

Farm Machinery Manufacturing Unit

Vision

“To accelerate the growth of the rural economy by manufacturing quality plant protection equipment for the small and marginal farmers.

EXECUTIVE SUMMARY

The Ministry of Agriculture, Government of India, in association with NABARD has launched a unique programme to take better methods of farming to each and every farmer across the country.

This programme aims to tap the expertise available in the large pool of Agriculture Graduates. Irrespective of whether you are a fresh graduate or not or whether you are currently employed or not, you can set up your own AgriClinic or AgriBusiness Centre and offer professional extension services to innumerable farmers.

Committed to this programme, the Government is now also providing start-up training to graduates in Agriculture, or any subject allied to Agriculture like Horticulture, Sericulture, Veterinary Sciences, Forestry, Dairy, Poultry Farming, and Fisheries, etc. Those completing the training can apply for special start-up loans for venture.

Ministry of Agriculture (GoI) in collaboration with MANAGE, Hyderabad has gained a profound understanding out of its long association with farmers throughout the country and with agencies, organizations and policy makers involved with the agriculture industry and rural development sector. **MANAGE** has been working extensively to empower rural masses of the country with the knowledge and the idea to increase farm productivity and create a value chain in agriculture. The organization offers both technical knowhow as well as delivery of services in the rural sector and has been a pioneer in launching many programs and new initiatives for the development of the sector.

For the project, CARD has been an Authorized Institution to provide two month's skill upgradation training programme to unemployed Agriculture graduates. To train them in a very effective manner so that they could be able to establish their own ACABC centre in total areas thus serve to the farmers. Under the project subsidy is provided through NABARD in back ended form. The State Department of Agriculture has a major role to involve ACABC centre in various developmental schemes.

The centre will act as an information body of the State and Central Govt. To provide technical knowledge to the farmers, design various entrepreneurship projects, increase productivity, actively involved in social work, organize farmers meeting, Block and District level Kisan Mela etc.

Introduction :

Agricultural mechanization helps in increasing production, productivity and profitability in agriculture in achieving timeliness in farm operations, bringing precision in the metering and placement of input reducing available input losses increasing utilization qualitative and quantities damages.

Due to shrinkage of land-holdings and population bomb, the size of land-holdings have been minimizing day by day. Thus the scope of manufacturing of small plant protection equipment has come up. In the recent years, demand of sprayer machine has increased in many folds. The Uttar Pradesh has the largest population in the nation and so number of farmers.

There is a wide scope of establishing a sprayer manufacturing unit. Till now only 34% farmers are having their own spray machine in the country. In the coming years, it will have to reach atleast 50%.

Primary Objectives of the Project:

- To set-up plant protection equipment manufacturing unit and provide quality equipments.
- To help farmers in improving their hectare production of agriculture produces .
- To undertake regular visit, demonstration programmed, advice and inquiry about upliftment of rural economic by spreading the value added centre work.

Secondary Objectives

- Resource centre for awareness on various development related issues.
- Facilitator for creation of SHGs and farmers' clubs
- Moderator for smooth functioning of SHGs and farmers' clubs
- Information generation at grass root level for developing farmers' and area profile
- Arranging interaction between technical experts, local artisans and farmers.
- Backward and forward linkages in value chain
- Facilitation in bank and insurance related activities
- Market and product related information dissemination through use of Information Communication Technology (ICT)

- Contract production, agriculture and farm diversification
- Resources and activity planning with the help of customized software
- Crop specific consultancy and query Redressal
- Facilitation for various government schemes and programmes

ACABC Consultancy Model

For effective implementation of this project and carry out project activities appropriately and for regular facilitation / monitoring, the following human resource team has been identified-

Ministry of Agriculture, New Delhi



MANAGE, Hyderabad



Centre for Agriculture and Rural Development, New Delhi, Uttar Pradesh



Department of Agriculture, Lucknow, Uttar Pradesh



Department of Agriculture at District



Plant Protection Equipment Manufacturing Unit



Farmers

PASHUPATI AGRI TECH
VILLAGE & POST, CHOONSA, DISTT. SHAMLI

TOTAL COST OF PROJECT		
S. No	Particulats	Amount (Rs)
1	Machinery	1,200,000
2	Construction of 700 sq ft shed for keeping the tools and machinery (Rs. 1500/sq ft)	1,050,000
3	Contingency (2% of the cost of machinery)	24,000
4	Margin money for working capital	250,000
TOTAL COST		2,524,000

Cost of land is not taken into account

COST OF MACHINERY		
S. No.	Machinery	Cost (Rs)
1	Power Press 1o Tons	200,000
2	Electrick Welding Set	50,000
3	Drill Machine	20,000
4	Air Compressor	30,000
5	Punching Machine	16,000
6	Weghit Machine	14,000
7	Paint Power Cotting Machine	200,000
8	Hexa Cutter	24,000
9	Cutter Glainder	16,000
10	Genrator Set 25 KBA	210,000
11	Laboratory Equipment	110,000
12	Capitalisation of Recurring cost	310,000
TOTAL		1,200,000

Means of Finance		
S. No.	Particulars	Amount (Rs)
1	Equity 15%	378,600
2	Loan 85%	2,145,400
TOTAL		2,524,000

Loan Amount	2,145,400
Rate of Interest	12%
Repayment in number of years	5 years

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Term loan requirement, repayments and interest details						
S. No	Particulars	Year			Amount in Rs.	
		1	2	3	4	5
1	Term loan	2,145,400	-	-	-	-
2	Loan Repayment	238,378	476,756	476,756	476,756	476,756
3	Outstanding term loan	1,907,022	1,430,267	953,511	476,756	-
4	Interest on term loan	257,448	228,843	171,632	114,421	57,211

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Calculation of Depreciation							
S. No	Particulars	Head	Year			Amount in Rs.	
			1	2	3	4	5
1	Machineries	Depreciation (13.91%)	1,200,000	1,033,080	889,379	765,666	659,162
		Depreciation	166,920	143,701	123,713	106,504	91,689
		Written down value	1,033,080	889,379	765,666	659,162	567,472
2	Shed	Depreciation (10%)	1,050,000	945,000	850,500	765,450	688,905
		Depreciation	105,000	94,500	85,050	76,545	68,891
		Written down value	945,000	850,500	765,450	688,905	620,015
Total Depreciation			271,920	238,201	208,763	183,049	160,580

Expected Sale					
S. No	Machinery	No	Prices	Annual Income (Rs)	Cost
1.	Knapsack Sprayers	5700	950	5,415,000	4,275,000
2.	Knapsack Battery Operating Sprayers	600	4000	2,400,000	1,440,000
3.	Foot Sprayers	250	3600	900,000	522,500
4.	Duster Sprayers	250	3500	875,000	522,500
TOTAL				9,590,000	6,760,000

Estimated Salaries and Wages								
S. No.	Manpower	Amount Salary/month	Numbers	Salary				
				Amount in (Rs)				
				1	2	3	4	5
1	Skilled driver for operation of machinery	6,000	10	720,000	792,000	871,200	958,320	1,054,152
2	Unskilled labour	3,000	10	360,000	396,000	435,600	479,160	527,076
TOTAL				1,080,000	1,188,000	1,306,800	1,437,480	1,581,228

Wages increment of 10% is taken from 2nd year onwards

OPERATIONAL EXPENSES						
S. No	Particulars	Expenses Year wise			Amount in (Rs)	
		1	2	3	4	5
1	Purchase of Raw Material	6,760,000	7,436,000	8,179,600	8,997,560	9,897,316
1	Administrative & Marketing Expenses	120,000	132,000	145,200	159,720	175,692
2	Salaries and Wages	1,080,000	1,188,000	1,306,800	1,437,480	1,581,228
4	Electricity	24,000	26,400	29,040	31,944	35,138
5	Maintenance and repairs @ 5% of machinery	60,000	66,000	72,600	79,860	87,846
6	Insurance @ 5% of the cost of machinery	60,000	66,000	72,600	79,860	87,846
TOTAL		8,104,000	8,914,400	9,805,840	10,786,424	11,865,066

10% rise in operational expenses is taken into account from 2nd year onwards

Working Capital Requirements and Interest Details

S. No	Particulars	Year			Amount in (Rs)	
		1	2	3	4	5
1	Operational Expenses	8,104,000	8,914,400	9,805,840	10,786,424	11,865,066
2	Working Capital Requirements for three months	2,026,000	2,228,600	2,451,460	2,696,606	2,966,267
3	Margin money for working capital	506,500	557,150	612,865	674,152	741,567
4	Working capital loan	1,519,500	1,671,450	1,838,595	2,022,455	2,224,700
5	Interest on working capital @ 12%	182,340	200,574	220,631	242,695	266,964

Profitability

S. No	Particulars	Year			Amount in Rs.	
		1	2	3	4	5
1	Gross Income	9,590,000	10,644,900	11,602,941	12,705,220	13,975,742
2	Operational Expenses	8,104,000	8,914,400	9,805,840	10,786,424	11,865,066
3	Interest on Working Capital	182,340	200,574	220,631	242,695	266,964
4	Interest on Term Loan	257,448	228,843	171,632	114,421	57,211
5	Depreciation	271,920	238,201	208,763	183,049	160,580
6	Profit	774,292	1,062,882	1,196,075	1,378,631	1,625,921
		1,486,000	1,730,500	1,797,101	1,918,796	2,110,676
		1,303,660	1,529,926	1,576,470	1,676,102	1,843,712

S. No	Particulars	Year				Amount in Rs.
		1	2	3	4	5
A	Sources of Funds					
1	Equity	378,600				
2	Term loans	2,145,400				
3	PBDIT	1,303,660	1,529,926	1,576,470	1,676,102	1,843,712
4	Bank borrowings for working capital	1,519,500	1,671,450	1,838,595	2,022,455	2,224,700
	Total	5,347,160	3,201,376	3,415,065	3,698,556	4,068,412
B	Application of Funds					
1	Fixed Assets	2,250,000				
2	Contingencies	24,000				
3	Working Capital Requirement	2,026,000	2,228,600	2,451,460	2,696,606	2,966,267
4	Interest-Term loan	257,448	228,843	171,632	114,421	57,211
5	Term loan repayment	238,378	476,756	476,756	476,756	476,756
6	Interest-Working Capital	182,340	200,574	220,631	242,695	266,964
	Total	4,978,166	3,134,772	3,320,479	3,530,477	3,767,197
	Opening in hand/bank	0	368,994	435,598	530,184	698,263
	Cash Flow (A-B)	368,994	66,604	94,586	168,079	301,215
	Closing in hand/bank	368,994	435,598	530,184	698,263	999,478
C.	Calculation of IRR					
	Inflow	1,303,660	1,529,926	1,576,470	1,676,102	1,843,712
	Outflow	2,952,166	906,172	869,019	833,871	800,930
	Net	-	623,754	707,451	842,230	1,042,782
	IRR	30%				