

TAMIL NADU RURAL TRANSFORMATION PROJECT

Business Plan for Potato chips Manufacturing unit

1. Village Panchayat:	AA Village
2. Block:	BB Block
3. District:	DD District
4. Applicant:	Mrs. AAA
5. Activity:	Potato chips manufacturing
6. Classification:	MSME - Manufacturing
7. Sector classification (TNRTP)	Nano
8. Purpose of Note: To recommend for sanction of the following limits: Term Loan/Working Capital Demand Loan/Composite Loan	
9. Nature of Facility	Term loan – Composite loan
10. Purpose	For new potato Chips manufacturing unit.
11. Limit required	Rs.2.70 Lakhs
12. Margin	10% of the project cost of Rs.3 lakhs i.e Rs. 0.30 Lakhs

I. Introduction : (Details of Promoter name, age, qualification and experience, activity to be financed, existing or new unit, any existing facilities with Banks etc. The present request for loan and purpose.)

Mrs. AAA, aged 34 years is from AA village panchayat, BB Block, DD District. The applicant propose to set up a new Potato chips manufacturing unit.

The borrower has been associated with this activity for 7 years and has adequate experience in the line of activity. The applicant presently is not enjoying any facility with any Bank. The present request is for term loan – composite loan of Rs.2.70 Lakhs under TNRTP Matching Grant Programme for new potato chips manufacturing unit as well as for working capital for smooth conduct of day to day operations.

About the product:

The potato being a staple food of humanity is one of the world's major agricultural crops and is the most important and versatile food around the globe. It is the world's fourth significant food crop after wheat, rice and maize because of its higher yield potential along with high nutritive value. With an annual global production of about 370 million tonnes, potato is an economically important staple crop in both developed and developing countries.

In comparison with other food crops, potato yields more protein and calories per unit area per unit time and per unit of water. It also comprises phosphorus, calcium, iron and some vitamin A & C. The protein calorie ratio is high. It is versatile, carbohydrate-rich food, highly popular worldwide and prepared and served in a variety of ways, making them a good source of energy. Freshly harvested, it contains about 80 percent water and 20 % dry matter. About 60 to 80 %of the dry matter is starch. As a food item, potato has widespread acceptance across cultures and social classes and plays major role in day today life.

Market (About Industry in general and demand)

In India, potato processing industry mainly comprises four segments: potato chips, French fries, potato flakes/powder and other processed products. However, potato chips still continue to be the most common and popular processed product and presently constitute 85% of salty snack business valued at nearly 2.6 billion U.S. dollars in 2017, growing at 18.7 percent to reach 5.5 billion dollars by 2022.

Demand for chips continues to rise at significant rate worldwide with the emerging trend of westernization of food consumption patterns in addition to growing economy, rise in middle class population and increasing urbanization. Moreover, with the increase of infrastructure development such as metro station, cinema halls, airport and others, the demand is expected to rise further in the developing countries particularly in India. Production of chips is increasingly moving to domestic production in many parts of state, and therefore opens opportunities for sourcing of ingredients from domestic production.

II. Category of Loan: Nano (up to Rs.5 Lakhs)

1. Profile of the Entrepreneur

Name	Ms.AAA
Spouse Name	
Age	34
Education	12th
Aadhaar Card No	86XXXX111111
Address	
Phone No	-
Mobile No	9111111111
Email ID	
Number of years of experience in business	7 Years

Trainings attended (no. and hours)	Yes, 2 days training conducted by RSETI
Spouse's occupation	Business
If Special category	SC / ST / Differently abled / Widow / Separated woman - NO

2. Enterprise Profile

Name of the Enterprise	BBB chips
Legal form of Enterprise	Cottage Industries
Registration No	2222222222
Registration Date	01.02.2021
Registered with whom	
GST No (if available)	Applied for. Under process.
Udhayam Registration	To be completed.

3. Bank Linkage Details

Whether the enterprise has separate bank account	No
If any bank credit availed	No
Name of the bank and branch details	Individual having account in ABC Bank, AA village.
Nature of the bank facility	Not applicable
Limit sanctioned	Nil
Balance outstanding as on date	Rs.0.30 lakhs in individual account

4. Enterprise Nature

Type of enterprise	Manufacturing
Product to be produced:	Potato chips manufacturing.
Present Demand	<p>The unit is located in a central place in the village, well connected to the road and easy approach to the consumers.</p> <p>There is good demand for the Potato chips manufactured in view of the quality of potatoes and the oil used for manufacturing the chips. Apart from</p>

	<p>the local consumers who directly purchase, bulk procurement of Chips on a regular basis is being done by consumers from Erode, Bangalore etc. Demand is not a constraint for chips manufactured in DD district.</p>
<p>Current Supply - Current issues in the supply and how the entrepreneur will address this in her / his venture? What is the USP to overcome the competition?</p>	<p>Raw materials are available on a continuous basis. The production is planned for 300 days based on the availability of raw materials. In the first year the capacity utilization is assumed at 50%.</p> <p>Further though similar units are present in the district, since there is considerable demand for the product from other districts also, no issues are envisaged in the supply side. The usage of good quality potatoes and good quality oil is the USP.</p>

III. TECHNICAL FEASIBILITY:

Location / Infrastructure:	
<p>1. Location Brief on Location – Whether well connected to market by road etc.,</p>	<p>The unit is located in a central place in the village, well connected to markets through the Main Highway and is easily approachable to the consumers as well as suppliers of raw materials.</p>
<p>2. Land Extent of Land, sq.ft. Panchayat approval, own/leased</p>	<p>The business is proposed to be run in own premises. The required land space of around 100 sq.mts is available. Panchayat approval for the proposed activity is to be obtained.</p>
<p>3. Building Approved plan from local body, sq,ft, whether sufficient for the proposed activity</p>	<p>The applicant owns a shed with an area of 1000 sq. ft. This shed is to be utilized for housing the machines proposed to be purchased. Approval/License from Village Panchayat is to be obtained. The cost of land and building is not included in the Project cost.</p>

<p>4. Power Whether required power connection is available</p>	<p>The required power for running the unit will be around 1250 units per month at Rs.7/- per unit. The required three phase connection is to be obtained.</p>
<p>5. Water Whether adequate water is available.</p>	<p>Around 1000 liters of water is required every day. Adequate water resource is available at the site to be drawn through bore well.</p>
<p>6. Approval Pollution control Board/GST/FSSAI approvals or any other approval is required. Present Status</p>	<p>The applicant has applied for GST Registration, FSSAI and Pollution Control Board approvals. Follow up is being made by the applicant.</p> <p>The applicant is yet to register under UDYAM. He has applied for and the same is under process.</p>
<p>7. Materials Needed Quantity / Cost / Availability / Delivery Time to be discussed.</p> <p>a. Raw materials : b. Equipment : c. Technology :</p>	<p><u>Raw-materials</u> Potatoes and Oil are the main raw material for manufacturing Chips.</p> <p>Around 4 kgs of Potatoes are required to manufacture 1 kg of Potato chips. It has been observed that all varieties of potato are not suitable for processing. The dry matter and reducing sugar content are two important parameters for selecting potatoes for processing. Potatoes which will be required for manufacturing will be procured directly from the farmers. Cost per Kg of Potato is assumed at Rs.10/- and per kg of oil is assumed at Rs.150/-</p> <p>Equipment: The promoter requires a set of machines for different processes involved such as, peeling, drying, slicing, frying etc. The required machineries are detailed in Annexure A. The machineries are to be procured indigenously from different suppliers from Coimbatore, Theni, Chennai etc.(Quotations are enclosed)</p>

	<p>Technology: The applicant has necessary experience in the line of activity. No specific technology is required in the production process. In case of any technical issues the required technological support will be provided by the supplier itself.</p>						
<p>8. Cost of capital assets: Details of equipment/machinery with cost of individual item required along with quotations.</p>	<p style="text-align: right;">(Rs in lakhs)</p> <table> <tr> <td>1. Machineries & other Fixed Assets (As per Annexure A)</td> <td style="text-align: right;">1.40</td> </tr> <tr> <td>2. Working capital (As per annexure B)</td> <td style="text-align: right;">1.60</td> </tr> <tr> <td>Total Project cost</td> <td style="text-align: right;">3.00</td> </tr> </table>	1. Machineries & other Fixed Assets (As per Annexure A)	1.40	2. Working capital (As per annexure B)	1.60	Total Project cost	3.00
1. Machineries & other Fixed Assets (As per Annexure A)	1.40						
2. Working capital (As per annexure B)	1.60						
Total Project cost	3.00						
<p>9. Cost of working capital for one operating cycle a. raw-materials, b. Semi-finished goods, c. finished goods, d. receivables outstanding Total working capital needs (The value of raw-materials, semi-finished goods, finished goods, receivables outstanding to be arrived)</p>	<p>The working capital requirement is arrived at Rs.1.60 lakhs as per Annexure B.</p>						
OR							
<p>25% of projected annual sales turnover if necessary. (The projected annual sales should be reasonable and acceptable)</p>	<p>The assessment has been done as per holding levels detailed in annexure B.</p>						
<p>10. Skills Requirements: skilled labour available / Not available If not available: whether people</p>	<p>The promoter is experienced in the line of activity for seven years and has the required skills to run the unit. The unit requires 4 persons i.e. One supervisor,</p>						

<p>can be trained? If so, training period and training facility?</p>	<p>one technician, two helpers. The total monthly wages/salary works out to Rs.30000/-. The wages/salary expenditure is estimated to increase by 5% every year.</p>
<p>11.Production Process:</p>	
<p>a. Production Plan/cycle (operating cycle may be one-day / week / month or one year as per the activity selected):</p>	<p>The process is detailed below:</p> <ul style="list-style-type: none"> • The first step is grading and sorting of potatoes so that the damaged potatoes are taken out manually. • The potatoes are washed thoroughly under running water and peeled by means of a potato peeling machine. The peelings are washed away with sprays of water. • They are then trimmed and placed in water to prevent browning. • The potatoes are sliced using slicing machine (slices 1.7-1.85 mm. thick). • The slices are again placed in cold water whenever there is considerable delay in the subsequent operations of blanching. • Then slices are kept in water containing 0.05% potassium metabisulphite to avoid oxidation. • The slices are blanched for 3 to 5 minutes in boiling water and spread on trays at the rate of 4.88 kg. to 7.30kg. per square meter of tray surface. • The blanched chips are then subjected to D-Watering machine(Dryer) to remove excess of water and fried in edible oil at 180-240°C, for 3-4 minutes. • The fried potato wafers are then kept on the sieve to remove excess of oil, cooled and other

	<p>ingredients like salts, spicy mixture is sprayed manually. Cooled potato chips are then packed in polythene bags and sealed.</p> <p>The operating cycle is assumed at 15 days for the unit as detailed in Annexure B.</p>
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IV. COMMERCIAL FEASIBILITY:

<p>Marketing strategy :</p> <p>a. Direct to customers :</p> <p>b. Bulk to Institutions :</p> <p>c. Through Retailers / Wholesalers:</p> <p>d. Through Online:</p>	<p>It is a product widely used every day in the Southern states and some parts of North India. It is used as a snack for consumption in view of its nutritional value and taste.</p> <p>The focus will be on direct sales to customers as there is good demand for chips manufactured in DD district in view of the quality and the oil used in the manufacturing process. Further focus will also be on bulk sales to customers from other districts such as Erode, Bangalore as well as to tap other type of consumers/retailers such as bakeries, restaurants and retail shops.</p>
<p>e. Pricing & Discounts :</p>	<p>The price for one Kg of Potato chips is conservatively fixed at Rs.150/- per Kg. Bulk supply will be encouraged with a discount in price.</p>
<p>f. Market promotion strategies:</p>	<ul style="list-style-type: none"> • To target direct sales to customers in the local area and nearby districts. • Further to explore the possibility of selling under a "brand name" through distributors after obtaining 'Quality Certificate' from NSIC.

	<ul style="list-style-type: none"> • Different methods/attractive packing materials will be used for packing the groundnut oil to attract different types of customers. • Bulk sales through agents who procure the chips in bulk quantities for sales in Erode, Bangalore etc.,
g. Physical and digital connectivity:	While the payments are also accepted by way of cash, digital payments will be encouraged with appropriate equipment installed and cost will be borne by the applicant.
h. Risks and risk mitigation planned:	Market risk – The unit is one of a few units working in the village and nearby areas. Further high quality will be maintained in view of the quality of potatoes to be procured directly from the farm and quality oil to be used for frying.

V. ENVIRONMENT ASSESSMENT

To be entered as per the required category of the enterprise proposed: Orange (code 2007) – Medium polluting. The enterprise to obtain Consent to operate from TNPCB.				
Environment Issue identified	Environment Guidelines or mitigation measures Integrated (Please tick)	Greening Measures identified	Support needed	
		(for green, orange and red categories)	Implement the mitigation measures	Implement the greening measures
Exploitation of local resources (water and	<ul style="list-style-type: none"> •Electricity •Water 	To ensure adequate measures for Proper disposal of	NA	NA

energy)		waste water		
Waste generation and disposal	•Dust/air pollutants	To ensure adequate measures for Proper disposal of dust and waste fixing exhaust fans etc.	NA	NA
Worker and Community safety	•Safety measures / gadgets	Safety masks, gloves, chappals to be provided.	NA	NA

Whether the activity proposed is in the negative list: No

VI. FINANCIAL VIABILITY

1. Cost of the project and Means of the project:

a. Cost of the Project:	(Rs in lakhs)
i. Fixed capital Cost of all the equipment's /machinery/construction(excluding land cost)	Machineries – 1.40
ii. Working capital	Working capital 1.60
iii. Pre-operative expenses*	Nil
Total cost of the project (i + ii + iii)	3.00
*Pre-operative expenses such as salaries to permanent staff before commencement of operations, Interest during holiday period etc to be met by the borrower from his own source.	
b. Means of the project:	

i. Loan from financial Institution / Bank (95% or 90%):	2.70
ii. Margin money -Borrower's contribution (5% or 10%):	0.30
Total means of the project (i + ii)	3.00
c. Matching grant from the project**	0.90
Whether the entrepreneur has the sufficient means to bring in the margin money and has enough buffer to manage any cost escalations	Yes. The applicant has deposit to the extent of Rs.30000/- in the Bank.

**Matching Grant is @30% of the total cost of the project (excluding pre-operative expenses, land cost, lease). As Matching Grant will be kept in a "Subsidy Reserve Fund" account of the bank as a back-ended grant, it is not shown under the Means of the project. The matching grant to be adjusted as below:

	(Rs in Lakhs)
Loan initially disbursed by the Bank	- 2.70
Less 30% matching grant	- 0.90
Balance principal amount to be repaid by Borrower	- 1.80

Upon completion of minimum period of 18 months and upon repayment of principal amount of Rs.1.80 lakhs and the interest portion, the matching grant of Rs.0.90 lakhs can be adjusted to the loan account of the borrower and the loan account can be closed.

2. Repayment capacity: Based on net disposable income method.

Particulars	Value in Rs.
Cash surplus from enterprise for 1 month (as per Profitability projection annexure D i.e. Rs.762000/12 months)	63500/-
Other income from house hold members (To be obtained from the applicant)	20000/-
Total income	83,500/-
Total House hold expenses- (To be obtained from the applicant)	30,500/-
Net disposable income	53,000/-
50% of net disposable income*	26,500/-

Repayment commitment Loan repayment period is 24 months for Rs.2.70 lakhs. Principal repayment P.M. – Rs.12,900/-	12,900/-
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*50% of net disposable income covers the loan instalment. The repayment capacity is comfortable.

Alternatively, Banks may assess the repayment capacity based on the Debt service coverage ratio as per details below:

Calculation of Debt service coverage ratio(DSCR). (Profitability based on Projections in Annex D and assumptions Annexure C)

- Loan amount of Rs.270000/- repayable in 24 months @ 12% after Holiday period of 3months.
- Monthly instalment - principal amount is Rs.12,900/-
- Last instalment being Rs.12,300/-
- Though the repayment is fixed for 24 months, upon prompt repayment the loan is closed on the 18th month itself with matching grant amount of Rs.90000/- which is eligible for the project.
- 50% of net profit and depreciation is taken for DSCR Calculation in the I Year since only six months operation in I Year
- Interest calculation details available in Annexure E.

Particulars	YEAR 1 (6 M)	YEAR 2
Net profit after tax	3.74	7.29
Depreciation	0.07	0.14
Interest	0.10	0.08
Grant		0.9
Cash surplus A	3.91	8.41
Principal Repayment	0.38	2.32
Interest	0.10	0.08
Repayment obligation B	0.48	2.40
DSCR A/B	8.08	3.50
Average DSCR		5.79

The average DSCR is 5.79 which is above the minimum DSCR of 1.5: 1 as required by MGP guidelines. The repayment capacity is comfortable.

VII. Recommendation:

As the proposal is viable and complies with the guidelines in respect of Matching Grant Programme, we may recommend to the concerned Bank.

Prepared by SGR.

ANNEXURE – A

Sl.No	Description	Qty. (No.)	Rate. Rs	Amount (Rs.)
1	Peeling Machine	1	30000	30000
2	Potato cutter/slicer	1	30000	30000
3	Dryer	1	20000	20000
4.	Frying Machine	1	45000	45000
5.	Sealing machine	1	5000	5000
6.	Accessories	1 set	5000	5000
7.	Weighing Machine	1	5000	5000
Total			140000	140000

Total Machineries and Equipments required – Rs.1.40 Lakhs

Annexure - B

Working Capital Assessment

(Rs in Lakhs)

Particulars	Holding Period	Year I	Year II	Year III	Year IV
Raw material stock	7 days	0.67	0.67	0.80	0.80
Packing material	10 days	0.05	0.05	0.06	0.06
Work in progress	1 day	0.12	0.36	0.42	0.42
Finished goods	7 days	0.83	1.19	1.40	1.40
Receivables	0 days	0.00	0.00	0.00	0.00
Gross working Capital		1.66	2.26	2.68	2.69
Trade creditors		0.00	0.00	0.00	0.00
Working capital requirement		1.66	2.26	2.68	2.69
Rounded off		1.6	2.3	2.7	2.7

The operating cycle is assumed at 15 days excluding holding period of packing materials. The working capital requirement for the I year is Rs 1.60 Lakhs. The Debtors and Creditors are assumed as Zero since purchases and sales are on cash and carry basis.

Annexure C

BASIS & PRESUMPTIONS

Assumptions for working out economics of a 60 MT/ Annum capacity of Potato Chips manufacturing unit.

1. Total Installed Capacity 60 MT per annum of Potato chips.
2. The unit will operate in a single shift of 10 hours for 300 days.
3. Capacity utilization: 1st year & 2 Year – 50%, 3rd & 4th year – 60%, 5th & 6th Year 70%.
4. The selling price of Potato chips is fixed at Rs.150/Kg on an average.
5. For one kg of Potato chips, 4 kgs of Potato is required.
6. For one kg of Potato chips, 350 gms of oil is required.
7. Cost of Potato is assumed at Rs.10/- per kg. Cost of oil is assumed at Rs.150/- per kg.
8. Wages/Salaries are as below:

S.No.	Designation	No.	Salary*(Rs.)	Amount(Rs)
1	Supervisor – In charge of Production	1	12000	12000
2	Technician	1	8000	8000
3	Helper	2	5000	10000
	Total			30000

*To increase by 5% every year.

9. Packing material at Rs.5 per kg of chips manufactured.
10. Power required is estimated at 1250 units per month at Rs.7/- per unit.
11. Repairs and maintenance is assumed at Rs.2500/- per month.
12. Other materials at Rs.3/- per kg.
13. Miscellaneous expenses at Rs.5000/- per month.
14. Insurance at 0.5% on sales.
15. Depreciation at 10% on straight line method.
16. Interest on Composite loan is assumed at 12% per annum.
17. Tax at 20% on profit.

ANNEXURE D

Profitability projection for Potato Chips Manufacturing unit (Rs in Lakhs)

Particulars	Yr 1	Yr 2	Yr3	Yr 4	Yr 5
A. Production of Chips at 100% capacity (in Kgs)	60000	60000	60000	60000	60000
Capacity utilisation %	50%	50%	60%	60%	70%
Production at capacity utilisation(in kgs)	30000	30000	36000	36000	42000
A.Sales Potato Chips (Rs.150/- per Kg average price)	45.00	45.00	54.00	54.00	63.00
B.Cost of Production					
Potato (4 kgs for 1 kg of chips) at Rs.10/- per kg	12.00	12.00	14.40	14.40	16.80
Oil (For 1 Kg of chips 0.35 kg of oil required) Rs.150/- per kg	15.75	15.75	18.90	18.90	22.05
Packing Materials at Rs.5 per kg	1.5	1.5	1.8	1.8	2.1
Other materials (At Rs.3/- per kg	0.9	0.9	1.08	1.08	1.26
Utilities (Fuel and Electricity) (at 1250 units per month @ Rs.7/-)	0.53	0.53	0.63	0.63	0.74
Salaries and wages(5% increase every year)	3.60	3.78	3.97	4.17	4.38
Repair & Maintenance at Rs.2500 p.m	0.3	0.3	0.3	0.3	0.3
Other expenses including insurance @0.5% of Sales	0.23	0.23	0.27	0.27	0.32
Misc. Expenses(Rs.5000/- p.m)	0.60	0.60	0.60	0.60	0.60
Cost of Production(B)	35.40	35.58	41.95	42.15	48.54
Gross Profit(A-B)	9.60	9.42	12.05	11.85	14.46
Depreciation 10% on Rs.1.40 lakhs	0.14	0.14	0.14	0.14	0.14
Interest	0.11	0.17	0.08	0.01	0
Cost of Sales	35.65	35.89	42.17	42.30	48.68
Net Profit	9.35	9.11	11.83	11.70	14.32
Tax@20%	1.87	1.82	2.37	2.34	2.86
<u>Net Profit after tax</u>	7.48	7.29	9.46	9.36	11.46
Cash Surplus	7.62	7.43	9.60	9.50	11.60

Annexure E Interest Calculation

Loan amount Rs.2,70,000/-

Grant – Rs.90,000/-

Repayment Period – 24 Months including holiday period of 3 months

Interest rate – 12% on the Net loan amount i.e.(loan amount – Grant)

Date	Particulars	Debit	Credit	Balance	Interest*	Interest Per annum	Principal repayment P.A.
01.09.2021	To loan	270000		270000			
1	By repayment		0	270000	1800.00		
2			0	270000	1800.00		
3			0	270000	1800.00		
4			12900	257100	1800.00		
5			12900	244200	1671.00		
6			12900	231300	1542.00	10413	38700
7			12900	218400	1413.00		
8			12900	205500	1284.00		
9			12900	192600	1155.00		
10			12900	179700	1026.00		
11			12900	166800	897.00		
12			12900	153900	768.00		
13			12900	141000	639.00		
14			12900	128100	510.00		
15			12900	115200	381.00		
16			12900	102300	252.00		
17			12300	90000	123.00		
18			90000	0	0.00	8448	231300
	Grant @30%	270000	270000			18861	270000

*Interest calculated on reducing balance outstanding.

*Interest assumed to be serviced every month on the due date.

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