



LIVELIHOODS IN DHARAVI

Guide:
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Approval Sheet:

The Special Project titled
‘Livelihoods in Dharavi’ by Utpala Wandhare,
is approved for the partial fulfillment of the requirement for the degree of
‘Master of Design’.

Project Guide

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External Examiner

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1.0 Introduction

1.1 How did the project start:

The Urban Opportunity project, a research initiative of Institute of Design, IIT Chicago, has provided the scope for adopting a collaborative approach of working between ID Chicago, IIT Bombay and non-governmental organizations like the Society for Human and Environmental Development (S.H.E.D) in Mumbai. This collaborative approach has enabled the acquisition of true and valuable insights on the livelihoods in city slums. Dharavi was taken as specimen for the study.

1.0.2 About SHED:

The Society for Human and Environmental Development (SHED) was formed in October, 1982, with the prime objective of improving the outlook and living conditions of those living in the slums/rural areas, especially tribal. At present, the Society is working in the major slums of Mumbai - Dharavi, Jogeshwari(East), Sagbaug and Kalina -and also in a village and 21 tribal hamlets of Saphale Block, Palghar Taluka in Thane district.

Ongoing programmes in the slums include setting up health and family welfare clinics, conducting medical check-ups and nutritional programmes for children, pre-primary education, adult literacy, providing sports facilities for the youth, organising mahila mandals and women's co-operatives, counseling, anti-drug campaigns, AIDS awareness, riot relief, and income generation for women by training in various skills.

SHED started its activities in rural areas in 1988 and has programmes dealing with self- development of the community, awareness, women's development, education, health, agriculture and water management.

The Society's main skill- training centre for girls and women is at Kalina, Santa Cruz (East). The basic thrust of the centre is to create self-employment for girls and women and to make them economically secure. It also runs courses in tailoring, beauty care, embroidery, mehndi application, making soft toys, fabric painting, artificial flower- making, baking, cooking, craft, ceramics and computer.

1.0.3 **The Urban Opportunity Project, Institute of Design, IIT Chicago**

Concepts for improving economies and daily life in urban slums.

The Urban Opportunity Project at the Institute of Design is an initiative to develop human-centered strategies and concepts for new products, services and businesses capable of generating sustainable economic improvement in urban slums. These solutions not only address the direct issues of daily life — water quality and access, sanitation, housing, healthcare and the like — but also the related problems of employment, communication, education and others.

Our approach is to develop solutions that harness the entrepreneurial spirit of local citizens and the financial stimulus of private investment, rather than on charity or government funded development alone. Design-oriented research and analysis of daily life in slums provides a unique viewpoint on the problems of urban poverty, focused on innovation and systemic solutions.

Background and methods

The Urban Opportunity Project began with an exploratory phase (Phase I), conducted in the summer of 2003 in Chicago and in three cities in India. Through initial observation of the daily life of slum residents in India, the Chicago-based team discovered patterns of social interaction, economic activity and living conditions that inspired new solutions.

Phase I: Exploration

Research and observation from a design perspective revealed many activities of daily life and local business that could be improved by new products, services or systems. We found many examples of seasonal, transient, and mobile businesses, and both large and small scale industries. Analysis of these businesses and related activities led to several design criteria that helped towards the solution concepts

Future work

The Institute of Design is seeking individuals and organizations to become involved as partners or funders of the Urban Opportunity Project, and support future phases of work:

Phase II: Feasibility Planning

refinement of initial concepts feasibility studies and business plans continued user observation in India rapid prototype in India of a selected concept finding partners in India and other countries

Phase III: Execution and Expansion

design and implementation of large scaled solution prototypes creation of an ongoing research center to continue research and development in new business opportunities in slums.

2.0 **Objective:**

Qualitative analysis of selected internal livelihoods to give a blue print for the developmental agencies of the urban slum.

3.0 Methodology:

1. Document-Observing daily life and various livelihood

To understand the scenario on a very general level, to get a hang of the kinds of livelihoods and all that goes into making of livelihood.

2. Study-Documentation through video and still images

For the initial study of the livelihoods and the entire detailed process, to understand and make observations on initial stage.

3. Learning-Conducting qualitative interviews

Qualitative interviews would help in understanding the lives of the residents. Such as day-to-day activities, cultural influences, the survival strategies, their viewpoint on self and economic progress and their contribution towards society. Their mental and emotional responses towards situation etc. In short, providing an insight to the inside story.

4. Analysing

Critical and detailed analysis of the entire selected livelihood, to give a detailed insight of the livelihoods and the issues involved, so as to conceptualise solutions to improve the conditions of the people.

5. Conclusion

Based on the insights of the analysis, suggesting a probable outcome in the form of solution.

4.0 **Urban Slums** (Zopadpattis)

People look at slums in a very unacceptable way, where the outsiders have always considered it as problem. The system, which has been developed since years and is prevailing in Dharavi works for people who are otherwise thrown away by the system of society.

*Slums are not **‘problems’** that have to be ‘solved’*

*.....For the poor, they represent a **solution**.*



4.0.1 Dharavi-introduction:

Mumbai, a reality which many would prefer to ignore. This is the reality of half of our city, of people who have been forced by chance and circumstances to live for generations in subhuman conditions. It is the story of men and women who have survived despite our indifference, despite the hostility of the State, people who are also citizens of Mumbai.

Spread over 175 hectares and swarming with one million people, Dharavi is often called 'Asia's largest slum'.

It is much more than cold statistic.

What makes it special are the people who live there, many of whom have defied fate and an unhelpful state to prosper through a mix of hard work, luck and ingenuity.

Dharavi is all these but above all it is an extraordinary mix of the most unusual people.



These livelihoods are of those people who are migrants coming from the rural areas, small cities etc. of India in search of work to earn their living.

Lots of factors cause people to migrate, roughly the reasons can be stated as:

Poverty,

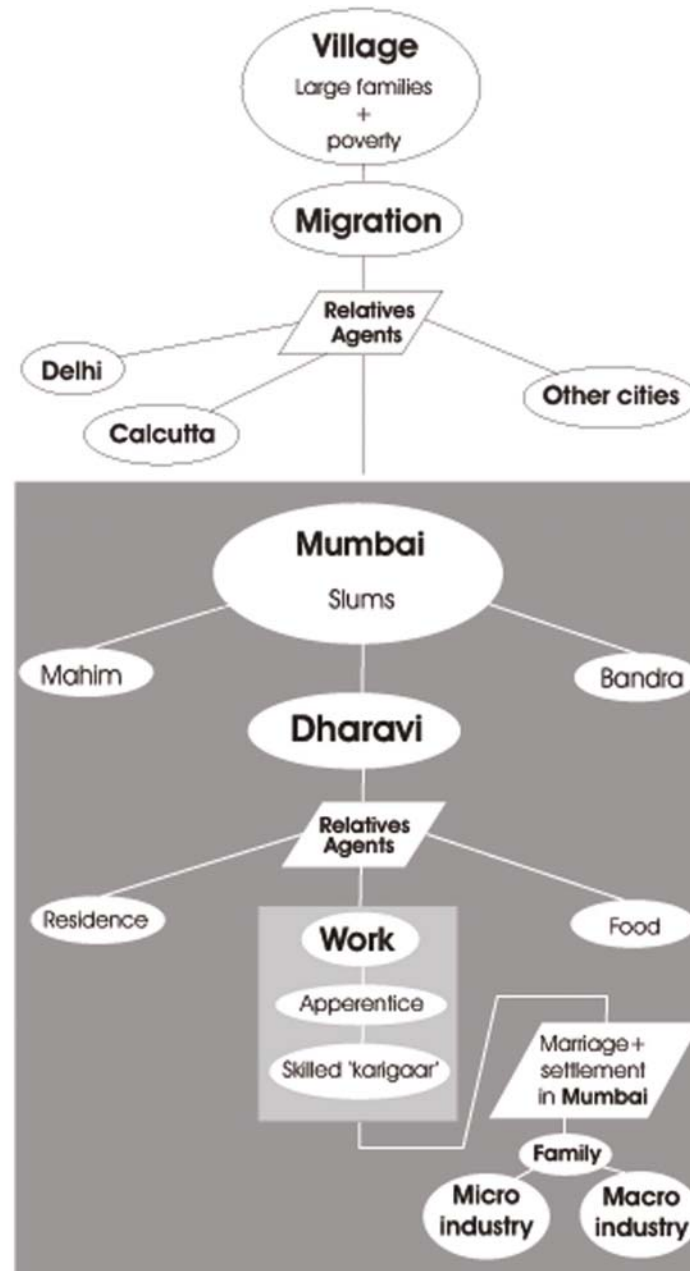
Lack of job opportunities,

Natural disasters,

Lack of market to buy their products or craft products,

In search of jobs having more money,

In search of better future, etc.





4.0.2 Demands of Relocation:

This change and relocation asks or demands for two basic and crucial needs:

- 1.Shelter:
- 2.work:

Shelter:

Dharavi is a place where maximum number of migrants takes refuge. People who are unknown of a new place and place like Mumbai, which is a city where everything works in a different manner. The migrants coming from the rural areas might find alien after stepping here.

To find a new place in city like Mumbai where finding a place to live is the most difficult task or can say practically impossible.

Dharavi has over the years developed an effective way to accommodate needful people inside her.



Like any other slum in the world Dharavi also stinks but it is unique, not only because of its size, making it the largest slum in Asia but unlike other slums which are generally residential, Dharavi house a large number of cottage industry. People here are not simply remaining victims of the draconian government; they are very much weaving their path through policies and plans, deriving for them-selves a rational livelihood strategy.

Work:

Its five lakh slum-dwellers, most of them migrants, are industrious people. They produce leather goods, ceramic products, readymade garments and food products with an annual turnout of Rs 3000 crore. Every day, about 50 tonnes of chakli, 10 tonnes of banana wafers, 100 tonnes of chivda, 1 tonne of panipuri and 20 tonnes of chikki are produced in over 1,000 match-box sized units.

Reference: the-Hindu sep17th2000

4.0.3 **Tradeoffs** in urban slums

Poor hygienic living conditions	Closer proximity to jobs and markets
Poor housing infrastructure	Extremely affordable means of housing
Low salary jobs	Lack of Jobs
Inadequate infrastructure support	Low overhead cost

Between

**Poor hygienic living conditions-and-Closer proximity to jobs
and markets**

The unhygienic conditions that exist in the urban slums, open drainages, filth, clogging of water in rainy seasons etc. and being the centre most area of the city, so do not have to travel much to reach jobs or markets.

Between

**Poor housing infrastructure---and---Extremely affordable means of
housing**

Extremely poor quality of houses, with poor ventilation, cramped spaces, no provision for basic needs like toilet etc, and extremely low rates in the rents that the have to payed in a city where housing is the major problem.

Between

Low salary jobs---and---Lack of Jobs

Jobs with minimum wages or below the lowest limit that is paid in return of the jobs carried out by the people inside dharavi and absolutely non availability of jobs.

Between

Inadequate infrastructure support---and---Low overhead cost

The lack of infrastructure like proper sanitation, water supply, roads, etc and non existence of the concept of paying the basic electricity bills or any other taxes.



4.0.4 Livelihoods:

Categorisation of livelihoods would be done on the basis of residents working inside Dharavi and residents going outside Dharavi for employment. For eg: barber shop, laundry, vendors, etc. who provide services inside Dharavi.

Residents who go outside Dharavi for employment such as the taxi-drivers, household servants, etc.

The above can be thus classified as :

Internal:

livelihoods in which the residents earning livelihood by working for Dharavi

External :

residents earning living by providing services for outside Dharavi.



4.0.5 Macro-Micro Economics:

Dharavi is an example of a livelihood surviving on its own without any help from outside, rather providing services to the outside people. Thus the Dharavi plays an important role in shaping the economy of the city by providing services. In other words can be stated as influences on macro economy of the city.

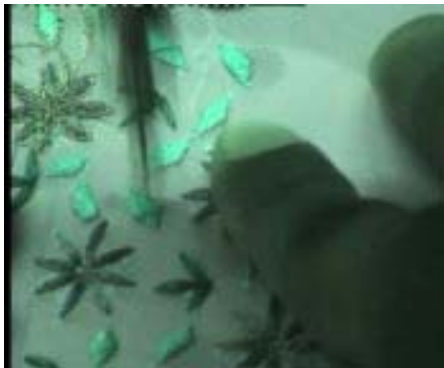
For eg: leather goods produced in the cottage industry for exports. A huge portion of the hand-embroidered textiles is made here.

Within Dharavi, the economy at micro level. Livelihood such as barber and laundry etc.

As the part of the study of livelihood interviews were conducted with people having an occupation in Dharavi. These occupations were first randomly documented and later separated into micro and macro industries. Later after creating the scenarios and separating them, around 8 occupations were shortlisted and studied in detail, and to explain them scenarios have been created.

These livelihoods are:

- Machine embroidery
- Scarf-tassle making
- Hand-embroidery
- Plastic-flower stringing
- Peanut de-skinning
- Leather-craft
- Dhobi or laundry services
- Zardozi
- Idli making
- Broom manufacture
- Sequin-stringing
- Papad making
- Pattva or tassle making
- Mess services or BC
- Cap embroidery etc.



For further study the area of focus is internal livelihoods/Micro entrepreneurs:

5.0 **Micro entrepreneurs:** - These entrepreneurs make a living by catering to the needs of the Dharavi residents. They are:

- 1) Mess services or 'B.C',
- 2) Dhobi,
- 3) Idli makers,
- 4) Broom makers,
- 5) Thread cutting,
- 6) Groundnut cleaning,
- 7) Making plastic garlands, decorative pieces,
- 8) Finishing and decorating garments, like tassels for scarf,
- 9) Sequin threading, etc



1) Sequin (Tikli) threading:

Saira, Sumeeya, Jameeza, Begum Bano, Ruksaar, Yasmeen and Parveen are women from the same family who work together.

They string the sequins together to provide ease to zardosi embroiderers for executing the embroidery.

They have a peculiar way of stringing (invented by themselves) is by dumping the sequins in a steel shallow tureen and spinning it around and holding the needle in the direction opposites to the path of rotation. The sequins get in the needles themselves and get strung.

They are paid Rs. 8-10/- per 100 gms. Which takes around 2 women 6-7 hrs to finish. So the monthly earning comes to around 300 per month.

Though this work is not regular, they do other things, like making plastic garlands, finishing the garments, etc.



2) Scarf Tassel Makers: -

Housewives in and around Dharavi freelance with this job.

The unit gets material; Bhivandi dyes them and provides them with the sample piece, material, accessories.

The women take this home, where they sit and make and return with finished goods, hence paid accordingly.

These goods are for the upper-class market or exports.

Say, at a unit in near Sion gets woman coming from far-off Dharavi areas like (60-70 women) Mhahkadli, Subhash Nagar, Hanuman Chowk, Navadchaul. Paid approx Rs.8-10 a piece.

They make some 3-4 pieces per day; Hence earning 2500 per month.



3) Dhobis : -

Ramu is from Lucknow. He is a dhobi at Dharavi since the last three years. Ramu collects dirty clothes during the evening around Koliwada. He then carries them to the 'dhobi ghat' of Dharavi where the other dhobi's work too. The Dhobi ghat is a water tank, which resembles more to an open sewage tank.

Ramu fills one of the metal drums with the tank water, adds washing detergent and heats the drums on charcoal. He then soaks the clothes in batches by separating them according to colour and material. Then he removes them and beats and rinses them in the tank and finally putting them to drying on the adjacent railway tracks.

Ramu charges Rs.5 /- on an average for washing each garment and Rs. 7/- for bed sheets and sarees. While ironing charges Rs.3/- & Rs.5/- respectively. He returns the garments in two days. He earns himself a sum of Rs. 2500/- to 3000/- p.m.

He is single. He sends some money back to his village, to his parents. He is 22 yrs. Old. He lives in a small room with two zardosi workers and together they pay Rs. 1000/- as rent. Ramu has no intention of leaving Mumbai.



4) Broom makers: -

Vilas Ram resides in Dharavi. They are broom makers by caste.

They are financially stable, as they have established a strong base in their vocation.

They have hired a helper who makes the broom.

Every morning Vilas ram and his son leave the house to sell broom at the wholesale market and retail too.

They make 150 – 200 brooms per day. They pick the material from Kurla. They buy the raw material at the cost of Rs. 360/- a bundle to make 200 – 225 brooms. They sell the brooms at Rs. 12/- a piece and pay the helper Rs. 2/- a piece.

They all hail from U.P. besides selling at wholesale they even give 5-6 brooms everyday to children.

Even though it being a well set business Vilasram dreams to educate his grandson for a formal and more respectable occupation.



5) Mess service (B.C)

Shahjahan is a house-wife. She and her husband hail from Patna, Bihar. they came down to Mumbai 12 years ago. They have six children, of which the eldest two did not continue their education beyond the 6th grade. They live on rent. The area of the room is 10x10ft., and the rent they pay is Rs1200/- per month.

Shahjahan runs a mess-service, or popularly known as the 'b.c.'

Shahjahan took up this occupation a few years ago, when her husband's zardozi unit ran into some financial crisis.

She began by offering services to her nephew and his friends.

The business then grew and today has expanded to a considerable size of 53 persons.

She also provides her customers with tiffin box.

She and her husband have now 'expanded' the house by adding on a loft on to the room, and shifting upstairs.

Shahjahan makes meals twice a day for more than sixty people, as she has to feed not only her customers and family, but also the workers of her husband's zardozi unit. The meal consists of 4 chapatis, a daal and a 'sabzee'. She charges Rs300/- weekly for her services.

Her weekly income is approx. Rs15000-20000/-, thus leaving her a healthy profit of Rs7500/-.

She owns a colour television. She is now saving money to buy off the room they are living in. the room costs them around 2-3 lacs.

Others:

6. Thread Trimmers :-

Trim the extra threads of readymade garments.

A group of 5 – 7 women are employed by the ‘middlemen’ at a salary of 1100/month.

They work from 9.30 to 7.00 per day trim around 100-110 shirts.

All these women come to a place where this work happens.

Sunaina is one of them, she comes to Sion area from Koliwaada daily.

Analysis:

Young girls are doing this job.

They come from different places.

The work happening in the place changes according to the availability of work.

Special scissors provided for trimming, which is of similar rate as normal scissors.

7. Hand Embroidery:-

Jameela is a 24 year old house wife she has a son, her husband is a car mechanic. She alone with 50 regular visit one of the agents who provides her articles to hand – embroider on (i.e. garments currently). These women a initially shown the prototype, given the material, related instructions and what they would be paid per piece (i.e currently Rs 9/- for embroidering a particular pattern). These women then work out a sample piece which is then got approved from the factory by the agent. Then when the samples are passed, they get the job. Jameela embroiders 3 – 4 pieces per day, manages family and also finds time to work with SHED.

Analysis:

The purpose is to create the rough effect, can done beautifully by these women on minimum pay.

8. Girl Broom seller:

Mala is a ten-year-old girl. She does not go to school; but wears an old school uniform. Vilasram sells her 12 brooms in two sessions at Rs.7/- a piece. She sells them at Rs. 12/- each thus with a profit of Rs.3/- to Rs.5/-. Everyday she manages to sell 7 – 12 brooms in Kolawada, where she pursues this trade.

9. Flower Stingers: -

Kantabai is 72 years old woman. The agent visits her daily and provides her plastic flowers and bead packets everyday along with a sample. Kantabai and her neighbor sit and chat together as they string flowers into garlands and toran. They are paid Rs 2/- and Rs 5/- per dozen of garlands and 'torans', respectively. On an average Kantabai earns Rs 10/- a day and 300/- per month.

Analysis:

Plastic garlands are threaded together by women, the raw material provided by the company.



6.0 Learning and Analysis:

Following entrepreneurs are of which qualitative analysis has been carried out:

- 1) Sequin (Tikli) threading,
- 2) Scarf tassel,
- 3) Dhobi
- 4) Broom makers
- 5) Mess services or 'B.C'

Analysis:

	Livelihoods	Shelter	Slum manufacture	Technology
1) Sequin (Tikli) threading	1. Women get to contribute to the earning for the house. 2. Housewives and children of the household get together to complete the task.	1. The living room becomes the working area, so working has become the living style.	1. Helps in speeding up the job of the zardosi craftsmen, by paying minimum charges. 2. The work of similar character, unique in them, keeps the women engage and makes them contribute to the earning for the house.	1. Finding out the correct and faster method to do the job.
2) Scarf Tassel Makers	1. Womens needs makes them to come from long distances for work.	1. Women are happy as they can take the work home and do. So they are not divided into work and home responsibilities	1. This work could have been carried out on a machine, but getting it done from these women is much cheaper.	1. The machine work is replaced by human hand, in case some mistake happens, the women are considered responsible.

	Livelihoods	Shelter	Slum manufacture	Technology
3) Dhobis	1. Men and women wash clothes at the dhobi ghat in the morning.	1. The space used to carry out the activity has a huge tank, which has a water supply from the sewage, no proper water supply, stones around to beat the clothes on and a rail track besides where they dry the clothes.	1. Clothes are majorly from the caterers, madapwalas, etc.	1. Found out their own innovative means to wash. 2. Magic works as the clothes are washed in the dirtiest condition, and still get cleaned. -Firstly huge tin drums are used to boil the clothes, - then the clothes are beaten up on a stone to clean them, -sewage water is used , -clothes dried on the rail tracks

	Livelihoods	Shelter	Slum manufacture	Technology
4) Broom makers	1. Been into the broom making business and now are in a better position. 2. Aspire that now when they are better-off , they want their children to study and not continue with the business.	1. Work happens from the house. The manufacturing is done outside the house in a corner.	1. They buy the raw materials and sell them off.	1. Taking help of another person to do the broom making for them.
5) Mess service (B.C)	1. The need was founded and then kept expanding the business.	1. The area is just 10' by 10' where her living and work is carried out. For sleeping they have constructed a loft on top.	1. Single males who comprise a huge number in dharavi need food. 2. She makes a special style food for the Tamil group.	1. Using the normal stove, harness on manpower of her children and her husband.

7.0 Critical Analysis:

These livelihoods come into existence at places where just the internal need of products or services arises. These industries also provide services to the macro industry. The services are on a very large percentage carried out by women too, as they can operate from home. There are some workshops which aimed to cater to the needs only of their neighbouring factories in Dharavi.

Critical Analysis:

Livelihoods	Shelter	Slum manufacture	Technology
1. Women are the main working group carrying out these jobs.	1. The females can bring the work at home, which are doable.	1. The innovation is done in finding out the need and then starting up the business.	1. People also find unique methods to do the job in a faster way. Example: tikli threading. The macro level work speeds up and so the return is increased.
2. There are social issues in a poor class society, like drinking habits of the male, women abuse, etc in the house. In which case the female goes out to support her family.	2. Home becomes the work area which also acts as living area, and the entire family is involved.	2. Most of the works cater to the macro entrepreneurs, which are quite unique in them.	2. Manpower is harnessed to replace the simple technology as stitching machine, which saves the money on making a place available to do the job.
3. These jobs are a big support, as the female does not have to go out searching for a job.		3. Getting the job done from these women as then it does not come under the rules and they are paid very less than	3. Most of the job involve doing by hand, but in some case they are provide with simple useful things. Example the trimming scissors.

Livelihoods	Shelter	Slum manufacture	Technology
	4. The residents are provided with a photo-pass provided by BMC, and as a penalty they have to pay Rs.100 every month.		
	5. Government does not levy any other taxes other than electricity bill and water bill.		
	6. It has been seen that due to no proper demarcation of two categories most of the times the bill under commercial use is paid with normal residential charges.		

8.0 Conclusion:

Two areas of scope where it would be great help:

1. Tools,

Small tools can be designed. Low in cost, probably made out of available materials in scrap.

2. Space coordination,

Designing of space for living and working. Can be a frame structure, provision for loft etc and adjustable heights, possible to introduce more elements horizontally and vertically to divide space or create space.

Other:

Study of process of working, and innovating such small areas where it can be taken over by women in small wages. for example it happens in threading of sequine.

This would help the workers in speeding up the job done by hand, and create more work for the women.

Study of innovative methods to carry out a process carried out by hands to help in designing of process. example, proper boxes, managing things and raw materials, etc can be done.

The transportation is not a big problem but women have to still walk long distances and the transfer of raw and finished commodity happens on a daily basis. Centers can be provided where all such commodities are provided and received to the neighbouring areas, which also acts as a job centre.

The role of middleman has to be relooked into.

Improving not only living conditions, but the hygiene and sustainability of local economies.

9.0 References

<http://www.id.iit.edu>

The-Hindu sep17th2000

<http://www.unhabitat.org>