

**Handbook  
Of  
Unit Costs – 2019-20**



**National Bank For Agriculture And  
Rural Development  
Karnataka Regional Office  
Bengaluru**

### **Disclaimer**

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

The detailed unit cost booklet for 2010-20 is available for reference at <http://slbckarnataka.coi>

### Water Resources

Sl No	Activity	Specifications	Unit Cost (₹)
1	Bore well (BW)		
i	a) 152 mm dia. and depth 200 m	152mm diameter and 200m depth	144000
ii	b) 152 mm dia. and depth 300 m	152mm diameter and depth 300m	227000
2	Pump Set		As per the prevailing market rates
3	Renovation/ Deepening of Wells		33000
3	Pump house with A.C Roof		
i	3 HP pump	(2m x 2m x 2.1m) for 3 H.P pump. Atleast 2 ventilators of size 60 cm x90 cm be provided	22000
ii	5 HP pump	(2.5m x 2.5m x 2.1m) 5 H.P pump. Atleast 2 ventilators of size 60 cm x90 cm be provided	34000

iii	10 HP pump	(2.7m x 2.7m x 2.4m) for 10 HP Pump. Atleast 2 ventilators of size 60 cm x90 cm be provided	42900
4	Storage tank (ground level)	(3.5m x 3.5m x 2.5m) in brick masonry with cement plastering	40000
5	Pipeline distribution systems for	1 Ha	24000
6	Small lift irrigation schemes	Command area generally varies between 10 and 40 ha . Per Ha Rs.66000	66000
7	Rain water harvesting -cum- artificial recharge structures	For bore wells for Irrigation (command area of 1.5 - 2 ha.)	51000
8	Subsurface drainage system		
i	Model I	Tile Drain Pipe - for 1 Ha model	160000
ii	Model II	HDPE Drain Pipe - 1 ha model	198000
9	Dug well		47000-930000

<b>10</b>	<b>Drip Irrigation system for different crops</b>		<b>Unit Cost per ha (₹)</b>
i	Grapes	-	40000-109000
ii	Pomegranate	4m x 4m	48000
iii	Coconut	8.1m x 8.1m	36000
	Guava	6m x 6m	42000
iv	Citrus crops	6m x 6m	42000
v	Sapota	9.25m x 0.25m	30000
vi	Banana	1.8m x 1.8m	82000
vii	Ber	5.4m x 5.4m	42000
viii	Mango	10m x 10m	29000
ix	Oil Palm	9m x 9m	31000
x	Arecanut	2.7m x 2.7m	71000
xi	Jasmine	1.2m x 1.2m	77000
xii	Papaya	2.4m x 2.4m	86000
xiii	Rose	0.6m x 0.6m	132000
xiv	Sugarcane	0.9m x 7m	89000
xv	Cotton	1.2m x 0.6m	92000
xvi	Mulberry	0.9m x 0.9m	114000
		0.61m x 0.23m	105000
12	Sprinkler Irrigation system		
i	Field Crops (Vegetables/Pulses)		

a	Sprinkler system for vegetables and Pulses	63mm HDPE pipes	31000
b	Sprinkler system for vegetables and Pulses	75mm HDPE pipes	37000
ii	Coffee/ Tea	90mm HDPE pipes	69300

#### Land Development

Sl. No.	Slope	Unit Cost per ha (₹)
1	Contour bunding(2%-6% slope)	12800-25400
2	On Farm Development (OFD)Works (2%-6% slope)	76000-80000
3	Farm Ponds	30000-260000
4	Composting	11000-22000
5	Vermicompost Unit	12000
6	Stone Gully Plug(SGP)	11,000-16000
7	Earthen Gully Plug(EGP)	1500
8	Tank silt application	23700
9	Reclamation of Alkali soils	30000 - 35000
10	Plastic mulching	24000 - 32000

11	Azolla – 1 TPA -30 ft. x 4 ft. x 1.5 ft. – 2 pits	156000
12	Vermi hatchery 320 TPA	438000
13	Fencing ( Barbed wire with stone posts/cement pillars)	175/m

### Farm Mechanisation

Sl. No.	Machinery / Implement	Unit Cost (₹)
1	Tractor with accessories – 15 to 25 HP	2.50 - 4.50 lakh
2	25 to 35 HP	4.50 - 5.50 lakh
3	35 to 45 HP	5.00 - 7.50 lakh
4	45 to 55 HP	6.50 - 8.50 lakh
5	55 to 60 HP	7.50 - 9.50 lakh
6	Trolley – two wheel hydraulic	1.00 - 1.50 lakh
7	Power tiller 6 to 12 HP	0.60 - 2.00 lakh
8	Seed cum fertilizer Drill	35000 – 60000
9	Paddy Transplanter (4, 6 & 8 rows)	1.5- 3 lakh
10	Cono Weeder (Rotary weeder)	1000-3000
11	M. B. Plough (2 / 3 furrows)	0.15 - 0.40 lakh
12	Reversible M. B. Plough (2/3 furrows)	0.15 - 1.00 lakh
13	Disc Plough (2 / 3 discs)	0.40 - 0.60 lakh

14	Disc Harrow	0.40 - 0.60 lakh
15	Cultivator	0.15 - 0.30 lakh
16	Rotavator (540 and 1000 rpm PTO speed)	0.65 - 1.00 lakh
17	Thresher	0.45 - 2.00 lakh
18	Bullock Drawn MB Plough	0.15 - 0.20 lakh
19	Combine Harvesters	As per the make/HP
20	Custom Hiring Centre	2310000

#### **Plantation and Horticulture**

<b>Sl. No.</b>	<b>Crop</b>	<b>Spacing</b>	<b>Population/ha /acre</b>	<b>Unit Cost (₹)</b>
1	Citrus	6x6m	110/acre	67000
2	Coffee (Robusta)	3m x 2.5 m	1250/ha	226000
3	Coffee (Arabica)	2 m x 2m	2500/ha	260000
4	Grape-Seedless varieties	3m x 1.8m	720/acre	458000
5	Grape-Bangalore Blue	3.3m x 3.3m	360/acre	350000
6	Mango	9m x 9m	50/acre	92000



7	Pomegranate	10 ft. x 10 ft.	400/acre	189000
8	Sapota	9m x 9m	50/acre	75000
9	Guava	2.5 x 2.5m	320/acre	105000
10	Cardamom	1.8m x 1.8m	3000/acre	203000
11	Cashew	8 x 8m	64/acre	85000
12	Coconut	8m x 8m	60/acre	86000
13	Oil Palm	9m x 9m	50/acre	92000
14	Apiary	-	50 Boxes/acre	56000
15	Custard Apple	2.5 m x 5 m	320/acre	97000
16	Curry Leaf	3 m x 1.5m	880/acre	32000
17	Drum stick	12 m x 12 m	100/acre	39000
18	Mango( High Density Planning)	5m x 5m	160/ha	175000
19	Ber	5 m x 5m	160/acre	46000
20	Dragon fruit	2.5 m x 2.5 m	400 poles/acre	662000
21	Aonla	6m x 6m	110/acre	41000
22	Jamun	8m x 8m	156/hectare	114000
23	Protected cultivation			
i	Capsicum	4 per sq.m	4000	1206000

ii	Cucumber	4 per sq.m	4000	1133000
iii	Carnation	20 per sq.m	20000	1528000
iv	Gerbera	6 per sq.m	6000	1408000
24	Pepper (intercrop with Arecanut)	10 ft. x 10 ft.	400	105000
25	Pepper (intercrop with Coffee)	20 ft. x 20 ft.	200	66000
26	Cardamom	1.8m x 1.8m	1250	115000
27	Curry leaf	3m x 1.5m	880	32000
28	Jasmine	1.5 m x 1.5 m	1780/acre	71000
29	Rose	0.75 m x 0.75 m	7100/acre	148000

### **Sericulture**

<b>Activity</b>	<b>Specifications</b>	<b>Unit Cost (₹)</b>
Sericulture-Shoot Rearing System	Mulberry cultivation in 1 Acre , rearing room , rearing trays 5000 DFL/ batch	973000
Chawki Rearing Centre	5000 Disease Free Layings (DFLs ) per batch	1637000

### Forestry

Sl. No.	Crop	Spacing	Plant population per ha	Unit Cost (₹)
1	Sandalwood	10' x 10'	1080 No./ha	116000
2	Melia dubia	3 m x 3 m	1111 No./ha	111100
3	Bamboo	5 m x 5m	400 No/ha	61600
4	Bamboo Tissue Culture	5 m x 5m	400 No/ha	70000
5	Teak	2 m x 2m	2500 No/ha	126000
6	Mahogany 4.57m	4.57 m x	478 No/ha	85000
7	Silver Oak	3 m x 3m	1111 No/ha	110000

### Animal Husbandry

No	Activity	Unit Cost (₹)
1	<b>CB Cows</b> (Jersey or HF Crosses - 10 to 12 lpd)	62000
2	<b>She buffaloes</b> (Graded Murrah/ Surti/ Dharwad/ Pandapuri/ Mehsani yielding - 9 to 10 lpd)	60000
3	<b>Indigenous cows</b>	
	Malnad gidda (yield 0.8 to 1 lpd)	13000
	Hallikar	25000

	Deoni	32000
	Gir, Sahiwal, Tharparkear	45000
4	Two CB cow unit	139000
5	Two buffalo unit	135000
6	Ten CB cow Unit	759000
7	Ten buffalo unit	738000
8	Indigenous Breeds - 2 animal unit	142230
9	Indigenous Breeds -10 animal unit	781150
10	Calf-rearing - rearing of female calf (5 CB Cows)	271000
11	Male calf rearing- 10 calves unit	381000
12	Male calf rearing- 20 calves unit	761000
13	Hydroponic unit for fodder cultivation for 2 heads of cattle	60000
14	Stylo Fodder	22000

### **Poultry**

<b>No</b>	<b>Activity</b>	<b>Unit Cost (₹)</b>
1	Commercial Layer unit-5000 layers (1+1+4 under Cage system)	3012000
2	Commercial Broiler unit -500 birds (Deep litter system)	150000

3	Commercial Broiler unit -500 birds per week (Deep litter system)	1123000
4	Backyard poultry-50 females+ 10 males	12000
5	Commercial Broiler Unit under integration -2000 birds (Deep litter system)	3,47,000
6	Poultry marketing outlet	700000
7	Duck rearing unit -200 ducks	46000
8	Sheep Breeding: 100+5	1075000
9	Sheep Rearing 10+1 (Bannur & Deccani) 20+1 (Bannur & Deccani)	79000-95000 144000-175000
10	Goat Breeding: 500+25	
	Local breed	4456000
	Jamnapari	5279000
11	Goat Rearing	
	Local breed (10+1)	78000
	Jamnapari(10+1)	95000
12	Pig breeding Unit -20 sows+2 boars' unit	1193000
13	Pig rearing cum fattening unit (3 sows +1 boar)	129000
14	Retail pork outlet with facility for chilling	1200000
15	Rabbit rearing (10+3)	300000
16	Integrated Farming Models	

i	Cereal-Maize (1.5 acre)+cowpea (1.5 acre) + farm pond + 2 cows (4LPD/cow)	144000
ii	Cereal-Maize (1.5 acre)+cowpea (1.5 acre) + sheep rearing (20 ewes + 1 ram)	168000
iii	Mango (1 acre)+ cows (4LPD/cow) + Brinjal (1 acre)	130000
iv	Farm pond (various sizes)/Dairy (2 animals)/Sheep & goat (10+1)/poultry (50 Giriraja)/ apiary	Varies with the combination of enterprises

### **Fisheries**

<b>Sl. No.</b>	<b>Activity</b>	<b>Unit Cost (₹)</b>
1	Fresh water fish culture in new ponds (1 ha) – Indian Major Carps namely Catla, Rohu, Mrigal and other carps like Silver, Grass & Common carps	829000
2	Fresh water prawn culture (1 ha) - Macrobrachium rosenbergii	535000
3	Culture of freshwater cat fish - Pangasius sutchi	568000
4	Breeding and rearing of ornamental fishes ( small unit)	150000

5	Brackish water shrimp farming- white leg shrimp Litopenaeus vannamei	3510000
6	Non mechanized fishing boat - Traditional boats	500000
7	Motorisation - Traditional boat with Outboard Motor	170000
8	Off shore fishing boat with steel hull - 20 meter OAL	8322000

#### Storage Structures

Sl. No	Particulars	Unit Cost (per MT) ₹
a.	Grain Godowns upto capacity of 1000 MT	3500
b.	Grain Godowns of capacity of more than 1000 MT	3000
c.	Cold Storage unit of 5000 MT capacity	10000
d.	Construction of Onion Storage Structure of 25 MT capacity	7000

#### Renewable energy sources and waste to energy

No	RE Sources	Capital cost / MW
1	Wind	₹ 6.00 crore
2	Small Hydro	₹ 6.33 crore

3	Solar Grid Connected- ground Mounted Utility Scale	₹ 3.50 crore
4	Solar Rooftop (Grid connected) Maximum up to 1000 kW	₹ 40000 per kW for 1 to 1000 kW
5	Solar Off Grid Irrigation Water Pumps	Bench Mark Price for 5HP SWP: ₹ 3.25 lakhs. Remarks - Beneficiary Contribution of ₹ 1 lakh.
6	Biomass	Water cooled ₹ 5.76 crore.
7		Air cooled ₹ 5.86 crore
8	Cogen	₹ 4.70 crore
9	Waste to energy	₹ 17.00 crore

### **Food processing**

<b>Sl. No.</b>	<b>Equipment</b>	<b>Cost per Unit</b>
1	Mini Dal Mill	₹ 0.75 - 2.5 lakh
2	Rice Mill Composite Unit	₹ 10 lakh
2	Mini Rice Mill	₹ 1.50 - 3.00 lakh
3	Rice Huller Machine	₹ 20000
4	Coconut Deshelling Machine	₹ 60000 - 1.00 Lakh
5	Reefer Van	₹ 26 Lakh











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