2. Bamboo String lights

a. Introduction

Bamboo string lights are mostly Woven bamboo products, which are produced from thin Slivers/strips of bamboo. These string lights are a combination of readily available in-the-market string lights (Wire & Plug) and hand-made bamboo mini shades forms. The bamboo shades enhance the beauty of a conventional string light to display beautiful patterns on the surface the light falls on. One of the coolest things about these bamboo shades are - they are plug and play. What do we mean by that? If the string lights stop working after a couple of years (which is the case with most string lights), one can remove the bamboo shades and plug it into a new string light.

b. Market Demand

The market for bamboo handicrafts especially "Bamboo String lights" is large and ever-expanding. Handicrafts are very popular in many countries during Diwali and Christmas of the world where their natural appearance and their environmentally friendly production methods are major selling points.

c. Production Target

Bamboo weaving particularly shades of bamboo string lights, can be done in a very decentralised manner and is easily done by homebound women and those that are unable to do manual labour. The unit may be established on a small scale as private household businesses or on a larger scale as a cooperative or government enterprise. Therefore, bamboo weaving generates employment, especially for women and other disadvantaged groups, ensures better income distribution, and earns valuable foreign exchange through exports.

d. Assumptions, if any

The essential requirements for a successful unit are:

- Regular supply of bamboo culms used in basketry (Larger internode lengths)
- Unskilled and skilled labor
- Small amount of start-up capital; and
- Market access.

e. Production Process

Slivers/Strips are the basic materials for weaving various bamboo crafts. Proper treatment of raw materials is a very important aspect for a procedure that affects the final quality of the goods. The processing techniques for making bamboo splits are;

- Cutting of bamboo culms
- Cross-cutting
- Knot removal
- Splitting
- Smoothing
- width-sizing
- Slivering/stripping

f. List of machinery required along with quantity with Unit Price.

- The tools required for manual weaving bamboos Trays are; Slivering/striping knives, Hand saws, striking planks, shaving knives and hand drills. These tools can easily be purchased from any local tool supplier or can be made by the weavers themselves.
- Although cross-cutting, splitting of bamboo culms and making strips and threads can be done manually, machines are normally used to increase productivity, reduce wastage of raw materials, increase the yield of bamboo strips and remove drudgery in the primary processing of the culms. The main machines are crosscutting machine, sliver-making machine, splitting machine and width sizing machine.

Sl. no	Tools & Equipments	Nos.	Unit Price in INR)
1	Slivering/striping knives	5	150
2	Hand saws	5	200
3	shaving knives	5	250
4	Electric cross-cutter	1	10,500
5	Manual Splitting machine	1	6,500
6	Thin Sliver-making machine	1	36,000
7	Width sizing machine	1	4,500
8	Angle Grinder	1	2,500

ONE PAGER SUMMARY OF BAMBOO STRING LIGHTS

Sl. No.	Particulars	Description				
A. Project Description						
1	Proposed Project	**Bamboo String Lights**				
2	Capacity of the machine (at 100% capacity utilization)					
3	Year wise capacity utilization	**Year- 1**	**Year- 2**	**Year- 3**	**Year- 4**	**Year- 5**
		70%	80%	90%	100%	100%
4	Raw Materials Required	Bamboo, Boric Borax, Colour/Dye agent, Varnish/Lacquer, Miscellaneous items and string lights from market with 30 LEDs per string				
5	Final Product	Bamboo String Lights				
6	Infrastructure Required	Shed (500 sq ft)				
7	Plant and machinery	Slivering/striping knives Hand saws shaving knives Electric cross-cutter Manual Splitting machine Thin Sliver-making machine Width sizing machine Angle Grinder				
8	Employment Generation	7 Hired labour – 6 semiskilled, 1 skilled. Semiskilled laborers shall make the bamboo patterned balls to be fit on the string lights. Skilled labour shall overlook the finishing.				

B. Project Cost		**(Figures in Rs. Lakhs)**
1	Land (own)	0.00
2	Civil works and Buildings (500 sqft @200/sqft)	1.00
3	Machinery	0.74
4	Others	0.30
5	**Sub-total (A)**	**2.04**
6	Working Capital Margin @40% of Total WC Requirement	0.28
7	**Total Project Cost**	**2.74**
8	Total Working Capital Req **(B)**	0.69
C. Means of Finance		**(Figures in Rs. Lakhs)**
9	**Total Funds Required(A+B)**	**2.74**
10	TERM LOAN (75% of A)	1.53
11	WORKING CAPITAL (60% of B)	0.42
12	**Total**	**1.95**
13	Equity	0.79
14	**Total**	**2.74**

D. Financial Benchmarks					(Figures in Rs. Lakhs)
		Year- 1	**Year- 2**	**Year- 3**	**Year- 4**
1	Target Revenue (Lakh)	**14**	**16**	**18**	**20**
2	Break Even Point	**62.99%**	**53.82%**	**46.18%**	**40.44%**
3	DSCR including Principal repayment	**4.01**	**2.86**	**3.82**	**4.98**
E. Basic Assumptions					
1	Production of Bamboo String Lights	Price of each set of each string light assumed as Rs 340 to be financially viable. Costing = 130 (String light from market) + Rs 5 x 30 patterned balls = Rs 130+150 = Rs 280. Add 20% Profit Margin, price is roughly Rs 340. It is assumed that 10% of the total string lights purchased will be faulty.			
2	Machinery	This is a profile of a household level enterprise with 9 hired labour.			
3	Interest rate assumed	11%			
4	Repayment period	5 Years with 3 months moratorium			
F. Others					
1	Training Institutes	CBTC Meghalaya, BCDI Agartala, IIE Guwahati, TRIBAC			
2	Whether the service is inthe Negative list under NEIDS and MSME?	No			