# PROJECT REPORT ON PRODUCTION OF YARN ON SOLAR CHARKHA

# PRIME MINISTER'S EMPLOYMENT GENERATION PROGRAMME



Khadi & Village Industries Commission Ministry of MSME, Govt. of India, Mumbai

#### KHADI & VILLAGE INDUSTRIES COMMISSION PROJECT AT A GLANCE - TOP SHEET

1	Name of the Entrepreneur			
2	Constitution (legal Status)		Individual	
3	Father's/Spouse's Name			
4	Unit Address :		Taluka/Block: District : Pin: Phone : E-Mail :	State:
5	Product and By Product		SOLAR CHA	ARKHA 24 SPINDLE/33 <sup>s</sup> UNIT
6	Cost of Project	:	Rs.	14,67,304
7	<b>Means of Finance</b> Term Loan KVIC Margin Money Own Capital Debt Service Coverage Ratio		Rs.	13,13,939.00 5,13,556.00 73,3653.00 <b>1.80</b>
0	Debt Service Coverage Ratio	•		1.00
9	Pay Back Period	:		5 Years
10	Project Implementation Period	:		12 Months
11	Break Even Point	:		45.79%
12	Employment	:		12
13	Power Requirement	:		1 KW
14	Major Raw materials	:		Sliver/Roving
15	Estimated Annual Sales Turnover	:		Rs.57,95,650.00

	DETAILED PROJECT REPORT						
1	INTRODUCTION :						
	The overall objective of the Khadi and Village Industries Commission (KVIC) is to provide employment opportunities to spinners /weavers/artisans /individuals/ entrepreneurs with remunerative wages through Khadi & V.I. activities.						
	KVIC is implementing Khadi programme through the certified Khadi Institutions of KVIC. At present there are over 2300 Khadi institutions registered under Societies Registration Act, Trust Act, Co-operative Societies Act etc are implementing Khadi programme throughout the country. In order to extend requisite fillip and to help the sector to emerge as most potent employment provider, KVIC has decided to introduce solar power charkha for production of solar spun yarn through these Khadi institutions. The yarn produced in this solar powered charkha will be used to convert into cloth using handlooms already available with these Khadi Institutions.						
	Looking to the low cost technology, production of yarn through solar charkha activities can easily be undertaken in the rural areas by the Khadi institutions. Training for a week on solar charkha will assist the spinners to operate the solar charkha at their dwelling place itself.						
	Production Process						
	The project captioned "Production of Solar Charkha cloth" envisages deployment of 10 solar power operated charkhas to one khadi institution. The Khadi institution already possesses infrastructure for production of Khadi using hand spinning and hand weaving process and arrangement for processing the grey cloth.						
	The raw material supply for the solar charkhas will be ensured through KVIC's departmental Sliver / Roving plants situated at 6 locations in the country. Beside KVIC's departmental units the few Khadi institutions also possess the sliver / roving production facilities. They will also cater the need of raw material to the solar power operated charkhas.						
	The yarn produced out of solar charkhas will be converted into cloth using the weaving implements available with the Khadi institutions and subsequent processing for finishing etc.						
	Market Potential						
	The change of climate has caused major concern about conservation of ecology and nature. Therefore, Government of India is encouraging to use non- conventional energy such as solar energy wherever possible. The products such as towels, bed sheets, pillow covers, duster cloth etc produced using solar yarn will be sold to Government departments, Railways etc with the support of KVIC.						
	Basis and assumptions						
	KVIC in its existing Khadi activities takes up production of Khadi cloth using hand spun yarn produced from hand operated charkhas. The hand spun yarn is made						

into khadi cloth using hand or pedal operated looms. In the existing khadi production activity enough number of spinner artisans required to operate the charkhas are not available. In order to expand the activities of KVIC, it is proposed to introduce solar powered charkha to attract artisans and create new employment opportunities in the rural areas.

With this objective the instant project envisages initially for introduction of minimum of 10 Nos. solar power operated charkha each having 24 spindles (per charkha) in each Khadi institutions. The cost of charkha and minimum cycle of working capital will be provided to the Khadi institutions through PMEGP Scheme by Banks. The yarn produced through these solar charkhas will be taken-up for further production of cloth by the Khadi institutions and the finished products such as bed sheets, towels, pillow covers, duster cloth, uniforms, dungri cloth etc. KVIC through its Marketing Directorate will assist the Khadi institutions for supply of solar charkha cloth to Government departments, Railways etc.

#### Financial Assistance

Financing of Solar charkha units to be set by Khadi Institutions under PMEGP will receive financial assistance as per the provision of PMEGP with Margin money assistance as provided under PMEGP scheme.

2	ABOUT THE PROMOTER :	Khadi institutions / Entrepreneurs		
3	COST OF PROJECT :			
	A. Fixed Capital Investment			
	Land and Workshed	Rental Workshed		Own
	B. Machinery	Qty.	Rate	Amount (in Rs.)
	8 Spindle Charkha with Solar Panel,	10	85000.00	850000.00
	Battery,Motor,etc.			
	Transportation	1	36000.00	36000.00
	Total			886000.00

	d. Prelim	ninary & Pre-ope	erative Cost :		Rs.10000.00
	e. Furnit	ure & Fixtures :		Rs.20000.00	
	f. Contir	ngency/Others/M		Rs.5000.00	
	Total Ca	pital Expenditu	re:		Rs. <b>921000.00</b>
	Working	Capital		Rs. <b>54630.00</b>	
	Total Co		Rs.1467304.00		
3.1	Means o	f Financing :			
	Own Cor			5%	Rs.73365.00
	Bank Fin	ance :		95%	
			Term L		Rs.874950.00
			Working Ca		Rs.518989.00
			otal	Rs.1393939.00	
	Margin M	loney (Govt. Sut	osidy) From KVIC	35%	Rs.513556 <b>.00</b>
			SP in the name of	VIC will be kept in t Beneficiary for three	
3.2	per	norms of PMEG	SP in the name of financing t	Beneficiary for three branch OF TERM LOAN & WO	years in the
3.2	per	norms of PMEG	P in the name of financing t	Beneficiary for three branch OF TERM LOAN & WO	years in the
3.2	per	Opening	SP in the name of financing t	Beneficiary for three oranch F TERM LOAN & WO DAN Closing	years in the
3.2	STATEM	ENT SHOWING	P in the name of financing to f	Beneficiary for three branch OF TERM LOAN & WO	RKING CAPITAL :
3.2	year	Opening Balance	P in the name of financing to f	Beneficiary for three branch F TERM LOAN & WO DAN Closing Balance	RKING CAPITAL :
3.2	Year 1st 2nd 3rd	Opening Balance 874950	P in the name of financing to f	Beneficiary for three branch F TERM LOAN & WO DAN Closing Balance 699960 524970 349980	RKING CAPITAL : Interest @ 13.00% 113744
3.2	perSTATEMYear1st2nd3rd4th	Opening       Balance       874950       699960       524970       349980	P in the name of financing to f	Beneficiary for three     branch     F TERM LOAN & WO     DAN     Closing     Balance     699960     524970     349980     174990	years in the       RKING CAPITAL :       Interest @       13.00%       113744       90995       68246       45497
3.2	Year 1st 2nd 3rd	Opening Balance 874950 699960 524970	F in the name of financing to f	Beneficiary for three branch F TERM LOAN & WO DAN Closing Balance 699960 524970 349980	years in the <b>RKING CAPITAL :</b> Interest @ 13.00% 113744 90995 68246
3.2	perSTATEMYear1st2nd3rd4th	Opening       Balance       874950       699960       524970       349980	P in the name of financing to f	Closing     Balance     699960     524970     349980     174990     0	years in the       RKING CAPITAL :       Interest @       13.00%       113744       90995       68246       45497
3.2	perSTATEMYear1st2nd3rd4th	Opening       Balance       874950       699960       524970       349980	SP in the name of I     financing b     THE REPAYMENT O     TERM LO     Installment     174990     174990     174990     174990     174990     174990     174990     174990	Closing     Balance     699960     524970     349980     174990     0	years in the       RKING CAPITAL :       Interest @       13.00%       113744       90995       68246       45497
3.2	Year   1st   2nd   3rd   4th   5th	Opening       Balance       874950       699960       524970       349980       174990	P in the name of line financing to financing	Beneficiary for three     branch     F TERM LOAN & WO     DAN     Closing     Balance     699960     524970     349980     174990     0	years in the RKING CAPITAL : Interest @ 13.00% 113744 90995 68246 45497 22749 Interest @
3.2	PerSTATEMYear1st2nd3rd4th5th	Opening Balance 874950 699960 524970 349980 174990 Opening Balance	P in the name of l financing k THE REPAYMENT O TERM LO Installment 174990 174990 174990 174990 174990 WORKING O Installment	Beneficiary for three     branch     F TERM LOAN & WO     DAN     Closing     Balance     699960     524970     349980     174990     0     Closing Balance     Closing Balance	years in the     RKING CAPITAL :     Interest @     13.00%     113744     90995     68246     45497     22749
3.2	perSTATEMYear1st2nd3rd4th5thYear1st	Opening       Balance       874950       699960       524970       349980       174990       Opening       Balance       518989	P in the name of linearcing to financing to	Beneficiary for three branch F TERM LOAN & WO DAN Closing Balance 699960 524970 349980 174990 0 CAPITAL Closing Balance 415191 311393 207596	years in the     RKING CAPITAL :     Interest @     13.00%     113744     90995     68246     45497     22749
3.2	PerSTATEMYear1st2nd3rd4th5thYear1st2nd	Opening       Balance       874950       699960       524970       349980       174990       Opening       Balance       518989       415191	SP in the name of I     financing k     THE REPAYMENT O     TERM LO     Installment     174990     174990     174990     174990     174990     174990     174990     174990     174990     174990     174990     174990     103798     103798	Beneficiary for three branch F TERM LOAN & WO DAN Closing Balance 699960 524970 349980 174990 0 8 APITAL Closing Balance 415191 311393	years in the     RKING CAPITAL :     Interest @     13.00%     113744     90995     68246     45497     22749     Interest @     13.00%     67469     53975

3.3	STATEMENT SHOWING	TH	E DEPI	RECI	ATION	ON FIXE	D ASS	ETS:		
	MACHINERY @10.00%	1 <sup>s</sup>	<sup>t</sup> year	2	<sup>nd</sup> year		<sup>I</sup> year	4 <sup>th</sup> year	5 <sup>th</sup> year	
	Opening Balance	88	36000	7	797400	7′	7660	645894	581305	
	Depreciation	8	38600		79740		71766	64589	58130	
	Closing Balance	79	97400	7	717660	64	15894	581305	523174	
	TOTAL DEPRECIATION			 						
	Machinery		38600		79740		71766	64589	58130	
	Total	8	38600		79740	7	71766	64589	58130	
4	Schedule of Sales Reali	zatio	on :							
4.1	Details of Sales									
	Particulars of Product			Rat	e/unit	No.of	unit	Amount	(in Rs.)	
	Yarn				290	57956	50.00			
	Total							5	795650.00	
4.2	Capacity Utilization of Sales									
	Particulars	1st	Year	2nc	d Year	3rd Y	ear	4th Year	5th Year	
	Capacity Utilization		'0%	8	80%	909	%	90%	90%	
	Sales / Receipts	40	056955	<b>6955</b> 4636		52´	6085	5216085	5216085	
5	Raw materials:									
	Particulars		Jnit		e/unit	Reqd.U		Amount		
	Sliver/Roving	k	Kgs.		184.00		20000		3680000	
	Total								3680000	
5.1	Wages	:								
			No. Worl			ages Month		Amount in Rs. (Per Annum)		
	Spinner		10		5400.0	00	648000.00			
	Total			10				648000.00		
5.2	Repairs and Maintenance	):						F	Rs.5795.65	
5.3	Power and Fuel							F	Rs.8693.48	

6.1	Salary	No.	Per month (in Rs.)		Annual amou	unt (in Rs.)			
•	Manager/Entrepreneurs	01	7000.00		84000.00				
	Technical Assistant /Office	01	540		64800				
	Assistance/ Accountant								
	Total	02			14880	0.00			
6.2	Telephone Expenses				2897	.83			
	Stationery & Postage				4346	.74			
	Advertisement & Publicity				2897	.83			
6.5	Workshed Rent				18000	).00			
6.4	Other Miscellaneous Expens	ses			23182	2.60			
	Total		20012	5.00					
7	Capacity Utilization of Man	ufacturin	g & Admini	istrative Ex	kpenses :				
	Particulars	1st Year	2nd Year	3rd Year	4th Year	5th Year			
	Capacity Utilization	70%	80%	90%	90%	90%			
	Manufacturing Expenses	1070	0070	0070	0070	0070			
	Raw materials	2576000	2944000	3312000	3312000	331200			
	Wages	453600							
	Repairs & Maintenance	4057							
	Power & Fuel	6085							
	Other Overhead Expenses								
	Administrative Expenses	1001	1001	0210	0210	021			
	Salary	148800	148800	148800	148800	14880			
	Postage Telephone	2028							
	Stationery & Postage	3043							
	Advertisement & publicity	2028							
	Workshed Rent	18000							
	Other Miscellaneous	16228							
	Expenses		10010	2000 .		2000			
	Total:	3233927	3672088	4110249	4110249	411024			
8	Assessment of Working Capital :								
-	Particulars				Amount	(in Rs.)			
	Sale		5795650.0						
	Manufacturing Expenses								
	Raw Material	:	3680000.0						
	Wages		648000.0						
	Repair & Maintenance		5795.6						
	Power & Fuel		8693.4						
	Other Overhead Expenses					5794.6			
	Production Cost					4348284.7			
	Administrative Cost					200125.0			
	Manufacturing Cost					4548409.7			

Working Capital Estimate

Element of Working Capital	No of Days	Basis	Amount (in Rs.)
Raw materials	8	Material Cost	98133.00
Stock in process	10	Production Cost	144943.00
Finished goods	10	Manufacturing Cost	151614.00
Receivable by	10	Manufacturing Cost	151614.00
Total Working Capital Requirement		Per Cycle	546304.00

### 9 Financial Analysis

## 9.1 Projected Profit & Loss Account :

Particulars	0 Year	1st Year	2nd Year	3rd Year	4th Year
Sales		4056955	4636520	5216085	5216085
Receipts		4056955	4636520	5216085	5216085
Manufacturing Expenses					
Raw materials		2576000	2944000	3312000	3312000
Wages		453600	518400	583200	583200
Repairs & Maintenance		4057	4637	5216	5216
Power & Fuel		6085	6955	7824	7824
Other Overhead Expenses		4057	4637	5216	5216
Depreciation		88600	79740	71766	64589
Production Cost		3132399	3558368	3985222	3978046
Administrative Expenses					
Salary		148800	156240	164052	172255
Postage & Telephone		2028	2318	2608	2608
Stationery & Postage		3043	3477	3912	3912
Advertisement & Publicity		2028	2318	2608	2608
Workshed Rent		18000	18000	18000	18000
Other Miscellaneous Expenses		16228	18546	20864	20864
Administrative Cost		190127	200900	212044	220247
Interest on Bank credit @ 13%					
Term Loan		113744	90995	68246	45497
Working Capital Loan		67469	53975	40481	26987
Cost of Sale		3503739	3904237	4305994	4270778
Net Profit Before Tax		553216	732283	910091	945307
Net Profit		553216	732283	910091	945307

### 9.2 CALCULATION OF DEBT SERVICE CREDIT RATIO (D.S.C.R) :

Particulars	0 year	1st Year	2nd Year	3rd Year	4th Year
Net Profit		553216	732283	910091	945307
Add :Depreciation		88600	79740	71766	64589
TOTAL - A		641816	812023	981857	1009896
Payments :					
On Term Loan :					
Interest		113744	90995	68246	45497
Installment		174990	174990	174990	174990
On Working Capital					
Interest		67469	53975	40481	26987
TOTAL - B		356202	319960	283717	247475
D.S.C.R = A/B		1.80	2.54	3.46	4.08
Average D.S.C.R					

### 9.3 PROJECTED BALANCE SHEET :

Particulars	0 Year	1st Year	2nd Year	3rd Year	4th Year
LIABILITIES :					
Promoters Capital		73365	73365	73365	73365
Profit		553216	732283	910091	945307
Term Loan		874950	699960	524970	349980
Working Capital Loan		518989	415191	311393	207596
Current Liabilities		0	0	0	0
Sundry Creditors		0	0	0	0
Total		2020520	1920799	1819819	1576248
ASSETS :					
Gross Fixed Assets :		906000	817400	737660	665894
Less : Depreciation		88600	79740	71766	64589
Net Fixed Assets		817400	737660	665894	601305
Preliminary & Pre-Op. Expen	nses	10000	7500	5625	4219
Current Assets		518989	415191	311393	207596
Cash in Bank/Hand		684131	767948	842532	767347
Total		2020520	1920799	1819819	1576248

#### 9.4 CASH FLOW STATEMENT :

Particulars	0 Year	1st Year	2nd Year	3rd Year	4th Year
Net Profit		553216	732283	910091	945307
Add : Depreciation		88600	79740	71766	64589
Term Loan		874950	699960	524970	349980
Working Capital Loan		518989	415191	311393	207596
Promoters Capital		73365	0	0	0
Total		2109120	1927174	1818220	1567472
Total Fixed Capital Invested		921000			
Repayment of Term Loan		174990	174990	174990	174990
Repayment of WC Loan		103798	103798	103798	103798
Current Assets		518989	415191	311393	207596
Total		797777	693979	590181	486383
Opening Balance		0	1311343	2544538	3772577
Surplus		1311343	1233195	1228039	1081089
Closing Balance		1311343	2544538	3772577	4853666

#### 9.5 BREAK EVEN POINT AND RATIO ANALYSIS :

Particulars	0 Year	1st Year	2nd Year	3rd Year	4th Year
Fixed Cost		392471	371635	352057	330334
Variable Cost		3199868	3612343	4025703	4005033
Total Cost		3592339	3983977	4377760	4335367
Sales		4056955	4636520	5216085	5216085
Contribution (Sales-VC)		857087	1024177	1190382	1211052
B.E.P in %		45.79%	36.29%	29.58%	27.28%
Break Even Sales in Rs.		1857731	1682416	1542663	1422773
Break Even Units		6406	5801	5320	4906
Current Ratio		1.13	0.98	0.80	0.59
Net Profit Ratio		13.64%	15.79%	17.45%	18.12%

This Project Report has been prepared based on the data furnished by the entrepreneur whose details are given in the application.

Place :

Date:

Prepared by :

Director, Khadi & Village Industries Commission,

State/Divisional Office, .....

Signature with round real

Signature of the Beneficiary

Full Name:
Address:
Phone:
Fax:
Email: