



Symbiosis School of Economics

CONSTITUENT OF SYMBIOSIS INTERNATIONAL UNIVERSITY (Established Under Section 3 Of The UGC Act 1956, By Notification No F9-12/2001-U.3 Of Government Of India)

Livelihood Enhancement Opportunities for Slum Rehabilitation Program under JnNURM in Pune

Guide: Dr. Jyoti Chandiramani
Director
Symbiosis School of Economics

Made By: Apurva Yadav (M.Sc. Economics)
Surender Kaur (M.Sc. Economics)
Souradeep Ghosh (B.Sc. Economics)

Table of Content

Abstract	
Section 1: Introduction.....	3
Section 1.1: Origin of the Project.....	4
Section 1.2 :: Livelihood Enhancement.....	5
Section 2: Research Methodology.....	6
Section 3: Analysis	
Section 3.1: Observations.....	7
Section 3.2: Entrepreneurial Opportunities.....	8-11
Section 4: Business Models	
Business Model 1: Producing low cost sanitary napkins.....	12-18
Business Plan 2: Paper Plates and Drona Production.....	18-22
Suggestions.....	23
Section 5 – Conclusion.....	24
Appendix I.....	25-27
Appendix II.....	28-29
Photo Gallery	30

ABSTRACT

This project is undertaken by Symbiosis School of Economics (SSE) on behalf of Pune Municipal Corporation (PMC). It is aimed at finding livelihood opportunities for people who will be shifted from slums to houses made under the JnNURM BSUP scheme. The idea behind this project is to fulfill the livelihood requirements of people displaced from slums and to help them lead a dignified life. It is also necessary for the government to initiate economic intervention programs for a holistic upliftment of the slum dwellers living in urban colonies.

Our objective is to provide a necessary framework/mechanism through which assistance can be provided to people and their dependents to get involved in productive activities which would enable them to cope up with the socio-economic pressures. Identification of assistance is intended to be identified in the form of skills and technical training, acquisition of short- loans and product marketing. The long term intended outcome of aforementioned assistance is in the nature of enabling the participants in enhancing their employability – in the formal as well as informal markets.

The key findings of this project entail two types of employment opportunities – employment and entrepreneurial activities.

Under the employment activities we have identified the types of jobs available, educational qualification required , training and skills required. The links to these companies are given at the end of the report.

The entrepreneurial activities include businesses which people can undertake after acquiring the required skills. The links to training institutes have been provided in the report. We have also developed two detailed business models with cost benefit ratio and break-even point analysis.

Section 1: Introduction

Section 1.1: Origin of the Project

According to 2010 Census India is home to about 1.21 billion people, making it one of the most densely populated areas of the world. However it was also estimated that 68.84% of India's population lies in rural areas. India held a steady growth rate during the recent recession. Urban India is fast growing but sometimes in unplanned ways. However, unplanned growth has taken a toll on urban India, especially due to problems in the agricultural sector in rural India. Hence, the rising population due to migration from rural to urban cities as well as other factors have also contributed to the increase of slums in the cities and degradation of cities due to lack of planning has also taken place.

Thus, turned out the scheme of Slum Rehabilitation Program allover India, under which the government provides houses at 10 – 12 % cost to those who are needy. This ensures they have a permanent house to stay and the number of slums in urban India keeps on diminishing. On 11 May 2012, we visited the houses built for displacement from the slum areas in Warje and Hadapsar areas of Pune, Maharashtra. We are focusing on these two sites in Pune particularly. This project is undertaken as a scheme of Affordable Housing in Partnership as a strategy envisaged in the National Urban Housing & Habitat Policy (NUHHP), promoting various types of public-private partnerships for realizing the goal of affordable housing for all. This Scheme is a part of the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and takes into account the experience of implementing Basic Services to the Urban Poor (BSUP) and Integrated Housing & Slum Development Programme (IHSDP).

As per the JnNURMreport(2005),”The basic aim of the scheme is to provide stimulus to economic activities through affordable housing programmes in partnership. Its immediate objective is employment generation to the urban poor who are mostly unskilled and lack adequate livelihood opportunities.” The Scheme will also strive to ensure secure shelter and services at affordable prices to all sections of society, and thereby to prevent the growth of slums in urban areas.

According to Indian Express, three projects are running under the slum rehabilitation project of JNNURM. Two in Hadapsar and one in Warje. The Hadapsar rehabilitation project has been done by Arch Infra Projects Nirman Pvt. Ltd. while Warje project has been undertaken by Patil Construction Infra Pvt. Ltd.

The period of completion for Hadapsar Project is till 2014. The Warje project will be over in the month of June 2012.It took 3 years to complete these two projects.

Section 1.2: Livelihood Enhancement

Having a house is not enough for a living. Due to displacement from slums people have a new place and environment to stay in and their livelihood options might differ as well. Our main focus in this project is to understand the livelihood enhancement opportunities for people who will be coming to these colonies in Warje and Hadapsar areas in Pune, Maharashtra.

First we need to understand the meaning of livelihood enhancement. As per our understanding, livelihood enhancement means to build up the capacity and capability of an individual and to make his living dignified with access to all amenities both in present and in future.

According to JnNURM CDP Report on Pune in April 2006 (Vol. 1), the working population in slums comprises of skilled construction workers (fitters, electricians, and painters), unskilled construction workers, unskilled workers, vendors (food and vegetable), and private job holders (factory workers), skilled workers (drivers) and domestic maid (females). Very few slum dwellers are professional workers and government servants.

In this project, we have tried to look into all the possible options of employment and entrepreneurship that people living in these two colonies can undertake. Our objective is to provide a necessary framework/mechanism through which assistance can be provided to people and their dependents to get involved in productive activities which would enable them to cope up with the socio-economic pressures. Identification of assistance is intended to be identified in the form of skills and technical training, acquisition of short- loans and product marketing. The long term intended outcome of aforementioned assistance is in the nature of enabling the participants in enhancing their employability – in the formal as well as informal markets.

Section 2: Research Methodology

In first stage of our study, we visited the two sites and analyzed the areas in adjoining the colonies built under the project. In our field visits to Warje and Hadapsar, we engaged with local people, contractors and neighboring colony residents about the local conditions of Warje and Hadapsar.

In Hadapsar, we visited factories in MIDC. We visited other adjoining areas of Hadapsar for exploring the employment opportunities. We found out 3 main places of employment opportunities in Hadapsar – Kharadi IT Park , SEZ in Magarpatta City and MIDC.

In Warje, we visited Malwadi. The places adjoining the Mumbai –Bangalore Highway are also identified as good employment zones .Both areas are well connected through bus routes and are within well reach from the housing societies.

We also studied about the NGOs which are associated with this project and NGOs which work in similar field. We visited CHF International office in Pune , it works in social upliftment and development in marginalized societies. They have also worked with SPARCS, the NGO working with the slums currently with PMC.

Our next step was to form a questionnaire for conducting a survey. A survey is a research technique used to gather information from a sample of respondents by employing a questionnaire. Normally surveys are carried out to obtain primary data. This was done to formalize the procedure of identifying the types of job opportunities available.

A questionnaire is a set of structured questions to be asked from respondents in a particular order with appropriate instructions. A questionnaire serves four functions – enables data collection from respondents, lends a structure to interviews, provides standard means for writing down answers and help in processing the data collected.

This questionnaire was sent across to 300 companies in both Warje and Hadapsar areas followed by a phone call each to ensure responses.

Limitations: We contacted 300 companies in total via phone calls and mails. A questionnaire was mailed. Due to lack of responses from the available contacts, a formal statistical study on the set of questions could not be conducted. However, we are in a position to analyse the market based on our observations, field trips and phone calls with these companies.

Section 3: Analysis

Section 3.1: Our observations from visits and phone calls:

Types of jobs available:

1. Galvanizing
2. Fabrication
3. Making small parts of machinery
4. Cement factories
5. Sweets and Namkeens
6. Painting
7. Non-Destructive Testing(NDT)

Qualification Required:

Most of these factories require a class X/ XII pass workers. Small and tiny scale factories do provide training to their workers and the bigger enterprises expect the workers to be qualified.

Salary:

The minimum salaries start with Rs.4500/month and after 6 months it increases till Rs.8000, based on performance.

Vacancies:

Due to lack of response from the companies, we cannot say the right number of vacancies. The number of vacancies is not more than 3-4 per factory. A few firms are in urgent need of labor and they cannot find labor to meet up their needs, contacts of which will be attached in the end.

Distance:

The factories and firms are within 3-8 KMs. Radius of the residential societies built up. All the routes are properly connected through buses or can be travelled on bicycles.

Section 3.2:Entrepreneurial Opportunities:

1. Beautician
2. Domestic help and Child care agency
3. Contract basis jobs in new malls coming up in Warje & Hadapsar.
4. Auto on call service in both areas.
5. Utility shops inside the colony.
6. Producing low cost sanitary napkins.

Plan 1: Beautician Course

Women can be trained to do beautician work and massages. This will help them to get a good job at other beauty parlors or they can start up one of their own. There is also a high demand for beauticians and masseurs at home.Trained women can offer door to door services as well.

Advantages:

1. The work type is suitable for women and once trained they can pick up a good business out of it.
2. Working hours are flexible suiting their own needs.

Training Institutes:

Table 3.1

Name	Address	Contact No.	Cost
Trupti Beauty Parlor	Building No. 2, Yashodhan New Palace Co-op. Housing Society, Kalyani Nagar.	9923751429	Negotiable
Shree ManilalNanavati Vocational Training Institute for Women	Maharishi KarveStrishikshanSanstha Campus of Karve Road	020-25471784	Rs. 20,000 p.a.,basic advance, Equipment cost included.
Cleo's Beauty and Relaxation for Women	Karve Nagar	9922740036	Diploma in basics + advance+body therapy = Rs. 55000 (Negotiable)

Deepanjali Hair and Skin Beauty School , Karve Nagar	Karve Nagar	020-25444995	Negotiable
--	-------------	--------------	------------

Plan 2: Domestic Help and Child Care

Domestic help and child care is the need of the hour for working parents and households. Due to improper facilities people end up employing workers who might have a criminal record. A formal track on workers involved in child care and domestic help will increase the social benefit and induce more and more people to work in this field.

A government agency keeping a track record of all the people involved in this type of job will initiate a proper employment record. A formal training session can be designed to teach them about first aid, hygiene and child care. They can also work in the house for cleaning and cooking which does not require training. A tracked information and monitoring between employees and employers ensure a safe and secure work environment for both women who are working and for the households for whom they are working.

Contractor:

Table 3.2

Name	Contact No.	Cost
Vardhan Groups	9881833286	Commission based projects. Will finalize when approached officially.

Plan 3: Contract basis jobs in new malls coming up in Warje & Hadapsar

A few new malls have come up and a few more will be coming up to cater to the needs of people living in these areas that falls outside the main Pune city. The requirement for cleaners, maintenance in electricity and water, security guards, and food court workers will be enormous in the coming years. Channelizing people towards the contractors who deal with these jobs can prove to be a good employment venture.

Contractor:

Table 3.3

Name	Contact No.	Cost
VPMS Hospitality	9890143337	Will finalize when approached officially.

Utkarsh Technical Institute, Gadital Prolific System and Technology Pvt. Ltd. ,Swargate.	9225624780	Training + Certificate Courses (3 months) Diploma (6 months) Mobile Repairing = Rs. 6500 Electrical = Rs. 9000
Suyash Technical Institute ,Kothrud.	9850496345	Training in wireman, mechanic etc. Certificate Course =Rs. 4500 Diploma = Rs. 13000 Negotiable

Plan 4:Auto on call service in both Warje and Hadapsar

Since these areas are in the outskirts of the city, there is a scarcity of auto rickshaws. The ones that are already running are rare to be found and they charge exorbitantly due to high demand. This can be amended by launching an auto-on-call service.

Under this project, licensed drivers can buy autos (for which loans will be required). There will be ample employment generation both for the people who will coordinate the calls and for the drivers. There will be a pre-fixed, non – negotiable amount per km.

Its demand will be high, since women and old people will find it convenient to call an auto for the purpose of travelling, at home, rather than searching for it in times of need. It is also a safe option for night travellers since the autos will be GPRS enabled and their movements can be tracked.

Plan 5: Utility Shops inside the colony

A society consisting of 1500-2250 families need to have a grocery shop, one dairy, fruits and vegetables and a chemist shop in proximity. A few families can be given the ownership of these shops inside the colony itself.

Plan 6: Producing low cost sanitary napkins

Low priced sanitary napkin business can be successful in Pune.The machine producing sanitary napkins is priced at Rs. 75000, which is much less than the amount of Rs. 3.5 Crore which big sanitary producing companies spends. The machinery can produce up to 120 napkins in 1 minute with a cost of Re.1 per napkin.

The specialty of this machine is that it can take care of customized needs of the shape and size of napkins. It can employ up to 10 women.

Manufacturer: Jayaashree Industries, 577, KNG Pudur Road, Somayampalaym, Coimbatore.# 9283155128, 9442224069.

Table 3.4

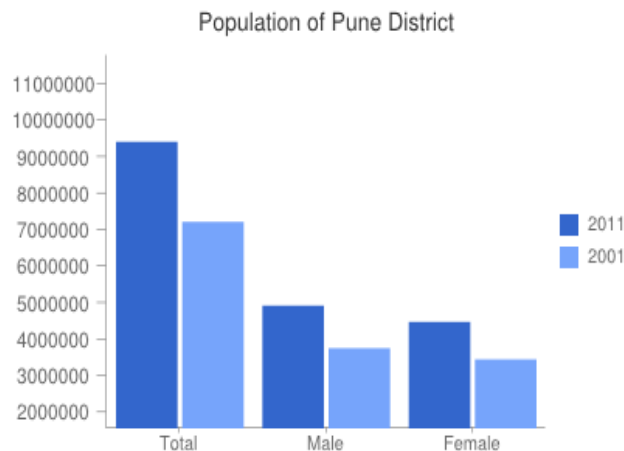
Name	Contact No.	Requirement
Akruti Products , Hadapsar	9821485777	2

Business Model for producing low cost sanitary napkins:

Market Study:

According to a survey, carried out by leading global information and measurement company AC Nielsen in 2011, feminine hygiene care in India is in a dismal state. According to gynaecologists, the use of alternative sanitary care measures such as unsterilised cloths, sand and ash make women susceptible to infections and diseases. The study found that awareness on the basic health and feminine hygiene is very low, with 75 percent rural women lacking adequate knowledge on menstrual hygiene and care. On the issue of affordability of good quality sanitary care, it found 81 percent rural women use unsterilised cloths since they are cheaper and 68 per cent said they cannot afford to buy sanitary napkins available in the market.

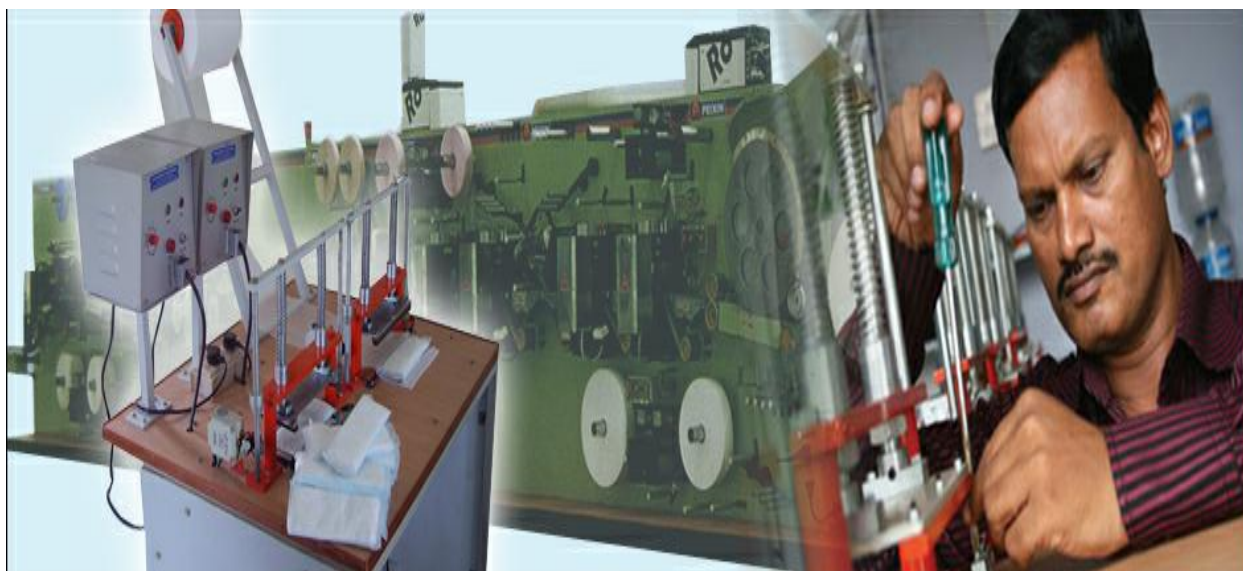
Adolescent girls in rural India are unable to attend up to 50 days of schooling in a year due to inadequate menstrual care, it said. The survey said among the adolescent rural girls, 23 per cent (aged 12-18 years) discontinue studies due to inadequate sanitary facilities in schools.



Source: Maharashtra Census, 2011

As per details from Census 2011, Maharashtra has population of 11.23 Crore, an increase from figure of 9.69 Crore in 2001 census. Total population in Pune in 2011 was, 3.1 million out of which 1.5 million is female population. Girl's population between (0-6) years of age in Pune city is 11.08 %. This means in the coming years, 11.08% of the girls will reach adolescence.

The percentage of urban poor in Pune, according to PMC 2011 census, is 40%. The market requirement for low cost sanitary napkins is huge and looking at the figures of the girl child, we can say that it is going to increase in the coming years.



Capital Required:-

1. Requirement of space for plant operation, storage of raw materials and finished goods.

One would require either 16 feet X 16 feet room or 12 feet X 10 feet, two rooms at your convenience may also made for plant operation, storage of raw materials and finished goods. The entrance should however be not less than 30 inches width.

2. Machinery:

Table 3.5

S.No.	Description	Unit	Rate	Total
1.	De-fiberation Machine	1	22,800	22,800
2.	Soft touch sealing Machine	2	28,000	56,000
3.	Belt napkin Making machine Length sealing.	1	20,500	20,500
4.	Belt napkin making machine side sealing	1	17,500	17,500
5.	Pneumatic core forming machine	1	65,500	65,500

6.	Pneumatic Core Dies	2	1875	3,750
7.	U V Treat Unit	1	10,400	10,400
	VAT 14.5%			28,485
	Packing and Handling charges			2,500
	Installation and Training Fees			5,000
	Total			2,32,435

3. Raw material:

Table 3.6

S.No.	Description	Unit	Rate	Total
1.	Core Material	300Kgs	55/kg	16,500
2.	Top Layer	5000mts	1.68/mt	8,400
3.	Back Layer	10kgs	250/kg	2,500
4.	Release Paper	2 Ream	1150/-ream	2,300
5.	Gum	20 Kgs	150/- Kg	3,000
	CST 14.5%			4,741
	Packing and Handling charges			1,500
	Total			38,941

4. Transport of machineries and Raw material & Installation Conveyance :

Table 3.7

S.No.	Description	Total
1.	Transport charges	39,300
2.	Conveyance & Training charges	12,000
	Total	51,300

Total :

Machineries + Raw Materials + Transport of machineries and Raw material & Installation Conveyance

= **Rs. 3, 22,267** (Rs. Three lakh Twenty Two Thousand Two Hundred and Sixty Seven only)

Manufacturer:Jayaashree Industries, 577, KNG Pudur Road, Somayampalaym, Coimbatore. # 9283155128, 9442224069.

Manufacturing process:

- Firstly de fibrination of wood pulp is done on the defibration machine.
- Secondly the de fibred wood pulp is measured on a weighing scale.
- Thirdly the wood pulp is filled on a core block and pressed by core forming machine
- After this, pressed cores are wrapped by non – woven fabric and sealed by using napkin finishing machine (sealing machine).
- Then position sticker is pasted on the napkin and then packed.
- Intensive training to manufacture napkins is given on field.

Precaution required for production of Sanitary napkin from hygiene point of view.

Cleanliness of production and storage place is mandatory. However if you wish to maintain a clean atmosphere please follow the points mentioned below.

- a) The napkin manufacturing place should be clean (like our Kitchen). All work should be done on work table only (like QC, packing, Etc.)
- b) While making napkins worker should wear work coat, hand gloves, head cap and mouth closer.
- c) No foot wear allowed while making napkins.
- d) Don't allow visitors (they sneeze or touch the napkins) if necessary visitors can be allowed on workers uniform.
- e) Everyday production should be packed and stored; no napkins should be kept open after production.



Costs benefit analysis for a pack of 8 napkins:

Table 3.9

Material	Rate / Kg (in Rs.)	Consumption	Total
Core Material	51	72 gm	3.70
Top Layer	280	7 gm	2.00
Barrier Film	180	2 gm	0.35
Release Paper	-	-	0.20
Gum	-	-	0.30
Packing	-	-	0.60
Total	-	-	7.15

Adding wastage+ labor + Power etc. round off to Rs.10

Total cost for 25 days Production:

25 x 120 packets = 3000 packets
3000 packets x 10 = Rs. 30000

If Selling Price of 1 packet = Rs. 12.50

Total = 3000 x 12.50 = Rs. 37,500
Profit = Rs. 7500 per month

If Selling Price of 1 packet = Rs. 15

Total = 3000 x 15 = Rs. 45,000
Profit = Rs. 15,000 per month

Benefit cost ratio: Benefit cost ratio (BCR) takes into account the amount of monetary gain realized by performing a project versus the amount it costs to execute the project. The higher the BCR the better the investment. General rule of thumb is that if the benefit is higher than the cost the project is a good investment.

$$\text{Benefit cost ratio} = 1.67^1$$

Since the BCR is higher than 1 , it means that for Re. 1 investment we derive Rs.1.97.This investment seems profitable.

¹ Benefit cost ratio = Benefit / Cost (per year)

Break Even Point Analysis:

The **break-even point** (BEP) is the point at which cost or expenses and revenue are equal: there is no net loss or gain, and one has "broken even". A profit or a loss has not been made, although opportunity costs have been "paid", and capital has received the risk-adjusted, expected return. It helps to provide a dynamic view of the relationships between sales, costs and profits. A better understanding of break-even, for example, is expressing break-even sales as a percentage of actual sales—can give managers a chance to understand when to expect to break even.

For reaching break-even point, 64,455 packets of napkins need to be sold at Rs. 15 per packet containing 8 napkins each. At this price and quantity, break-even point can be achieved after 22 months. This estimate can be readjusted in case of a loan repayment.

Break Even units of sale = 64455 packets in 22 months.²

Sales and Distribution:

Setup: At the initial stage we will start with the establishment of one manufacturing unit. We will analyse the working and production capacity of women working on this.

Awareness: The NGOs working with Self Help Groups (SHG) can start holding awareness camps at various slums and low income residential colonies. It could be approaching women through health checkups , talks by doctors , plays and songs. There can be awareness programs and talks by doctors in government schools and dispensaries as well. If more and more women are made aware of the health benefits, they will be motivated to spend on buying sanitary napkins. We can also approach people by advertising online.

Reach: There should be vending machines set up in all schools and colleges. It has been done in schools in different cities and it has tremendously benefitted young girls. They can move freely and attend school confidently.

² BEP : $P \cdot x = V \cdot x + FC$; P = price ; x = units of sales ; V = Variable Cost ; FC= Fixed Cost.

Business Plan 2: Paper Plates and Drona Production



Introduction:

It is a process to convert used paper to the new, re-useable paper. The process is known as Paper Recycling. This business will help the paper industry to fulfill the rapidly increasing demand of paper products. Due to the inability for paper industry to meet the demand of paper, country needs to import paper from abroad. Due to this demand-supply gap, prices of paper products are increasing day by day. Our business plan will not only decrease the import bill of the country but also will decrease the price of paper products which will increase the purchasing power of the individuals and hence it will increase their welfare.

Market Opportunity:

Demand of paper has been hovering around 8% for some time. During the period 2002-07 while newsprint registered a growth of 13%, Writing & Printing, Containerboard, Carton-board and others registered growth of 5%, 11%, 9% and 1% respectively.

India is the fastest growing market for paper globally and it presents an exciting scenario; paper consumption is aiming for a big leap forward in sync with the economic growth and is estimated to touch 13.95 million tons by 2015-16. The futuristic view is that growth in paper consumption would be in multiples of GDP and hence an increase in consumption by one kg per capita would lead to an increase in demand of 1 million tons.

As per industry estimates, paper production are likely to grow at a CAGR of 8.4% while paper consumption will grow at a CAGR of 9% till 2012-13. The import of pulp & paper products is likely to show a growing trend.



Recycling is the process of turning waste paper into a prime product. Most recovered paper is recycled back into paper or paperboard products. We will use this recycled paper to produce disposable plates and bowls. The cost of recycled paper is very less and it will serve the requirement of local vendors or corporate offices.

Manufacturer: Bhagawati Swayamrojgar Kendra, Pune.

Contact Person : Mr. Rajinder Wagh #7385173701.

Bhagawati Swayamrojgar Kendra is one of the leading paper cup machine producers and other disposable material like drona, paper dish, paper cup provider in Pune and Maharashtra. They provide paper cup machines, raw material, production training and after sales service to maintain machinery. After manufacturing the product they collect the products and supply in local and global market. They have an assured buyback of finished goods.

Machinery:

1. Hydraulics Paper Plate Machine With Stand:



Cost: Rs. 87000 (Negotiable)

Electricity Requirement: Single phase electricity. The minimum electricity bill will between Rs.200-300.

Capacity: 10 units per minute

2. Hydraulics Paper Drona Machine With Stand:



Cost: Rs. 87000 (Negotiable)

Electricity Requirement: Single phase electricity. The minimum electricity bill will between Rs.200- 300.

Capacity: 10 units per minute.

These models are also available in semi – automatic, which produces more number of units per minute and requires less labor. The electricity requirement for semi-automatic machinery will be higher.

Cost Benefit analysis:

Raw material:

Material	Rate / Kg. (in Rs.)
Brown Paper	30.00
Silver Paper	40.00

For 500 pieces of drona:

Cost:

100 gm. Silver paper = Rs. 4

1 Kg. Brown paper =Rs. 30

Total =Rs. 34

Adding power and labor cost = Rs.38

Selling Price = Rs. 9 / 70 pieces of drona.

Amount obtained from selling 500 pieces = Rs. 63

Profit = Rs. 25 (approx..)

Capacity: The machine produces 10 pieces per minute
600 pieces per hour

In **one day** if the machine runs for 8 hours, we have 4800 pieces of drona.

In **25 working days** of a month, we have $4800 \times 25 = 1, 20,000$ pieces of drona.

In one day ,

Variabl cost : 9 kg brown paper = Rs. 270

1 kg silver paper = Rs. 40

Labor and Power = Rs. 10

Total = Rs. 320

Sales = Rs. 621

Profit = Rs. 301 per day.

Cost per month = Rs. 8000
Sales per month = Rs. 15, 552
Profit per month = Rs. 7552

Benefit cost ratio: Benefit cost ratio (BCR) takes into account the amount of monetary gain realized by performing a project versus the amount it costs to execute the project. The higher the BCR the better the investment. General rule of thumb is that if the benefit is higher than the cost the project is a good investment.

Benefit cost ratio= 1.97³

Since the BCR is higher than 1 , it means that for Re. 1 investment we derive Rs.1.97.This investment seems profitable.

Break Even Point Analysis :

In this model , one needs to sell 16,73,076 units of drone. With a sale of 4800 drona per day, the business should reach a break-even point in 349 days.
It is subject to change in case of loan repayment.⁴

³ Benefit Cost ratio = Benefit / Cost (per month).

⁴ BEP = (per unit price) . (unit) = (per unit VC)(unit) + Fixed Cost

Sales and Distribution:

The Kendra provides a buyback offer. Total produce of a month's time or less can be sold back to them and it is sold further in the market. The only drawback is that the price offered in market for the same good is double than what the Kendra will buy it for.

Market price for 70 pieces: Rs. 15

Kendra's price for 70 pieces: Rs. 9

The producers need to identify all the eating joints, dhabas, small restaurants and vendors who use disposable plates. Now to capture the market, they need to offer an introductory price which is less than market price but more than Kendra's price.

Selling Price: $15 < P < 9 = \text{Rs. } 12$.

The benefit of buyback is that the producers will never run in loss. The units sold in market will generate profits and the leftover can be sold back to the Kendra.

Conclusion:

Plan 1 is an entrepreneurial activity to be run by a group. It requires assistance of NGOs and volunteers to mediate and initiate the business.

Plan 2 is an individual household business activity. If a large production takes place collectively, the households will enjoy the benefits in sharing transportation costs of raw material and finished goods.

Suggestions:

During our visits we were vigilant about other factors apart from livelihood opportunities. For a holistic development of a society it is necessary that the welfare of the people is also looked into. The main focus should be to take measures that ensure a sustainable overall upliftment of the society. Here are a few suggestions from our findings for the same :

1. **Police Station:** The areas where the colonies are situated do not have a police station nearby. There is a high incidence of feuds in these localities, as suggested by neighboring colonies residents ,built under similar schemes. Therefore, it is necessary to have a police station close by.
2. **Maintenance of the society:** The section of society coming to live in these colonies will not be willing to pay maintenance charges. This can lead to deterioration of the infrastructure provided. There is poor reception of telephone networks in these areas. Thus, telephone networks towers can be built on these buildings, and the money coming as rent can be used by the residents for maintenance and recreational activities.

Section 5 - Conclusion:

In this project our main focus was to find out the livelihood enhancement opportunities for slum dwellers once they shift to new houses in areas of Warje and Hadapsar. From our definition, we understood that livelihood can be enhanced once a person is given an opportunity to explore his potential and work with his full capability for a dignified and better living.

We tried understanding the areas, their adjoining areas, opportunities available there and also the potential opportunities that may come up in the following years.

Our attempt to conduct a statistical analysis from a data set of 300 companies in both areas remains unfinished due to lack of respondents. Our study is based on observations from field trips and conversations we had with people involved in the project and those who stay in these areas. It also entails phone conversations made with these 300 companies. It cannot be called an incomplete work, it is just not supported by empirical evidence. This project contains first-hand information.

From the above study, we can conclude that people who will be shifting soon have a bright hope for good employment opportunities and they will be able to make a good living in their new homes either by working as an employee or as an entrepreneur in small businesses.

In Hadapsar, people will be shifting in phases. So in the coming 2-3 years, the new projects or factories that are coming up in MIDC and adjoining areas do have a capacity to absorb labor. If a track is kept on the upcoming projects, then people can be trained now so that in future they are capable of getting jobs in these new firms.

Appendix I :

S.No.	Company Name	Phone No.	Email Address	Place	Activities
1.	ESSKAE Management Solutions Pvt. Ltd.	770 904 1168	sarang@esskae.com	Warje	Management Consultancy
2.	HD Firecon techno Pvt. Ltd.	94222 41939	hdfirecon@gmail.com	Warje	Builders & Developers
3.	CORROS METALS PVT. LTD.	99600 26611	clant@corrosmetals.com	Warje	Fire Detection Systems
4.	SILICON AUTOMATION SYSTEMS	94220 82826	silicomsys@dataone.in	Warje	Galvanising
5.	Caliber Gauges & Instruments Laborator	93733 13247	response@caliberlaboratory.co.in	Warje	CNC Machine & Microscope
6	Concept Techno Systems	+ 91 - 20 - 25218371, 25218372	mechsplpune@dataone.in - deepakapte	Warje	Measuring Instruments
7	Bhagtajyoti Engineering & Insulation Contractors	91 - 20 - 64700881	bhagyajyotiengg@gmail.com	Warje	Cleaning Machines
8	ShriLaxmi Enterprises	(020) 25234439 / 9850770960	shrilaxmientp4u@gmail.com	Warje	Deep Freezers
9	INCON Electronics	(020) 25236211, 9881120438	inconelectronics@yahoo.co.in	Warje	Transformers & Stabilizers
10	Clean Power Equipments	(020) M – 9225529651	cleanpower@vsnl.net	Warje	Ultra Isolation Transformers
11	Global Systems(urgent requirement)	(020) 25231604	globalelecprn@yahoo.co.in	Warje	Security Alaram System
12	Pathfinder Technologies	(020) 25235901	pathfinder@gmail.com	Warje	Industrial Safety Equipment
13	Mayuresh Engineers & Fabricators	98220 08483, 98811 04849, 02065702467	response@mayureshengineers.com. mayureshengineers.pune@gmail.com	Warje	Magnetic Crack Detectors
14	Pava Industries	91-20-25233204 / 25447497	response@pavaindustries.com	Warje	CNC Machines
15	Nikhil Autopress& Components Pvt. Ltd.	020-25230080, 98220 48534	sales@nikhilauto.com	Warje	Auto Components
16	Swirl Systems	020 - 25236200, 9422016440, 9403359340	swirlsystems@indiatimes.com	Warje	Butterfly Valves
17	Om Power Systems	99227 34479	opsmangeshgaykwad@yahoo.com	Warje	Bus Bar Work
18	Sagoni Enterprises & Powder Coating	020-64705294, 98228 42878, 92259 1368	sagoni1@yahoo.co.in	Warje	Fabrication of Control Panel Boxes
19	All India Database	Rahul (8975757504)	sales@allindiandatabase.com	Warje	Email id and mobile no database centre
20	ORBITTAL Electromech Engineering Projects Pvt. Ltd.	020 2529 1673	info@orbittalelectromech.com	Warje	Licensed Electrical Contractors
21	WaterwingsEquipments Pvt. Ltd.	(020) 5290191	info@waterwingsindia.com	Warje	Waste Water Treatment Plants
22	Lavasa Corporation Ltd.	09766586838	ashwin.shetty@lavasa.com	Warje	Turnkey Project Consultats
23	Infinity Traders	(020) 32515283 / 64702962	infinitytradegroup@yahoo.com	Warje	All Type Of Garage Equipment
24	Expert Instruments Pvt. Ltd.	(020) 25232739	pritam.kanherkar@expertinstruments.co.in	Warje	PLC, SCADA, Control Panels
25	Technowing Systems	9325519011	technowing@gmail.com	Warje	PLC, SCADA, Control Panels and supply cctv

26	Riya Enterprises	9822292306	riya_entps@rediffmail.com	Warje	Ready Made Garments
27	Laxmi Narayan Industries	98228 88637, 25533649, 4312	laxminarayanind@gmail.com	Warje	Fabrication
28	Soft Aim Innovation	(020) 25204173	hr@softaiminnovations.com , contact@softaiminnovations.com	Warje	Software
29	Indotech Industrial Solution Pvt. Ltd.	(020) 25232221 / 25233455	business@indotechindustries.com	Warje	Dual AC Controller with HP & LP
30	Sunpro System	9372206226	sunprosystem@gmail.com , sunprosystem@in.com	Warje	Awning Shed
31	ILEAD Farmers	9503473791	info@ileadfarmers.com	Warje	Management Consultancy
32	Sara Enterprises	(020) 25233647	saraenter@rediffmail.com	Warje	Industrial Electrical & General Suppliers
33	Technocrafts Inc.	(020) 25458135	technocraftsinc@yahoo.com	Warje	PIV Gear Boxes And V. Speed Drive
34	UpendraDeshpande Excise Consultant	98507 20622	dcupendra@gmail.com	Warje	Excise Consultants
35	R.K. Automation	99215 83535	riyazahmad.kazi@rediffmail.com	Warje	
36	Patils Groups of Solutions	98606 56539/98226 46427	patilsgroup@gmail.com	Warje	Fire Fighting Equipments
37	Sansun Web Solutions	9561071078	info@sansunwebsolutions ,info@sansunsms.in , support@sansunwebsolutions	Warje	Website Development
38	Midas Autosoft Engineer Pvt. Ltd.	(020) 25235781 (020) 25235781	sales@midasautosoft.com	Warje	
39	KosaleTechnologyies Pvt. Ltd.	98223 31454	sales@ekosaletech.com ,	Warje	Software
40	Yogis Designers	9923627631	prakashdhole24@gmail.com, prakashdhole24@indiatimes.com	Warje	Uniforms
41	Fiberol	(020) 25291781	fiberol@eth.net	Warje	Waterfalls & Fountains
42	Shree Ganesh Engineering Works	(020) 25233129, 25232041	rajankjoshi@hotmail.com	Warje	Mfg. Of All types of small Gears, Welding SPM's & Gearboxes
43	ISM CORP		contact@ismcorp.co.in	Warje	
44	CHINTAMANI THERMAL TECHNOLOGIES PVT. LTD	020 - 26970163, 26820908	response@refirgrationcompressi ndia.com	Hadap sar	Refrigeration Compressor
42	CHINTAMANI THERMAL TECHNOLOGIES PVT.LTD. (COMPRESSOR DIVISION)		response@heatexchangersindia.in	Hadap sar	Intercoolers
43	PRS INSTRUMENTS MFG.INDUSTRIES	(020) 26997239 (020) 26997542	response@prsaiguages.com	Hadap sar	Precision Instruments & Gauges
44	ACCURATE CUTTING SYSTEMS	(020) 26872522	response@bandsawmachines.co. in	Hadap sar	Welding Machines
45	SPAN FILTERMIST INDIA	(020) 65603151 /	response@spanfiltermist.com	Hadap	Oil Mist Filters

	PVT.LTD.	65603158		sar	
46	NUTECK PRODUCTS.	(020) 32415600 / 26811161	info@nuteckproducts.com	Hadap sar	SMPS, DC -DC Power Supply
47	GURU ENTERPRISES	91 - 20 - 65243103 91 98231 93491	response@guruairecompressor.com	Hadap sar	Mfg.of Reciprocating Air Compressors
48	SURESH INN	9011066165		Hadap sar	
49	STEELFAB ENGINEERING PVT.LTD.	(020) 26970831 / 26970834	response@steelfabeng.com	Hadap sar	Loading & Unloading Arm Systems
50 51	PANORAMA AUTOMOTIVE INDUSTRIES PVT.LTD. OM ENTERPRISES	20 - 66022794, 660227979753 20 - 30427384 / 26822147	response@ponoramaauto.com response@constructionlabeqipmentspune.com	Hadap sar	Auto Parts Misc.
52	THE JAWS MFG.CO.	020-26877842	jaws@jawsindia.com	Hadap sar	Chucks, Power Chucks
53	SAZ BOILERS.	20- 26970840, 26970420	response@steamboilersindia.com	Hadap sar	Boilers, Boilers & Accessories
54	FLUORO-TECH ENGINEERING PVT.LTD.	020-26970021 / 26970095 / 269700161	fluorotech@vsnl.net fluorotechpolymers@vsnl.net	Hadap sar	PTFE Parts, PTFE Coponents
55	PAC AUTOMATION	91 20 64002050 ,91 9765202454	pacautomation@yahoo.com, wa man.sanap@pacautomation.org	Hadap sar	Instrumentation Engg.CAD Drawing
56	SIGMA TELECOM	94220 29921 / 92702 10655		Hadap sar	Auth.Dlrs.for EPABX System
57	MARSH AUTOMATION PVT.LTD.	020 - 26875424, 26879475, 26877185, 65267931	response@marshautomation.com	Hadap sar	Actuators, Linear Actuators
58	HERCO INDIA	020 - 32342324, 32342325	response@ignitiontransformers.net	Hadap sar	Mfgs.of Ignition Transformers
59	Cool spring beverages pvt ltd	02026875869	Coolspring.pune@rediffmail.com	Hadap sar	Packaged Drinking Water
60	Gadiya Industries	02027030215	info@gadiyaindustries.com	Hadap sar	Ball valves, Valves & Cocks Fittings
61	Quench technologies	9860696734	steven@quenchtech.com	Hadap sar	Website Development
62	Electronics systems and devices	02026819611	sales@est-india.com	Hadap sar	Testing & Measuring Instruments & All Types Of Gauges
63	Sapling consultants	982308718	saplingconsultant@gmail.com	Hadap sar	Microcontroller Based Products
64	Accurate engg PVT LTD	02026870158	hrd@accuratedaaging.com	Hadap sar	Testing & Measuring Instruments & All Types Of Gauges

Appendix II:

Questionnaire for Livelihood Enhancement Analysis

Symbiosis School of Economics

* Required

Name of the Company / Firm *

Scale of Production *

- ☐ Tiny Scale
- ☐ Small scale
- ☐ Medium Scale
- ☐ Large scale

What do you produce or deal in ? *

What is the educational qualification required for job ? *

- ☐ Class X
- ☐ Class XII
- ☐ Graduate

What is the technical skill required for job ? *

Do you undertake technical training for labor ? *

- ☐ Yes
- ☐ No

Vacancies available for labor ? *(in figures)

Which of the following special process are performed during the manufacturing process? Identify the type and the standard/procedure applied. Process Type Standard/Procedure

- ☐ Welding
- ☐ Surface Preparation
- ☐ Painting
- ☐ Galvanizing
- ☐ Non - Destructive Testing (NDT)
- ☐ Other:

Which area is your company in? (Choose one)

- ☐ Warje
 - ☐ Hadapsar
-

Photo Gallery

