	**60186**
	Total Cost (₹)	**45400**	**54900**	**60200**

Construction of contour bunding

1	Area = 1 ha	
2	Slope (S) = 10%	
3	Vertical interval in m (VI) = 0.3 X [(Slope/3)+2]	0.3X[(10/3)+2] = 1.6m
4	Horizontal interval in m (HI) = ((VI/S) X100%)	(1.6/10)*100 = 16 m
5	Number of bunds = (100/16)	6.25, say 6 bunds.
6	Total length of bund at 16.00m interval	= 6X100 = 600m
7	Cross section of bund	[(0.70 + 1.60)/2]*0.9 = 1.035 m^2
8	Volume of earth work = 600 X 1.035 =621.00 m^3	= 600 X 1.035 = 621.00 m^3
9	Cost @₹30/m^3 for 621.00 m^3	₹ 18,630
	Say (Rounded off)	₹ 18,630

3. Farm Mechanisation

S. No.	Item of Investment	Unit Size	Specification	Unit Cost (₹)	Rep period (yrs.)
1	Tractor				
i	Mini tractor with accessories	1	22-27 hp	5,25,000 – 6,91,000	9-10 years
ii	Tractor with accessories and trailer	1	30-40 hp	6,46,000-7,10,000	9-10 years
iii	Trailer/Trolley – VST Compact	1	Up to 3 ton capacity	95,000	4-5 years
vi	Trailer/Trolley – Indian	1	Up to 3 ton capacity	1,90,000	4-5 years
2	Power tiller with hatch, straight blade and cage wheel				
i	With trailer and CMVR kit	1	08-15 hp	2,40,000-3,00,000	6-7 years
ii	Without trailer and CMVR kit	1	12-15 hp	1,80,000-2,40,000	6-7 years
3	Rice trans planter with cage wheel	1	Self-Propelled	3,46,000	6-7 years
4	Power paddy reaper	1	3-5 hp	1,22,000-1,75,000	4-5 years
5	Farm Implements				
i	Disc harrow	1	Tractor Mounted	29,000	4-5 years
ii	Tyne tiller	1	Tractor Mounted	20000	4-5 years
iii	Rotavator	1	Tractor Mounted	89,000	4-5 years
iv	Disc Plough	1	Tractor Mounted	30,300	4-5 years
v	Leveller without spring	1	Tractor Mounted	19,100	4-5 years
vi	Leveller with spring	1	Tractor Mounted	22,000	4-5 years
vii	Thresher single purpose	1	Tractor Mounted	1,56,000	4-5 years
viii	Thresher multiple purpose	1	Tractor Mounted	1,96,000	4-5 years
6	Rice Huller	1	No. 4 driven by 8-10 hp engines	58,000-72000	4-5 years

Note:

- Tractor with accessories and trailer may be financed with at least two farm implements.
- Above cost are indicative in nature and Banks may consider financing based on the quotations/ invoices from dealers/ suppliers of the reputed farm machinery and manufactures.

4. Animal Husbandry

4.1 Dairy Development

S. No.	Item of Investment	Unit Size	Specification	Unit Cost (₹)	Repayment period (Years)
1.1	Small dairy-Cross Bred Cows **including shed**	1+1	Cross Bred Jersey / HolsteinFriesian with average milk yield **6-8 LPD**#/cow	1,81,000	5 years
1.2	Small dairy-Cross Bred Cows **including shed**	1+1	Cross Bred Jersey / HolsteinFriesian with average milk yield **8-10 LPD**#/cow	2,28,500	5 years
1.3	Small dairy-Cross Bred Cows **excluding shed**	1+1	Cross Bred Jersey / HolsteinFriesian with average milk yield **6-8 LPD**#/cow	1,56,000	5 years
1.4	Small dairy-Cross Bred Cows **excluding shed**	1+1	Cross Bred Jersey / HolsteinFriesian with average milk yield **8-10 LPD**#/cow	2,00,500	5 years
2	Commercial dairy-Cross Bred Cows	5+5	Jersey CB/HF CB Cows yielding 8 **to 10** litres of milk	13,25,000	5 years
3	Calf rearing (heifer calves)	10	Female Calf rearing - Calf from good genetic potential	3,15,000	5 years
4	Bulk milk cooling unit	1	2000 liters capacity	8,50,000	5 years
5	Bulk milk cooling unit	1	5000 liters capacity	20,50,000	5 years
6	Dairy processing equipment to produce Indigenous milk products			13,20,000	5 years
7	Dairy product transportation & Cold chain			26,50,000	5 years
8	Cold storage facilities for milk and milk products			33,00,000	5 years
9	Dairy marketing outlet / parlor			2,00,000	5 years
10	Private Veterinary Clinic – Stationary			3,00,000	5 years
11	Private Veterinary Clinic-Mobile (Clinic + two wheeler)			3,60,000	5 years

 # LPD-Litres per day

4.1.1 Small dairy units

a. Jersey/Holstein Friesian Crossbreds with average milk yield 6-8 liters per day per cow (1+1)

S. No.	Items of Investment	Dairy unit excluding shed (If shed is already available)	Dairy unit including shed
1	Construction of Shed	0	25,070
2	Cost of animals (1+1) @Rs.55,000/animal	1,10,000	1,10,000
3	Insurance cost (@5% of the cost of the animals & shed)	5500	5500
4	Transportation cost of animals	10000	10000
5	Cost of equipment	1200	1200
6	Miscellaneous & Recurringcost	29,270	29,270
	Total	**1,55,970**	**1,81,040**
	Rounded off	**1,56,000**	**1,81,000**

a. Jersey/Holstein Friesian Crossbreds with average milk yield 8-10liters per day per cow

S. No.	Items of Investment	Dairy unit excluding shed#	Dairy unit includingshed
1	Construction of Shed	0	31,100
2	Cost of animals (1+1)	1,44,000	1,44,000
3	Insurance cost (@5% of the cost of the animals & shed)	7200	7200
4	Transportation cost of animals	10000	10000
5	Cost of equipment	1200	1200
6	Miscellaneous & Recurring cost for 3 months	38,000	35,000
	Total	**200,400**	**2,28,500**
	Rounded off	**2,00,500**	**2,28,500**

\# If shed is already available.

4.1.2 Commercial dairy units (5+5)

S. No.	Items of investment	₹ Per unit	Amount (₹)
1	Cost of construction of shed (@₹65 sqft per animal for 10 cows)	210	1,36,500
2	Cost of animals	75,000	7,50,000
3	Transportation cost of animals	4000	40000
4	Feed: (dry, Concentrate, Green)		3,45,000
5	Insurance cost (@5% of the cost of animals)	5%	37,500
6	Other recurring costs for 3 months		44,000
		Total	**13,53,000**

4.1.3 Bulk milk cooling unit-5000 litres capacity

S. No.	Particulars	Amount (₹)
i	Construction of building (1000 sqft)-office cum collection unit	5,00,000
ii	Cost of Bulk Milk Cooler with DG Set	15,00,000
iii	Installation and Commissioning	50,000
iv	**Total Cost**	**20,50,000**
	Margin Money (@ 25% of iv)	5,12,500
	Bank loan (@ 75% of iv)	15,37,500

4.1.4 Bulk milk cooling unit-2000 litres capacity

S. No.	Particulars	Amount (₹)
I	Cost of Bulk Milk Cooler with DG Set	8,00,000
Ii	Installation and Commissioning	50,000
Iii	**Total Cost**	**8,50,000**
	Margin Money (@ 25% of iii)	2,12,500
	Bank loan (@ 75% of iii)	6,37,500

($ Small BMCU unit in rented building.)

4.2 Poultry Development

S. No.	Activity	Unit size	Unit cost (₹)	Repayment period
1	Broiler farm	1000 birds unit	3,27,600	5 Years
2	Layer farm	5000 birds unit	42,00,000	5 Years
3	Duck farm	28 Female+4Male	15,750	5 Years
4	Duck farm	100 Female+15Male	1,05,000	5 Years
5	Kuroiler farm	200 birds per batch	96,000	5 Years

S. No.	Items of investment	Units	₹ Per unit	Amount (₹)
A.	**Capital cost**			
i	Construction of shed with locally available material @1 sft per bird @ ₹150 per sft	1000	150	1,50,000
ii	Equipment	1000	10	10,000

B.	Recurring cost			
i	Cost of day old chicks	1000	40	40,000
ii	Cost of feed (3.5 kg per bird)	3500	32	1,12,000
iii	Cost of medicines	1000	6	6,000
iv	Insurance	1000	2	2,000
v	Miscellaneous			7600
	Total			**3,27,600**

4.2.2. Layer farm-5000 bird unit (1:1:3-Cage system)

S. No.	Items of Investment	Specifications	Units	₹ Per unit	Amount (₹)
A.	Capital cost				
1	Construction of shed	Sft. per bird			
I	Brooder-one shed	0.4	5250	195	4,09,500
Ii	Grower-one shed	0.6	5250	195	614250
Iii	Layer-three sheds	0.8	15000	195	23,40,000
2	Cost of cages for layer			Lump sum	1,95,000
3	Cost of day old chicks (BV- 380)	For first batch	5000	42	2,10,000
4	Cost of feed for first batch		5000	Rs.78/bird	3,90,000
5	Cost of vaccines & medicines		5000	5	25,000
6	Insurance		5000	2	10,000
7	Miscellaneous				8000
				Total	**42,01,750**
	Rounded off				**42,00,000**

- Linkages in respect of chicks, feed & medicines may be ensured for broiler & layer units.
- Beneficiary should follow the prescribed vaccination schedules and biosecurity measures.

4.2.3. Duckfarm (28 F+4 M) Semi intensive system

S.No.	Items of investment	Units	₹ Per unit	Amount (₹)
1	Enclosure & feeding equipment		Lump sum	5000
2	Ducklings-3 months old @ ₹190	32(28+4)	190	6,080
3	Concentrate feed up to 3 months @ 3.5 kg per bird @₹32 per kg	32(28+4)	112	3,584
4	Miscellaneous			1086
			Total	**15,750**

4.2.4 Duck farm (100 F+15 M)- Semi intensive System

S. No	Items of investment	Units	₹ Per unit	Amount (₹)
1	Enclosure & feeding equipment- 500 sft @ ₹100 per sft.	**500**	100	52,500
2	Ducklings – 3 months old @₹190	115(100+15)	190	21,850
3	Concentrate feed up to 3 months @ 3.5 kg per bird @₹32 per kg	115(100+15)	112	12,880
4	Veterinary aid, transportation & other expenses	115(100+15)	100	11,500
5	Miscellaneous			6,270
			Total	**1,05,000**

- Linkages in respect of duckling, feed, medicines and marketing need to be ensured.
- Beneficiary should follow the vaccination schedule properly.

Kuroiler farming Kuroiler Farm- 200 Birds Unit

Sl no.	Items of investment	Units	₹ Per unit	Amount (₹)
A.	**Capital cost**			
I	Construction of shed with locally available material @1 sft per bird @₹132 per sft	200	132	26,400
Ii	Equipment	200	6	1,200
B.	**Recurring cost**			
I	Cost of day old chicks	200	55	11,000
Ii	Cost of feed (8 kg per bird for 3 months)	1600	32	51,200
Iii	Cost of medicines	200	5	1,000
Iv	Insurance (Shed & birds) @ 5%			1,700
V	Miscellaneous			2000
Vi	Transportation			1,500
	Total			**96,000**

4.2.6 Diversified activities

S.No.	Activity	Unit cost (₹)
1	Breeding farms for low input technology birds like turkey, ducks, guinea fowl, etc.	30,00,000
2	Transport vehicles	8,00,000
3	Refrigerated transport vehicles	15,00,000
4	Retail outlets	6,00,000
5	Mobile marketing units	8,00,000
6	Cold Storage for poultry products	20,00,000
7	Egg broiler carts	31,500

$ Repayment period – 5 years

4.3 Sheep, Goat and Pig farming

4.3.1 Sheep / Goat farming

i. Goat rearing (10F+1M & 20F+1M)

S.No.	Cost	₹/ unit	Unit cost (₹)	
			(10F+1M)	(20F+1M)
1	Cost of construction of shed	Lump sum	12,500	25,200
2	Purchase of does	4000	40,000	80,000
3	Purchase of buck	6000	6,000	6,000
4	Insurance cost	5%	2,300	4,300
5	Miscellaneous		1150	1050
		Total	**61,950**	**1,16,550**

ii. Sheep rearing (10F+1M & 20F+1M)

S. No.	Cost	₹/ unit	Unit cost (₹)	
			(10F+1M)	(20F+1M)
1	Enclosures and equipment	Lump sum	12,500	25,200
2	Purchase of ewe	4000	40,000	80,000
3	Purchase of Ram	6000	6,000	6,000
4	Insurance cost	5%	2,300	4,300
5	Miscellaneous		1150	1050
		Total	**61,950**	**1,16,550**

iii. Sheep / Goat breeding unit

Sheep / Goat breeding unit	Unit size (Female + Male)		Unit cost (₹)
	Female	Male	
Unit cost includes cost of goats/sheep, shed, farm equipment, insurance, fodder cultivation, transportation, etc.	100	5	5,00,000

4.3.2 Pig farming

S.No.	Investment	Unit Size	Cost (₹)	Repayment
i	Pig breeding farms	20F+4M	9,64,000.00	5 years (including one year gestation period)
ii	Pig rearing & fattening units	3F+1M	1,02,000.00	
iii	Retail outlets		10,50,000.00	5 years

Piggery **Breeding cum fattener unit – 3F+1M**

S. No.	Cost	Specifications	No. of animals	₹/ Unit	Amount (₹)
1	Pig sty	Sft per animal	No.	₹/sft	
I	Boar	70	1	105	7350
Ii	Sow	60	3	105	18900
2	Fattener shed	12.5	20	105	26250
3	Equipment				3000
4	Cost of Piglets				
I	Boar	3 months	1	3600	3600
Ii	Sow	3 months	3	3600	10800
5	Supplementary feed	Feed (Kg)	No.	Total (Kg)	
I	Concentrate feed	1134		27.50	31185
6	Insurance	5%			625
	Total				**101710**
	Rounded off				**102000**

- Piggery units should have access to sources of vegetable, hotel and other wastes.
- Piglets aged around 2 months financed in case of fattening unit.
- Animals are identified immediately after purchase through ear tagging and are insured, preferably under a long-term master policy.
- Prescribed vaccination schedule and deworming should be followed.

Pig breeding unit (20F+4M)

S. No.	Items of Investment	Specifications	Physical unit	Unit Rate	Total cost (₹)
1	**Fixed Capital Cost**				
a.	Cost of animal	Sow	20	3300	66000.00
		Boar	4	3300	13200.00
b.	Cost of shed Construction	Pens for farrowing (8), Boar- cum-service (4), Dry sows (12), weaners & store room	2110	100	210000.00
c.	Water supply system (Bore well, electric motor pump set-1HP, water tank	Lump sum			30000.00
d.	Cost of equipment	Lump sum			10000.00
e.	Cost of three wheeler for garbage collection		1		200000.00
				Sub total	**529200.00**
2	**Recurring cost**				
a.	Insurance	6% on the cost	4		31752.00
b.	Cost of Feed	Breeder feed, weaner feed, Garbage			350400.00
c.	Labour wages	For six months	1	4000	48000.00
d.	Veterinary aid	Vaccination and medicines			3000.00
c.	Miscellaneous				2000.00
				Sub total	**435152.00**
				Grand Total/TFO	**964352.00**
				Say	**9,64,000.00**

Transportation cost extra, on need basis

- Pig breeding units may be set up away from human habitations and have adequate sources of vegetable, hotel and other wastes.
- Good quality foundation stock (Large white Yorkshire, etc.,), aged around 8-9 months may be financed in case of breeding units.
- Linkages in respect of training, breeding & veterinary care, feed, garbage collection, medicines and marketing are adequate.
- Animals may be identified immediately after purchase through ear tagging and are insured, preferably under a long-term master policy.

5. Fisheries Development

Unit Cost of Investment Components (Rates per unit)

No	Item	Unit	Rate (₹)	Remarks
1	Excavation of soil	Cum	123	
2	Lime	Kg	25	
3	Cow dung	Kg	1.20	
4	SSP	Kg	8.80	
5	Urea	Kg	5.90	
6	Calcium Amm. Nitrate	Kg	10	
7	Fish seed- carried over (Fingerling- advanced 120-150 mm)	Per piece	6	
8	Spawn (IMC)	Lakh no's	1000	
9	Spawn (CC)	Lakh no's	1000	
10	Rice bran	Kg	25	
11	Mustard oil cake	Kg	25	
12	Water testing kit	LS	6000	
13	Nylon drag net	Kg	800	
14	Monofilament fabric (for pen)	meters	50	
15	Nylon tape (for pen)	meters	5	
16	Operation of pump for de-watering	Hour	150	₹70/ lit/hr fuel + ₹25/ hrrental + `37.50 for operator/hr+Rs.15.63/hr Mobile+Rs.1.87 misc.
17	Poultry house construction	Sq.ft	50	
18	Poultry chicks (8 week old)	No	150	
19	Poultry feed	Kg	20	
20	Duck house construction	Sq.ft	75	
21	Duckling (2 month old)	No.	100	
22	Pig sty construction	Sq.ft	125	
23	Piglet (3 months old)	No.	3600	

Yield/ income parameters

No	Item		Unit	Rate
1	Fish	Yield per year	Kg	1 (70% I year, 100% II-V years)
		Sale price (IMC)	₹/Kg	150
2	Poultry (layer)	Yield of eggs (52 weeks)	No.s	150
		Price of egg	₹/ egg	3
		Meat weight (72 weeks)	Kg/ bird	1.80
		Price of meat	₹/Kg	120
3	Duckery	Yield of eggs (40 weeks)	No.s	200
		Price of egg	₹/egg	5
		Meat weight (72 weeks)	Kg/ bird	2.50
		Price of meat	₹/Kg	100
4	Piggery (fattening)	Meat weight (8 months)	Kg/animal	150
		Sale price	₹/ animal	4500

Summary of unit costs models

S N	Item of investment	Unit Size	Unit Cost (₹)	Rep period (Yrs)
1	Traditional fish culture in existing waterbodies without excavation	0.33 acre/ 1340 sq.m	37,000	5 years
2.	Traditional fish culture in existing waterbodies with 0.30 m excavation		76,000	5 years
3.	Integrated fish culture with Poultry (40 nos.)		1,40,000	5 years
4.	Integrated fish culture with Duckrearing (10 nos.)		1,07,000	5 years
5.	Integrated fish culture with Piggery (04 nos.)		1,38,000	5 years
6.	Ornamental Fish rearing in earthen ponds	200 sq.m	60,375	5 years
7.	Individual Fish Pond Scheme	0.1 Ha	1,46,000	
8.	Fish Seed Rearing in 03 nurseries –(20mx10mx1m)	200 sq.m x 3	1,32,000	5 years

5.1 Traditional fish culture in existing water bodies (0.33 acre/ 1340 m²)

A	CAPITAL COSTS	Unit	Quantity	Rate (₹)	Amount (₹)
1	Preparation of tank- cost of reclamation	cum	0	123	0
2	Eradication of weeds	Man days	8		1616
3	Removal of predators by netting	Man days	8		1616
4	Leveling of pond, repair of embankment	LS			3000
5	Equipment's- nets, hapa etc.	LS			500
				Sub total	6732
B	RECURRING COSTS				
1	Lime	Kg	100	25	2500
2	Cow dung	Kg	2000	1.20	2400
3	Single super phosphate	Kg	40	8.8	352
4	Urea	Kg	30	5.9	177
5	Fish seed (fingerlings)	No's	800	6	4800
6	Rice polish	Kg	265	10	2650
7	Mustard oil cake	Kg	265	25	6625
8	Cost of harvesting	LS			6000
9	Prophylactics etc.	LS			2500
10	Contingencies				2000
				Sub total	30004
				Grand total	36736
				Rounded off	37000

5.2 Integrated fish culture in pond (0.33 acre/1340 m²) with poultry (40 no's localvariety)

A	CAPITAL COSTS	Unit	Quantity	Rate (₹)	Amount (₹)
1	Preparation of tank- cost of reclamation- 80% volume	Cum	322	123	39606
2	Eradication of weeds	Man-days	8		1616
3	Removal of predators by netting	Man-days	8		1616
4	Leveling of pond, repair of embankment	LS			3000
5	Equipment's- nets, hapa etc.	LS			500
				Sub total	**46338**
B	**RECURRING COSTS**				
1	Lime	Kg	100	25	2500
2	Cow dung	Kg	2000	1.2	2400
3	Single super phosphate	Kg	40	8.8	352
4	Urea	Kg	30	5.9	177
5	Fish seed (fingerlings)	No's	800	6	4800
6	Rice polish	Kg	265	10	2650
7	Mustard oil cake	Kg	265	25	6625
8	Cost of harvesting	LS			6000
9	Prophylactics etc.	LS			2500
10	Contingencies				2000
				Sub total	**30004**
				Grand total	**74342**
				Rounded off	**76000**

5.3 Integrated fish culture in pond (0.33 acre/1340 m²) with poultry (40 no's localvariety)

A	CAPITAL COSTS	Unit	Quantity	Rate (₹)	Amount (₹)
1	Water testing kit	LS			6000
2	Excavation of pond (0.5 m)	Cum	536	123	65928
3	Eradication of weeds	Man-days	8		1616
4	Removal of predators by netting	Man-days	8		1616
5	Dewatering by pumping	Hour	6	150	900
6	Equipment's (net, hapa)	LS			2500
7	Poultry house @ 1.0 sqft per bird	Sqft	40	75	3000
8	Horticulture (Banana, papaya, vegetables)	LS			2000
				Sub total	**83560**

B	**RECURRING COSTS**				
1	Repair of embankment, levelling	LS			5000
2	Lime	Kg	100	25	2500
3	Urea	Kg	70	5.9	413
4	Fish seed (fingerlings)	No's	800	6	4800
5	Poultry chicks (8 weeks old)	No's	40	150	6000
6	Poultry feed (90-140 gm./ bird/ day)	Kg	1460	20	29200
7	Cost of harvesting	LS			6000
8	Prophylactics etc.	LS			2500
				Sub total	**56413**
	Grand total				**139973**
	Rounded off				**140000**

5.4 Integrated fish culture in pond (0.33 Acre/1340 m²) with duckery (10 no's)

A	CAPITAL COSTS	Unit	Quantity	Rate (₹)	Amount (₹)
1	Water testing kit	LS			6000
2	Excavation of pond (0.5 m)	cum	536	123	65928
3	Eradication of weeds	Man-days	8		1616
4	Removal of predators by netting	Man-days	8		1616
5	Dewatering by pumping	Hour	6	150	900
6	Equipment's (net, hapa)	LS			2500
7	Duck house @ 2.0 sqft per bird	sqft	20	75	1500
8	Horticulture (Banana, papaya, vegetables)	LS			2000
				Sub total	**82060**
B	**RECURRING COSTS**				
1	Repair of embankment, levelling	LS			5000
2	Lime	Kg	100	25	2500
3	Urea	Kg	70	5.9	413
4	Fish seed (fingerlings)	No's	800	6	4800
5	Ducklings (2 months old)	No's	10	100	1000
6	Duck feed				
I	Poultry feed	Kg	70	20	1400
Ii	Rice polish	Kg	140	10	1400
7	Cost of harvesting				6000
8	Prophylactics etc.				2500
				Sub total	**25013**
	Grand total				**107073**
	Rounded off				**107000**

5.5 Integrated fish culture in pond (0.33 acre/1340 m²) with Piggery (5 no's sow-fattening unit)

A	CAPITAL COSTS	Unit	Quantity	Rate (₹)	Amount (₹)
1	Water testing kit	LS			6000
2	Excavation of pond (0.5 m)	Cum	536	123	65928
3	Eradication of weeds	Man-days	8		1616
4	Removal of predators by netting	Man-days	8		1616
5	Dewatering by pumping	Hour	6	150	900
6	Equipment's (net, hapa)	LS			2500
7	Pig sty with asbestos roof for 4 piglets @ 17 sqft per piglet	sqft	85	125	10625
8	Horticulture (Banana, papaya, vegetables)	LS			2000
				Sub total	**91185**
B	**RECURRING COSTS**				
1	Repair of embankment, levelling	LS			5000
2	Lime	Kg	100	25	2500
3	Urea	Kg	70	5.9	413
4	Fish seed (fingerlings)	No's	800	6	4800
5	Cost of piglets (3 months old)	No's	5	3600	18000
6	Pig feed (1 kg/ day/ piglet for 5 months)	Kg	750	10	7500
7	Cost of harvesting				6000
8	Prophylactics etc.				2500
				Sub total	**46713**
				Grand Total	**137898**
				Rounded off	**138000**

5.6. Individual Fish Pond Scheme

A. Capital Cost						
Sl. No	**Items**	**Unit**	**Area/ Quantity**	**Man Days**	**Rate as per PWD(B) SOR(₹)**	**Amount (₹)**
1	Land Clearing /Pond Excavation	Ha	0.1	600	179	107400
2	A. C. Pipes	No	4	LS	1500	1500
					Sub-total	**108900**

B. Input Cost					
Sl. No	Items	Unit	Area/ Quantity	Rate (₹)	Amount (₹)
1	Fish Seed	Nos	1000	2	2000
2	Lime	Kg	100	20	2000
3	RCD	Kg	1000	1	1000
4	Fish Seed	Kg	450	50	22500
5	Health Care		LS	1600	1600
6	Labour		LS	3000	3000
7	Fishing Equipment		LS	5000	5000
				Sub-total	**37100**
				GRAND TOTAL	**146000**

5.7 Fish seed rearing

No. of nurseries = 3, Area per nursery = 20m x 10m x 1m					
A	CAPITAL COSTS	Unit	Quantity	Rate (₹)	Amount (₹)
1	Water testing kit	LS	1	6000	6000
2	Preparation of tank				
A	Weed eradication	Man-days	8		1616
B	Removal of predators by netting	Man-days	8		1616
C	De-watering by pumping	Hour	6	150	900
D	Earth work for 3 nurseries (20m x 10m x 1m)	Cum	600	123	73800
E	Inter connection with hume pipes	No's	7.5	2000	15000
F	Repair of embankments, leveling etc.	LS			4000
3	Watchman shed cum store	Cum	3.75	1000	3750
4	Harvesting nets				
A	Nylon drag net for fry collection- 10m x 7m (mesh size : 1/3")	Kg	1.25	800	1000
B	Nylon drag net for fingerling collection- 10m x 7m (mesh size : 1/2")	Kg	2.5	800	2000
				Sub total	**109682**

B	**RECURRING COSTS**				
1	Lime	Kg	60	25	1500
2	Cow dung	Kg	1500	1.2	1800
3	Single super phosphate	Kg	15	8.8	132
4	Calcium Ammonium Nitrate	Kg	15	10	150
5	Kerosene	Lit	3	20	60
6	Soap	Kg	300	30	9000
7	Micro nutrients	LS			170
8	Fish seed (spawn)				
A	IMC	Lakh no.	1.5	1000	1500
B	CC	Lakh no.	1.5	1000	1500
9	Feed				
A	Rice polish @ 60 kg per nursery	Kg	180	10	1800
B	MOC @ 60 Kg per nursery	Kg	180	25	4500
				Sub total	**22112**
				Grand Total	**131794**
				Rounded off	**1,32,000**

6. Plantation and Horticulture

S. No.	Item of Investment	UnitSize	Unit Cost (₹)	Remark
6.1	Cashewnut Cultivation	1 Acre	*53700/-*	Capitalised upto 5^{th} year
6.2	Pineapple cultivation	1 Acre	180000	1^{st} Year Cost
6.3	Rubber Cultivation	1 Hactare	280000	Capitalised upto 6^{th} year
6.4	Tea Cultivation	1 Hactare	651000	Capitalised upto 4^{th} year
6.5	Mandarin/Orange	1 Acre	76000	
6.6	Assam Lemon	1 Acre	61300	
6.7	Arecanut Cultivation	1 Ha	114000	Capitalised upto 5^{th} year
6.8	Betelvine cultivation	1 Ha	97750	

6.1. Cashewnut Cultivation

(Unit size: 1acre)

(Amount in ₹)

S. No	Item of expenditure/Year ->	1	2	3	4	5	Total
A.	**Material cost**						
1	Planting Material including 10% replacement in second year	8200	820				9020
2	Manure / fertilizer	1500	2500	3000	3000	3000	13000
3	Cost of Irrigation	1575	1575	1575	1575	1575	7875
4	Plant Protection	530	530	750	750	750	3310
5	Fencing	1500					1500
	Sub-total	13305	5425	5325	5325	5325	34705
B.	**Labour Cost**						
A	Land Preparation	3000					3000
B	Digging of pits@8 Pits/manday for 10 MD	2000	200				2200
C	Refilling and planting	606	202				808
D	Interculture, manuring, plant protection, pruning, irrigation	1900	1900	1900	1900	1900	9500
E	Harvesting				1500	2000	3500
	Sub-total	7506	2302	1900	3400	3900	19008
	Total	**21176**	**7849**	**8145**	**10849**	**11863**	**53713**
						Roundded Off	**53700**

Proposed Unit Cost₹ 53700/- (capitalized upto fifth year).

Spacing 7mX7m ;

Repayment period – 10 years with 6 years graceperiod.

6.2. Pineapple cultivation

Unit Size: 1 acre

(Amount in ₹)

Sr. No	Item	Year 1	2	3	4
I	**Material Cost**				
1	Planting materials (10% extra)	114840			
2	FYM	13200	13200	13200	13200
3	Fertilizers	7762	7762	7762	7762
4	Irrigation	1050	1260	1470	1470
5	Plant protection chemicals, growth regulators & micronutrients	525	525	525	525
6	Workable fencing	1575	-	-	-
	Sub - total I	**138952**	**22747**	**22957**	**22957**
II	**Labour Cost**				
1	Land preparation, digging trenches, fixing slabs etc.	14140			
2	Preparing suckers and planting	10100			
3	Application of manures & fertilizers	6060	6060	6060	6060
4	Spraying of pesticides, micro-nutrients growth regulators, etc.	2020	2020	2020	2020
5	Interculture : Fruit shading Earthing up	8080	8080	8080	8080
6	Irrigation	606	606	606	606
7	Harvesting @ 400 fruits		4040	3636	3232
	Sub - total II	41006	20806	20402	19998
	GRAND TOTAL	179958	43553	43359	42955
	Rounded off (1st Year Cost)				**180000**

Proposed Unit Cost ₹180000/- (rounded off) - 1st year cost only.

Spacing 90cm X 30cm X 60cm;

Repayment period – 3 years with one year grace period.

6.3. Rubber cultivation

Unit size: 1hectare

(Amount in ₹)

S. N.	Item of expenditure/Year	1	2	3	4	5	6	Total
A.	**Labour Requirement**							
1	Land Clearing	60						**60**
2	Terracing, Lining and pitting	130						**130**
3	Filling and planting	93	2					**95**
4	Fixing of shades	15	5					**20**
5	Pruning of branches	5	5	3	2			**15**
6	Interculturaloperations	80	60	46	25	45	35	**291**
7	Manuring & Fertilization	5	5	5	5	5	5	**30**
8	Plant protection	5	5	5	3	1	1	**20**
9	Drainage and other misc. work	10	5	3	2	2	2	**24**
10	Boundary protection and footpath	28	27	25	24	22	12	**138**
	Total Labour requirement MD	**431**	**114**	**87**	**61**	**75**	**55**	**823**
	Total Labour cost (A)	**87062**	**23028**	**17574**	**12322**	**15150**	**11110**	**166246**
B.	**Material Cost**							
1	Planting Material cost	47250	4725					
2	Cost of tools and implements	5000						
3	Cost of fertilizers & Manures	5250	2100	2100	2100	2100	2100	
4	Plant Protection	1050	525	525	525	525	525	
5	Boundary Protection	30000						
6	Insurance	1500						
7.	Miscellaneous	1000	1000	1000	1000	1000	1000	
	Total (B)	**91050**	**8350**	**3625**	**3625**	**3625**	**3625**	113900
	Grand Total	**178112**	**31378**	**21199**	**15947**	**18775**	**14735**	**280146**
	Rounded off to Rs.2,80,000/-							

Proposed Unit Cost ₹2,80,000/- (rounded off)-capitalized up to 6th year. Spacing 4.75mX4.75m. Repayment period-13 years with 7 years grace period.

6.4 Tea Cultivation

Unit Size: 1 hectare
(Amount in ₹)

S. No	Particulars / Year	1	2	3	4	5
A	**Calculation of labour in man days**					
1	Land clearing, ploughing, levelling and land preparation	175				
2	Organic matter application	30				
3	Planting /infilling tea					
i	Planting @ 125 holes/md	120	12	6		
ii	Filling of pits @ 200 pits/md	75	8	4		
iii	Transplantation @ 300 plants/md	50	5	3		
iv	Planting & staking @ 75 plants/md	200	20	10		
v	Fertilizer application@1000 plants/md	15	2	1		
4	Planting shade tree					
i	Permanent	10				
ii	Temporary	20				
5	Mulching @ 300 plants /md/ round (3 round)	150	50			
6	Prunning/Tipping	0	0	30	40	40
7	Manual and chemical weed control	0	0	90	90	90
8	Application of plant protection chemicals @ 4md/round	0	0	12	16	16
9	Application of fertilizer @ 4md/round	12	12	12	12	12
	Shade maintenance @ 5 md/round	15	10	10	10	6
10	Maintenance of drainage, fencing	0	10	10	10	10
	Total mandays(MD)	**872**	**129**	**188**	**178**	**174**
	Cost of labour	**176144**	**26058**	**37976**	**35956**	**35148**
B	**Material cost**					
1	Organic matter	11400	11400	11400	11400	11400
2	Tea planting material @₹7.00/per plant	105000	10500	525		
3	Shade tree planting materials (including 10% for gap filling)					
i	Permanent sp. 190 @₹4.00/-	760				
ii	Temporary sp. 692 @₹3.00/-	2076				
4	Fertilizers	3000	3000	3000	3000	3000
5	Plant protection Chemicals @₹500/lit	0	0	3000	3000	3500
6	Weedicides			1000	1250	1500
7	labor for plucking (20 people for 20 cycles)				68000	68000
	Total	**122236**	**24900**	**18925**	**86650**	**87400**
	Total Cost (A+B)	**298380**	**50958**	**56901**	**122606**	**122548**

Spacing – 105cm X 65 cm. Repayment period 10 years with 5 years grace period.

Unit Cost for Tea cultivation in 1 hectare	(₹)
Capital expenditure (Term Loan)	298000 (Rounded off)
WC for four years	353000 (Rounded off)
Total	**6,51,000**

Cost Norms adopted:

FYM cost	₹1.5/Kg
Fertilizers rate	
Urea	₹10/Kg
DAP	₹28/Kg
MOP	₹21/Kg
Average cost of Plant Protection and other chemicals (per Kg or lit.)	₹500/L

6.5 Mandarin/Orange (spacing: 6m X 6m) Unit size: 1 acre

S.No.	Items	Year					Total (₹)
		1	2	3	4	5	
1	Land Preparation	4750	0	0	0	0	4750
2	Digging and Filling up of pits	4750	1000	0	0	0	5750
3	Planting material@ Rs 25 for 110 plants	2750	275				3025
4	Planting and Staking	2500	250	0	0	0	2750
5	Cost of FYM	2250	2250	2250	2250	2250	11250
6	Cost of fertilizers	610	1670	2500	3333	4170	12283
7	Manures & Fertilizersapplication	1260	1575	1575	1575	2100	8085
8	Irrigation	630	1050	1260	1575	2100	6615
9	Plant Protection Measures	525	525	525	1050	1050	3675
10	Application of Plantprotection measures	750	1050	1050	1260	1260	5370
11	Inter-culture operations	2100	2100	2100	2100	0	8400
	Harvesting	0	0	0	0	4200	4200
	Total	22875	11745	11260	13143	17130	76153
	Rounded off	76000					

- **Proposed Unit Cost -₹76,000/- per acre (rounded off) (capitalized up to 5 years)**
- **Repayment -10 years with 5 years grace period**

6.6. Assam Lemon (spacing: 5 m X 5 m) Unit size: 1 acre

S. No.	Items	Year				Total (Rs.)
		1	2	3	4	
1	Land Preparation	4750	0	0	0	4750
2	Digging and Filling up of pits	5000	500	0	0	5500
3	Planting material@ Rs 20, 160 no	3200	320	0	0	3520
4	Planting and Staking	3250	325	0	0	3575
5	Cost of FYM	2250	2250	2250	2250	9000
6	Cost of fertilizers	630	1680	2520	3360	8190
7	Manures & Fertilizers application	1260	1575	1575	1575	5985
8	Irrigation	630	1050	1260	1575	4515
9	Plant Protection Measures	750	750	750	1500	3750
10	Application of Plant protection measures	750	1050	1050	1260	4110
11	Inter culture	2100	2100	2100	2100	8400
	Harvesting	0	0	0	0	0
	Total	24570	11600	11505	13620	61295
	Rounded off	**Rs.61300/-**				

- **Proposed Unit Cost- ₹61,300/- per acre (capitalized up to 4 years)**
- **Repayment -8 years with 4 years grace period**

6.7 **Arecanut cultivation (spacing: 2.7mX2.7m)** **Unit size: 1ha**

S. No.	Item/Years	I	II	III	IV	V	VI	Total (₹)
A	**Material**							
1	Planting material + 10 % extra in II Year @ ₹15/plant	24500	2450	0	0	0	0	26950
2	FYM	1800	2100	3000	3000	3000	3000	15900
3	Cost of Fertilizer	1800	3000	5200	5200	5500	5500	26200
4	Plant Protection	1200	1450	1700	1700	1700	1700	9450
	Subtotal	**29300**	**9000**	**9900**	**9900**	**10200**	**10200**	**78500**
B	**Labour (man-days)**							
1	Land Preparation	33	4	0	0	0	0	37
2	Digging of Pits	33	0	0	0	0	0	33
3	Filling of Pits and Planting	16	4	0	0	0	0	20
4	Manuring andFertilizer	4	4	4	8	8	8	36
5	Interculture	4	4	4	4	4	4	24
6	Irrigation	4	4	4	4	4	4	24
7	Harvesting	0	0	0	0	0	4	4
	Total Man-days	94	20	12	16	16	20	178
	Labour Cost	18988	4040	2424	3232	3232	4040	35956
	Grand Total	48288	13040	12324	13132	13432	14240	114456

Unit Cost ₹1,14,000/- (Rounded off) per ha- capitalized up to fifth year
Repayment period: 10 years with 5 years grace period

6.8 Betel vine cultivation under Boroj system — Unit Size: 1 ha

S. No.	Particulars	Years (₹)	
		1	2 to 7 years
1	Construction cost of Boroj*	22100	0
2	Planting material	15000	0
3	Manure & fertilizers	2350	0
4	Plant protection	500	0
5	Land preparation & vine transplanting	5000	0
6	Fertilizer application	5400	5400
7	Plant protection measures	3000	3000
8	Irrigation charges	6500	6000
9	Inter-culture operations	15400	15400
10	Harvesting	15000	14800
11	Packing & Transport charges	5500	5500
12	Annual repair cost of boroj	2000	2000
	Total	97750	**52100**

*Construction cost of Boroj (one year)		
S.No.	**Particulars**	**Amount (₹)**
1	Bamboo	10000
2	Rope/coconut strings	1100
3	Wire	1000
4	Thatching material	1000
5	Paddy Straw	1500
6	Staks/ticks	1500
7	Labour	6000
	Total	**22100**

- **Proposed Unit Cost -₹98000/- per ha (Rounded off for one yearonly) under boroj system.**
- **Repayment period- 7 year including 1 year grace period**

6.9 Passion Fruit (Spacing: 3mX2m) Unit size: 1 ha (Unit cost in ₹)

S. No.	Particulars	I Year		II Year		III Year		IV Year		V Year	
		MDs	Unit Cost	MDs	Unit Cost	MDs	Unit Cost	MDs	Unit Cost	MDs	Unit Cost
A	**Nursery**										
1	Bed Making	4	808								
2	Shifting to polybags	15	3030								
3	Manure		1000								
B	**Field Operations**										
1	Digging of pits	70	14140								
2	Manure & Fertilizers		16000		16000		16000		16000		16000
3	Mixing and filling of pits/basins	20	.4040								
5	Transplanting	10	2020								
6	Treelising withlocal wooden posts (1000 posts at 5 cm distance)*		12000		2500		2500		2500		2500
7	Wire for stretching		8000								
8	Fixing up of posts & stretching of wire	50	10100	15	3030	15	3030	15	3030	15	3030
9	Inter-culture and weeding	20	4040	25	5050	25	5050	25	5050	25	5050
10	Plant protection	10	2020	10	2020	10	2020	10	2020	10	2020
11	Harvesting		0	30	6060	35	7070	35	7070	35	7070
12	Packaging & Transportation	0	0	60	12120	75	15150	75	15150	75	15150
	Total Expenditure		77198		46780		50820		50820		50820
	Rounded off	**124000/- (First two years)**									

***Assuming 20-25% posts replaced**
Unit Cost-₹124000/-(rounded off) per ha-capitalized up to 02 years.
Repayment period-5 years including 01 year grace period

6.10. Rose cultivation under Naturally Ventilated System (Tubular structure) Green House

Unit Size: 500 sq. meter **Spacing: 7 plants per sq. meter**

SL	Particulars	Years (₹)							
		I	II	III	IV	V	VI	VII	Total
1	Planting material @ ₹125/plant	437500	0	0	0	0	0	0	437500
2	Erection of Greenhouse @₹1800/Sq. meter	900000	0	0	0	0	0	0	900000
3	Cladding material replacement cost	0	0	0	84000	0	0	0	84000
4	Drip Irrigation cost @₹550/Sq. meter	275000							275000
5	Manures-FYM/Compost	10000	5000	5000	5000	5000	5000	5000	40000
6	Fertilizers	6000	12500	12500	12500	12500	12500	12500	81000
7	Plant Protection	4000		7500	7500	7500	7500	7500	41500
8	Land Preparation cost @₹20/sqm	10000	0	0	0	0	0	0	10000
9	Planting (4 MDs)	1350	0	0	0	0	0	0	1350
10	Inter-cultural operations viz., Deshooting, Disbudding, Bending,Weeding, Spraying of pesticide and Application of fertilizers(100 MDs)	20000	20000	20000	20000	20000	20000	20000	140000
11	Harvesting (75 MDs 1styear and 100 MDs subsequent years)	15000	20000	20000	20000	20000	20000	20000	135000
12	Power/Fuel and	1000	1000	1000	1000	1000	1000	1000	7000
13	Farm equipment's (sprayers, secateurs etc.)	2600	0	0	0	0	0	0	2600
14	Packaging & Transportation	2000	3000	3000	3000	3000	3000	3000	20000
	Total expenditure	**1684450**	**61500**	**69000**	**153000**	**69000**	**69000**	**69000**	**2174950**
	Rounded Off Rs. 21,75,000/-								

NOTE: Rates for the items viz., Green house structure and drip irrigation aretaken as prescribed by Department of Horticulture, Government of Meghalaya

- **Proposed Unit Cost works out ₹21,75,000/- for 500 sq. meter Naturally Ventilated System (Tubular structure) Green House (cost capitalized up to 7 years).**
- **Repayment- 7 years including 01 year grace period**

6.11. Carnation (unit size=560 Sq.Mtr)

Sl. No	Particulars	Cost (₹)		
		I Yr.	II Yr.	III Yr.
1	**Non recurring cost** (Rs.)			
I	Erection of Greenhouse @₹1800/Sq. meter	1008000.00		
	TOTAL =A	**1008000.00**		
2	**Recurring cost** (Rs.)			
I	Planting material 12000 plants per unit @₹30/plant	360000		
Ii	Bed preparation	50000		
iii	Soil sterilization	2000		
iv	Maintenance cost (Supervision, maintenance, harvesting)@₹150/day for whole year.	55000	55000	55000
v	Fertilizer and Plant protection	15000.00	15000.00	15000.00
	Contingency	10000.00	5000.00	5000.00
	TOTAL = B	**492000.00**	**75000.00**	**75000.00**
	TOTAL = A + B	**1500000.00**	**75000.00**	**75000.00**

- **Proposed unit cost = ₹16,50,000/- (Up to 3 years)**
- Unit size = 560 Sq.Mtr.
- No of plants/unit = 12000
- Repayment period is 5 years with gestation period of 1 year.

6.12. Cost of cultivation of Gerbera (Unit size= 0.1 Ha)

Sl No	Particulars	Cost (₹)	
		I – Year	II - Year
1	Labour cost (Human)	20000.00	5000.00
2	Labour Cost (Machine)	1500.00	
3	Plants (6000 @ Rs.50)	300000.00	
4	Soil (Red)	120000.00	
5	Poly house	150000.00	
6	Manures	30000.00	30000.00
7	Fertilizers (N,P,K)	10000.00	10000.00
8	Plant protection	40000.00	40000.00
9	Irrigation	100000.00	100000.00
	TOTAL	**771500.00**	**185000.00**

- **Proposed unit cost = ₹9,56,500/-(For 2 years)**
- Unit = 1 unit of 6000 plants
- Unit size = 0.1 Ha
- Repayment period = 5 years with gestation of 1 year

6.13. Cost of cultivation of Orchid cultivation (Dendrobium Species)

(Unit Size = 160 Sq.Mtr)

S. N.	Particulars	Unit	Year wise expenditure (₹)			
			I	II	III	IV
1	Planting materials	1 unit of 1000 lants @₹265/sapling	265000.00			
2	Clay pots	@₹50 for 1000 plants	50000.00			
3	Planting mixture	@₹15 x 1000	15000.00			
4	Low cost Agro-shade house @Rs.1100/sq mt.	16m X 10m X 3.5 m	176000.00			
5	Chemicals & Fertilizer		15000.00	15000.00	15000.00	15000.00
6	Minor equipment like pruners, spray machine etc.		5000.00			
7	Contingencies		15000.00	5000.00	5000.00	5000.00
	TOTAL		**541000.00**	**20000.00**	**20000.00**	**20000.00**

- **Proposed unit cost = ₹6,00,000/-(Capitalized up to 4th year)**
- Unit = 1 unit of 1000 plants
- Unit Size = 160 Sq. Mtr.
- Repayment period is 7 years wise