

**UNIT COSTS
FOR APPROVED
INVESTMENTS IN AGRICULTURE
AND ALLIED ACTIVITIES**

**FOR
KERALA AND UT OF LAKSHADEEP
2004-2005**

{**Regional standing Committee Meeting for revision of Unit Cost 2004-05 held on
21st June 2004- Proceedings**}

KSCARDB

**APPROVED UNIT COSTS
FOR
VARIOUS INVESTMENT ACTIVITIES
IN
KERALA AND U.T OF LAKSHADEEP**

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APPROVED UNIT COSTS
(Modified up-to 01/11/2002)

I. MINOR IRRIGATION

A. New Wells.

1. For areas other than Wayanad district and three taluks of Palghat District.

Average Command (Ha.)	Geological Unit Formation	Diameter & Depth		Unit cost (Rs.)	Repayment period
0.4	Alluvium	Dia	1.5m	17000.00	11-15 years for small farmers and 9 years for others including 23 months grace period
		Depth	5.0m		
		(RCC rings)		18,700.00	
	Midland laterite	Dia	2.0m	18000.00	
		Depth	10.5m		
		(Masonry)		19,800.00	
	Laterite Valley	Dia	1.5m	15900.00	
		Depth	6.0m		
		(Masonry)		17,500.00	
0.8	Alluvium	Dia	2.0m	28800.00	
		Depth	6.0m		
		(Masonry)		31,700.00	
	Midland laterite	Dia	3.0m	28600.00	
		Depth	10.5m		
		(Masonry)		31,500.00	
	Laterite valley	Dia	2.0m	20600.00	
		Depth	6.0m		
		(Masonry)		22,700.00	
1.2	Alluvium	Dia	2.0m	33800.00	
		Depth	7.0m		
		(Masonry)		37,200.00	
	Midland laterite	Dia	4.0m	43500.00	
		Depth	12.0m		
		(Masonry)		47,900.00	
	Laterite valley	Dia	3.0m	32900.00	
		Depth	7.5m		
		(Masonry)		36,200.00	

2. For Wayanad District

0.6	Valley Alluvium	Dia	2.0m	24100.00 26,500.00
		Depth	7.5m	
		(Masonry)		
0.6		Dia	4.0m	43500.00 47,900.00
		Depth	12.0m	
		(Masonry)		
1.2	Crystalline Rocks	Dia	6.0m	63700.00 70,100.00
		Depth	12.0m	

Thickness of steining – 0.45m up to 3m depths.

3. For Chittur, Alathur and Palghat taluks.

0.6	Crystalline	Dia	4.0m	32900.00 36,200.00
		Depth	12.0m	
		(Masonry)		
1.2	Crystalline Rocks	Dia	6.0m	63700.00 70,100.00
		Depth	12.0m	

Repayment period: 11-15 years for Small farmers and 9 years for others including 23 months grace period.

B. Renovation (Deepening of old wells)

Sl.no.	Item	Unit cost	Repayment period
i	Laterite (non-crystalline) areas – (3 m deepening and incidental 1.5 m of lining)	8000.00 8400.00	5 years including 11 months grace.
ii	Crystalline area – Deepening by excavation (Rock cutting, 3 m deepening)	12000.00 12,600.00	-Do-
iii	Deepening by excavation, rock cutting and blasting (1 m) with 20 m horizontal (inclined boring) to intersect weak plains.	10000.00 10,500.00	-Do-
iv	Deepening by vertical bores (conversion of existing well to dug cum bore well; 110 mm dia 30 m depth including PVC or GI casing pipe)	6250.00 6600.00	-Do-
v	Filter point tube wells 110 mm dia 9 m depth (filter length 3 m)	3125.00 3300.00	-Do-

C. Farm ponds for cardamom and coffee in Idukki and Wynad districts.

(Not given in the current unit cost book)

- | | |
|--------------------------------|--------------------|
| 1. Model 1- 10m x 10m x 4.5m – | Rs. 96300.0 |
| 2. Model 2- 10m x 10m x 4.5m – | Rs. 71800.0 |

Repayment period – 9 yrs. including 1yr. grace

D. Well siting and electrical logging charges

[Rates applicable as per: G.O. (M.S.) No.823/99 IR-D dated 9-3-1999]

<u>Sl.no.</u>	<u>Item</u>	<u>Unit Cost</u>
1.	Hydro geological surveys for well siting for any type of well including geophysical surveys.	Rs. 300/- for Agricultural and Domestic purposes.
		Rs. 600/- , for institutions/local bodies for water supply.
		Rs.1500.00 for Industries.
2.	Geo-logging of tube well, bore well by electrical logging, whenever necessary.	Rs. 5000/- per bore-Well

Note: For community irrigation works, small and marginal farmers and persons belonging to SC/ST communities, geophysical surveys will be carried out free of cost by SGWD. These items may be included in the unit costs, in case of necessity, and will be eligible items of refinance.

E. Drilling/Hiring charges.

[Rates of drilling applicable as per, G.O. MS No. 823/99/Fin dated 9-3-99. Charges Applicable w.e.f. 1st April 99.]

<u>Sl.no.</u>	<u>Item</u>	<u>Unit Cost</u>
1.	Rotary drilling charges	
	a. For tube wells above 6" dia	Rs. 1000/- per metre+ cost of casing pipes used.

- b. For tube wells up to 6" dia **Rs. 750/-** per metre+ cost of casing pipes used.
- 2. D.T.H. drilling charges**
- a. For 6" / 6¹/₂" dia bore well **Rs. 320/-** per metre+cost of casing pipe used
- b. For 4" / 4¹/₂" dia bore well **Rs. 185/-** per metre+cost of casing pipe used
- 3. Filter point tube wells** **Rs. 65/-** per metre+cost of casing pipe used
- 4. Revitalization unit** **Rs.50/-** per metre+cost of casing pipes, filters, etc. used.
- 5. Rate of Hire charges of equipments**
- 1. Air compressors:**
- a. Of capacity up to 400 cfm. **Rs. 400/-** per hour or part thereof subject to a minimum of **Rs. 1600/-** per day.
- b. Of capacity more than 400 cfm. **Rs. 500/-** per hour or part thereof subject to a minimum of Rs. 2000/- per day.
2. Diesel welding set **Rs. 300/-** per hour or part thereof subject to a minimum of Rs. 1200/- per day.
3. Diesel generator set **Rs. 400/-** per hour or part thereof subject to a minimum of Rs. 1600/- per day.
- 6. Pump set:**
- a. Diesel pump sets up to 5 HP **Rs. 100/-** per hour or part thereof
- b. Electrical pump sets up to 10 HP **Rs. 50/-** per hour or part thereof
- c. Electrical pump sets above 10 HP up to 25 HP **Rs. 75/-** per hour or part thereof
- d. Electrical pump sets above 25 HP **Rs. 100/-** per hour or part thereof
(Not given in the current unit cost book)
- 7. Developing the existing bore well** Per hour rate of the compressor employed subject to a minimum charge for 4 hours.
- 8. Pumping tests in bore wells.** Hire charges fixed for generator sets+ Hire charges for pump sets+ 40% as overhead charges

Note: 1. For community irrigation works and for Small and Marginal farmers, drilling charges will be levied only at half the above rate.

2. However, since the unit cost proposals of Government departments (cost shown above are based on G.O.) have a built in component for supervision and execution of works up to 20% of the cost, the rates of private drillers may be ascertained before arriving at realistic unit cost wherever the services of private drillers are utilized.

F. Pump sets (CPS-IS:10804-94)

Sl.no.	Item	Power (HP)	Unit Cost (Rs.)	Repayment period
1	Electrical mono-block	1.0	9500.00	9 years including 11 months grace period
		1.5	11300.00	
		2.0	13850.00 13,900.00	
		3.0	15900.00 17,000.00	
2	Petrol / kerosene	1.5	13000.00	
		3.4/3.5	15050.00 17,200.00	
3	Diesel pump set	3.0/3.5	16600.00 23,000.00	
		5.0	20150.00 25,200.00	
4	Electric jet pump	1.0	10050.00 11,100.00	
		1.5	11850.00 12,500.00	

Note: a) Above costs do not include transportation and permanent installation charges under Complete Pumping System IS 10804 – 86 and 10804 – 94. **Transportation and permanent installation charges** subject to a maximum of **Rs. 580/-** based on actual expenditure incurred may be allowed.

b) **Jet pump sets** have low efficiency and should be financed only in areas, which are not suitable for installation of centrifugal pump sets due to large variation in water table, even during one operating season. Only those pump sets that are approved by SLTC may be financed by the bank. Jet pumps should conform to IS: 12225: 87.

G. Pump house.

<u>Item</u>	<u>Unit Cost(Rs.)</u>	<u>Repayment Period</u>
Pump house Cost of 2m x 2m x 2.1m with AC sheet roof.	Rs. 7400.00	9 years including 11 months grace.
	Rs.8100.00	

H. Pipe line distribution system.

Command (ha)	Unit Cost (Rs.)	Repayment period
0.4	5500.00 6100.00	9 years including 11 months grace
0.8	9000.00 9900.00	

1.2	15200.00	16,700.00
1.6	17900.00	19,700.00
2.0	20500.00	22,600.00

I. Storage tank.

Size
3m x 3m x 1.5m

Unit Cost (Rs.)
Rs. 12000.00
Rs.13,200.00

Repayment Period
9 years including 11
months grace

Rainwater Harvesting Structures with Subsurface Ferro cement Tanks

SI no	MODEL	I	II	III	IV
	Storage Capacity (Litres)	5000	10,000	15,000	20,000
	Particulars	Cost (Rs)			
1	Site cleaning and levelling	7.00	8.00	9.50	10.00
2	Earth work excavation	275.70	541.90	787.72	1079.70
3	Brick masonry	3074.68	3716.16	4357.64	4512.48
4	Plastering with cement mortar 1:3, 15 mm thick	4563.31	7018.01	8914.06	10852.12
5	Binding wire for fixing chicken mesh etc	291.89	458.21	590.70	719.24
6	Chicken mesh (22 guage)	999.49	1569.01	2022.70	2462.84
7	6 mm dia MS rod re-inforcement for top cover (50 cm c/c spacing)	187.46	246.16	319.45	331.71
8	Plastering with cement mortar 1:3, 9 mm thick after fixing/ leveling of chicken mesh	850.01	1337.47	1726.27	2102.44
9	1 Manhole of size 50cm x 50 cm	263.00	263.00	263.00	263.00
10	1 Filter tank with filter materials(gravel, sand, carbon etc)	528.35	528.35	528.35	528.35
11	140 mm dia PVC channel for rainwater collection from roof top, 25mm dia PVC pipe and other necessary fittings to the filter tank	2374.23	3081.62	3563.69	3934.46
12	1 hand pump for water collection	1000.00	1000.00	1000.00	1000.00
13	Hand pump installation	400.00	400.00	400.00	400.00
	Total Estimated Cost (Rs)	14,815.12	20,167.89	24,483.08	28,196.34
	Say, Rs.	14,800	20,200	24,500	28,200
	Cost per litre (tank capacity)	2.96	2.02	1.63	1.41

**MINOR IRRIGATION-
Terms and conditions – special**

I. Ground water structures (construction of dug wells, bore wells and deepening of dug wells)

1. Availability of ground water should be assessed on block wise basis. This data should be collected from the State Ground Water Department.

2. If the scheme area (block) falls in 'white' category (stage of development at year 5 is less than 70% of the total utilisable ground water resources for irrigation), NABARD will provide assistance for construction of dug wells, bore wells/tube wells under its automatic refinance facility.

3. While preferring refinance claims, the bank shall furnish block wise details of investments.

4. Spacing of wells.

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

i) Between two dug wells in high range region (hilly tract) – 75 metres.

ii) Between two dug wells/filter points in midland and coastal areas – 100 metres.

iii) Between two shallow tube wells/deep tube wells – 200 metres.

5. Electric 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.

6. Minimum acreage and sale of water.

It is necessary that the beneficiary have certain minimum area of land to be brought under irrigation to ensure financial viability of investment and repayment of loans within the prescribed period. 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. The income from sale of water, if any, may also be reckoned for the purpose of viability of investments up-to a maximum of 50% of the loan repayment installment.

7. In view of likelihood of seawater encroachment, no programme shall be implemented within a belt of 2 kms parallel to the coast and one km. on either side of the stream affected by the tide.

8. The ground water development should be restricted only to the potential areas. The state ground water department shall issue guidelines for selection of well sites and sites for open wells/ bore wells, which shall be selected by an experienced hydro geologist.

II. Pumpsets.

1. Selection and installation of pumping units.

The bank should ensure that pump sets are selected and installed as per guidelines given in 'BIS: 10804 – 1994'. Implementing bank should follow the guidelines on selection of agricultural pump sets issued by NABARD.

2. Water lifting permission where financing for pumpsets under lift irrigation schemes.

For lifting water from river/canal is envisaged, a letter from competent authority in the concerned department of the State Government authorising the beneficiary to lift water from the river/ canal and indicating the period upto which the permission is given should be obtained before processing the loan proposal. The Bank should ensure that the permission for lifting water is available for a period, which will cover at least 3 years longer than the entire period of loans.

3. Selection of pumping units.

The bank should make every effort to advise the beneficiaries selection of a correct pumping unit. They should take into account the farm holding, expected discharge, aquifer characteristics, total lift, pump efficiency and the type of power available. Pumping system conforming to BIS standard 'BIS:10804:94' will only be eligible for refinance assistance. Single-phase electrical monoblock pumpsets are also allowed (IS: 996-1979) as per site conditions. Jet pumps and stage pumps (electric) in deep water table areas (suction head beyond 6 metres) will also be considered.

The following guidelines may be kept in view while selecting the right type and quality of the pumping unit so that operational expenses are minimum.

a) Selection of horizontal centrifugal pumps

- i) The pump should have BIS certification mark.
- ii) The pumps* for which the [manufacturers supply*](#) characteristics curves for the operating ranges of head and discharge are supplied by the manufacturers, should be preferred. The pump should be selected so as to have maximum efficiency at operating head likely to be obtained for a major part of the year.
- iii) For site conditions of discharge and head, the pump should have the following minimum efficiency:

* Omission to be incorporated

Minimum Pump Efficiency.

Sl no.	HP of pump	Not less than (%)
1.	Less than 2	50
2.	2 to 4	55
3.	4 to 10	60

- iv) Between different Makes, a pump with maximum efficiency should be selected.

b) Selection of Diesel engine.

- i) The diesel engine should have BIS certification mark.
- ii) The Specific Fuel Consumption (SFC) should be as low as possible and it should not exceed 188 grams/ BHP/ hour for diesel engines in RPM range of 1000 to 2000 and 210 grams/ BHP/ hour for diesel engines in the RPM range above 2000.
- iii) The lubricating oil consumption of the engine should be less than or upto 1% by volume of diesel oil consumed. Engines having low lubricating oil consumption should be preferred.
- iv) The BHP of the engine should be 20% more than the BHP of the pump.
- v) For same HP engines one, which has lowest SFC, should be selected.

c) Selection of electric motors.

- i) The motor should have BIS certification mark.
- ii) The efficiency of the motor should not be less than the value given below:

Sl.no.	HP of motor	Minimum Efficiency (%)
1.	3	74
2.	5 and above	80

- iii) The motors which have a maximum efficiency for a given BHP should be selected from a group of BIS marked motors.
- iv) The BHP of the motor should be 20% more than the BHP of the pump.

d) Selection of suction and delivery pipes.

- i) The pipe should have BIS certification mark.
- ii) The diameter of the Suction and Delivery pipes should be equal and should be selected in relation to the well discharge. The general guidelines for the selection of pipe diameter for different discharges on the basis of optimal velocity of water are given below:

Diameter of suction and delivery pipes.

Sl.no.	Discharge (lps)	Pipe diameter –mm- (Both suction and delivery)	
		GI pipe (C 140 – outside Dia.)	PVC pipe (C150 – outside Dia.)
1.	3	60	50
2.	4	60	63
3.	5 & 6	76	63
4.	7 ot 9	76	75
5.	10	89	75
6.	12 to 14	89	90
7	16	114	90
8	18 to 28	114	110

e) Selection of Foot Valve.

- i) The foot valve should have BIS certification. In case BIS marked foot valve are not available, the concerned dealers should specifically state this in the certificate to be furnished by them to the financing bank. They should also ensure that in case of non-availability of BIS marked foot valves, other good quality valves only are used in the installation.
- ii) The strainer of the foot valves should have an open area equal to 2.5 times the open area of the suction pipe to which it is attached.

f) Capacitors.

The electric motor financed should always be provided with starter and a capacitor matching the motor. The following KVAR rating capacitor should be used.

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

III. Renovation of Wells.

- i) 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.
- ii) For situations exceeding 3 metres of deepening, bank should formulate separate scheme with adequate data from the State Ground Water department.
- iii) In the event of widening, it should be restricted to the average diameter recommended in design for different commands and formations as applicable in the case of New Wells.
- iv) Only those wells having insufficient water column in summer need deepening to ensure adequate yield for meeting crop command requirements and should be covered under renovation. In other words only those wells already penetrating the peak summer water table should be taken up for deepening.
- v) While appraising renovation cases the existing diameter/depth, depth of water column in peak summer, items of work under renovation proposed, estimated cost and amount sanctioned and utilisation details of diameter/depth after renovation, water column in summer, extent of lining/erection of rings done etc. shall be recorded in the TERs and utilisation certificate.
- vi) Renovation of wells shall cover only those wells with pump sets already installed or proposed to be installed along with renovation. This condition shall not be relaxed except where landholding is so small as to preclude adequate economic return for repayment in case a pumpset loan is also availed. In other words, renovation of wells in commands above 1 acre should invariably be with pumpset already installed or installed with renovation.
- vii) During the pendency of the scheme technical officer attached to the implementing bank shall inspect atleast 20% of the cases under renovation and report on the quantitative value of depth, type of soil/quantity, rate and cost of deepening, dewatering or lining work done in each of the well inspected to the head office of the bank and also make available the same when called for by the National bank.

viii) Loan for storage tank should invariably include with conveyance piping from well to the storage tank and shall be granted only in those cases where the wells are located in low ground and the arable land in higher elevation and further only in those cases where pumpsets are already there or proposed to be installed. The amount sanctioned for conveyance piping shall be in strict accordance with site requirements.

ix) The Utilisation Certificate should clearly indicate the details of distribution piping system viz. length, dia and necessary fittings of pipes etc. and the cost therefore sanctioned along with a note on due verification of the installations at the site.

x) The bank shall ensure necessary supervision for proper implementation.

IV. Drip and sprinkler irrigation systems.

i) Layout and technical specifications for the system should be prepared by competent person.

ii) If the systems are to be installed on Dug Wells, assistance should be made available to those who are having own well with sufficient discharge.

iii) If the systems are to be installed on surface water body, water-lifting permission should be obtained from the irrigation department of the concerned state.

iv) Water should be free from pollution and suspended particles to avoid choking in sprinkler nozzle and drippers.

v) Same spacing norm as stipulated for the Dug Wells and Tube Wells should also be followed in the case of sprinkler and drip systems.

vi) Schemes will have to be prepared as ARF facility is not available for micro irrigation schemes.

II. LAND DEVELOPMENT

1. Puerotorican type of Contour Terraces with Stone Pitching to risers/ Contour Bunds:

Sl.no.	% Slope group	Area of bund Sq. m.	VI (m)	Average unit cost (Rs./ha)	
				With quarrying	Without quarrying
PT1	5.1 to 10.0	555	1.35	30200.00	24200.00
PT2	10.1 to 15.0	676	1.85	36800.00	29400.00
PT3	15.1 to 20.0	745	2.35	40500.00	32400.00
PT4	20.1 to 25.0	789	2.85	42900.00	34400.00
PT5	25.1 to 30.0	820	3.35	44600.00	35700.00
PT6	30.1 to 35.0*	844	3.85	45900.00	36700.00
PT7	35.1 to 40.0*	862	4.35	46900.00	37500.00
PT8	40.1 to 45.0*	876	4.85	47700.00	38100.00

Note:

*For slopes more than 35%, cases will be considered only on individual merit and viability.

* Local stones used no cost of materials provided

Specifications:

- a. Average height of pitching inclusive of foundation of 15-20 cm : 1m.
 b. Top width including pitching : 0.45 to 0.50m
 c. Thickness of dry rubble pitching : 0.15 to 0.22m
 d. Side slope U/S (V.H) : 1:0.5 to 1:1
 e. Side slope D/S (V.H) : 1:3 to 1:5

2. Extension of Height of old (more than 4 years old) Stone Pitched Contour Bunds (SPCB):

Sl.no.	% Slope group	Area of bund Sq.m.	VI (m)	Average unit cost (Rs./ha)	
				With quarrying	Without quarrying
1	5.1 to 10.0	278	1.35	15100.00	12100.00
2	10.1 to 15.0	338	1.85	18400.00	14700.00
3	15.1 to 20.0	372	2.35	20200.00	16200.00
4	20.1 to 25.0	395	2.85	21500.00	17200.00
5	25.1 to 30.0	410	3.35	22300.00	17900.00
6	30.1 to 35.0	422	3.85	23000.00	18400.00
7	35.1 to 40.0*	431	4.35	23500.00	18800.00
8	40.1 to 45.0*	438	4.85	23800.00	19300.00

Specifications. * local stones used no cost of materials provided

- a. Average height of pitching inclusive of foundation of 15-20 cm : 0.50m.
 b. Top width including pitching : 0.45 to 0.50m
 c. Thickness of R.R pitching : 0.15 to 0.22m
 d. Side slope U/S (V.H) : 1:0.5 to 1:1
 e. Side slope D/S (V.H) : 1:3 to 1:5

3. New Earthen Contour Bunds:

Sl.no.	% Slope group	Length/ha mtrs.	VI (m)	Cross section Sq.m.	Earth work Cu.m.	Average unit cost (Rs./ha)
1	1.0 to 5.0	294	0.85	0.725	213	6500.00 7200.00
2	5.1 to 10.0	555	1.35	0.725	402	12300.00 13,500.00

Specifications.

- a. Average height : 1.0m.
 b. Top width : 0.45
 c. Side slope (V.H) : 1:1.5

4. Renovation of Old Earthen Bunds (extension of height)

Sl.no.	% Slope group	Length/ha mtrs.	VI (m)	Cross section Sq.m.	Earth work Cu.m.	Average unit cost (Rs./ha)
1	1.0 to 5.0	294	0.85	0.425	125	3800.00 4200.00
2	5.1 to 10.0	555	1.35	0.425	236	7200.00 7900.00

Specifications.

<u>Dimensions of the bund</u>	<u>Old</u>	<u>New</u>
Top width (m)	0.30	0.45
Bottom width (m)	0.90	1.00
Height (m)	0.50	1.00

5. Bench terracing*

Sl No.	% Slope group	Length/ha mtrs.	VI (m)	Cross section Sq.m.	Average unit cost (Rs./ha)	
					With quarrying	Without quarrying
1	5.1 to 10.0	555	1.18	2.15	53500.00	36600.00
2	10.1 to 15.0	675	1.56	2.13	64600.00	44200.00

* Not given in the current unit cost book

Specifications.

Thickness of stone pitching – 0.2m, length of terrace – 5.1 to 10.0%= 555m, 10.1 to 15.0%= 675m.

6. Contour Trenches and Embankments

Sl.no.	% Slope group	VI (m)	Length/ha mtrs.	No. Of trenches	Cross-section. sq.m.	Earth work. cum.	Average unit cost (Rs./ha)
1	5.1 to 10.0	1.35	555	278	0.75	208.50	6400.00 7000.00
2	10.1 to 15.0	1.85	676	338	0.75	253.50	7800.00 8600.00
3	15.1 to 20.0	2.35	745	373	0.75	279.75	8600.00 9500.00
4	20.1 to 25.0	2.85	789	395	0.75	296.75	9100.00 10,000.00
5	25.1 to 30.0	3.35	820	410	0.75	307.50	9400.00 10,300.00
6	30.1 to 35.0	3.85	844	422	0.75	316.50	9700.00 10,700.00
7	35.1 to 40.0	4.35	862	431	0.75	323.25	9900.00 10,900.00

8	40.1 to 45.0	4.85	876	438	0.75	328.50	10100.00 11,100.00
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Note:

For slopes of more than 45%, cases will be considered on individual merit and viability.

Specifications.

(a) Top width – 1.0m, (b) Bottom width – 0.5m, (c) Depth – 1.0m, (d) spacing – 1.0m

7. Dry Random Rubble Masonry Retaining Wall (Rs./RM)

<u>A. Inclusive of cost of stone quarrying</u>	<u>Rs./RM</u>
W1- 1.0m ht (inclusive of 0.2m foundation) 0.5m top and 0.7m Bottom Width	- Rs. 254/- Rs.280.00
W2- 1.5m ht, 0.5m Top and 0.8m Bottom	- Rs. 412/- Rs.450.00
W3- 2.0m ht (inclusive of foundation- of 0.3m to 0.5m), 0.5m to 0.9m bottom width	- Rs. 550/- Rs.600.00

8. Dry rubble retaining wall using blasted rubble

(Protection of land from bank erosion)

Sl.no	Particulars	Cost Rs/mlength
1	1 m height* (super structure, top width 0.5 m, bottom width 0.6 m), 0.5 m x .8 m (D x B) foundation	600
2	1.5 m height* (super structure, top width 0.5 m, bottom width 0.75 m), 0.5 m x 0.95 m (D x B) foundation	800
3	2 m height* (super structure, top width 0.5 m, bottom width 1 m), 0.5 m x 1.2 m (D x B) foundation	1100

* 75 mm CC 1:3:6 layer provided on top

9. Fresh earth filling

		<u>(Rs./ha)</u>
D1- Depth of filling	10.0 cm	33700.00
D2- Depth of filling	15.0 cm	50550.00
D3- Depth of filling	22.5 cm	75825.00
D4- Depth of filling	30.0 cm	101100.00

10. Reclamation of Marshy and Water Logged Lands for Coconut and Banana as intercrop:**A. When depth of water is less than 1.0m.**

	<u>Rs./Ha.</u>
1. Only formation of 175 nos. of mounds with foreign-soil (1m top, 2m bottom dia and 1m ht- (47.02/m).	11570.00

	12,700.00
2. Formation of 12 bunds (3m top and 4m bottom width- and 1m ht) and 11 trenches.	68,920.00
	75,800.00
B. Inter space filling by formation of bunds and trenches	
1. Only in existing gardens with mounds- (42.69/m).	57350.00
	63,100.00
C. When depth of water is above 1m.	
1. Only formation of 175 nos. of mounds (top-1m, bottom- 2.5m, dia and ht- 1.5m. Bottom 1m ht to be filled with- soil in situ and top 1m ht to be filled with good fertile- soil – (101.2/m).	25100.00
	27,600.00
11. Field Drainage (100m length/ha)- open ditches (Top 1.8m, Bottom 0.6m, Depth 0.6m):	<u>Rs./Ha</u>
1. With Grass Sodding and 2 Dry stone pitched drops.	2130.00
	2300.00
2. With dry stone pitched walls to both sides.	11775.00
	13,000.00
12. Vertical Drains (3m dia and 3.5m depth):	
With laterite/granite lining with 0.3m parapet wall and 2 HP electric Pump set complete- (each).	15490.00
	17,000.00
13. Humus clay/silt application in coastal sandy soils for Coconut rehabilitation:	
Minimum 157.5 m ³ clay @ 0.9 m ³ - per palm - 7950.00/ha/yr for 3 years.	23850.00
	26,200.00
14. Fencing	
Granite posts with a spacing of 3 M and 5 Strands Of Barbed wire of specification;	
1. No. of RCC posts 2 x 0.15 x 0.15 m.,	40 nos.
2. Cost @ Rs. 56. 35/post i.e. Rs.1252/ cu.m.	2254.00
3. Cost of erection	200.00
4. Total length of barbed wire 5 strands + 10% extra 550 mtrs.	110kg
5. Cost @ Rs. 30/kg	3300.00
6. Cost of fixing and winding @ Rs. 5/m.	500.00
	Total <u>6254.00</u>
	Per Meter cost = <u>Rs. 63/-</u>
	Per Meter cost = <u>Rs. 70/-</u>

15. On Farm Development/ Systematic Land Development in the Commands of major/medium/minor irrigation projects:

Sl.no.	Particulars	Slope group & Amount (Rs./Ha)		
		0.51 - 1.5%	1.5 - 2.5%	2.5 - 3.5%
I	Irrigation system within holding			
a.	Internal irrigation channel			
i	Cost of earth work	126.00	189	210
ii	Drops on channels	114.00	342	627
b.	Drainage channel			
i	Cost of earth work	238.00	238	238
ii	Drop on channels	114.00	342	627
II	Land leveling and bunding			
a.	Land leveling	4318.00	6460	6919
b.	Bunding	1547.00	2601	3910
c.	Fine leveling @ 10% of I+II	432.00	646	692
III	Unforeseen works @ 5% on I+II	344.00	541	661
	Total	7233.00	11359	13884
	Say	7230.00	11360	13880
	Irrigation System, land levelling and bunding	8000	12,500	15,300

Repayment period

A repayment period of 9 to 15 years may be allowed depending on the cash inflow. As land development alone will not generate any income, grace period equivalent to the gestation period of the crop proposed to be taken up after land development may be allowed. In the case of works undertaken in the existing yielding gardens, grace period of 23 months may be allowed.

16. FARM PONDS

Sl no.	Item	Unit Cost
1.	Farm Pond of size 8mx 8mx 4.5 m	79,000
2.	Farm Pond of size 10mx10mx4.5m	1,06,000

SOIL CONSERVATION/LAND DEVELOPMENT WORKS

Terms and conditions – Special

1. Necessary technical guidance and supervision has 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 unit cost approved in the scheme was for the average slope and the loan amount for soil conservation and 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 works proposed along with the cost estimates in individual cases financed under the scheme.
5. The proposed soil conservation/land development works should be completed before the planting of seedlings is taken up.
6. The bank's Agricultural Engineer along with the District Soil Conservation authorities should take up a monitoring study to ascertain whether the soil conservation works have been carried out as per the specifications or not.
7. The joint study can be arranged after covering about 50% of the approved physical programme. The copy of the joint study report should be send to NABARD.
8. The supplementary scheme proposal (if any) should contain a copy of the joint report of the original or ongoing scheme.
9. Bank/Department may enthuse the farmers to take up agrostological measures on the engineering structures, so as to increase the life of the structures.
10. Financing for dry random masonry retaining wall may be provided to protect the banks to streams, nullas, gullies etc. and not as compound wall.
11. Depth of fresh earth filling particularly in Arecanut garden may be ensured through pre and post sanction inspections so that exact amount depending on the depth could be provided.
12. While financing for reclamation of marshy and water logged areas care may be taken to ensure its end use strictly for agricultural purposes.
13. Details such as contour maps, estimates, designs of structures etc. may be insisted, while financing land development/soil conservation activities in a contiguous area.
14. 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 estimate for earth works, irrigation/drainage channels, drips etc. may be insisted upon.

III. PLANTATION AND HORTICULTURE

Sl. no.	Item of investment	Year wise break up of unit cost (Rs./ha)	Repayment period	Economic life	Mature maintenance cost (Rs./ha)				
1.	Arecanut 1250 plants/ha	I 26100 23700.00	13-15 yrs including 7 yrs grace	> 25 yrs	25000.00/ha				
		II 19800 18000.00							
		III 21800 19800.00							
		IV 23700 21500.00							
		V 24200 22000.00							
		Total 115600 105000.00							
2.	Cardamom* 1250 plants/ha * Subject to the conditions mentioned in letter no P2/ 5374/ Vol II/ 02-03 of the GM dated 31-08-04	I 60500 26350.00	7yrs including 3 yrs grace. In case of new & HYVs unit cost & grace period may be given for 2 years	15 yrs	IV- 31050.00/Ha V- 39150.00/Ha VI- yr onwards- 42950.00/Ha 50 to 60,000 depending on thr variety				
		II 49200 24200.00							
		III 68600 26750.00							
		Total 178300 77300.00							
		High* production technology				I 37800.00	5 yrs including 2 yrs grace	12 yrs	28600.0/ha * <u>To be excluded</u> <u>in the unit cost</u>
						II 19400.00			
Total 57200.00									
C	"Njallani" Clonal Selection* 1000plants/ Ha	I 55,800.00	6 yrs including 2 Yrs. grace	10 Yrs.	60,000.00/ Ha from IV th year onwards. (included from 26-11-03) * <u>To be excluded</u> <u>in the unit cost</u>				
		II 44,700.00							
		III 62,400.00							
		TOTAL 1,62,900.00							
3.	Rubber 450 plants/ha	I 32100 29200.00	14 yrs including	25 yrs	VIII 15700/ha 15200.00/Ha				

Budded stump- planting	II	12200	7 yrs grace	IX	19000/ha
		11100.00		X	18200.00/Ha
	III	9200		XI	21200.00/Ha
		8400.00		XII	23200.00/Ha
	IV	7200			26600.00/Ha
		6500.00			
	V	6800			
		6200.00			
VI	6100				
	5500.00				
VII	5600				
	5100.00				
Total	79,200				
	72000.00				

	Poly bag-planting	I 34600	38100	13 yrs including 6 yr grace	25 yrs	VII 15800.00/Ha 16000/ha
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		II 10700.00	11800			VIII 18600.00/Ha
		III 8500.00	9400			IX 21600.00/Ha
		IV 7400.00	8100			X 24000.00/Ha
		V 5700.00	6300			XI 26600.00/Ha
		VI 5100.00	5600			
		Total 72000.00	79300			
4.	Coffee Arabica 2500 plants/ha	I 15000.00	16500	10-15 yrs including 5-6 yrs grace	25 yrs	9500.00/ha
		II 7050.00	7800			
		III 8200.00	9000			
		IV 9050.00	10000			
		Total 39300.00	43300			
	Coffee Robusta 1000 plants/ha	I 9100.00	10000	10-15 yrs including 5-6 yrs grace	25 yrs	7000. 00/Ha
		II 5100.00	5600			7200/ ha
		III 5050.00	5600			
		IV 6500.00	7200			
		Total 25750.00	28400			

Sl. no.	Item of investment	Year wise break up of unit cost (Rs./ha)	Repayment period	Economic life	Mature maintenance cost (Rs./ha)
5.	Coconut 175 palms/ha rained-conditions	I 21900.00	13 yrs including	> 50 yrs	9000.00/ha
		II 11100.00	8 yrs grace		9900/ ha
		III 9000.00			
		IV 9000.00			

		V 9900 9000.00			
		VI 9900 9000.0			
		VII 9900 9000.0			
		Total 85800 78000.00			
	Irrigated- Condition	I 19300 17500.00	12 yrs including	> 50 yrs	11800.00/ha 13000/ha
		II 9900 9000.00	7 yrs grace		
		III 13000 11800.00			
		IV 13000 11800.00			
		V 13000 11800.00			
		VI 13000 11800.00			
		VII *			
		Total 81200 73700.00			
	Reclaimed Lands	I 5900.00	10-15 yrs including	> 50 yrs	3000.00/ha
		II 3300.00	7-8 yrs grace		
		III 3300.00			
		IV 3000.00			
		V 3000.00			
		Total 18500.00			
6.(a)	Tea 12000-16000 plants/ha Organized tea estates.	I 92600 84200.00	10-15 yrs including	> 50 yrs	Rs. 8/ kg of made tea up to IV yr and Rs. 20/kg from V yr onwards
		II 13900 12600.00	4 yrs grace		
		III 11600 10500.00			
		IV 9600 8700.00			
		Total 127700 116000.00			

* Column VII
to be deleted

Note. This is
not there in
the new unit
cost and we
can retain the
same in the
Web site

(b)	Small Farmers/ Cultivators	I 63,400 57600.00	10-15 yrs including 4 yrs grace	> 50 yrs	IV 12000/ha	
		II 10900 9900.00			V 15000/ha	
		III 9100 8300.00			VI 20000/ha	
		Total 83400 75800.00				
7.	Pine apple- Kew pure crop 40000 suckers/ha.	I 1,26,700 115200.00	4 yrs including 1 yr grace	6 yrs	3 rd to 5 th yr 25,200/ha 27,000/ha	
		II 27,700 25200.00				
		Total 154400 140400.00				
	Kew intercrop 20000 suckers/ha	I 63400 57600.00	4 yrs including 1 yr grace	6 yrs	3 rd to 5 th yr 12600.00 13,000	
		II 13900 12600.00				
		Total 77300 70200.00				
	Mauritius- pure crop-20000 suckers/Ha	I 81600 74200.00	3 yrs including 1 yr grace	6 yrs	2 nd yr 20000 19400.00/Ha 3 rd yr 21000 18600.00/Ha	
	Mauritius- Intercrop 10000 suckers/ha	I 40800 37100.00	3 yrs including 1 yr grace	6 yrs	2 nd yr 9700.00/Ha 10000/ha 3 rd yr 9300.00/Ha 11000/ ha	
	8.	Pepper 1000 stds/ha New planting	I 253000 23040.00	9 yrs including 5 yrs grace	15 yrs	16060.00/Ha 18,000/ha
			II 10900 9930.00			
			III 16000 14570.00			
			IV 17700 16060.00			
Total 69900 63600.00						
*Rejuvenation *Not given in the current unit cost book		I 8650.00	9 yrs including 5 yrs grace	15 yrs	10500.0/ha	
		II 8000.00				
		III 8150.00				
		IV 4650.00				

		Total 29450.00			
9.	Mango 100 plants/ha	I 16600 15130.00	13 yrs including 6 yrs grace	> 25 yrs	6500.0 7000/ha
		II 9000 8150.00			
		III 6700 6085.00			
		IV 6700 6085.00			
		V 6700 6085.00			
		VI 7200 6525.00			
		Total 52900 48060.00 say 48100.00			
10.	Nutmeg 156 plants/ha	I 19400 17650.00	12 yrs including 7 yrs grace	> 25 yrs	6500.00/Ha 7000/ha
		II 6500 5880.00			
		III 6500 5800.00			
		IV 6500 5930.00			
		V 6700 6070.00			
		VI 6800 6200.00			
		VII 7000 6350.00			
		VIII 7100 6470.00			
		Total 66500 60350.00			
11.	Clove 156 plants/ha	I 19600 17790.00	12 yrs including 7 yrs grace	> 25 yrs	7300.00/Ha 80,000/ha
		II 6600 6000.00			
		III 6700 6100.00			
		IV 7000 6350.00			
		V 7200 6590.00			

		VI 6830.00	7500			
		VII 7070.00	7800			
		VIII 7320.00	8100			
		Total 64050.00	70500			
12. (a)	Cashew 200 plants/ha layers	I 9150.00	10100	12 yrs including 7 yrs grace grace	> 25 yrs	5900.00/Ha 6000/ha
		II 4550.00	5000			
		III 5940.00	6000			
		IV 5940.00	6200			
		V 5940.00	6200			
		VI 5930.00	6200			
		Total 37450.00	39700			

(b)	Cashew 200 plants/ha With grafts	I 10650.00	12000	11 yrs including 6 yrs grace	> 25 yrs	5900.00/Ha 6000/ha
		II 4700.00	5500			
		III 5940.00	6000			
		IV 5940.00	6200			
		V 5940.00	6200			
		VI 5930.00	6200			
		Total 39100.00	42100			
13.	Cocoa 500 plants/ha	I 6800.00	7500	12 yrs including 6 yrs grace	20 yrs	6000/ha
		II 4900.00	5400			
		III 5300.00	5900			

		Total 18800 17000.00			
14.	Betel vine 3 cents unit (300 vines)	4400 4000.00	5-6 yrs including 1 yr grace	6 yrs	1500.00/ 3 cents
	5 cents (500 vines)	7300 6650.00	5-6 yrs including 1 yr grace	6 yrs	2500.00/ 5 cents
	Tail well	1100 1000.00	Repayment linked to betelvine loan	-----	-----
15.	Jasmine -(125 plants/ 5 cents)	3300 3000.00	4 yrs including 1 yr grace	10 yrs	1800.00/ 5 cents
16.	Orchids 1000 plants	104500 95000.00	5 yrs including 20 months grace	5 yrs	10.00/ plant
17.	Anthuriums 1000 plants	88,000 80000.00	5 yrs including 20 months grace	5 yrs	10.00/ plant
18.	Oyster mushroom - 100 kg/batch	11600 10500.00	5 yrs	10 yrs	2250/ batch
19.	Apiculture (Bee keeping) 10 Boxes of Indian Bee	17000 15475.00	10 yrs 2 yrs grace	10 yrs	500/annum 700
20.	Sericulture ModelA-1 acre irrigated- 150 DFLs/ batch- bi-voltine rack system	56500 51400.00	7 yrs including 1 yr grace	15 yrs	12100/ acre (Recurring cost/ cycle- 2200.0)
	Model B- 0.5 acre- irrigated 75 DFLs/batch- bi-voltine-rack system	29700 27000.00	8 yrs including 1 yr grace	15 yrs	6050/ 0.5 acre 6500/0.5 acre (Recurring cost/ cycle- 1200.0)
	Model C- 1.0 acre- irrigated 100	35200 32300.00	6 yrs including 1 yr grace	15 yrs	4716/ acre 5000/acre (Recurring cost/cycle- 1600.0)

	DFLs/batch bivoltine- conventional				
		Recurring Model A Model B Model C	Costs per	Cycle 2500 1500 2000	
21.	Rubber nursery 1 acre model	111550.00 122700	7 yrs including 1 yr grace	7 yrs	60300.00/acre
22.	Rubber roller 4.5" x 24" 5.0" x 24"	13500.00 14900 14500.00 16000	8 yrs	-----	-----
23.	Rubber roller shed (8' x 8' x 9')	2500.00 2800	-----	-----	-----
24.	Rubber smoke house -85 kg capacity	16500.00 18200	11 yrs including 6months grace	-----	-----
(b)	200 kg capacity	21500.00 23700	9 yrs including 6m gr		
(c)	Low cost model 120 kg capacity 180 kg capacity 240 kg capacity 300 kg capacity 360 kg capacity 480 kg capacity 600 kg capacity	10150.00 11200 13150.00 14500 17300.00 19000 20500.00 22600 24500.00 27000 34000.00 37000 42300.00 46500	8-10 yrs	-----	-----

<p>25.</p> <p>(a)</p> <p>(b)</p> <p>(c)</p>	<p>Rubber sheet driers</p> <p>RRSD 160 (40sheets/day)</p> <p>RRSD 240 (60sheets/day)</p> <p>RRSD 340 (80sheets/day)</p>	<p>23400</p> <p>21300.00</p> <p>32300</p> <p>29400.00</p> <p>41300</p> <p>37500.00</p>	<p>7-10 yrs</p>	<p>-----</p>	<hr/>
<p>26</p>	<p>Bamboo Cultivation Scheme 275 clumps/Ha (HO-03-04) on 9-03-04)</p>	<p><u>1st Year</u> Rs.52500.</p> <p><u>2nd Year</u> Rs.9750</p> <p><u>3rd year</u> Rs.6750.</p> <p><u>4th year</u> Rs.10000</p> <p>Total Rs70000.</p>	<p>10 Years CGPP 4 Yrs.</p>	<p>38040 years</p>	<p>News items mentioned by HO on 9-03-04 NABARD sanctioned letter dated 31-12-03 and of ref No NBT(MM)/DDPD/6489/PL-22/2003-04</p>

MEDICINAL AND AROMATIC PLANTS

1. Vanilla

Cost of cultivation of Vanilla.....Unit...1 Ha

Variety/ Species.....Vanilla Planiflora

Spacing.....2.5 x 2.0 m

No. of Plants per ha.....2000

Type of planting material.....Cuttings/ TCPs

Particulars	Year			Total
	I	II	III	
Land preparation	1250			1250
Planting material @ Rs. 50 per plant	100000	5000		105000
Cost of standard (inclusive of transport) @ Rs.3 per standard	6000			6000
Digging of pits, filling and planting @ Rs. 0.60 per pit	1200	250		1450
Cost of planting/mulching @ Rs.0.50 per pit	1000	125		1125
Cost of FYM (5 ton/ oil cake/ 500 kg) (Oil cake @ Rs. 12/Kg and FYM @ Rs. 480/ ton)	8400	8520	8640	25580
Irrigation (!0 female labour per month for 6 months @ Rs. 80/ day	4800	5760	6720	17280
Plant protection(LS)	500	500	500	1500
Pollination/ Harvesting/ Packing	0	0	500	500
Total	123150	20155	16360	159665

Say around Rs. 1,60,000/-

1. Thippali

Sl. no	Particulars	YEAR					TOTAL
		I	II	III	IV	V	
1	Land preparation, Ploughing &	1000	-----	-----	-----	-----	1000

HORTICULTURE/ PLANTATION
Terms and conditions – Special

1. While selecting villages /areas of 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 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 rainfed 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.
4. The bank shall satisfy itself that the planting materials of the required quantity and quality is procured by beneficiary from reliable sources such as nurseries approved by the concerned department of the State Government etc.
5. The bank shall ensure that beneficiary observes the following technical norms:
 - i) The pit dug will be of standard size and with recommended spacing and number of plants as indicated by Kerala Agricultural University.
 - ii) The pits will be filled with top soil, cattle manure and fertilizers before planting is done.
 - iii) Only high yielding recommended varieties shall 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 protecting the garden from cattle and trespassers.
 - vi) Watering of plants shall be done during dry months of first 2 to 3 seasons in respect of plants to be raised under rainfed conditions.

vii) The recommended fertilisation and plant protection schedules of Commodity Boards / KAU shall be followed. The components like fertilisers, chemicals etc. shall be disbursed only in kind.

viii) Mixed cropping will be done wherever possible as in the case of Coffee, Arecanut and Coconut.

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 intercrop preferably leguminous crops during the first 4 to 5 years so as to improve returns from main investments.

xi) 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. Quick growing trees like Dadops, Subabul etc. may also be planted wherever necessary.

xii) Proper and adequate soil conservation and drainage arrangements shall be ensured.

xiii) Installation of processing equipment, civil engineering works shall be carried out according to approved plans and designs.

6. Necessary technical guidance and supervision may be provided by the bank's staff. 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 Boards.

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

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

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

SERICULTURE

Terms and conditions – Special

1. While selecting villages-areas for financing sericulture, 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 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 rainfed cultivation is not possible.
3. Loans shall be issued in respect of investments 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 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.
4. The bank shall satisfy itself that the planting materials of the required quantity and quality is procured by beneficiary from reliable sources such as nurseries approved by the concerned department of the State Government etc.
5. The bank shall ensure that the beneficiary observes the following technical norms:
 - i) The pits dug will be of standard size and with recommended spacing and number of plants as per the recommendations of the Central Silk Board.
 - ii) The pits will be filled with top soil, cattle manure and fertiliser before planting is done.
 - iii) Only high yielding recommended varieties shall 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 protecting the garden from cattle and trespassers.
 - vi) Watering of plants shall be done during dry months of first 2 to 3 seasons in respect of plants to be raised under rainfed conditions.
 - vii) The recommended fertilisation and plant protection schedules of Commodity Boards / KAU shall be followed. The components like fertilisers, chemicals etc. shall be disbursed only in kind.
 - viii) Proper and adequate soil conservation and drainage arrangements shall be ensured.
6. Necessary technical guidance and supervision may be provided by the bank's staff. 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 Boards.

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

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

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

10. The technical officers of the implementing branches shall be trained at CSRTI, Mysore, before commencing financing under the scheme.

11. After identification of the beneficiaries, the bank shall first finance them for plantation of mulberry. Thereafter they may be sponsored for training at the nearest CSRTI extension centre. The loan for rearing house and equipments shall be released only after the beneficiaries are trained.

IV. ANIMAL HUSBANDRY

<u>Sl. no.</u>	<u>Item of investment and unit size</u>	<u>Unit cost</u>	<u>Repayment period</u>
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I. Dairy

Amount in Rs.

Crossbred cows: H.F./Jersey/
Sunandini breed crosses.

Milk yield: 8 LPD(Litres Per Day).

Lactation period: 300 days.

Dry period: 100 days.

a)Single animal unit.

6 yrs

i)	Cost of animal @ 10000/-10,400 per animal	10000	10400.00
ii)	Transportation cost @ Rs. 600 per cow	600.00	
iii)	Shed- 65 sq.ft./ animal @ Rs. 65/ 70sq.ft	4225.00	4550
iv)	Equipments @ 300/- per animal	300.00	
v)	Feed cost for first month @ 4 kg/ animal @Rs. 6.5/ 7kg	780.00	840
vi)	Insurance for 3 years- 7% premium	700.00	728
vii)	Veterinary aid		200
	Total	16605.00	17618
	(Say)	16600.00	17600

<u>b)Two animals unit.</u>		6 yrs
i) Cost of animal @ 10000/-10400 per animal	20000.00	20800
ii) Transportation cost @ Rs. 600 per cow	1200.00	
iii) Shed- 65 sq.ft. per animal @ Rs. 65/ 70sq.ft-	8450.00	9100
iv) Equipments @ Rs.300/animal	600.00	
v) Feed cost for first month @ 4 kg/animal @ Rs. 6.5/ 7 kg	780.00	1680
vi) Insurance for 3 years- 7% premium for both animals	1400.00	1456
vii) Veterinary aid		400
viii)Fodder cultivation for 0.25 acres @ Rs. 10000/ acre	2500.00 (to be excluded)	0
Total	32430.00	35236
(Say)	<u>32400.00</u>	<u>35200</u>

<u>c) Three animals unit.(8 litres/day)</u>		6 yrs
i) Cost of animal @ 10000/- 10400 per animal	30000.00	31200
ii) Transportation cost @ Rs. 600 per cow	1800.00	
iii) Shed- 65 sq.ft. per animal @ Rs. 65/70 sq.ft-	12675.00	13650
iv) Equipments @ Rs. 300/animal	900.00	
v) Feed cost for first month @ 4 kg/per animal @Rs. 6.5/ 7 kg	780.00	2520
vi) Insurance for 3 years- 7% premium	2100.00	2184
vii) Cost of fodder cultivation (0.5 acres) @ Rs. 10000/ acre	5000.00	
viii) Veterinary aid at the rate of Rs.200/animal	600	
Total	53255.00	57854
(Say)	<u>53250.00</u>	<u>57900</u>

<u>d) Mini dairy unit (4 animals)</u>		6 yrs
i) Cost of animal @ Rs. 10000/ 10400 animal	40000.00	41600
ii) Transportation cost @ Rs. 600/cow	2400.00	
iii) Shed 65 sq.ft./animal @ Rs. 65/70 sq.ft.	16900.00	18200
iv) Equipments @ Rs. 200/300animal	1200.00	
v) Feed cost for 1 month @ 4 kg @ Rs. 6.5/ 7kg	1560.00	3360
vi) Insurance for four animals for 3 years 7% premium	2800.00	2912
vii) Cost of fodder cultivation (0.5 acres) /1 acre @ Rs. 10000/ acre	5000.00	10000
viii) Veterinary aid @ Rs. 200 per animal	800	
Total	69860.00	80472
(Say)	<u>69900.00</u>	<u>80400</u>

Ten animal Unit (8 LPD)**6years**
(without grace)

a) Cost of animal @ Rs. 10000/ 10400 animal	100000.00	104000
b) Transportation cost @ 600 per cow	6000.00	
c) Equipments @ Rs.300/- animal	9000.00	3000
d) Shed – 65Sq.ft/70animal @ Rs. 65/Sq.ft	42250.00	45500
e) Feed cost for 1month @ 4kg/animal @ Rs.6.5/ 7kg of feed	3900.00	8400
f) Fodder cultivation for 1acre @ Rs. 10000/acre	10000.00	
g) Insurance for 3years @ 7% premium for 10animals	7000.00	7280
h) Veterinary aid @ Rs.200/animal	2000	
Total	172150.00	186180
(Say)	<u>172000.00</u>	<u>186200</u>

Buffaloe**Breed:** Graded Murrah**Lactation Period:** 300 days**Dry period:** 150 days

i) GM buffaloes 2 nos. yielding average 6 litres/day @ 9000./ 9900 per animal	18000.00	19800	5 yrs
ii) Feed for first animal (30 days @ 3.4/kg/animal/day @ Rs. 6/ 7 per kg	612.00	714	
iii) Insurance for first animal/ 2 animals 7% premium	630.00	1386	
iv) Equipment @ 200/ 330 animal	400.00	660	
v) Transportation @ Rs. 300/ 660animal	600.00	1320	
vi) Cost of thatched shed 100 sq ft.	4500.00	4950	
vii) Fodder cultivation @ Rs.!000 per acre for 0.25 acres		2500	
Total	24742.00	31330	
(Say)	<u>24700.00</u>	<u>31400</u>	

3. Rearing of female crossbred calf

i) Cost of crossbred calf- (already owned by the farmer)	Nil		5 yrs including- 30 months grace
ii) Feed cost first three years/ 24 months			
} I year Rs.			
} III year Rs.	9600.00	11200	

iii) Insurance (master policy up to calving)	250.00	440
iv) Health cover, vaccination, deworming charges etc.	300.00	330
		11970
Total	10150.00	12000

II. Goat rearing (3 does)

i) Cost of 3 does @Rs. 1400/1650 animal	4200.00	4950	5-6 yrs (including 1 year grace)
ii) Shed (60-75 sq.ft.)	500.00	1100	
iii) Insurance (7.25%)	210.00	371	
iv) Feed cost for 7 months	630.00	700	
v) Medicines for de worming		200	
Total	5540.00	7321	
(Say)	5500.00	7300	

Note: For every 5 units of 3 does, one unit of 3 does+ 1 buck can be financed. An additional cost of Rs. 1700/ 2000 buck and an additional feed cost of Rs. 252/ 300 buck may be provided for such units.

Major technical parameters

Age at maturity: 15 months
Gestation period: 5 months
Inter kidding interval: 8-9 months,
Kidding percentage: 120.

III. Rabbit rearing (10F+2M)

i) Cost of 10 female and 2 male breeder rabbits @ Rs. 125/ 135 animal	1500.00	1620	6 yrs. (including 11 m grace)
ii) Shed- 80 sq.ft. @ Rs. 40/ 45sq.ft.	3200.00	3600	
iii) Hutches 12 nos. (2' x 2' x 1.5') @ Rs. 350/ 385- each.	4200.00	4620	
iv) Cages for bunnies (3' x 2' x 1.5') for 25 nos. @ Rs. 300/ 335- per cage	7500.00	8250	
v) Feed cost	2350.00	2530	
vi) Insurance, vet-aid etc.	350.00	380	
Total	19100.00	21000	

Major technical parameters.

Litter size : 6

No. of kiddings : 4 per year.

IV. Piggery**1. Pig fattener unit (10 piglets)**

i) Pig fattener shed 150 sq.ft. @ Rs. 60/ 65- per sq.ft.	9000.00	9750	5-6 yrs (including 11 months grace)
ii) Piglets 10 nos. (3 month old) @ Rs. 600/ 660- per animal (including transportation cost)	6000.00	6600	
iii) Feeding cost Conc. feed – 900 kg @ Rs. 5/5.50- per kg @ 0.5 kg/day/animal	4500.00	4950	
Hotel waste – 2100 kg @ Rs. 0.70/ .80kg/day/animal	1470.00	1680	
iv) Insurance	200.00	220	
v) Medicine and miscellaneous @ Rs. 20/ 30- per piglet	200.00	300	
Total		21370.00	
(Say)		<u>21400.00</u>	<u>23500</u>

Major technical parameters.

Fattening period – 6 months after weaning

2. Breeder cum fattener unit (3F+1M)

i) Cost of 3 breeder females and 1 male piglet of 3 months old @ Rs. 600/ 660- per piglet	2400.00	2640	6 yrs (including- 1 yr grace)
ii) Pig sty 315 sq.ft. @ Rs.60/66- per sq.ft.	18900.00	20790	
iii) Feeding charges			
a) Concentrate Feed @ Rs. 5/ 5.50- per kg			
Male } - 218 kg			
Female } - 632 kg			
Piglets } - 168 kg			
Fattener } - 810 kg			
b) Garbage/ kitchen waste @ Rs. 0.70/ .80kg			

Male	- 508 kg		
Female	- 1477 kg		
Fattener	- 1890 kg		
	Total feed cost	11853.00	13150
iv) Insurance and miscellaneous expenses		200.00	
v) Medicine		350.00	400
	Total	33703.00	37130
	(Say)	<u>33700.00</u>	<u>37100</u>

Major technical parameters.

Litter size – 5-8

Inter farrowing interval – 8 months

Age at weaning – 2 months.

3. Breeder unit (5F+1M)

i) Breeder piglets – 3 months old – 5F+1M @ Rs. 600/ 660 animal	3600.00	3960	7 yrs (including 1 yr grace)
ii) Pig sty – 385 sq.ft. @ Rs. 60/ 66sq.ft.	23100.00	25410	
iii) Feeding cost			
a) Feed @ Rs. 5 /5.50- per kg			
Male - 229 kg			
Female - 1133 kg			
Piglets - 288 kg		9075	
b) Garbage/ kitchen waste @ Rs. 0.70/ .80kg			
Male - 534 kg			
Female - 2643 kg		2540	
Total feed cost	10469.00	11615	
iv) Insurance and miscellaneous expenses	200.00	220	
v) Medicine	500.00	550	
(Say)	<u>37900.00</u>	<u>41700</u>	

V. Poultry

1. Broiler unit

a) <u>250 birds (all in all out system)</u>	<u>Thatched shed</u>	<u>Tiled shed</u>	
i) Shed – 250 sq.ft. @ Rs. 50/75sq.ft. for thatched shed	12500.00	17500.00	6 yrs
and @ Rs. 70/100sq.ft. for tiled shed	18750	25000	(including- 6 m grace)

ii) Chicks @ Rs. 14/ 10chick for 257 chicks	3598.00	3598.00	
	2570	2750	
iii) Equipment (brooder, chick feeders, waterers, grower feeder and waterers) @ Rs. 8/ 11bird	2056.00	2056.00	
	2750	2750	
iv) Feed cost @ 3.5 kg/bird@ Rs. 10/11kg	8995.00	8995.00	
	9625	9625	
v) Medicines, electricity, labour and miscellaneous @ Rs. 3/bird /@ 19% of feed cost	771.00	771.00	
	962	962	
vi) Insurance	64.00 250		64.00/ 250
Total	27984.00	32984.00	
	34907	41157	
(Say)	<u>28000.00</u>	<u>33000.00</u>	
	<u>35000</u>	<u>41200</u>	

b) Broiler – 500 birds unit (100 birds/fortnight cyclical system)

	Thatched	Tiled	
i) Shed – 500 sq.ft. @ Rs. 50/ 75sq.ft. for thatched shed	25000.00	35000.00	6 yrs
and @ Rs. 70/100sq.ft. for tiled shed	37500	50000	
			(including 6 months grace)
ii) Chicks @ Rs. 14/10chick for 515 chicks	7210.00	7210.00	
	5150	5150	
iii) Equipment (brooder, chick feeders, waterers,grower feeder and waterers) @ Rs. 8/11 bird	4120.00	4120.00	
	5500	5500	
iv) Feed 2.5 kg/3.5bird (average feed requirement till the point of sale of the first batch @ Rs. 10/11kg	12875.00	12875.00	
	19250	19250	
v) Medicines, electricity, labour and miscellaneous@ Rs. 3/bird at 10% of the feed cost	1545.00	1545.00	
	1925	1925	
vi) Insurance @ Rs. 0.25/bird* To be deleted	129.00	129.00	
	500	500	
Total	50879.00	60879.00	
	69825	82325	
Say	<u>50900.00</u>	<u>60900.00</u>	
	<u>69800</u>	<u>82400</u>	

Major technical parameters.

Age at marketing – 7 weeks
 Body weight at marketing – 1.6 kg
 Feed efficiency – 2.2:1

2. Layer Unit (1000 Birds)

(Brood/grower – deep litter, layers – cages)

i) Shed (Brooder cum grower- 525 sq.ft. @ Rs. 60/65sq.ft., layer shed- 1000 sq.ft. @ Rs. 65/70sq.ft., feed store 100 sq.ft. @ Rs. 65/70sq.ft.	103000.00	111125	6-7 years (including 1 yr grace)
ii) Equipments (brooder/grower) @ Rs. 10/11bird	5250.00	5775	
iii) Cages for 1000 birds @ Rs. 40/44bird	40000.00	44000	
iv) Day old chicks – 1050 nos. @ Rs. 13.60/15chick	14280.00	15750	
v) Feed- 2 kg chick mash per bird @ Rs. 7/8kg, 6 kg grower mash @ Rs. 7/8kg per bird	57400.00	64800	
vi) Insurance @ Rs. 2.03/2.25bird for 1050 birds	2132.00	2360	
vii) Miscellaneous expenses like electricity, medicine, vet-aid etc.	7688.00	8890	
Total	229750.00		
(Say)	<u>229800.00</u>	<u>252700</u>	

Note:

The activity is viable and bankable only when the capital subsidy of 33¹/₃% is provided by the State Government.

Major technical parameters

Hen housed egg production- 270-280 eggs,
 Layer feed requirements- 38-40 kg /bird,
 System – 1+2

VI. Duck Rearing**a) 500 females and 75 males**

i. Ducklings- 3 months age @ Rs. 50/75- each – 575 nos.	28750.00	43125	5 yrs (including 1 yr grace)
ii. Portable enclosures & feeding equipments	350.00	400	
iii. Concentrate feed for 3 months @ 3kg/bird @ Rs.4.85/ 9kg	8400.00	15525	
iv. Veterinary aid, transportation and other expenses	400.00	450	
Total	37900.00	59500	

b) 200 females and 30 males

i. Ducklings- 3 months age @ Rs. 50/75- each – 230 nos.	11500.00	17250	5 yrs (including 1 yr grace)
ii. Portable enclosures & feeding equipments	250.00	275	
iii. Concentrate feed for 3 months @ 3kg/bird @ Rs. 4.85/9kg	3360.00	6210	
iv. Veterinary aid, transportation and other expenses	125.00	300	
Total	15235.00	24035	
(Say)	15200.00	24000	

Major technical parameters

System: Semi-intensive

Egg production- 180 eggs.

**VII. Quail Layers- 1000 birds –
(All in all out system)**

	<u>Thatched</u>	<u>Tiled</u>	
	<u>shed</u>	<u>shed</u>	
i) Shed 200 sq.ft.	10000.00	14000.00	5 yrs

	(@ Rs.50/55sq.ft) 11000	(@ Rs.70/77sq.ft) 15400	(incl.6m grace)
ii) Store 50 sq.ft. @ Rs. 100/110sq.ft.	5000.00 5500	5000.00 5500	
iii) Day old quail 1390 nos. @ Rs. 4/4.50 bird	5560.00 6250	5560.00 6250	
iv) Equipments- brooder, feederer, waterer, laying bags, @ Rs. 27/30bird for 1000 birds	27000.00 30000	27000.00 30000	
v) Water supply system	5000.00	5000.00	
vi) Feed- 0.45 kg/bird @ Rs. 10/11kg.	6255.00 6880	6255.00 6880	
vii) Overheads, insurance, medicines, electricity, labour and miscellaneous	1251.00 1510	1251.00	1510
Total	60066.00 66140	64066.00 70540	
(Say)	<u>60100.00</u> 66100	<u>64100.00</u>	70500

VIII. Bullocks (Non-descript)

Healthy and castrated work bullocks of age 4-5 years	7000/ 8000.00 (per pair)	4 yrs. (including 3 m grace)
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VIII. Bullocks and cart

i. Cart made of country wood 80% and teak 20%	10000.00 11000	6 yrs
ii. Bullocks 4-5 yrs of age – non-descript variety	10000.00 11000	
Total	<u>20000.00</u> <u>22000</u>	

ANIMAL HUSBANDRY

Terms and conditions – Special

1. DAIRY DEVELOPMENT

1. 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.
2. The bank shall ensure that for a unit of 2 or more milch animals, each batch of animals is purchased with an interval of about 6-8 months to ensure continuity in milk production.
3. Animals shall be purchased by a committee comprising of a representative of the bank, qualified Veterinary Assistant Surgeon and the beneficiary.
4. 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.
5. Immediately after purchase, suitable arrangements for identification of animals by branding, tattooing or ear tagging shall be made with the help of the State Animal Husbandry Department. In addition to this, the record of particulars of the animal identification (colour, birth marks etc.) shall be maintained.
6. Certificate regarding age and health of animals financed shall be obtained from a qualified Veterinary Assistant Surgeon.
7. Animals shall be got vaccinated with the help of Veterinary Department against diseases such as Rinderpest, Hemorrhagic Septicemia and Foot and Mouth diseases depending upon prevalence of particular disease in the area and as per advise of State Animal Husbandry Department.
8. The bank shall satisfy itself that beneficiaries have adequate arrangements for supply of green/dry fodder/concentrate feed.
9. The bank shall satisfy itself that adequate facilities for veterinary aid and breeding facilities are available from Government Department to beneficiary in the vicinity of the scheme area.
10. Wherever 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.
11. The bank shall satisfy itself that suitable and satisfactory arrangements exist for marketing of milk. Such arrangements shall either be in the nature of organized

- marketing through milk collection centres or satisfactory outlet for direct sale of milk at remunerative prices.
12. Wherever an arrangement is made to market milk through organized system the bank may make arrangements with the milk collection agencies for loan recoveries out of sale proceeds.
 13. In cases where cross/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.
 14. 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 shall preferably cover all animals under the same for a long-term master policy.
 15. The bank shall ensure that the beneficiaries are invariably trained at the Farmers Training Centres (Dairy Extension Centres) operated by the Dairy Development Department.
 16. Beneficiaries shall be asked to maintain basic records.

2. GOATERY

- 1 In case of area development scheme the bank shall select villages bearing in view compactness of the area to facilitate supervision and nearness of villages to veterinary dispensaries and animal breeding centres.
- 2 In case of area development scheme animals shall be purchased by a Committee comprising of a representative of the bank, qualified Veterinary Assistant Surgeon and the beneficiary.
3. The bank shall finance under the scheme only good quality animals of 1 to 1 ½ year old and in the stage of first pregnancy and capable of producing 1 litre of milk/day.
4. Immediately after purchase, suitable arrangements for identification of animals by ear tagging shall be made with the help of State Animal Husbandry Department. In addition to this, the record of the particulars of the animal identification (colour, birth marks etc.) shall be maintained.
5. Certificate regarding age and health of animals financed shall be obtained from a qualified Veterinary Assistant Surgeon.

6. Animals shall be got vaccinated with the help of Veterinary Department against diseases.
7. Purchase of exotic bucks of ALPINE/SANAN cross bucks should be made only from Veterinary College, Mannuthy.
8. The units to which bucks are given may be periodically visited by the Agricultural Officer who should maintain a follow up register on maintenance of animals given and young ones produced.
9. The bank should satisfy that there is adequate arrangement for feed and fodder for rearing of goats.
10. The bank shall satisfy itself that adequate facilities for veterinary aid are available from Government Department to beneficiary in the vicinity of the scheme area.
11. 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 scheme by a Master policy of long term.
12. The bank shall ensure that the beneficiaries are invariably trained at the Farmers Training Centre at Mundayad near Cannanore for efficient implementation of the scheme.
13. Disbursement on cost of shed, maintenance etc. may be done in suitable instalments. The implementing PACS may be advised strictly to release instalments for veterinary aid, cost of feed etc. only on actual purchase of animal.
14. Beneficiaries shall be asked to maintain basic records.

3. PIGGERY

1. The bank shall finance under the scheme, the purchase of good quality piglets of exotic breeds like large White Yorkshire etc. in the age group of 2 months from reputed farms.
2. Immediately after purchase, suitable arrangements for identification of animals by tagging shall be made with the help of the State Animal Husbandry Department. The record of animal identification shall be Maintained.
3. Certificate regarding age and health of piglets shall be obtained from qualified Veterinary Surgeon.

4. Animals shall be got vaccinated with the help of Animal Husbandry Department/Agricultural University against diseases such as Swine fever etc.
5. The bank shall satisfy itself that adequate facilities are available for Transporting the garbage to the farm site on regular basis.
6. The bank shall satisfy itself that adequate veterinary care is available from concerned departments.
7. The bank shall satisfy itself that adequate marketing arrangements are available for selling the fattened pigs at a remunerative price.
8. The unit shall be insured immediately after the purchase of piglets and the document assigned in favour of the bank.
9. Beneficiaries should be trained at Livestock Management Training Centre at Kudappanakunnu (AH Department).
10. The bank should identify a source of waste that can be fed to pigs like a slaughter house/hotel or hostel etc.
11. Repayment to bank should be in half yearly instalments for 5 years starting from the end of 1 year.
12. Beneficiaries shall be asked to maintain basic records.

4. POULTRY

1. The bank shall satisfy itself that firm arrangements are made by beneficiaries for getting regular supply of quality chicks as per schedule from a 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.
2. In case of area development schemes, the bank shall select villages keeping in view compactness of area, nearness to road, veterinary dispensary, concentrate feed, hybrid chick supply sources and poultry marketing centres/ places of market.
3. The bank shall satisfy itself that the beneficiaries observe among others, the following specifications in designing the poultry sheds.
 - i) The end walls of shed shall face east west direction.

- ii) The floor level shall be about one foot above ground level.
 - iii) A minimum overhead of 3-5 feet be given to the roof to avoid entry of rain water inside the shed.
 - iv) Shed shall be made rat proof using wire nets.
 - v) Feeding space of 4" and watering space 2" per bird shall be ensured, preferably a type design may be explained to the borrowers.
4. The bank shall disburse loans after satisfying itself that there are adequate facilities for veterinary aid and marketing of broiler.
 5. During periodical inspection, the bank shall satisfy itself about the following requirements.
 - i) Utmost cleanliness and hygienic conditions are maintained in the poultry farm. The houses are cleaned and disinfected before housing new flock.
 - ii) Fresh, clean and dry litter material such as saw dust, paddy Husk, groundnut husk is placed in the floor of poultry house before poultry birds are introduced in the shed. In case of deep litter system, litter is kept clean and dry by turning it at least once a week.
 - iii) Fresh and clean water is always available and waterers Cleaned at least twice daily
 - iv) Balanced concentrated feed is always available to the birds.
 6. Loan component in the case of chicks, feed etc. shall be disbursed in kind and direct payment shall be made to the suppliers.
 7. Loans 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. Loans for chicks shall be made to the supplier ie. Hatchery.
 8. The bank shall undertake a monitoring study regarding the implementation of the scheme one year after commencement of sanction of loans under the scheme and submit a comprehensive report to NABARD.
 9. Before disbursement of loan, beneficiaries shall be exposed to a short course on elements of broiler rearing. This could be arranged with Department of Animal Husbandry.
 10. In case of Area Development scheme a collective arrangement shall be made to buy feed or medicine in bulk to reduce the cost wherever possible.
 11. Every unit shall exhibit a board as "Finance by..... Bank/ PLDB", to avoid double financing.

12. Beneficiaries shall be asked to maintain basic records.
13. Quarterly demands shall be raised. The beneficiaries shall be advised to repay as and when birds are sold.

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.

5.DUCK REARING

1. The bank shall satisfy itself that firm arrangements are made by beneficiaries for getting supply of high quality ducklings from a reputed hatchery.
2. In case of area development schemes, the bank shall select villages keeping in view compactness of area, nearness of villages to veterinary dispensaries, concentrate food and hybrid duckling supply sources and egg/ duck meat marketing facilities.
3. 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.
4. During periodical inspections, the bank shall satisfy itself about the following requirements.
 - i) Utmost cleanliness and hygienic conditions are maintained in the rearing farm. The houses are cleaned and disinfected before housing new flock.
 - ii) Fresh, clean and dry litter material such as saw dust, paddy Husk/ bedding husk is placed on the floor of duckery before birds are introduced in the shed. In case of deep litter system, litter is kept clean and dry by turning it at least once a week.
 - iii) Fresh and clean water is always available and water is cleaned at least twice daily
 - iv) Balanced concentrated feed is always available to the birds.
5. The bank shall undertake a monitoring study regarding the implementation of the scheme one year after commencement of sanction of loans under the scheme and submit comprehensive reports to NABARD.
6. Before disbursement of loan, beneficiaries shall be exposed to a short course on elements of duck rearing. This could be arranged with Government Duck Farm at Niranam.
7. A collective arrangement shall be made to buy feed and medicine in

- bulk to reduce the cost, wherever possible.
8. Every unit shall exhibit a small board as “ Financed by DCB (as the case may be) to avoid double financing”.
 - 9 . Beneficiaries shall be asked to maintain basic records.
 10. Monthly demands shall be raised. The beneficiaries shall be advised to repay as and when the birds are sold. 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.
 11. The beneficiaries should be advised to get their birds insured compulsorily.
 12. As far as possible, a day old ducklings should only be purchased and reared.

V. FISHERIES
I. Marine Fisheries

Sl.No	Item of Investments and Specifications	Unit Cost (Rs.)	Repayment Period
a)	Catamaran – 4 logs 4m. long 0.9m. wide	10000.00 11000	4-7 yrs.No repaymentfor four monthsduring monsoonperiod of each year.
	Net	8750.00 9600	-do-
b)	<u>Marine plywood canoes</u>		
i.	Marine plywood canoes (IND/26) with fibre glass coating upto water level, BOBP design with mast,sail and rudder, V bottom – 26' x 5.5'	65000.00 70000	4-5 yrs.No repayment for four monthsduring monsoonperiod of each year.
ii.	Outboard motor 7 HP	42500.00	44000
iii.	Net – 175 kg and accessories	78000.00	82000
	<u>Accessories</u>	8600	
1	*Wire rope 150.00		Separate split up need not given
2	Plastic rope 2000.00		
3	Float 525.00		
4	Twine 645.00		
5	Sinker 635.00		
6	Rings 3045.00		
iv.	Sail mast and rudder	5000.00	
	Total	190500.00	2,09600
c.	Net (webbings) (Rs.230/300/kg) Note:- Financing will be as per quotation of manufacturer.	*8750.00 *need not be given	4-5 yrs.Repayment period is linked to other items. No repayment during the 4- month monsoon period of each year.
d.	<u>Out board engine for country crafts</u>		
	Cost to be determined on the basis of proforma invoice of authorised dealers. Financing shall however be done subject to viability of the investment		4-5 yrs. repayment period is linked other items. No repayment during the 4 month monsoon period of each year.
e)	<u>Trawlers</u>		
	Unit cost to be determined on the basis of detailed quotations with specification like type of craft,overall length, power of engine, hull material etc.		8-12 yrs. Including 11 months grace period.
	Note: i) Banks may note that financing for trawlers of less than 43' OAL, 160 HP engine and 500 m. wire rope is restricted by the Government of Kerala. ii) However replacement of engines for such trawlers is allowed subject to written consent from Deputy Director of fisheries to that effect as well as the sea-worthiness of the boat.		
f)	<u>Plank built canoes</u>		
i)	a) 60' OAL 72600 b) 70' OAL 105600 c) 73' OAL 132000	66000.00 96000.00 120000.00	4-7 yrs. No repayment for 4 months during monsoon period each year.
ii)	Out board engine – single – 40 HP 138300	125700.00	-do-
iii)	Ring net – 600 kg. (Thanguvala) 159500	145000.00	-do-
g	<u>Country Canoe for backwater(Kayal) fishing</u>		
(i)	Cost of wood for 65 cft.at Rs.70/cft. 5000	4550.00	4 to 7 yrs including 11 months grace
(ii)	Cost of wood for 5 steps and 1 row 600	500.00	
(iii)	Cost of copper nuts and screws 600	550.00	
(iv)	Labour charges 2100		
(v)	Total 8300		
(vi)	Note: While financing for these items, it has to be ensured that the beneficiary has net and other accessories with him.	1900.00 7500.00	

II. INLAND FISHERIES

Sl. No	Item of Investments and Specifications	Unit Cost (Rs.)	Repayment Period
	Integrated Fish Farming		
1	Integrated Coconut-cum-prawn farming		
	1 ha 1:1 land : water Cocunut – 175 Palms Banana - 350 Plants	127385.00	140100 9 years
a)	Fish Culture		
	Formation of 175 mounds 12 bunds and 11 trenches	59460.00	65000
	Sluice gate 2 Nos @ 4000/4300 each	8000.00	8600
	Pumpset	13750.00	15000
	Net and Miscellaneous items	1000.00	
	Total	82210.00	89600
b)	Cost of Cultivation of coconut	5900.00	7000
c)	Cost of cultivation of banana	7000.00	8500
d)	Operational Cost of Prawn Culture (First Crop)	32275.00	35000
	Total	127385.00	140100
2	Paddy cum Fish culture		
	1 ha paddy crop : June – Oct Fish Culture : Oct- April		
(a)	Fish Culture	41750.00	45900 4 years
(i)	Capital Cost		
	Strengthening of Bunds@175 /190Cum.	16000.00	17000
	Construction of Nursery pond(0.02 ha.,150 cu.m @ Rs.30/33 per cum)	4500.00	4800
	Sluice gate(1Nos)	4000.00	4200
	Net and Miscellaneous item	1000.00	
	Total	25500.00	27000
(ii)	Recurring cost		
	Lime 250 kg @Rs.3/4Kg	750.00	1000
	Cow Dung 2 tonnes @ Rs.400/500ton	800.00	1000
	Fish seed 6000No.@Rs400/1000	1800.00	2400
	Supplementary feed 1000kg @Rs.5/6Kg	5000.00	6000
	Harvesting Charges	2000.00	1500
	Total	10350.00	11900
(b)	Cost of Cultivation of coconut(80 palms) on bunds	2700.00	3000
(c)	Cost of cultivation of banana(160 palms) on bunds	3200.00	4000
	Total	41750	45900
Note: Earth work cost varies with requirement of the site.Nursery pond is to be constructed in June for stocking Fish seed.			

3. <u>Fish cum pig culture (1 acre- 10 pigs)</u>		4 years	
i) <u>Capital cost</u>			
(a) Construction of pig shed (150 sq.ft. @ Rs. 60/65sq.ft.)	9750	9000.00	
(b) Improvement/repair of bund	8500	8000.00	
(c) Net and miscellaneous items	2500	2000.00	
	Total	19000.00	
ii) <u>Recurring cost</u>			
a) <u>Piggery (for 6 months)</u>			
(i) Cost of 10 piglets @ Rs. 600/ 700piglet	7000	6000.00	
(ii) Feed			
(a) Concentrate feed (900 kg @Rs.5/6 Kg)	5400	4500.00	
(b) Hotel waste (2000 kg)	1500	1470.00	
(iii) Insurance @ Rs. 20/piglet		200.00	
(iv) Medicine and miscellaneous @ Rs. 20/25piglet	250	200.00	
	Total	14350	12370.00
b) <u>Fish culture (for 1 year)</u>			
(i) Pond preparation (L.S.) including liming	4800	4000.00	
(ii) Fish fingerlings 2500 nos. @ Rs. 350/400/1000	1000	880.00	
(iii) Harvesting charges, Labour charges on watch and ward etc.		10000.00	
	Total	15500	14880.00
	Grand total	50900	46250.00
4) <u>Fish cum duck farming (1 ha- 300 ducks 260 F+40M)</u>			
i) <u>Capital cost</u>			
Construction of duck house (3 sq.ft/duck @ Rs. 50/55sq.ft) for 300 ducks	45000.00	49500	
Feeding equipments and miscellaneous	500.00	600	
Improvement/repair of bunds	15000.00		
Net and other implements for fish culture	2000.00	2500	
	Total	62500.00	67600
ii) <u>Recurring cost</u>			
a) <u>Duckery (first 3 months)</u>			
Ducklings 315 nos., desi ducks, 3 months age (including 5% extra for mortality) @ Rs.50/55duck	15750.00	17400	
Supplementary feed, locally available material 6 kg/bird @ Rs. 5/ 6kg	9000.00	11340	
Veterinary aid	300.00	500	
	Total	25050.00	29240
b) Fishery (first year)			
Pond preparation including liming	9000.00	10000	
Fish fingerlings 6000 nos. @ Rs. 350/400/1000	2100.00	2400	
Harvesting charges, Labour charges on watch and ward, feeding etc.	15000.00	15760	
	Total	26100.00	28160
	Grand total	113650.00	125000

Modified Extensive

Brackish water prawn farming in low lying areas (under schematic only)

5-6 yrs. 11 months grace

(Land area 1.1 to 1.2 ha, WSA: 1ha.)

CAPITAL COST (A)

(i) Earth work excavation/ strengthening bunds etc. @ Rs. 45/cu.m., 1500 cu.m.*	67500.00
ii) RR stone work with cement(1:3) for construction of wall 30 cu.m @ Rs. 200 per cu. M.	6000.00
(iii) Sluice gate open type (LS.)	15000.00
(iv) Inlet/outlet LS.	5000.00
(v) 5 HP Pump set with electric motor. LS.	16000.00 18000
(vi) 5 HP diesel pump set (stand by)	16000.00 18000
(vii) Watchmen shed LS.	5000.00 7000
(viii) Electrification LS.	5000.00
(ix) Miscellaneous-5% of items 1-7, nets, feeding trays etc.	5900.00
Total	<u>135400.0 147400</u>

* Quantum of verification will vary with the topography of the site

Recurring costs (B)

<u>Particulars</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount(Rs.)</u>
1. Mahua oil cake	100/400 kg/ha	9/kg	900.00 3600
2. Organic manure/Cow Dung	1.2 tons	500/ton	600.00
3. Penaeus monodon	60000 nos.	0.6/seed	36000.00
4. Lime	400 kg	4/kg	1600.00
5. Urea	60/40kg	5/8kg	300.00 320
6. Single Super phosphate	60/40kg	3/8kg	180.00 320
7. Supplementary feed (FCR1:5:1)	1890/1800 kg	Up to 40.0/ 45kg	75600.00 81000
8. Fuel – diesel	500 litres	16/20litre	8000.00 10000
9. Harvesting and marketing charges	*1260 kg	*5.0/kg of prawn produced	6300.00 8060
* To be omitted in Website			
10. Watch and ward	*Rs. 1000/month/individual		5000.0 8000
		Total	134480.0 149500
		Say (B)	<u>134500.0 149500</u>
Total A+B =			<u>269900.00 296900</u>

Fresh water prawn farming

6 yrs. 11 months grace

A. Capital cost

Earth work excavation – 2800 cu.m. @ Rs. 30/ 33cu. m.	84000.00 92400
Sluice gates – 2 nos. inlet and outlet	20000.00 23000
Pump set 5 HP LS	16000.00 18000
Watchmen shed LS	5000.00 7000
Miscellaneous, hide out nets	15000.00 10000
Total	140000.00

B. Recurring expenses

Lime – 300 kg @ Rs. 4/kg	1200.00	
Inorganic fertiliser – 75 kg @ Rs. 3/8 kg	225.00	600
Organic fertiliser – 2 tons @ Rs. 500/ton	1000.00	
Fish seed – 50000 nos. @ Rs. 600/ 1000 nos.	30000.00	
Supplementary feed – 3000 kg @ Rs. 20/kg	60000.00	70000*
Pumping charges LS	5000.00	6000
Watch and ward for 5 months @ Rs. 1000/month (to be excluded)	5000.00	
Harvesting and marketing	5000.00	5100
	Total	107425.00
	Grand total	<u>247500.00</u>

* The correct figure should have been 69000 (need to be ratified)

FISHERIES**Terms and Conditions- Special****1. MARINE**

1. The bank shall satisfy itself regarding cost of construction boats, cost of hull, cost of engine and other accessories etc, by verification o quotations, vouchers and bills and that the equipment so mentioned is actually installed on the boats.
2. The mechanized boats accessories shall be insured against marine risk and and risk against fire and theft covering entire loan period and relevant policy shall be assigned in banks favour and assignment duly registered with Insurance Company.
3. The bank shall satisfy itself that beneficiaries financed under the scheme are conversant with the operation of fishing boats.
4. The operational area of scheme 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 based depending upon fishing season only with the prior consent of the bank in writing.
- 5 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 centres.

6. The bank shall ensure that its supervisory staff undertake visits at periodical intervals and keep record of their observations on the operation of boats.
7. 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.
8. The bank shall satisfy itself that arrangements for marketing and processing of fish are satisfactory. Such arrangements shall be reviewed from time to time.
9. The bank may maintain such records/ registers as may be prescribed by NABARD.

2. INLAND/ BRACKISH WATER FISHERIES- PRAWN/ FISH FARMING

1. The area shall be inspected/ lay out plan prepared by BFFDA/ MPEDA/ Fisheries Department of Government of Kerala and their suitability report obtained before sanction of loans.
2. Only good variety of prawn/ fish fingerlings as recommended by MPEDA / Fisheries Department of Government of Kerala/ BFFDA/ FFDA shall be grown by the beneficiaries under the scheme.
3. The ponds shall be prepared as per the technical guidelines from the MPEDA/ fisheries Department of Kerala/ BFFDA/ FFDA and adequate water level (approximately between 1.00 and 1.5 meters) shall be maintained.
4. Proper arrangements for de-silting, 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.
5. Application of lime/ organic and inorganic fertilizers and supplementary feed shall be as per recommendations of BFFDA/ State Fisheries Department to ensure optimum prawn/ fish production.
6. Proper arrangements shall be made to divert flood water away from the area of brackish water culture ponds in order to maintain sufficient salinity.
7. Long stalked grass with long blades commonly occurring in inter tidal

belts and succulent grass shall be planted in marginal water to help the production of periphytic diatoms(prawn food) on them and to provide shelter to moulting individuals.

- 8 At the time of harvest, arrangements shall be made for marketing, processing and preserving of fish/ prawn.
9. The Marine Product Export Development Authority, Central Marine Fisheries Research Institute, Brackish Water 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.
10. 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.
11. Specific feasibility report shall be prepared by the BFFDA/MPEDA/ Fisheries Department for the beneficiary and shall be trained by them in culture of prawns/ fish.
12. Timely and adequate supply of quality seeds by MPEDA, BFFDA, Fisheries Department, other reliable agencies shall be ensured for the implementation of the scheme.
13. PCR tested seeds should be used in prawn farming.
14. Good quality feed to be used.
15. Clearance from Aquaculture authority to be obtained by Brackish water prawn farming.

VI. BIO-GAS

Sl.no.	Model	Unit size	Unit cost (Rs.)	Repayment period	Grace period
1.	Deenabandhu model	1 cu.m.	9712.0 10700.0	7 years	Nil
		2 cu.m.	11809.0 13000.0	7 years	Nil
		3 cu.m.	14235.0 15700.0	7 years	Nil
		4 cu.m.	16928.0 18600.0	7 years	Nil
2.	KVIC model	2 cu.m.	7600.0 8400.0	7 years	Nil

		3 cu.m.	9300.0 10200.0	7 years	Nil
		4 cu.m.	10200.0 11200.0	7 years	Nil
		5 cu.m.	10000.0 11000.0	7 years	Nil
		6 cu.m.	11500.0 12700.0	5 years	Nil

Note: An addition of 10% above the rates (except for 1 cu.m.) may be taken as unit cost in hilly regions for both KVIC and Deenabandhu models. List of declared hilly regions in Kerala under National Programme for Bio- gas Development is given in Govt. of India letter no.5/18/88 B4 dated 16 September 1988.

VII. FARM MECHANISATION

<u>Items of investment</u>	<u>Unit cost</u>	<u>Repayment</u>
i) Tractor with a minimum of three implements including a trailer	Cost to be determined as per the make/HP as indicated in the invoice by approved dealers subject to vaibility of investment	9 years
ii) Power tillers	Do.	7 years

Note: Refinance support for tractors over 50 HP shall be restricted to a maximum of 3% ~~10%~~ of the allocation made to each bank.

FARM MECHANISATION POLICY FOR THE YEAR 2004-05 (APRIL-MARCH)

Sl.No.	Criteria	Revised Norms
1	NABARD refinance Against financing of second-hand tractors	<input type="checkbox"/> Applicable to Kerala State <input type="checkbox"/> Second resale also eligible. Tractor should not be more than 7 years old. <input type="checkbox"/> Repayment period of 7 years. Remaining economic life of asset to be considered for fixing repayment period
2.	Repairs/Renovations /Replacementof Spare parts	<input type="checkbox"/> Quantum of loan enhanced to Rs. 50,000/- <input type="checkbox"/> No ceiling in case of replacement of engine <input type="checkbox"/> Loan can even be extended to farmers who

		<p>did not avail of loan for purchase of tractor.</p> <ul style="list-style-type: none"> ❑ In case of tractor loanees, loan for repair/renovation/replacement can be given during currency of earlier loan. ❑ Cost of repair on account of damages caused due to accidents is also eligible(net of insurance claim)
3	Down payment	❑ Reduced to 5-10% of investment cost.
4	Norms on minimum productive use	<ul style="list-style-type: none"> ❑ Criteria removed ❑ Financing bank to assess financial viability
5.	Purchase of tractor -exceeding 50HP	❑ 10% of the overall allocation to the state

NABARD
Head Office
Sterling centre,
Dr. Annie beasant Road.
Worli, Bombay- 400 018

NABARD
MANAGING DIRECTOR

Ref. No. NB. DPD. FS/ 3602/ IRDP 4/ 94-95

14 February 1995

Circular no. 29

The Chairman/ Managing Director
Commercial Banks/ RRBs/ SCABs/ SLDBs

Dear Sir,

**Schematic lending- Unit Costs of items of
Investment approved by National Bank**

Please refer our letter No. ICD. 939/PPS-8/ 90-91 dated 14th June 1990, indicating the procedure for fixation of unit cost on a regular basis at NABARD RO's level. As you are aware that the Standing Committee constituted in our ROs' meet at atleast at half-yearly intervals to review the unit costs of various items so that reasonable unit cost is adopted for financing different items in the various states. The banks have also been given the discretion within a range of upto, +10 –15 % of the approved cost to vary the same. We have also made abundantly clear in our above mentioned Circular that the Unit costs as approved by the NABARD are average costs and not maximum or minimum costs as such. Despite this inbuilt flexibility allowed to the financing banks for fixing of unit cost, State Governments and Government of India continue to raise at various forums that the bank branches are rigid in regard to the fixation of unit cost for different investments. The matter was also raised in the last meeting of the High Level Committee on Credit Support for IRDP held on 13 April 1994, under the Chairmanship of Secretary Rural Development, GOI. After further

review of the existing procedures in this regard, NABARD has decided to effect further changes in the matter of fixation of unit costs as under:-

1. The unit costs under area development schemes for different purposes as approved by NABARD would apply for economic size of different investments consistent with their techno-financial viability.
2. The Unit costs as approved by NABARD may be treated as indicative cost only and the banks are at liberty to vary the costs wherever necessary, to any extent depending upon the local conditions and merits of each case. For the purposes, your bank may evolve a mechanism under which you may ensure that the borrower is able to acquire the quality asset with loan amount, subject of course to the generation of adequate repaying capacity and other factors.

Accordingly, you may kindly issue instructions to all your units.

Yours faithfully,

Sd/-

S.K. KALIA

MANAGING DIRECTOR