MODEL PROJECT REPORT

PROJECT REPORT ON BAMBOO TREE GUARD

SWAVALAMBI BHARAT ABHIYAN

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PROJECT AT A GLANCE

1	Name of the Entreprenuer		xxxxxxxxxx	
2	Constitution (legal Status)		xxxxxxxxxx	
3	Father / Spouse Name		xxxxxxxxxxxx	
4	Unit Address	:	xxxxxxxxxxxxxxxxxxxxxxx	
			District : xxxxxxx	
			Pin: xxxxxxx	State: xxxxxxxxxx
			Mobile xxxxxxx	
5	Product and By Product	:	**BAMBOO TREE GUARD**	
6	Name of the project / business activity proposed :		**BAMBOO TREE GUARD MAKING UNIT**	
7	Cost of Project	:	Rs.13.33 Lakhs	
8	Means of Finance			
	Term Loan		Rs.9 Lakhs	
	Own Capital		Rs.1.33 Lakhs	
	Working Capital		Rs.3 Lakhs	
9	Debt Service Coverage Ratio	:	2.70	
10	Pay Back Period	:	5	Years
11	Project Implementation Period	:	5-6	Months
12	Break Even Point	:	35%	
13	Employment	:	8	Persons
14	Power Requirement	:	20.00	HP
15	Major Raw materials	:	Bamboo, Other conusmables such as oil, glue, nails, etc.	
16	Estimated Annual Sales Turnover (Max Capacity)	:	80.35	Lakhs
17	Detailed Cost of Project & Means of Finance			

COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Building /Shed 800 Sq ft	4.00
Plant & Machinery	5.00
Furniture & Fixtures	1.00
Working Capital	3.33
Total	**13.33**

MEANS OF FINANCE

Particulars	Amount
Own Contribution	1.33
Working Capital(Finance)	3.00
Term Loan	9.00
Total	**13.33**

BAMBOO TREE GUARD

Introduction: A tree shelter, or tree guard, is a type of shelter used to nurture trees in the early stages of their growth. Tree shelters are also sometimes known as Tuley tubes or tree tubes. The purpose of tree shelters is to protect young trees from browsing by herbivores by forming a physical barrier along with providing a barrier to chemical spray applications. Additionally, tree tubes accelerate growth by providing a mini-greenhouse environment that reduces moisture stress, channels growth into the main stem and roots and allows efficient control of weeds that can rob young seedlings of soil moisture and sunlight.

Uses & Market Potential: Bamboos can be used to protect trees and they also allow sufficient sunlight facilitating plant growth. As plastic is getting banned and plastic related products were earlier used to protect trees and plant from getting damaged so now to be eco-friendly tree guard made of bamboos are used widely and protect plants and trees from getting damaged and also protect them from animals.

The cost of cement guard is nearly three times that of bamboo tree guard. The material factor in the labour material ratio for roadside plantation is on the higher side. In cement or brick tree guards the plants do not get sufficient sunlight, therefore there is poor photosynthesis in the plant, resulting in poor survival and growth of plants. Therefore, more and more tree guard made up of bamboos are used these days.

Machinery & equipments: Major machines are as follows:

Name	Unit	Price
Band saw Machine	1	195000
Wood Ripening Machine(Seasoning Plant)	1	185000
Nail Gun	1	13000
Glue Spreading Machine	1	85000
Other carpentry tools	Ls	22000

Raw materials: Major raw materials are as follows:

1. Bamboo
2. Other consumables such as Glue, oil, nail, etc.

Assuming average raw material cost 60-70 per set.

Manufacturing Process: All bamboo and materials required for production are procured from local vendors. Bamboos are initially cut to manageable sizes using carpenter saws and similar tools and machines. The

bamboos are then cleaned of all unwanted materials like leaves & protrude at nodes. Bamboos then as per requirement are seasoned in a seasoning plant as per tree guard to be made though many guards can be made with almost no to minor processing. Bamboos either way are allowed to disperse a portion of their moisture content before actual manufacturing of tree guard starts.

The next step prior to manufacturing is surface cleaning & smoothening of bamboo using sand paper, tough bamboo is fundamentally smooth, but during processing fibers can exposed, scratches can be formed which are not desirable hence smoothened with sand paper or appropriate machines. Then bamboos are cut in appropriate sizes as per guard to be made, these parts are assembled into tree guard utilizing a combination of nails, glue etc. All the edges of assembled product are once again smoothened prior to its dispatch for sale.

Area: The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and auxiliary like Generator setup. Also some of the area of building is required for office staff facilities, documentation, office furniture, etc. Thus, the approximate total area required for complete industrial setup is 800 to 1200Sqft. Civil work cost will be around 4 Lac Rs. (Approx.)

Power Requirement: The power consumption required to run all the machinery could be approximated as 20hp.

Manpower Requirement: There are requirement of skilled machine operators to run the machine set. Experience quality engineers are required for desired quality control. Some helpers are also required to transfer the material from one work station to other. Office staffs are required to maintain the documentation. The approximate manpower required is 7 including 1

Plant operator, 1 unskilled worker , 1 Helper, 1 Security guard. 3 Skilled worker including Accountant, Manager and Sales person.

Bank Term Loan: Rate of Interest is assumed to be at 11%

Depreciation: Depreciation has been calculated as per the Provisions of Income Tax Act, 1961

Approvals & Registration Requirement:

Basic registration required in this project:

- GST Registration
- Udyog Aadhar Registration (Optional)
- Choice of a Brand Name of the product and secure the name with Trademark if require

Implementation Schedule:

S No.	Activity	Time required
1.	Acquisition of premises	1-2 Months
2.	Procurement & installation of Plant & Machinery	1-2 Months
3.	Arrangement of Finance	1.5-2 Months
4.	Requirement of required Manpower	1 Month
5.	Commercial Trial Runs	1 Month
	Total time Required (some activities shall run concurrently)	5-6 Months

FINANCIALS

PROJECTED CASH FLOW STATEMENT

PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Own Contribution	1.33	-			
Reserve & Surplus	2.14	3.48	5.73	7.70	11.54
Depriciation & Exp. W/off	1.25	1.09	0.95	0.83	0.72
Increase In Cash Credit	3.00				
Increase In Term Loan	9.00	-	-	-	-
Increase in Creditors	1.08	0.15	0.15	0.16	0.17
TOTAL :	**17.80**	**4.71**	**6.83**	**8.69**	**12.43**
APPLICATION OF FUND					
Increase in Fixed Assets	10.00	-	-	-	-
Increase in Stock	2.56	0.45	0.49	0.52	0.56
Increase in Debtors	2.05	0.51	0.45	0.49	0.52
Repayment of Term Loan	1.00	2.00	2.00	2.00	2.00
Taxation	-	-	0.86	1.93	3.46
Drawings	1.00	1.50	2.50	3.50	5.00
TOTAL :	**16.61**	**4.46**	**6.29**	**8.43**	**11.54**
Opening Cash & Bank Balance	-	1.19	1.44	1.98	2.24
Add : Surplus	1.19	0.25	0.53	0.26	0.89
Closing Cash & Bank Balance	**1.19**	**1.44**	**1.98**	**2.24**	**3.12**

PROJECTED BALANCE SHEET

PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Capital Account					
Opening Balance	-	2.47	4.45	6.82	9.09
Add: Additions	1.33	-	-	-	-
Add: Net Profit	2.14	3.48	4.87	5.78	8.08
Less: Drawings	1.00	1.50	2.50	3.50	5.00
Closing Balance	2.47	4.45	6.82	9.09	12.17
CC Limit	3.00	3.00	3.00	3.00	3.00
Term Loan	8.00	6.00	4.00	2.00	-
Sundry Creditors	1.08	1.23	1.38	1.54	1.71
TOTAL :	**14.55**	**14.68**	**15.20**	**15.64**	**16.88**
APPLICATION OF FUND					
Fixed Assets (Gross)	10.00	10.00	10.00	10.00	10.00
Gross Dep.	1.25	2.34	3.28	4.11	4.83
Net Fixed Assets	8.75	7.66	6.72	5.89	5.17
Current Assets					
Sundry Debtors	2.05	2.56	3.01	3.50	4.02
Stock in Hand	2.56	3.01	3.49	4.01	4.57
Cash and Bank	1.19	1.44	1.98	2.24	3.12
TOTAL :	**14.55**	**14.68**	**15.20**	**15.64**	**16.88**

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PROJECTED PROFITABILITY STATEMENT

PARTICULARS	I	II	III	IV	V
A) SALES					
Gross Sale	41.04	51.25	60.23	69.93	80.35
Total (A)	**41.04**	**51.25**	**60.23**	**69.93**	**80.35**
B) COST OF SALES					
Raw Material Consumed	21.60	24.55	27.65	30.89	34.27
Elecricity Expenses	1.61	1.77	1.93	2.10	2.26
Repair & Maintenance	3.69	5.64	7.23	9.09	10.45
Labour & Wages	6.68	7.68	8.60	9.81	10.79
Depreciation	1.25	1.09	0.95	0.83	0.72
Cost of Production	34.83	40.73	46.36	52.70	58.48
Add: Opening Stock /WIP	-	1.84	2.19	2.57	2.98
Less: Closing Stock /WIP	1.84	2.19	2.57	2.98	3.43
Cost of Sales (B)	33.00	40.38	45.98	52.29	58.04
C) GROSS PROFIT (A-B)	8.04	10.87	14.25	17.64	22.32
	19.60%	**21.21%**	**23.66%**	**25.22%**	**27.77%**
D) Bank Interest (Term Loan)	0.98	0.80	0.58	0.36	0.14
ii) Interest On Working Capital	0.33	0.33	0.33	0.33	0.33
E) Salary to Staff	3.78	4.73	5.81	6.45	7.10
F) Selling & Adm Expenses Exp.	0.82	1.54	1.81	2.80	3.21
TOTAL (D+E)	**5.91**	**7.39**	**8.53**	**9.94**	**10.78**
H) NET PROFIT	2.14	3.48	5.73	7.70	11.54
	5.2%	**6.8%**	**9.5%**	**11.0%**	**14.4%**
I) Taxation	-	-	0.86	1.93	3.46
J) PROFIT (After Tax)	2.14	3.48	4.87	5.78	8.08

COMPUTATION OF MAKING OF BAMBOO TREE GUARD			
Item to be Manufactured Bamboo Tree Guard			
Manufacturing Capacity per day		240	Set
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		72,000	Set
Total Production per Annum		72,000	Set
Year		Capacity	BAMBOO TREE GUARD
		Utilisation	
I		50%	36,000.00
II		55%	39,600.00
III		60%	43,200.00
IV		65%	46,800.00
V		70%	50,400.00

Raw Material Consumed	Capacity	Rate	Amount (Rs.)
	Utilisation		
I	50%	60.00	21.60
II	55%	62.00	24.55
III	60%	64.00	27.65
IV	65%	66.00	30.89
V	70%	68.00	34.27

COMPUTATION OF SALE					
Particulars	**I**	**II**	**III**	**IV**	**V**
Op Stock	-	1,800.00	1,980.00	2,160.00	2,340.00
Production	36,000.00	39,600.00	43,200.00	46,800.00	50,400.00
	36,000.00	41,400.00	45,180.00	48,960.00	52,740.00
Less : Closing Stock(15 Days)	1,800.00	1,980.00	2,160.00	2,340.00	2,520.00
Net Sale	34,200.00	39,420.00	43,020.00	46,620.00	50,220.00
Sale Price per set	120.00	130.00	140.00	150.00	160.00
Sale (in Lacs)	**41.04**	**51.25**	**60.23**	**69.93**	**80.35**

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL					
PARTICULARS	**I**	**II**	**III**	**IV**	**V**
Finished Goods					
(15 Days requirement)	1.84	2.19	2.57	2.98	3.43
Raw Material					
(10 Days requirement)	0.72	0.82	0.92	1.03	1.14
Closing Stock	**2.56**	**3.01**	**3.49**	**4.01**	**4.57**

COMPUTATION OF WORKING CAPITAL REQUIREMENT			
Particulars	**Amount**	**Margin(10%)**	**Net Amount**
Stock in Hand	2.56		
Less:			
Sundry Creditors	1.08		
Paid Stock	**1.48**	**0.15**	**1.33**
Sundry Debtors	2.05	0.21	1.85
Working Capital Requirement			**3.18**
Margin			0.35
MPBF			**3.18**
Working Capital Demand			**3.00**

BREAK UP OF LABOUR				
Particulars		Wages	No of	Total
		Per Month	Employees	Salary
Plant Operator		15,000.00	1	15,000.00
Unskilled Worker		12,000.00	1	12,000.00
Helper		10,000.00	2	20,000.00
Security Guard		6,000.00	1	6,000.00
				53,000.00
Add: 5% Fringe Benefit				2,650.00
Total Labour Cost Per Month				55,650.00
Total Labour Cost for the year (In Rs. Lakhs)			5	6.68

BREAK UP OF SALARY				
Particulars		Salary	No of	Total
		Per Month	Employees	Salary
Manager		12,000.00	1	12,000.00
Accountant cum store keeper		10,000.00	1	10,000.00
Sales		8,000.00	1	8,000.00
Total Salary Per Month				30,000.00
Add: 5% Fringe Benefit				1,500.00
Total Salary for the month				31,500.00
Total Salary for the year (In Rs. Lakhs)			3	3.78

COMPUTATION OF DEPRECIATION					
Description	Land	Building/shed	Plant & Machinery	Furniture	**TOTAL**
Rate of Depreciation		**10.00%**	**15.00%**	**10.00%**	
Opening Balance	Leased		-	-	-
Addition	-	4.00	5.00	1.00	10.00
	-	4.00	5.00	1.00	10.00
		-	-	-	
TOTAL		4.00	5.00	1.00	10.00
Less : Depreciation	-	0.40	0.75	0.10	1.25
WDV at end of Ist year	-	3.60	4.25	0.90	8.75
Additions During The Year	-	-	-	-	-
	-	3.60	4.25	0.90	8.75
Less : Depreciation	-	0.36	0.64	0.09	1.09
WDV at end of IInd Year	-	3.24	3.61	0.81	7.66
Additions During The Year	-	-	-	-	-
	-	3.24	3.61	0.81	7.66
Less : Depreciation	-	0.32	0.54	0.08	0.95
WDV at end of IIIrd year	-	2.92	3.07	0.73	6.72
Additions During The Year	-	-	-	-	-
	-	2.92	3.07	0.73	6.72
Less : Depreciation	-	0.29	0.46	0.07	0.83
WDV at end of IV year	-	2.62	2.61	0.66	5.89
Additions During The Year	-	-	-	-	-
	-	2.62	2.61	0.66	5.89
Less : Depreciation	-	0.26	0.39	0.07	0.72
WDV at end of Vth year	-	2.36	2.22	0.59	5.17

REPAYMENT SCHEDULE OF TERM LOAN						11.0%	
Year	**Particulars**	**Amount**	**Addition**	**Total**	**Interest**	**Repayment**	**Cl Balance**
I	Opening Balance						
	Ist Quarter	9.00	-	9.00	0.25	-	9.00
	Iind Quarter	9.00	-	9.00	0.25	-	9.00
	IIIrd Quarter	9.00	-	9.00	0.25	0.50	8.50
	Ivth Quarter	8.50	-	8.50	0.23	0.50	8.00
					0.98	1.00	
II	Opening Balance						
	Ist Quarter	8.00	-	8.00	0.22	0.50	7.50
	Iind Quarter	7.50	-	7.50	0.21	0.50	7.00
	IIIrd Quarter	7.00	-	7.00	0.19	0.50	6.50
	Ivth Quarter	6.50		6.50	0.18	0.50	6.00
					0.80	2.00	
III	Opening Balance						
	Ist Quarter	6.00	-	6.00	0.17	0.50	5.50
	Iind Quarter	5.50	-	5.50	0.15	0.50	5.00
	IIIrd Quarter	5.00	-	5.00	0.14	0.50	4.50
	Ivth Quarter	4.50		4.50	0.12	0.50	4.00
					0.58	2.00	
IV	Opening Balance						
	Ist Quarter	4.00	-	4.00	0.11	0.50	3.50
	Iind Quarter	3.50	-	3.50	0.10	0.50	3.00
	IIIrd Quarter	3.00	-	3.00	0.08	0.50	2.50
	Ivth Quarter	2.50		2.50	0.07	0.50	2.00
					0.36	2.00	
V	Opening Balance						
	Ist Quarter	2.00	-	2.00	0.06	0.50	1.50
	Iind Quarter	1.50	-	1.50	0.04	0.50	1.00
	IIIrd Quarter	1.00	-	1.00	0.03	0.50	0.50
	Ivth Quarter	0.50		0.50	0.01	0.50	-
					0.14	2.00	

Door to Door Period	60	Months
Moratorium Period	6	Months
Repayment Period	54	Months

CALCULATION OF D.S.C.R					
PARTICULARS	**I**	**II**	**III**	**IV**	**V**
CASH ACCRUALS	3.39	4.57	5.81	6.60	8.80
Interest on Term Loan	0.98	0.80	0.58	0.36	0.14
Total	4.36	5.36	6.39	6.96	8.93
REPAYMENT					
Repayment of Term Loan	1.00	2.00	2.00	2.00	2.00
Interest on Term Loan	0.98	0.80	0.58	0.36	0.14
Total	1.98	2.80	2.58	2.36	2.14
DEBT SERVICE COVERAGE RATIO	**2.21**	**1.92**	**2.48**	**2.95**	**4.18**
AVERAGE D.S.C.R.			**2.70**		

COMPUTATION OF ELECTRICITY				
(A) POWER CONNECTION				
Total Working Hour per day		Hours	8	
Electric Load Required		HP	20	
Load Factor			0.7460	
Electricity Charges		per unit	7.50	
Total Working Days			300	
Electricity Charges				2,68,560.00
Add : Minimim Charges (@ 10%)				
(B) DG set				
No. of Working Days			300	days
No of Working Hours			0.3	Hour per day
Total no of Hour			90	
Diesel Consumption per Hour			8	
Total Consumption of Diesel			720	
Cost of Diesel			65.00	Rs. /Ltr
Total cost of Diesel			0.47	
Add : Lube Cost @15%			0.07	
Total			**0.54**	
Total cost of Power & Fuel at 100%				3.22
Year		**Capacity**		**Amount**
				(in Lacs)
I		50%		1.61
II		55%		1.77
III		60%		1.93
IV		65%		2.10
V		70%		2.26